

# **BONUS ARTICLE**

"How CEOs Manage Time"

By Michael E. Porter and Nitin Nohria

The definitive management ideas of the year from Harvard Business Review.

HBR's 10 Must Reads series is the definitive collection of ideas and best practices for aspiring and experienced leaders alike. These books offer essential reading selected from the pages of *Harvard Business Review* on topics critical to the success of every manager.

#### **Titles include:**

HBR's 10 Must Reads 2015

HBR's 10 Must Reads 2016

HBR's 10 Must Reads 2017

HBR's 10 Must Reads 2018

HBR's 10 Must Reads 2019

HBR's 10 Must Reads 2020

HBR's 10 Must Reads for CEOs

HBR's 10 Must Reads for New Managers

HBR's 10 Must Reads on AI, Analytics, and the New

Machine Age

HBR's 10 Must Reads on Business Model Innovation

HBR's 10 Must Reads on Change Management

HBR's 10 Must Reads on Collaboration

HBR's 10 Must Reads on Communication

HBR's 10 Must Reads on Diversity ...

# HBR'S

The definitive management ideas of the year from Harvard Business Review. 2020

#### HARVARD BUSINESS REVIEW PRESS

Boston, Massachusetts

#### **HBR Press Quantity Sales Discounts**

Harvard Business Review Press titles are available at significant quantity discounts when purchased in bulk for client gifts, sales promotions, and premiums. Special editions, including books with corporate logos, customized covers, and letters from the company or CEO printed in the front matter, as well as excerpts of existing books, can also be created in large quantities for special needs.

For details and discount information for both print and ebook formats, contact booksales@harvardbusiness.org, tel. 800-988-0886, or www.hbr.org/bulksales.

Copyright 2020 Harvard Business Publishing Corporation All rights reserved

No part of this publication may be reproduced, stored in or introduced into a retrieval ...

# Contents

Cover

Title Page

Copyright

Editors' Note

The Surprising Power of Questions

by Alison Wood Brooks and Leslie K. John

Strategy Needs Creativity

by Adam Brandenburger

What Most People Get Wrong about Men and Women

by Catherine H. Tinsley and Robin J. Ely

Collaborative Intelligence: Humans and AI Are Joining Forces

by H. James Wilson and Paul R. Daugherty

Stitch Fix's CEO on Selling Personal Style to the Mass Market

by Katrina Lake

Strategy for Start-Ups

by Joshua Gans, Erin L. Scott, and Scott Stern

Agile at Scale

by Darrell K. Rigby, Jeff Sutherland, and Andy Noble

**Operational Transparency** 

by Ryan W. Buell

#### The Dual-Purpose Playbook

by Julie Battilana, Anne-Claire Pache, Metin Sengul, and Marissa Kimsey

How CEOs Manage Time

by Michael E. Porter and Nitin Nohria

When No One Retires

by Paul Irving

About the Contributors

*Index* 

# Editors' Note

Each year as we pare twelve months' worth of HBR articles down to a handful of the very best, certain trends and themes emerge. Sometimes the economy, politics, and technology loom largest. Other times new twists on the basics of leadership, strategy, and marketing dominate. This year's choices are united not by a trend or a theme but by a *feeling*: the surprise we experience when some longheld truth is gently challenged and is revealed to be different or more complex than we had thought. Educators and psychologists know that novelty reinforces understanding and learning. Indeed, the sense of surprise that distinguishes the pieces in this collection makes them stay with us, tugging at loose threads in our minds, helping us see ...

# The Surprising Power of Questions by Alison Wood Brooks and Leslie K. John

MUCH OF AN EXECUTIVE'S WORKDAY is spent asking others for information—requesting status updates from a team leader, for example, or questioning a counterpart in a tense negotiation. Yet unlike professionals such as litigators, journalists, and doctors, who are taught how to ask questions as an essential part of their training, few executives think of questioning as a skill that can be honed —or consider how their own answers to questions could make conversations more productive.

That's a missed opportunity. Questioning is a uniquely powerful tool for unlocking value in organizations: It spurs learning and the exchange of ideas, it fuels innovation and performance improvement, it builds rapport and trust

among team members. And it can mitigate business risk by uncovering unforeseen pitfalls and hazards.

For some people, questioning comes easily. Their natural inquisitiveness, emotional intelligence, and ability to read people put the ideal question on the tip of their tongue. But most of us don't ask enough questions, nor do we pose our inquiries in an optimal way.

The good news is that by asking questions, we naturally improve our emotional intelligence, which in turn makes us better questioners—a virtuous cycle. In this article, we draw on insights from behavioral science research to explore how the way we frame questions and choose to answer our counterparts can influence the outcome of conversations. We offer guidance for choosing the best type, tone, sequence, and framing of questions and for deciding what and how much information to share to reap the most benefit from our interactions, not just for ourselves but for our organizations.

# Don't Ask, Don't Get

"Be a good listener," Dale Carnegie advised in his 1936 classic *How to Win Friends and Influence People*. "Ask

questions the other person will enjoy answering." More than 80 years later, most people still fail to heed Carnegie's sage advice. When one of us (Alison) began studying conversations at Harvard Business School several years ago, she quickly arrived at a foundational insight: People don't ask enough questions. In fact, among the most common complaints people make after having a conversation, such as an interview, a first date, or a work meeting, is "I wish [s/he] had asked me more questions" and "I can't believe [s/he] didn't ask me any questions."

Why do so many of us hold back? There are many reasons. People may be egocentric—eager to impress others with their own thoughts, stories, and ideas (and not even think to ask questions). Perhaps they are apathetic—they don't care enough to ask, or they anticipate being bored by the answers they'd hear. They may be overconfident in their own knowledge and think they already know the answers (which sometimes they do, but usually not). Or perhaps they worry that they'll ask the wrong question and be viewed as rude or incompetent. But the biggest inhibitor, in our opinion, is that most people just don't understand how beneficial good questioning can

be. If they did, they would end far fewer sentences with a period—and more with a question mark.

Dating back to the 1970s, research suggests that people have conversations to accomplish some combination of two major goals: information exchange (learning) and impression management (liking). Recent research shows that asking questions achieves both. Alison and Harvard colleagues Karen Huang, Michael Yeomans, Julia Minson, and Francesca Gino scrutinized thousands of natural conversations among participants who were getting to know each other, either in online chats or on in-person speed dates. The researchers told some people to ask many questions (at least nine in fifteen minutes) and others to ask very few (no more than four in fifteen minutes). In the online chats, the people who were randomly assigned to ask many questions were better liked by their conversation partners and learned more about their partners' interests. For example, when quizzed about their partners' preferences for activities such as reading, cooking, and exercising, high question askers were more likely to be able to guess correctly. Among the speed daters, people were more willing to go on a second date with partners who asked more questions. In fact, asking just one more

question on each date meant that participants persuaded one additional person (over the course of 20 dates) to go out with them again.

# Idea in Brief

#### The Problem

Some professionals such as litigators, journalists, and even doctors are taught to ask questions as part of their training. But few executives think about questioning as a skill that can be honed. That's a missed opportunity.

#### **The Opportunity**

Questioning is a powerful tool for unlocking value in companies: It spurs learning and the exchange of ideas, it fuels innovation and better performance, it builds trust among team members. And it can mitigate business risk by uncovering unforeseen pitfalls and hazards.

#### The Approach

Several techniques can enhance the power and efficacy of queries: Favor follow-up questions, know when to keep questions open-ended, get the sequence right, use the right tone, and pay attention to group dynamics.

Questions are such powerful tools that they can be beneficial—perhaps particularly so—in circumstances when question asking goes against social norms. For instance, prevailing norms tell us that job candidates are

expected to answer questions during interviews. But research by Dan Cable, at the London Business School, and Virginia Kay, at the University of North Carolina, suggests that most people excessively self-promote during job interviews. And when interviewees focus on selling themselves, they are likely to forget to ask questions—about the interviewer, the organization, the work—that would make the interviewer feel more engaged and more apt to view the candidate favorably and could help the candidate predict whether the job would provide satisfying work. For job candidates, asking questions such as "What am I not asking you that I should?" can signal competence, build rapport, and unlock key pieces of information about the position.

Most people don't grasp that asking a lot of questions unlocks learning and improves interpersonal bonding. In Alison's studies, for example, though people could accurately recall how many questions had been asked in their conversations, they didn't intuit the link between questions and liking. Across four studies, in which participants were engaged in conversations themselves or read transcripts of others' conversations, people tended not to realize that question asking would influence—or had

influenced—the level of amity between the conversationalists.

#### The New Socratic Method

The first step in becoming a better questioner is simply to ask more questions. Of course, the sheer number of questions is not the only factor that influences the quality of a conversation: The type, tone, sequence, and framing also matter.

In our teaching at Harvard Business School, we run an exercise in which we instruct pairs of students to have a conversation. Some students are told to ask as few questions as possible, and some are instructed to ask as many as possible. Among the low-low pairs (both students ask a minimum of questions), participants generally report that the experience is a bit like children engaging in parallel play: They exchange statements but struggle to initiate an interactive, enjoyable, or productive dialogue. The high-high pairs find that too many questions can also create a stilted dynamic. However, the high-low pairs' experiences are mixed. Sometimes the question asker learns a lot about her partner, the answerer feels heard, and both come away

feeling profoundly closer. Other times, one of the participants may feel uncomfortable in his role or unsure about how much to share, and the conversation can feel like an interrogation.

Our research suggests several approaches that can enhance the power and efficacy of queries. The best approach for a given situation depends on the goals of the conversationalists—specifically, whether the discussion is cooperative (for example, the duo is trying to build a relationship or accomplish a task together) or competitive (the parties seek to uncover sensitive information from each other or serve their own interests), or some combination of both. (See the sidebar "Conversational Goals Matter.") Consider the following tactics.

#### Favor follow-up questions

Not all questions are created equal. Alison's research, using human coding and machine learning, revealed four types of questions: introductory questions ("How are you?"), mirror questions ("I'm fine. How are you?"), full-switch questions (ones that change the topic entirely), and follow-up questions (ones that solicit more information). Although each type is abundant in natural conversation, follow-up

questions seem to have special power. They signal to your conversation partner that you are listening, care, and want to know more. People interacting with a partner who asks lots of follow-up questions tend to feel respected and heard.

An unexpected benefit of follow-up questions is that they don't require much thought or preparation—indeed, they seem to come naturally to interlocutors. In Alison's studies, the people who were told to ask more questions used more follow-up questions than any other type without being instructed to do so.

Know when to keep questions open-ended No one likes to feel interrogated—and some types of questions can force answerers into a yes-or-no corner. Open-ended questions can counteract that effect and thus can be particularly useful in uncovering information or learning something new. Indeed, they are wellsprings of innovation—which is often the result of finding the hidden, unexpected answer that no one has thought of before.

# Conversational goals matter

Conversations fall along a continuum from purely competitive to purely cooperative. For example, discussions about the allocation of scarce resources tend to be competitive; those between friends and colleagues are generally cooperative; and others, such as managers' check-ins with employees, are mixed—supportive but also providing feedback and communicating expectations. Here are some challenges that commonly arise when asking and answering questions and tactics for handling them.

# **Competitive conversations**

# When you're asking

# Challenge

Your conversational partner is reluctant to share information and may even lie.

#### **Tactics**

Ask direct or "yes or no" questions to avoid evasive answers.

Ask detailed follow-up questions (even if they're redundant) to pry out more information.

Frame tough questions using pessimistic assumptions ("We've experienced some headwinds in sales, right?") to reduce the likelihood that respondents will lie.

Ask the most sensitive question first.

Subsequent questions will feel less

# When you're answering

# Challenge

Answering questions could put you at a strategic disadvantage.

#### **Tactics**

Prepare: Think in advance about the information you want to keep private to avoid answering impulsively.

Dodge the issue by answering a similar question you'd prefer to have been asked.

Deflect and gain control of the conversation by posing a question in return.

Consider when to share negative information—rather than refusing to answer—to build trust.

intrusive, making your partner more forthcoming.

# Cooperative conversations

# When you're asking

# Challenge

Friendly colleagues may shy away from conflict or hesitate to share bad news.

#### **Tactics**

Ask open-ended questions ("If you were to play devil's advocate, what would you say?") to draw out negative feedback.

Begin with the least-sensitive questions to build rapport, and escalate slowly.

As in competitive contexts, frame tough questions

# When you're answering

## Challenge

We forget to focus on making conversations productive and delightful, or we speak too freely.

#### **Tactics**

Avoid droning on and on. Use energy, humor, and storytelling to engage your partners.

Avoid talking too much about yourself, and remember to ask questions of others.

Deflect tough questions by answering with another question or a joke. A wealth of research in survey design has shown the dangers of narrowing respondents' options. For example, "closed" questions can introduce bias and manipulation. In one study, in which parents were asked what they deemed "the most important thing for children to prepare them in life," about 60% of them chose "to think for themselves" from a list of response options. However, when the same question was asked in an open-ended format, only about 5% of parents spontaneously came up with an answer along those lines.

Of course, open-ended questions aren't always optimal. For example, if you are in a tense negotiation or are dealing with people who tend to keep their cards close to their chest, open-ended questions can leave too much wiggle room, inviting them to dodge or lie by omission. In such situations, closed questions work better, especially if they are framed correctly. For example, research by Julia Minson, the University of Utah's Eric VanEpps, Georgetown's Jeremy Yip, and Wharton's Maurice Schweitzer indicates that people are less likely to lie if

questioners make pessimistic assumptions ("This business will need some new equipment soon, correct?") rather than optimistic ones ("The equipment is in good working order, right?").

Sometimes the information you wish to ascertain is so sensitive that direct questions won't work, no matter how thoughtfully they are framed. In these situations, a survey tactic can aid discovery. In research Leslie conducted with Alessandro Acquisti and George Loewenstein of Carnegie Mellon University, she found that people were more forthcoming when requests for sensitive information were couched within another task—in the study's case, rating the ethicality of antisocial behaviors such as cheating on one's tax return or letting a drunk friend drive home. Participants were asked to rate the ethicality using one scale if they had engaged in a particular behavior and another scale if they hadn't—thus revealing which antisocial acts they themselves had engaged in. Although this tactic may sometimes prove useful at an organizational level—we can imagine that managers might administer a survey rather than ask workers directly about sensitive information such as salary expectations—we counsel restraint in using it. If people feel that you are trying to trick them into revealing

something, they may lose trust in you, decreasing the likelihood that they'll share information in the future and potentially eroding workplace relationships.

#### Get the sequence right

The optimal order of your questions depends on the circumstances. During tense encounters, asking tough questions first, even if it feels socially awkward to do so, can make your conversational partner more willing to open up. Leslie and her coauthors found that people are more willing to reveal sensitive information when questions are asked in a decreasing order of intrusiveness. When a question asker begins with a highly sensitive question such as "Have you ever had a fantasy of doing something terrible to someone?"—subsequent questions, such as "Have you ever called in sick to work when you were perfectly healthy?" feel, by comparison, less intrusive, and thus we tend to be more forthcoming. Of course, if the first question is too sensitive, you run the risk of offending your counterpart. So it's a delicate balance, to be sure.

If the goal is to build relationships, the opposite approach—opening with less sensitive questions and escalating slowly—seems to be most effective. In a classic

set of studies (the results of which went viral following a write-up in the "Modern Love" column of the *New York Times*), psychologist Arthur Aron recruited strangers to come to the lab, paired them up, and gave them a list of questions. They were told to work their way through the list, starting with relatively shallow inquiries and progressing to more self-revelatory ones, such as "What is your biggest regret?" Pairs in the control group were asked simply to interact with each other. The pairs who followed the prescribed structure liked each other more than the control pairs. This effect is so strong that it has been formalized in a task called "the relationship closeness induction," a tool used by researchers to build a sense of connection among experiment participants.

Good interlocutors also understand that questions asked previously in a conversation can influence future queries. For example, Norbert Schwarz, of the University of Southern California, and his coauthors found that when the question "How satisfied are you with your life?" is followed by the question "How satisfied are you with your marriage?" the answers were highly correlated: Respondents who reported being satisfied with their life also said they were satisfied with their marriage. When

asked the questions in this order, people implicitly interpreted that life satisfaction "ought to be" closely tied to marriage. However, when the same questions were asked in the opposite order, the answers were less closely correlated.

# The Power of Questions in Sales

#### THERE ARE FEW BUSINESS SETTINGS in

which asking questions is more important than sales. A recent study of more than 500,000 business-to-business sales conversations—over the phone and via online platforms—by tech company Gong.io reveals that top-performing salespeople ask questions differently than their peers.

Consistent with past research, the data shows a strong connection between the number of questions a salesperson asks and his or her sales conversion rate (in terms of both securing the next meeting and eventually closing the deal). This is true even after controlling for the gender of the salesperson and the call type (demo, proposal, negotiation, and so on). However, there is a point of diminishing returns. Conversion rates start to drop off after about 14 questions, with 11 to 14 being the optimal range.

The data also shows that top-performing salespeople tend to scatter questions throughout the sales call, which makes it feel more like a conversation than an interrogation. Lower performers, in contrast, frontload questions in the first half of the sales call, as if they're making their way through a to-do list.

Just as important, top salespeople listen more and speak less than their counterparts overall. Taken together, the data from Gong.io affirms what great salespeople intuitively understand: When sellers ask questions rather than just make their pitch, they close more deals.

#### Use the right tone

People are more forthcoming when you ask questions in a casual way, rather than in a buttoned-up, official tone. In one of Leslie's studies, participants were posed a series of sensitive questions in an online survey. For one group of participants, the website's user interface looked fun and frivolous; for another group, the site looked official. (The control group was presented with a neutral-looking site.) Participants were about twice as likely to reveal sensitive information on the casual-looking site than on the others.

People also tend to be more forthcoming when given an escape hatch or "out" in a conversation. For example, if they are told that they can change their answers at any point, they tend to open up more—even though they rarely end up making changes. This might explain why teams and groups find brainstorming sessions so productive. In a whiteboard setting, where anything can be erased and judgment is suspended, people are more likely to answer questions honestly and say things they otherwise might not. Of course, there will be times when an off-the-cuff approach is inappropriate. But in general, an overly formal tone is likely to inhibit people's willingness to share information.

Pay attention to group dynamics
Conversational dynamics can change profoundly
depending on whether you're chatting one-on-one with
someone or talking in a group. Not only is the willingness
to answer questions affected simply by the presence of
others, but members of a group tend to follow one
another's lead. In one set of studies, Leslie and her
coauthors asked participants a series of sensitive questions,
including ones about finances ("Have you ever bounced a

check?") and sex ("While an adult, have you ever felt sexual desire for a minor?"). Participants were told either that most others in the study were willing to reveal stigmatizing answers or that they were unwilling to do so. Participants who were told that others had been forthcoming were 27% likelier to reveal sensitive answers than those who were told that others had been reticent. In a meeting or group setting, it takes only a few closed-off people for questions to lose their probing power. The opposite is true, too. As soon as one person starts to open up, the rest of the group is likely to follow suit.

Group dynamics can also affect how a question asker is perceived. Alison's research reveals that participants in a conversation enjoy being asked questions and tend to like the people asking questions more than those who answer them. But when third-party observers watch the same conversation unfold, they prefer the person who answers questions. This makes sense: People who mostly ask questions tend to disclose very little about themselves or their thoughts. To those listening to a conversation, question askers may come across as defensive, evasive, or invisible, while those answering seem more fascinating, present, or memorable.

## The Best Response

A conversation is a dance that requires partners to be in sync—it's a mutual push-and-pull that unfolds over time. Just as the way we ask questions can facilitate trust and the sharing of information—so, too, can the way we answer them.

Answering questions requires making a choice about where to fall on a continuum between privacy and transparency. Should we answer the question? If we answer, how forthcoming should we be? What should we do when asked a question that, if answered truthfully, might reveal a less-than-glamorous fact or put us in a disadvantaged strategic position? Each end of the spectrum —fully opaque and fully transparent—has benefits and pitfalls. Keeping information private can make us feel free to experiment and learn. In negotiations, withholding sensitive information (such as the fact that your alternatives are weak) can help you secure better outcomes. At the same time, transparency is an essential part of forging meaningful connections. Even in a negotiation context, transparency can lead to value-creating deals; by sharing information, participants can identify elements that are

relatively unimportant to one party but important to the other—the foundation of a win-win outcome.

And keeping secrets has costs. Research by Julie Lane and Daniel Wegner, of the University of Virginia, suggests that concealing secrets during social interactions leads to the intrusive recurrence of secret thoughts, while research by Columbia's Michael Slepian, Jinseok Chun, and Malia Mason shows that keeping secrets—even outside of social interactions—depletes us cognitively, interferes with our ability to concentrate and remember things, and even harms long-term health and well-being.

In an organizational context, people too often err on the side of privacy—and underappreciate the benefits of transparency. How often do we realize that we could have truly bonded with a colleague only after he or she has moved on to a new company? Why are better deals often uncovered after the ink has dried, the tension has broken, and negotiators begin to chat freely?

To maximize the benefits of answering questions—and minimize the risks—it's important to decide before a conversation begins what information you want to share and what you want to keep private.

#### Deciding what to share

There is no rule of thumb for how much—or what type of information you should disclose. Indeed, transparency is such a powerful bonding agent that sometimes it doesn't matter what is revealed—even information that reflects poorly on us can draw our conversational partners closer. In research Leslie conducted with HBS collaborators Kate Barasz and Michael Norton, she found that most people assume that it would be less damaging to refuse to answer a question that would reveal negative information—for example, "Have you ever been reprimanded at work?" than to answer affirmatively. But this intuition is wrong. When they asked people to take the perspective of a recruiter and choose between two candidates (equivalent except for how they responded to this question), nearly 90% preferred the candidate who "came clean" and answered the question. Before a conversation takes place, think carefully about whether refusing to answer tough questions would do more harm than good.

Deciding what to keep private

Of course, at times you and your organization would be
better served by keeping your cards close to your chest. In

our negotiation classes, we teach strategies for handling hard questions without lying. Dodging, or answering a question you wish you had been asked, can be effective not only in helping you protect information you'd rather keep private but also in building a good rapport with your conversational partner, especially if you speak eloquently. In a study led by Todd Rogers, of Harvard's Kennedy School, participants were shown clips of political candidates responding to questions by either answering them or dodging them. Eloquent dodgers were liked more than ineloquent answerers, but only when their dodges went undetected. Another effective strategy is deflecting, or answering a probing question with another question or a joke. Answerers can use this approach to lead the conversation in a different direction.

<sup>&</sup>quot;Question everything," Albert Einstein famously said.

Personal creativity and organizational innovation rely on a willingness to seek out novel information. Questions and thoughtful answers foster smoother and more-effective interactions; they strengthen rapport and trust and lead

groups toward discovery. All this we have documented in our research. But we believe questions and answers have a power that goes far beyond matters of performance. The wellspring of all questions is wonder and curiosity and a capacity for delight. We pose and respond to queries in the belief that the magic of a conversation will produce a whole that is greater than the sum of its parts. Sustained personal engagement and motivation—in our lives as well as our work—require that we are always mindful of the transformative joy of asking and answering questions.

Originally published in May–June 2018. Reprint R1803C

# Strategy Needs Creativity

# by Adam Brandenburger

I'VE NOTICED THAT BUSINESS SCHOOL STUDENTS often feel frustrated when they're taught strategy. There's a gap between what they learn and what they'd like to learn. Strategy professors (including me) typically teach students to think about strategy problems by introducing them to rigorous analytical tools—assessing the five forces, drawing a value net, plotting competitive positions. The students know that the tools are essential, and they dutifully learn how to use them. But they also realize that the tools are better suited to understanding an existing business context than to dreaming up ways to reshape it. Gamechanging strategies, they know, are born of creative thinking: a spark of intuition, ...

# What Most People Get Wrong about Men and Women

by Catherine H. Tinsley and Robin J. Ely

THE CONVERSATION ABOUT the treatment of women in the workplace has reached a crescendo of late, and senior leaders—men as well as women—are increasingly vocal about a commitment to gender parity. That's all well and good, but there's an important catch. The discussions, and many of the initiatives companies have undertaken, too often reflect a faulty belief: that men and women are fundamentally *different*, by virtue of their genes or their upbringing or both. Of course, there are biological differences. But those are not the differences people are usually talking about. Instead, the rhetoric focuses on the idea that women are inherently unlike men in terms of disposition, attitudes, and behaviors. (Think headlines that

tout "Why women do X at the office" or "Working women don't Y.")

One set of assumed differences is marshaled to explain women's failure to achieve parity with men: Women negotiate poorly, lack confidence, are too risk-averse, or don't put in the requisite hours at work because they value family more than their careers. Simultaneously, other assumed differences—that women are more caring, cooperative, or mission-driven—are used as a rationale for companies to invest in women's success. But whether framed as a barrier or a benefit, these beliefs hold women back. We will not level the playing field so long as the bedrock on which it rests is our conviction about how the sexes are different.

The reason is simple: Science, by and large, does not actually support these claims. There is wide variation among women and among men, and meta-analyses show that, on average, the sexes are far more similar in their inclinations, attitudes, and skills than popular opinion would have us believe. We do see sex differences in various settings, including the workplace—but those differences are not rooted in fixed gender traits. Rather, they stem from organizational structures, company

practices, and patterns of interaction that position men and women differently, creating systematically different experiences for them. When facing dissimilar circumstances, people respond differently—not because of their sex but because of their situations.

Emphasizing sex differences runs the risk of making them seem natural and inevitable. As anecdotes that align with stereotypes are told and retold, without addressing why and when stereotypical behaviors appear, sex differences are exaggerated and take on a determinative quality. Well-meaning but largely ineffectual interventions then focus on "fixing" women or accommodating them rather than on changing the circumstances that gave rise to different behaviors in the first place.

Take, for example, the common belief that women are more committed to family than men are. Research simply does not support that notion. In a study of Harvard Business School graduates that one of us conducted, nearly everyone, regardless of gender, placed a higher value on their families than on their work (see "Rethink What You 'Know' About High-Achieving Women," HBR, December 2014). Moreover, having made career decisions to accommodate family responsibilities didn't explain the

gender achievement gap. Other research, too, makes it clear that men and women do not have fundamentally different priorities.

# Idea in Brief

#### The Belief

There's a popular notion that men and women are fundamentally different in important (nonbiological) ways —and those differences are cited to explain women's lagged achievement.

### The Truth

According to numerous meta-analyses of published research, men and women are actually very similar with respect to key attributes such as confidence, appetite for risk, and negotiating skill.

### Why It Matters

Too many managers try to "fix" women or accommodate their supposed differences—and that doesn't work. Companies must instead address the organizational conditions that lead to lower rates of retention and promotion for women.

Numerous studies show that what does differ is the treatment mothers and fathers receive when they start a family. Women (but not men) are seen as needing support, whereas men are more likely to get the message—either

explicit or subtle—that they need to "man up" and not voice stress and fatigue. If men do ask, say, for a lighter travel schedule, their supervisors may cut them some slack—but often grudgingly and with the clear expectation that the reprieve is temporary. Accordingly, some men attempt an under-the-radar approach, quietly reducing hours or travel and hoping it goes unnoticed, while others simply concede, limiting the time they spend on family responsibilities and doubling down at work. Either way, they maintain a reputation that keeps them on an upward trajectory. Meanwhile, mothers are often expected, indeed encouraged, to ratchet back at work. They are rerouted into less taxing roles and given less "demanding" (read: lower-status, less career-enhancing) clients.

To sum up, men's and women's desires and challenges about work/family balance are remarkably similar. It is what they experience at work once they become parents that puts them in very different places.

Things don't have to be this way. When companies observe differences in the overall success rates of women and men, or in behaviors that are critical to effectiveness, they can actively seek to understand the organizational

conditions that might be responsible, and then they can experiment with changing those conditions.

Consider the example of a savvy managing director concerned about the leaky pipeline at her professional services firm. Skeptical that women were simply "opting out" following the birth of a child, she investigated and found that one reason women were leaving the firm stemmed from the performance appraisal system: Supervisors had to adhere to a forced distribution when rating their direct reports, and women who had taken parental leave were unlikely to receive the highest rating because their performance was ranked against that of peers who had worked a full year. Getting less than top marks not only hurt their chances of promotion but also sent a demoralizing message that being a mother was incompatible with being on a partner track. However, the fix was relatively easy: The company decided to reserve the forced distribution for employees who worked the full year, while those with long leaves could roll over their rating from the prior year. That applied to both men and women, but the policy was most heavily used by new mothers. The change gave women more incentive to return from maternity leave and helped keep them on track for

advancement. Having more mothers stay on track, in turn, helped chip away at assumptions within the firm about women's work/family preferences.

As this example reveals, companies need to dive deeper into their beliefs, norms, practices, and policies to understand how they position women relative to men and how the different positions fuel inequality. Seriously investigating the context that gives rise to differential patterns in the way men and women experience the workplace—and intervening accordingly—can help companies chart a path to gender parity.

Below, we address three popular myths about how the sexes differ and explain how each manifests itself in organizational discourse about women's lagged advancement. Drawing on years of social science research, we debunk the myths and offer alternative explanations for observed sex differences—explanations that point to ways that managers can level the playing field. We then offer a four-pronged strategy for undertaking such actions.

## **Popular Myths**

We've all heard statements in the media and in companies that women lack *the desire or ability to negotiate*, that they lack *confidence*, and that they lack *an appetite for risk*. And, the thinking goes, those shortcomings explain why women have so far failed to reach parity with men.

For decades, studies have examined sex differences on these three dimensions, enabling social scientists to conduct meta-analyses—investigations that reveal whether or not, on average across studies, sex differences hold, and if so, how large the differences are. (See the sidebar "The Power of Meta-Analysis.") Just as importantly, meta-analyses also reveal the circumstances under which differences between men and women are more or less likely to arise. The aggregated findings are clear: Context explains any sex differences that exist in the workplace.

Take negotiation. Over and over, we hear that women are poor negotiators—they "settle too easily," are "too nice," or are "too cooperative." But not so, according to research. Jens Mazei and colleagues recently analyzed more than 100 studies examining whether men and women negotiate different outcomes; they determined that gender differences were small to negligible. Men have a slight advantage in negotiations when they are advocating

exclusively for themselves and when ambiguity about the stakes or opportunities is high. Larger disparities in outcomes occur when negotiators either have no prior experience or are forced to negotiate, as in a mandated training exercise. But such situations are atypical, and even when they do arise, statisticians would deem the resulting sex differences to be small. As for the notion that women are more cooperative than men, research by Daniel Balliet and colleagues refutes that.

The belief that women lack confidence is another fallacy. That assertion is commonly invoked to explain why women speak up less in meetings and do not put themselves forward for promotions unless they are 100% certain they meet all the job requirements. But research does not corroborate the idea that women are less confident than men. Analyzing more than 200 studies, Kristen Kling and colleagues concluded that the only noticeable differences occurred during adolescence; starting at age 23, differences become negligible.

What about risk taking—are women really more conservative than men? Many people believe that's true—though they are split on whether being risk-averse is a strength or a weakness. On the positive side, the thinking

goes, women are less likely to get caught up in macho displays of bluff and bravado and thus are less likely to take unnecessary risks. Consider the oft-heard sentiment following the demise of Lehman Brothers: "If Lehman Brothers had been Lehman Sisters, the financial crisis might have been averted." On the negative side, women are judged as too cautious to make high-risk, potentially high-payoff investments.

But once again, research fails to support either of these stereotypes. As with negotiation, sex differences in the propensity to take risks are small and depend on the context. In a meta-analysis performed by James Byrnes and colleagues, the largest differences arise in contexts unlikely to exist in most organizations (such as among people asked to participate in a game of pure chance). Similarly, in a study Peggy Dwyer and colleagues ran examining the largest, last, and riskiest investments made by nearly 2,000 mutual fund investors, sex differences were very small. More importantly, when investors' specific knowledge about the investments was added to the equation, the sex difference diminished to near extinction, suggesting that access to information, not propensity for risk taking,

explains the small sex differences that have been documented.

In short, a wealth of evidence contradicts each of these popular myths. Yet they live on through oft-repeated narratives routinely invoked to explain women's lagged advancement.

### **More-Plausible Explanations**

The extent to which employees are able to thrive and succeed at work depends partly on the kinds of opportunities and treatment they receive. People are more likely to behave in ways that undermine their chances for success when they are disconnected from information networks, when they are judged or penalized disproportionately harshly for mistakes or failures, and when they lack feedback. Unfortunately, women are more likely than men to encounter each of these situations. And the way they respond—whether that's by failing to drive a hard bargain, to speak up, or to take risks—gets unfairly attributed to "the way women are," when in fact the culprit is very likely the differential conditions they face.

# Why the Sex-Difference Narrative Persists

BELIEFS IN SEX DIFFERENCES have staying power partly because they uphold conventional gender norms, preserve the gender status quo, and require no upheaval of existing organizational practices or work arrangements. But they are also the path of least resistance for our brains. Three well-documented cognitive errors help explain the endurance of the sex-difference narrative.

First, when seeking to explain others' behavior, we gravitate to explanations based on intrinsic personality traits—including stereotypically "male" traits and stereotypically "female" traits"—rather than contextual factors. (Social psychologists call this "the fundamental attribution error.") For example, if a man speaks often and forcefully in a meeting, we are more likely to conclude that he is assertive and confident than to search for a situational explanation, such as that he's been repeatedly praised for his contributions. Likewise, if a woman is quiet in a meeting, the easier explanation is that she's meek or

underconfident; it takes more cognitive energy to construct an alternative account, such as that she is used to being cut off or ignored when she speaks. In short, when we see men and women behaving in gender-stereotypical ways, we tend to make the most cognitively simple assumption—that the behavior reflects who they are rather than the situation they are in.

Second, mere exposure to a continuing refrain, such as "Women are X, and men are Y," makes people judge the statement as true. Many beliefs—that bats are blind, that fresh produce is always more nutritious than frozen, that you shouldn't wake a sleepwalker—are repeated so often that their mere familiarity makes them easier for our minds to accept as truth. (This is called the "mere exposure effect.")

Third, once people believe something is true, they tend to seek, notice, and remember evidence that confirms the position and to ignore or forget evidence that would challenge it. (Psychologists call this "confirmation bias.") If we believe that gender stereotypes are accurate, we are more likely to expect, notice, and remember times when men and women behave in gender-stereotypical ways and to overlook times when they don't.

Multiple studies show, for example, that women are less embedded in networks that offer opportunities to gather vital information and garner support. When people lack access to useful contacts and information, they face a disadvantage in negotiations. They may not know what is on the table, what is within the realm of possibility, or even that a chance to strike a deal exists. When operating under such conditions, women are more likely to conform to the gender stereotype that "women don't ask."

We saw this dynamic vividly play out when comparing the experiences of two professionals we'll call Mary and Rick. (In this example and others that follow, we have changed the names and some details to maintain confidentiality.) Mary and Rick were both midlevel advisers in the wealth management division of a financial services firm. Rick was able to bring in more assets to manage because he sat on the board of a nonprofit, giving him access to a pool of potential clients with high net worth. What Mary did not know for many years is how Rick had gained that advantage. Through casual conversations with one of the firm's senior partners, with whom he regularly played tennis, Rick had learned that

discretionary funds existed to help advisers cultivate relationships with clients. So he arranged for the firm to make a donation to the nonprofit. He then began attending the nonprofit's fund-raising events and hobnobbing with key players, eventually parlaying his connections into a seat on the board. Mary, by contrast, had no informal relationships with senior partners at the firm and no knowledge of the level of resources that could have helped her land clients.

When people are less embedded, they are also less aware of opportunities for stretch assignments and promotions, and their supervisors may be in the dark about their ambitions. But when women fail to "lean in" and seek growth opportunities, it is easy to assume that they lack the confidence to do so—not that they lack pertinent information. Julie's experience is illustrative. Currently the CEO of a major investment fund, Julie had left her previous employer of 15 years after learning that a more junior male colleague had leapfrogged over her to fill an opening she didn't even know existed. When she announced that she was leaving and why, her boss was surprised. He told her that if he had realized she wanted to move up, he would have gladly helped position her for the

promotion. But because she hadn't put her hat in the ring, he had assumed she lacked confidence in her ability to handle the job.

How people react to someone's mistake or failure can also affect that person's ability to thrive and succeed. Several studies have found that because women operate under a higher-resolution microscope than their male counterparts do, their mistakes and failures are scrutinized more carefully and punished more severely. People who are scrutinized more carefully will, in turn, be less likely to speak up in meetings, particularly if they feel no one has their back. However, when women fail to speak up, it is commonly assumed that they lack confidence in their ideas.

We saw a classic example of this dynamic at a biotech company in which team leaders noticed that their female colleagues, all highly qualified research scientists, participated far less in team meetings than their male counterparts did, yet later, in one-on-one conversations, often offered insightful ideas germane to the discussion. What these leaders had failed to see was that when women did speak in meetings, their ideas tended to be either ignored until a man restated them or shot down quickly if they contained even the slightest flaw. In contrast, when

men's ideas were flawed, the meritorious elements were salvaged. Women therefore felt they needed to be 110% sure of their ideas before they would venture to share them. In a context in which being smart was the coin of the realm, it seemed better to remain silent than to have one's ideas repeatedly dismissed.

It stands to reason that people whose missteps are more likely to be held against them will also be less likely to take risks. That was the case at a Big Four accounting firm that asked us to investigate why so few women partners were in formal leadership roles. The reason, many believed, was that women did not want such roles because of their family responsibilities, but our survey revealed a more complex story. First, women and men were equally likely to say they would accept a leadership role if offered one, but men were nearly 50% more likely to have been offered one. Second, women were more likely than men to say that worries about jeopardizing their careers deterred them from pursuing leadership positions—they feared they would not recover from failure and thus could not afford to take the risks an effective leader would need to take. Research confirms that such concerns are valid. For example, studies by Victoria Brescoll and colleagues found that if women in

male-dominated occupations make mistakes, they are accorded less status and seen as less competent than men making the same mistakes; a study by Ashleigh Rosette and Robert Livingston demonstrated that black women leaders are especially vulnerable to this bias.

Research also shows that women get less frequent and lower-quality feedback than men. When people don't receive feedback, they are less likely to know their worth in negotiations. Moreover, people who receive little feedback are ill-equipped to assess their strengths, shore up their weaknesses, and judge their prospects for success and are therefore less able to build the confidence they need to proactively seek promotions or make risky decisions.

An example of this dynamic comes from a consulting firm in which HR staff members delivered partners' annual feedback to associates. The HR folks noticed that when women were told they were "doing fine," they "freaked out," feeling damned by faint praise; when men received the same feedback, they left the meeting "feeling great." HR concluded that women lack self-confidence and are therefore more sensitive to feedback, so the team advised partners to be especially encouraging to the women associates and to soften any criticism. Many of the partners

were none too pleased to have to treat a subset of their associates with kid gloves, grousing that "if women can't stand the heat, they should get out of the kitchen." What these partners failed to realize, however, is that the kitchen was a lot hotter for women in the firm than for men. Why? Because the partners felt more comfortable with the men and so were systematically giving them more informal, day-to-day feedback. When women heard in their annual review that they were doing "fine," it was often the first feedback they'd received all year; they had nothing else to go on and assumed it meant their performance was merely adequate. In contrast, when men heard they were doing "fine," it was but one piece of information amidst a steady stream. The upshot was disproportionate turnover among women associates, many of whom left the firm because they believed their prospects for promotion were slim.

## An Alternative Approach

The problem with the sex-difference narrative is that it leads companies to put resources into "fixing" women, which means that women miss out on what they need—and what every employee deserves: a context that enables them

to reach their potential and maximizes their chances to succeed.

Managers who are advancing gender equity in their firms are taking a more inquisitive approach—rejecting old scripts, seeking an evidence-based understanding of how women experience the workplace, and then creating the conditions that increase women's prospects for success. Their approach entails four steps:

### 1. Question the narrative

A consulting firm we worked with had recruited significant numbers of talented women into its entry ranks—and then struggled to promote them. Their supervisors' explanations? Women are insufficiently competitive, lack "fire in the belly," or don't have the requisite confidence to excel in the job. But those narratives did not ring true to Sarah, a regional head, because a handful of women—those within her region—were performing and advancing at par. So rather than accept her colleagues' explanations, she got curious.

2. Generate a plausible alternative explanation Sarah investigated the factors that might have helped women in her region succeed and found that they received more hands-on training and more attention from supervisors than did women in other regions. This finding suggested that the problem lay not with women's deficiencies but with their differential access to the conditions that enhance self-confidence and success.

To test that hypothesis, Sarah designed an experiment, with our help. First, we randomly split 60 supervisors into two groups of 30 for a training session on coaching junior consultants. Trainers gave both groups the same lecture on how to be a good coach. With one group, however, trainers shared research showing that differences in men's and women's self-confidence are minuscule, thus subtly giving the members of this "treatment" group reason to question gender stereotypes. The "control" group didn't get that information. Next, trainers gave all participants a series of hypotheticals in which an employee—sometimes a man and sometimes a woman—was underperforming. In both groups, participants were asked to write down the feedback they would give the underperforming employee.

Clear differences emerged between the two groups.

Supervisors in the control group took different tacks with the underperforming man and woman: They were far less critical of the woman and focused largely on making her

feel good, whereas they gave the man feedback that was more direct, specific, and critical, often with concrete suggestions for how he could improve. In contrast, the supervisors who had been shown research that refuted sex differences in self-confidence gave both employees the same kind of feedback; they also asked for more-granular information about the employee's performance so that they could deliver constructive comments. We were struck by how the participants who had been given a reason to question gender stereotypes focused on learning more about individuals' specific performance problems.

The experiment confirmed Sarah's sense that women's lagged advancement might be due at least partly to supervisors' assumptions about the training and development needs of their female direct reports.

Moreover, her findings gave supervisors a plausible alternative explanation for women's lagged advancement—a necessary precondition for taking the next step. Although different firms find different types of evidence more or less compelling—not all require as rigorous a test as this firm did—Sarah's evidence-based approach illustrates a key part of the strategy we are advocating.

3. Change the context and assess the results
Once a plausible alternative explanation has been
developed, companies can make appropriate changes and
see if performance improves. Two stories help illustrate
this step. Both come from a midmarket private equity firm
that was trying to address a problem that had persisted for
10 years: The company's promotion and retention rates for
white women and people of color were far lower than its
hiring rates.

The first story involves Elaine, an Asian-American senior associate who wanted to sharpen her financing skills and asked Dave, a partner, if she could assist with that aspect of his next deal. He invited her to lunch, but when they met, he was underwhelmed. Elaine struck him as insufficiently assertive and overly cautious. He decided against putting her on his team—but then he had second thoughts. The partners had been questioning their ability to spot and develop talent, especially in the case of associates who didn't look like them. Dave thus decided to try an experiment: He invited Elaine to join the team and then made a conscious effort to treat her exactly as he would have treated someone he deemed a superstar. He introduced her to the relevant players in the industry, told

the banks she would be leading the financing, and gave her lots of rope but also enough feedback and coaching so that she wouldn't hang herself. Elaine did not disappoint; indeed, her performance was stellar. While quiet in demeanor, Dave's new protégée showed an uncanny ability to read the client and come up with creative approaches to the deal's financing.

A second example involves Ned, a partner who was frustrated that Joan, a recent-MBA hire on his team, didn't assert herself on management team calls. At first Ned simply assumed that Joan lacked confidence. But then it occurred to him that he might be falling back on gender stereotypes, and he took a closer look at his own behavior. He realized that he wasn't doing anything to make participation easier for her and was actually doing things that made it harder, like taking up all the airtime on calls. So they talked about it, and Joan admitted that she was afraid of making a mistake and was hyperaware that if she spoke, she needed to say something very smart. Ned realized that he, too, was afraid she would make a mistake or wouldn't add value to the discussion, which is partly why he took over. But on reflection, he saw that it wouldn't be the end of the world if she did stumble—he

did the same himself now and again. For their next few calls, they went over the agenda beforehand and worked out which parts she would take the lead on; he then gave her feedback after the call. Ned now has a junior colleague to whom he can delegate more; Joan, meanwhile, feels more confident and has learned that she can take risks and recover from mistakes.

# The Power of Meta-Analysis

A META-ANALYSIS is a statistical technique used to combine the results of many studies, providing a more reliable basis for drawing conclusions from research. This approach has three advantages over a single study.

First, it is more *accurate*, because it is based on a very large sample—the total of the samples across all the studies—and because it contains data collected in many different contexts. Any single set of findings may reflect idiosyncrasies of the study's sample or context and thus may not yield conclusions that are truly generalizable. A meta-analysis, in essence, averages across these idiosyncrasies to give us a truer

answer to the research question (in this case, "Are men and women different with regard to a particular trait or behavior?").

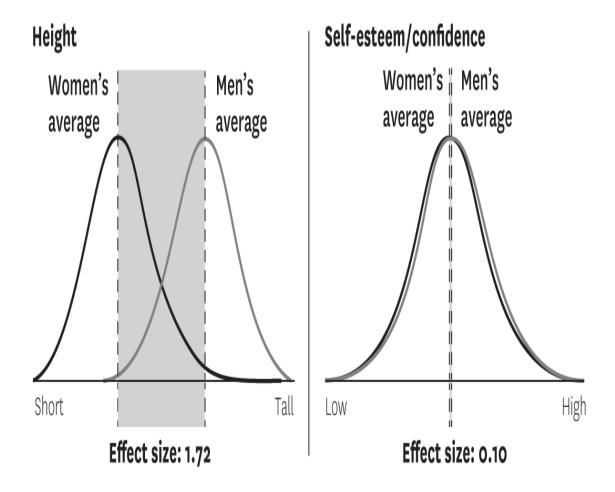
Second, a meta-analysis is more *comprehensive*. Because it contains studies conducted in many different contexts, it can tell us in which kinds of contexts we are more or less likely to see sex differences.

Third, a meta-analysis is more *precise:* It can tell us just how different men and women are. For any given trait or behavior, there is variability *among* men and *among* women; typically, those within-group differences are distributed around some "true" average for each group. Using the averages and the variability within each group, we can calculate an "effect size" that can be thought of as the impact that sex has on a particular trait. When testing for a sex difference, we are in essence asking the question "How much overlap is there between women and men, or, stated another way, how far apart are their respective averages, relative to the variability within each sex?"

Take the left-hand graph, which shows the distribution of men's and women's heights in the UK.

We can see from the curves that men, on average, are quite a bit taller than women. In fact, men average five feet, nine inches, and women five feet, three inches—a six-inch difference. We can also see that a number of women are taller than the average man, just as a number of men are shorter than the average woman. The size of the sex effect on height is 1.72, which is considered "large."

Using that sex difference as a reference point, we can see from the right-hand graph that the difference between men and women in self-esteem, or confidence, is much smaller, with an effect size of 0.10. Although the difference in each graph is statistically significant, the difference in confidence is considered, from a statistical point of view, "trivial"—and from a managerial point of view, essentially meaningless. This same analysis for men's and women's negotiation outcomes and for their propensity to take risks yielded effect sizes of 0.20 ("small") and 0.13 ("trivial"), respectively. In short, contrary to popular belief, all three sex differences we consider in this article are, for all intents and purposes, meaningless.



*Note*: Statisticians consider an effect size of less than 0.20 to be "trivial," 0.20–0.49 to be "small," 0.50–0.79 to be "medium," and 0.80 or more to be "large."

### 4. Promote continual learning

Both Dave and Ned recognized that their tendency to jump to conclusions based on stereotypes was robbing them—and the firm—of vital talent. Moreover, they have seen firsthand how questioning assumptions and proactively changing conditions gives women the opportunity to develop and shine. The lessons from these small-scale

experiments are ongoing: Partners at the firm now meet regularly to discuss what they're learning. They also hold one another accountable for questioning and testing gender-stereotypical assessments as they arise. As a result, old narratives about women's limitations are beginning to give way to new narratives about how the firm can better support all employees.

The four steps we've outlined are consistent with research suggesting that on difficult issues such as gender and race, managers respond more positively when they see themselves as part of the solution rather than simply part of the problem. The solution to women's lagged advancement is not to fix women or their managers but to fix the conditions that undermine women and reinforce gender stereotypes. Furthermore, by taking an inquisitive, evidence-based approach to understanding behavior, companies can not only address gender disparities but also cultivate a learning orientation and a culture that gives all employees the opportunity to reach their full potential.

Originally published in May-June 2018. Reprint R1803J

# Collaborative Intelligence

Humans and AI Are Joining Forces.by H. James Wilson and Paul R. Daugherty

ARTIFICIAL INTELLIGENCE IS BECOMING good at many "human" jobs—diagnosing disease, translating languages, providing customer service—and it's improving fast. This is raising reasonable fears that AI will ultimately replace human workers throughout the economy. But that's not the inevitable, or even most likely, outcome. Never before have digital tools been so responsive to us, nor we to our tools. While AI will radically alter how work gets done and who does it, the technology's larger impact will be in complementing and augmenting human capabilities, not replacing them.

Certainly, many companies have used AI to automate processes, but those that ...

# Stitch Fix's CEO on Selling Personal Style to the Mass Market

by Katrina Lake

### AT STITCH FIX OUR BUSINESS MODEL IS SIMPLE:

We send you clothing and accessories we think you'll like; you keep the items you want and send the others back. We leverage data science to deliver personalization at scale, transcending traditional brick-and-mortar and e-commerce retail experiences. Customers enjoy having an expert stylist do the shopping for them and appreciate the convenience and simplicity of the service.

Of course, making something seem simple and convenient to consumers while working profitably and at scale is complex. It's even more complex in the fashion retail industry, which is crowded, fickle, and rapidly changing. Other apparel retailers attempt to differentiate

themselves through the lowest price or the fastest shipping; we differentiate ourselves through personalization. Each Fix shipment, as we call it, is a box containing five clothing and accessory items we've chosen just for you. Those choices are based on information you and millions of others have given us—first in an extensive questionnaire you fill out when you sign up, and then in feedback you provide after each shipment.

Stitch Fix sold \$730 million worth of clothing in 2016 and \$977 million worth in 2017. One hundred percent of our revenue results directly from our recommendations, which are the core of our business. We have more than 2 million active clients in the United States, and we carry more than 700 brands. We're not upselling you belts that match that blouse you just added to your cart, or touting a certain brand because you've bought it before, or using browsing patterns to intuit that you might be shopping for a little black dress—all activities that have low conversion rates. Instead we make unique and personal selections by combining data and machine learning with expert human judgment.

Data science isn't woven into our culture; it *is* our culture. We started with it at the heart of the business,

rather than adding it to a traditional organizational structure, and built the company's algorithms around our clients and their needs. We employ more than 80 data scientists, the majority of whom have PhDs in quantitative fields such as math, neuroscience, statistics, and astrophysics. Data science reports directly to me, and Stitch Fix wouldn't exist without data science. It's that simple.

# **Not a Valley Story**

We're far from the prototypical Silicon Valley start-up. I don't consider myself a serial entrepreneur: Stitch Fix is the first company I've launched. But I'm fascinated by retail experiences and how untouched they were by modern technology in the 21st century. During my undergraduate years at Stanford, in the early 2000s, and in my first job, as a consultant at the Parthenon Group, I did a lot of work with retailers and restaurants. While I loved both industries and how meaningful they were to people, I was intrigued that they still provided fundamentally the same experience they had in the 1970s—or even the 1950s—despite how much the world had changed. I wondered how they might adapt, and I wanted to be part of that future.

## Idea in Brief

Lake's experience as a consultant to retailers and restaurants led to a fascination with how untouched those industries were by 21st-century technology. As a lover of both clothes and data, she felt certain that data could create a better experience with apparel—as long as the human element was preserved.

From the beginning Lake planned to build a data science operation to make Stitch Fix scalable. The company's revenue is dependent on great recommendations from its algorithm, so its data scientists have a direct line to the CEO. Data science is deeply ingrained in the company culture: In addition to client recommendations of clothing, algorithms keep capital costs low, inventory moving, and deliveries efficient. Product development has adapted algorithms from genetics to find successful "traits" in clothing. Stitch Fix has even used machine learning to design apparel.

But, Lake says, shopping is inherently a personal and human activity, which is why human stylists can alter or override the product assortment a styling algorithm delivers before the client receives a shipment.

I moved on from Parthenon to become an associate at Leader Ventures, a VC firm, just as the iPhone appeared, in 2007. Still, I was thinking about retail. I studied the economics of Blockbuster during the rise of Netflix. On

one side was a company that dominated physical store sales; on the other was a company that dominated sales without stores. It was the perfect case study. And I could see exactly when the scale tipped. Whenever Netflix hit about 30% market share, the local Blockbuster closed. The remaining 70% of customers then faced a decision: try Netflix or travel farther to get movies. More of them tried Netflix, putting more pressure on Blockbuster. Another store would close, and more customers would face that try-or-travel decision, in a downward spiral.

I recognized that other retailers might suffer Blockbuster's fate if they didn't rethink their strategy. For example, how would someone buy jeans 10 years down the road? I knew it wouldn't be the traditional model: go to six stores, pull pairs of jeans off the racks, try them all on. And I didn't think it would resemble today's e-commerce model either: You have 15 tabs open on your browser while you check product measurements and look for what other shoppers are saying. Then you buy multiple pairs and return the ones that don't fit.

The part of me that loves data knew it could be used to create a better experience with apparel. After all, fit and taste are just a bunch of attributes: waist, inseam, material,

color, weight, durability, and pattern. It's all just data. If you collect enough, you'll get a pretty good picture of what clothes people want.

But the part of me that loves clothes recognized the human element in shopping—the feeling of finding something you weren't expecting to and delighting in the fact that it fits you and your budget. I saw an opportunity to combine those two elements—data and human experience—to create a new model for buying clothes.

### A Bad Idea?

At first I didn't plan to start a company; I was going to join a start-up that wanted to pursue this idea. At Leader, I met with hundreds of entrepreneurs, hoping the right one would come through. That didn't happen. So I enrolled at Harvard Business School to pursue my risk-averse path to entrepreneurship. I used those two years to plan and launch my company. I received a term sheet to fund Stitch Fix in February 2011; I shipped the first Fix boxes from my apartment in April; and I graduated in May.

Not many people thought it was a good idea. One of my professors called it an inventory nightmare. I wanted to

own all the inventory so that I could deeply understand each item and turn it into a lot of structured data. In retail, owning all the inventory is scary, and the professor thought it would make my strategy capital-intensive and risky. But the strategy was ultimately right. Using data to better understand what people want enables us to turn over inventory faster than many conventional retailers do, because we can buy the right things and get them to the right people. Selling inventory fast enough to pay vendors with cash from clients turns out to be a very capital-efficient model.

Then there were skeptical venture capitalists. I would come to pitch meetings with a box of clothes and a personalized card from the stylist. I remember that at one meeting, a VC said within the first five minutes, "I just don't understand why anyone would ever want to receive anything like this." I appreciated his honesty. Many of them were unexcited about warehouses full of clothes. Others were baffled that we employed human stylists who were paid hourly—a very un-VC idea at a time when everything was about automation and apps. Despite our early success, Series B funding conversations got a tepid response. "I think you're great, your team is amazing, and your business

is working," one VC told me. "But I get to pick one or two boards a year, and I want to pick ones I feel connected to. I can't get passionate about retail or women's dresses."

That's fair—and frustrating. As it happens, 87% of the employees, 35% of the data scientists, and 32% of the engineers at Stitch Fix are women. More than 90% of venture capitalists are men, and I felt the industry's gender dynamic was working against us. In the end, what didn't kill us made us stronger, because it forced us to focus on profitability and capital efficiency. We've since used cash from our operations to launch new businesses, including men's apparel and plus sizes for women.

Finally, there was the industry itself. By making revenue dependent on fashion recommendations, I had picked one of the more difficult tasks for machine learning. Even people who think they're undiscerning about the clothes they wear do in fact care. Fit, style, material—these matter to all of us. It's a nuanced business. That makes it especially interesting but also more difficult. Early on, focus groups asserted that they just didn't believe we could pick out clothes they'd like. They'd say, "How will it work? Nothing will fit."

The idea of paying us a \$20 styling fee up front, credited to your purchase if you keep something, also gave pause. Focus group participants would ask, "Why would I pay \$20 when I don't get to pick anything out?" We needed customers to trust that they'd want to keep items. And that has turned out to be true—because of the data science.

## Mix and Match

beginning with a "style profile"—and a suite of algorithms to capture their reactions to merchandise. Human stylists (algorithmically matched with clients) review and revise every box of five items before it is mailed. Clients respond with written answers to five survey questions about each item, along with comments. That feedback, together with purchase history, allows Stitch Fix to improve its picks over time.

The following illustrates how the algorithm and the stylist together might choose one client's very first Fix and two successive ones.

X Returned ✔ Bought

# Fix 1



The client's style profile guided both the algorithm's choice of this shirt and the stylist's choice of pale pink. ✓



The stylist approved the algorithm's choice of this all-season top, even though it's out of the stated price range, because the client likes florals. ✓



These slip-on sneakers have a high match rate among clients looking for a casual shoe. The stylist thought the floral pattern would add originality. ✓



The client asked for skinny jeans. The stylist selected green from among the algorithm's denim recommendations. **X** 



Because the client's style profile said she loves textures, the stylist chose this studded blouse. **X** 

# Fix 2



The client was looking for a versatile top. The algorithm identified this cashmere sweater because it has been extremely successful with women



of ner age and physical dimensions. ▼



The client did not like the fit of the green jeans, so the algorithm found a pair that fit better, and the stylist chose blue denim. **X** 



The client loved the lightweight floral top in the previous box, so the stylist found this more vibrant variation, which the algorithm suggested would fit well. ✓



The client also loved the pink shirt in the previous box, so the stylist found a different take within the same color palette. ✓



The client wanted a new bag, and the algorithm found this one trending among women of her age. The stylist picked light green to pop against the red palette of the tops in the box. **X** 

# Fix 3



Because the client kept the cashmere sweater from the previous Fix, the stylist thought this piece, a little bolder, was worth taking a risk on. ✓



The algorithm chose this popular coat for its versatility and affordability. 🗸



Stitch Fix now knows the client's preferred color and fit for jeans, so the stylist felt confident in exceeding her price range with this pair.



The algorithm recommended this blouse because the client responded warmly to the color palette in the previous Fix. ✓



The stylist knows that the client is single and dating, so she chose these playful heels to dress up the skinny jeans. ✓

### **Enter the Algorithms**

When I started, my "data science" was rudimentary. I used SurveyMonkey and Google Docs along with some statistical methods to track preferences and try to make good recommendations. In the beginning, I was essentially acting as a personal stylist. Sometimes I even delivered a Fix box in person. But my plan was always to build a data science operation that would make the business scalable. Our recommendations work because our algorithms are good, but our algorithms are good because data science underpins the company.

Three things make machine learning integral:

Data science reports to the CEO
At most companies, data science reports to the CTO, as
part of the engineering team, or sometimes even to finance.

Here it's separate, and we have a chief algorithms officer, Eric Colson, who has a seat at the strategy table. Eric came from Netflix in August 2012. Before that he was an adviser to us. He became interested in our company because it presented a challenge. At Netflix, he recalls, someone said, "What if we just started playing a movie we think someone will like when they open the app?" That seemed like a bold but risky idea—to go all in on just one recommendation. He realized that's what Stitch Fix does. As an adviser, he found himself spending a vacation playing with some of our data. He decided to join us full-time—a huge coup for a little start-up.

Because our revenue is dependent on great recommendations from our algorithms, it's even more crucial that our data scientists have a direct line to the CEO. We also believe it sends a message to the organization as a whole about our values and our approach to strategy: Data science is extremely important, and other teams, such as marketing and engineering, will increase their capabilities by partnering closely with our data science team.

Innovation is done by data science

We've developed dozens of algorithms that no one ever asked for, because we allow our data science team to create new solutions and determine whether they have potential. No one explicitly asked the team to develop algorithms to do rebuy recommendations, for example. (Rebuys happen when a certain inventory item is selling well and we need to acquire more of it.) Our algorithms help us see these trends earlier and more accurately, so we can stock inventory more efficiently and be ready for spikes in demand. Recently the team came up with a way to track the movements of employees in our warehouses and created an algorithm that could help optimize routes without expensive remapping of the spaces as they change.

It's sometimes hard for people to imagine how deeply ingrained data science is in our culture. We use many kinds of algorithms now, and we're building many more. Personalized recommendations of clothing, of course, are driven by machine learning. Fulfillment and inventory management use algorithms to keep capital costs low, inventory moving, and deliveries efficient. Product development has adapted some algorithms from genetics to find successful "traits" in clothes. We've even started using machine learning to design apparel.

Hybrid Designs, our in-house clothing brand, came to life one rainy afternoon when a couple of data scientists were thinking about how to fill product gaps in the marketplace. For example, many female clients in their mid-40s were asking for capped-sleeve blouses, but that style was missing from our current inventory set. Fast-forward a year, and we have 29 apparel items for women and plus sizes that were designed by computer and meet some specific, previously unfilled needs our clients have.

Another way we apply a quantitative approach to fashion is with measurement data. We track anywhere from 30 to 100 measurements on a garment, depending on what type it is, and we now know—from the experiences of more than 2 million active clients—what kind of fit would make a customer spend outside her or his comfort zone. We know the optimal ratio of chest size to shirt width on a men's shirt. Using data analysis, we adjusted the distance from the collar to the first button on shirts for men with large chests. We know what proportion of the population fits a 27-inch inseam, and we can stock according to that proportion.

But in some ways, that's the easy part. The real challenge is having the right dress in the right color and the right size at the right time. The math around that is complex. We

must account for all the measurements plus the taste of the customer, the season, the location, past trends—lots of variables.

Given a dollar to invest in the company and the choice to use it for marketing, product, or data science, we'd almost always choose data science. We're glad we started with data science at our core rather than trying to transform a traditional retailer, which I believe wouldn't have worked. For a traditional retailer to say, "Let's do what Stitch Fix does" would be like my saying, "I'd like to be taller now."

#### Don't forget the people

The analytical part of me loves our algorithmic approach. But shopping is inherently a personal and human activity. That's why we insist on combining data with a human stylist who can alter or override the product assortment our styling algorithm has delivered. Our stylists come from a range of design and retail backgrounds, but they all have an appreciation for the data and feel love and empathy for our clients. Humans are much better than machines at some things—and they are likely to stay that way for a long time.

For example, when a client writes in with a very specific request, such as "I need a dress for an outdoor wedding in

July," our stylists immediately know what dress options might work for that event. In addition, our clients often share intimate details of a pregnancy, a major weight loss, or a new job opportunity—all occasions whose importance a machine can't fully understand. But our stylists know exactly how special such life moments are and can go above and beyond to curate the right look, connect with the clients, and improvise when needed. That creates incredible brand loyalty.

It's simple: A good person plus a good algorithm is far superior to the best person or the best algorithm alone. We aren't pitting people and data against each other. We need them to work together. We're not training machines to behave like humans, and we're certainly not training humans to behave like machines. And we all need to acknowledge that we're fallible—the stylist, the data scientist, me. We're all wrong sometimes—even the algorithm. The important thing is that we keep learning from that.

Originally published in May–June 2018. Reprint R1803A

# Strategy for Start-Ups

by Joshua Gans, Erin L. Scott, and Scott Stern

AS A START-UP, RapidSOS was an easy sell: It would bring 911 calls into the smartphone age. Emergency-response systems had evolved in a premobile era, which meant that few of them could accurately identify the location of callers who were using mobile phones, compromising response times and medical outcomes. The founders of RapidSOS—Michael Martin, an HBS graduate, and Nick Horelik, an MIT engineer—had developed a way to transmit mobile phone locations to existing 911 systems that would require only minimal adaptation on the part of other players in the emergency-services sector. After attracting early-stage financing at business plan competitions, Martin and Horelik reached ...

# Agile at Scale

by Darrell K. Rigby, Jeff Sutherland, and Andy Noble

BY NOW MOST BUSINESS LEADERS are familiar with agile innovation teams. These small, entrepreneurial groups are designed to stay close to customers and adapt quickly to changing conditions. When implemented correctly, they almost always result in higher team productivity and morale, faster time to market, better quality, and lower risk than traditional approaches can achieve.

Naturally, leaders who have experienced or heard about agile teams are asking some compelling questions. What if a company were to launch dozens, hundreds, or even thousands of agile teams throughout the organization? Could whole segments of the business learn to operate in this manner? Would scaling up agile improve corporate

performance as much as agile methods improve individual team performance?

In today's tumultuous markets, where established companies are furiously battling assaults from startups and other insurgent competitors, the prospect of a fast-moving, adaptive organization is highly appealing. But as enticing as such a vision is, turning it into a reality can be challenging. Companies often struggle to know which functions should be reorganized into multidisciplinary agile teams and which should not. And it's not unusual to launch hundreds of new agile teams only to see them bottlenecked by slow-moving bureaucracies.

We have studied the scaling up of agile at hundreds of companies, including small firms that run the entire enterprise with agile methods; larger companies that, like Spotify and Netflix, were born agile and have become more so as they've grown; and companies that, like Amazon and USAA (the financial services company for the military community), are making the transition from traditional hierarchies to more-agile enterprises. Along with the many success stories are some disappointments. For example, one prominent industrial company's attempts over the past five years to innovate like a lean start-up have

not yet generated the financial results sought by activist investors and the board of directors, and several senior executives recently resigned.

Our studies show that companies can scale up agile effectively and that doing so creates substantial benefits. But leaders must be realistic. Not every function needs to be organized into agile teams; indeed, agile methods aren't well suited to some activities. Once you begin launching dozens or hundreds of agile teams, however, you can't just leave the other parts of the business alone. If your newly agile units are constantly frustrated by bureaucratic procedures or a lack of collaboration between operations and innovation teams, sparks will fly from the organizational friction, leading to meltdowns and poor results. Changes are necessary to ensure that the functions that don't operate as agile teams support the ones that do.

## Leading Agile by Being Agile

For anyone who isn't familiar with agile, here's a short review. Agile teams are best suited to innovation—that is, the profitable application of creativity to improve products and services, processes, or business models. They are small

and multidisciplinary. Confronted with a large, complex problem, they break it into modules, develop solutions to each component through rapid prototyping and tight feedback loops, and integrate the solutions into a coherent whole. They place more value on adapting to change than on sticking to a plan, and they hold themselves accountable for outcomes (such as growth, profitability, and customer loyalty), not outputs (such as lines of code or number of new products).

## Idea in Brief

#### The Ambition

To go from a handful of agile innovation teams in a function like software development to scores, even hundreds, throughout your company—to make agile the dominant way you operate.

#### The Challenges

Figuring out where to start and how fast and far to go, deciding which functions can and should be converted to agile teams and which should not, and preventing slow-moving bureaucracies from impeding those that do convert.

#### The Solution

Leaders should use agile methods themselves and create a *taxonomy of opportunities* to set priorities and break the journey into small steps. Workstreams should

be modularized and then seamlessly integrated.
Functions not reorganized into agile teams should learn to operate with agile values. The annual budgeting process should be complemented with a VC-like approach to funding.

Conditions are ripe for agile teams in any situation where problems are complex, solutions are at first unclear, project requirements are likely to change, close collaboration with end users is feasible, and creative teams will outperform command-and-control groups. Routine operations such as plant maintenance, purchasing, and accounting are less fertile ground. Agile methods caught on first in IT departments and are now widely used in software development. Over time they have spread into functions such as product development, marketing, and even HR. (See "Embracing Agile," HBR, May 2016, and "HR Goes Agile," HBR, March—April 2018.)

Agile teams work differently from chain-of-command bureaucracies. They are largely self-governing: Senior leaders tell team members where to innovate but not how. And the teams work closely with customers, both external and internal. Ideally, this puts responsibility for innovation in the hands of those who are closest to customers. It

reduces layers of control and approval, thereby speeding up work and increasing the teams' motivation. It also frees up senior leaders to do what only they can do: create and communicate long-term visions, set and sequence strategic priorities, and build the organizational capabilities to achieve those goals.

When leaders haven't themselves understood and adopted agile approaches, they may try to scale up agile the way they have attacked other change initiatives: through top-down plans and directives. The track record is better when they behave like an agile team. That means viewing various parts of the organization as their customers people and groups whose needs differ, are probably misunderstood, and will evolve as agile takes hold. The executive team sets priorities and sequences opportunities to improve those customers' experiences and increase their success. Leaders plunge in to solve problems and remove constraints rather than delegate that work to subordinates. The agile leadership team, like any other agile team, has an "initiative owner" who is responsible for overall results and a facilitator who coaches team members and helps keep everyone actively engaged.

Bosch, a leading global supplier of technology and services with more than 400,000 associates and operations in 60-plus countries, took this approach. As leaders began to see that traditional top-down management was no longer effective in a fast-moving, globalized world, the company became an early adopter of agile methods. But different business areas required different approaches, and Bosch's first attempt to implement what it called a "dual organization"—one in which hot new businesses were run with agile teams while traditional functions were left out of the action—compromised the goal of a holistic transformation. In 2015 members of the board of management, led by CEO Volkmar Denner, decided to build a more unified approach to agile teams. The board acted as a steering committee and named Felix Hieronymi, a software engineer turned agile expert, to guide the effort.

At first Hieronymi expected to manage the assignment the same way Bosch managed most projects: with a goal, a target completion date, and regular status reports to the board. But that approach felt inconsistent with agile principles, and the company's divisions were just too skeptical of yet another centrally organized program. So the team shifted gears. "The steering committee turned into a

working committee," Hieronymi told us. "The discussions got far more interactive." The team compiled and rankordered a backlog of corporate priorities that was regularly updated, and it focused on steadily removing companywide barriers to greater agility. Members fanned out to engage division leaders in dialogue. "Strategy evolved from an annual project to a continuous process," Hieronymi says. "The members of the management board divided themselves into small agile teams and tested various approaches—some with a 'product owner' and an 'agile master'—to tackle tough problems or work on fundamental topics. One group, for instance, drafted the 10 new leadership principles released in 2016. They personally experienced the satisfaction of increasing speed and effectiveness. You can't gain this experience by reading a book." Today Bosch operates with a mix of agile teams and traditionally structured units. But it reports that nearly all areas have adopted agile values, are collaborating more effectively, and are adapting more quickly to increasingly dynamic marketplaces.

## **Getting Agile Rolling**

At Bosch and other advanced agile enterprises, the visions are ambitious. In keeping with agile principles, however, the leadership team doesn't plan every detail in advance. Leaders recognize that they do not yet know how many agile teams they will require, how quickly they should add them, and how they can address bureaucratic constraints without throwing the organization into chaos. So they typically launch an initial wave of agile teams, gather data on the value those teams create and the constraints they face, and then decide whether, when, and how to take the next step. This lets them weigh the value of increasing agility (in terms of financial results, customer outcomes, and employee performance) against its costs (in terms of both financial investments and organizational challenges). If the benefits outweigh the costs, leaders continue to scale up agile—deploying another wave of teams, unblocking constraints in less agile parts of the organization, and repeating the cycle. If not, they can pause, monitor the market environment, and explore ways to increase the value of the agile teams already in place (for instance, by improving the prioritization of work or upgrading prototyping capabilities) and decrease the costs of change

(by publicizing agile successes or hiring experienced agile enthusiasts).

To get started on this test-and-learn cycle, leadership teams typically employ two essential tools: a taxonomy of potential teams and a sequencing plan reflecting the company's key priorities. Let's first look at how each can be employed and then explore what more is needed to tackle large-scale, long-term agile initiatives.

#### Create a taxonomy of teams

Just as agile teams compile a backlog of work to be accomplished in the future, companies that successfully scale up agile usually begin by creating a full taxonomy of opportunities. Following agile's modular approach, they may break the taxonomy into three components—customer experience teams, business process teams, and technology systems teams—and then integrate them. The first component identifies all the experiences that could significantly affect external and internal customer decisions, behaviors, and satisfaction. These can usually be divided into a dozen or so major experiences (for example, one of a retail customer's major experiences is to buy and pay for a product), which in turn can be divided into

dozens of more-specific experiences (the customer may need to choose a payment method, use a coupon, redeem loyalty points, complete the checkout process, and get a receipt). The second component examines the relationships among these experiences and key business processes (improved checkout to reduce time in lines, for instance), aiming to reduce overlapping responsibilities and increase collaboration between process teams and customer experience teams. The third focuses on developing technology systems (such as better mobile-checkout apps) to improve the processes that will support customer experience teams.

The taxonomy of a \$10 billion business might identify anywhere from 350 to 1,000 or more potential teams. Those numbers sound daunting, and senior executives are often loath even to consider so much change ("How about if we try two or three of these things and see how it goes?"). But the value of a taxonomy is that it encourages exploration of a transformational vision while breaking the journey into small steps that can be paused, turned, or halted at any time. It also helps leaders spot constraints. Once you've identified the teams you could launch and the sorts of people you would need to staff them, for instance,

you need to ask: Do we have those people? If so, where are they? A taxonomy reveals your talent gaps and the kinds of people you must hire or retrain to fill them. Leaders can also see how each potential team fits into the goal of delivering better customer experiences.

USAA has more than 500 agile teams up and running and plans to add 100 more in 2018. The taxonomy is fully visible to everyone across the enterprise. "If you don't have a really good taxonomy, you get redundancy and duplication," COO Carl Liebert told us. "I want to walk into an auditorium and ask, 'Who owns the member's change-of-address experience?' And I want a clear and confident response from a team that owns that experience, whether a member is calling us, logging into our website on a laptop, or using our mobile app. No finger-pointing. No answers that begin with 'It's complicated.'?"

USAA's taxonomy ties the activities of agile teams to the people responsible for business units and product lines. The goal is to ensure that managers responsible for specific parts of the P&L understand how cross-functional teams will influence their results. The company has senior leaders who act as general managers in each line of business and are fully accountable for business results. But those leaders

rely on customer-focused, cross-organizational teams to get much of the work done. The company also depends on technology and digital resources assigned to the experience owners; the goal here is to ensure that business leaders have the end-to-end resources to deliver the outcomes they have committed to. The intent of the taxonomy is to clarify how to engage the right people in the right work without creating confusion. This kind of link is especially important when hierarchical organizational structures do not align with customer behaviors. For example, many companies have separate structures and P&Ls for online and offline operations—but customers want seamlessly integrated omnichannel experiences. A clear taxonomy that launches the right cross-organizational teams makes such alignment possible.

#### Sequence the transition

Taxonomy in hand, the leadership team sets priorities and sequences initiatives. Leaders must consider multiple criteria, including strategic importance, budget limitations, availability of people, return on investment, cost of delays, risk levels, and interdependencies among teams. The most important—and the most frequently overlooked—are the

pain points felt by customers and employees on the one hand and the organization's capabilities and constraints on the other. These determine the right balance between how fast the rollout should proceed and how many teams the organization can handle simultaneously.

A few companies, facing urgent strategic threats and in need of radical change, have pursued big-bang, everythingat-once deployments in some units. For example, in 2015 ING Netherlands anticipated rising customer demand for digital solutions and increasing incursions by new digital competitors ("fintechs"). The management team decided to move aggressively. It dissolved the organizational structures of its most innovative functions, including IT development, product management, channel management, and marketing—essentially abolishing everyone's job. Then it created small agile "squads" and required nearly 3,500 employees to reapply for 2,500 redesigned positions on those squads. About 40% of the people filling the positions had to learn new jobs, and all had to profoundly change their mindset. (See "One Bank's Agile Team Experiment," HBR, March–April 2018.)

But big-bang transitions are hard. They require total leadership commitment, a receptive culture, enough

talented and experienced agile practitioners to staff
hundreds of teams without depleting other capabilities, and
highly prescriptive instruction manuals to align everyone's
approach. They also require a high tolerance of risk, along
with contingency plans to deal with unexpected
breakdowns. ING continues to iron out wrinkles as it
expands agile throughout the organization.

Companies short on those assets are better off rolling out agile in sequenced steps, with each unit matching the implementation of opportunities to its capabilities. At the beginning of its agile initiative, the advanced technology group at 3M Health Information Systems launched eight to 10 teams every month or two; now, two years in, more than 90 teams are up and running. 3M's Corporate Research Systems Lab got started later but launched 20 teams in three months.

Whatever the pace or endpoint, results should begin showing up quickly. Financial results may take a while—
Jeff Bezos believes that most initiatives take five to seven years to pay dividends for Amazon—but positive changes in customer behavior and team problem solving provide early signs that initiatives are on the right track. "Agile adoption has already enabled accelerated product deliveries

and the release of a beta application six months earlier than originally planned," says Tammy Sparrow, a senior program manager at 3M Health Information Systems.

Division leaders can determine the sequencing just as any agile team would. Start with the initiatives that offer potentially the greatest value and the most learning. SAP, the enterprise software company, was an early scaler of agile, launching the process a decade ago. Its leaders expanded agile first in its software development units—a highly customer-centric segment where they could test and refine the approach. They established a small consulting group to train, coach, and embed the new way of working, and they created a results tracker so that everyone could see the teams' gains. "Showing concrete examples of impressive productivity gains from agile created more and more pull from the organization," says Sebastian Wagner, who was then a consulting manager in that group. Over the next two years the company rolled out agile to more than 80% of its development organizations, creating more than 2,000 teams. People in sales and marketing saw the need to adapt in order to keep up, so those areas went next. Once the front end of the business was moving at speed, it was

time for the back end to make the leap, so SAP shifted its group working on internal IT systems to agile.

Too many companies make the mistake of going for easy wins. They put teams into offsite incubators. They intervene to create easy workarounds to systemic obstacles. Such coddling increases the odds of a team's success, but it doesn't produce the learning environment or organizational changes necessary to scale dozens or hundreds of teams. A company's early agile teams carry the burden of destiny. Testing them, just like testing any prototype, should reflect diverse, realistic conditions. Like SAP, the most successful companies focus on vital customer experiences that cause the greatest frustrations among functional silos.

Still, no agile team should launch unless and until it is ready to begin. *Ready* doesn't mean planned in detail and guaranteed to succeed. It means that the team is:

- focused on a major business opportunity with a lot at stake
- responsible for specific outcomes
- trusted to work autonomously—guided by clear decision rights, properly resourced, and staffed with a

small group of multidisciplinary experts who are passionate about the opportunity

- committed to applying agile values, principles, and practices
- empowered to collaborate closely with customers
- able to create rapid prototypes and fast feedback loops
- supported by senior executives who will address impediments and drive adoption of the team's work

Following this checklist will help you plot your sequence for the greatest impact on both customers and the organization.

Master large-scale agile initiatives

Many executives have trouble imagining that small agile
teams can attack large-scale, long-term projects. But in
principle there is no limit to the number of agile teams you
can create or how large the initiative can be. You can
establish "teams of teams" that work on related initiatives—
an approach that is highly scalable. Saab's aeronautics
business, for instance, has more than 100 agile teams
operating across software, hardware, and fuselage for its

Gripen fighter jet—a \$43 million item that is certainly one of the most complex products in the world. It coordinates through daily team-of-teams stand-ups. At 7:30 AM each frontline agile team holds a 15-minute meeting to flag impediments, some of which cannot be resolved within that team. At 7:45 the impediments requiring coordination are escalated to a team of teams, where leaders work to either settle or further escalate issues. This approach continues, and by 8:45 the executive action team has a list of the critical issues it must resolve to keep progress on track. Aeronautics also coordinates its teams through a common rhythm of three-week sprints, a project master plan that is treated as a living document, and the colocation of traditionally disparate parts of the organization—for instance, putting test pilots and simulators with development teams. The results are dramatic: IHS Jane's has deemed the Gripen the world's most cost-effective military aircraft.

## **Building Agility Across the Business**

Expanding the number of agile teams is an important step toward increasing the agility of a business. But equally important is how those teams interact with the rest of the organization. Even the most advanced agile enterprises—Amazon, Spotify, Google, Netflix, Bosch, Saab, SAP, Salesforce, Riot Games, Tesla, and SpaceX, to name a few—operate with a mix of agile teams and traditional structures. To ensure that bureaucratic functions don't hamper the work of agile teams or fail to adopt and commercialize the innovations developed by those teams, such companies constantly push for greater change in at least four areas.

#### Values and principles

A traditional hierarchical company can usually accommodate a small number of agile teams sprinkled around the organization. Conflicts between the teams and conventional procedures can be resolved through personal interventions and workarounds. When a company launches several hundred agile teams, however, that kind of ad hoc accommodation is no longer possible. Agile teams will be pressing ahead on every front. Traditionally structured parts of the organization will fiercely defend the status quo. As with any change, skeptics can and will produce all kinds of antibodies that attack agile, ranging from refusals to

operate on an agile timetable ("Sorry, we can't get to that software module you need for six months") to the withholding of funds from big opportunities that require unfamiliar solutions.

So a leadership team hoping to scale up agile needs to instill agile values and principles throughout the enterprise, including the parts that do not organize into agile teams. This is why Bosch's leaders developed new leadership principles and fanned out throughout the company: They wanted to ensure that everyone understood that things would be different and that agile would be at the center of the company's culture.

### Operating architectures

Implementing agile at scale requires modularizing and then seamlessly integrating workstreams. For example, Amazon can deploy software thousands of times a day because its IT architecture was designed to help developers make fast, frequent releases without jeopardizing the firm's complex systems. But many large companies, no matter how fast they can code programs, can deploy software only a few times a day or a week; that's how their architecture works.

Building on the modular approach to product development pioneered by Toyota, Tesla meticulously designs interfaces among the components of its cars to allow each module to innovate independently. Thus the bumper team can change anything as long as it maintains stable interfaces with the parts it affects. Tesla is also abandoning traditional annual release cycles in favor of real-time responses to customer feedback. CEO Elon Musk says that the company makes about 20 engineering changes a week to improve the production and performance of the Model S. Examples include new battery packs, updated safety and autopilot hardware, and software that automatically adjusts the steering wheel and seat for easier entry and exit.

In the most advanced agile enterprises, innovative product and process architectures are attacking some of the thorniest organizational constraints to further scaling. Riot Games, the developer of the wildly successful multiplayer online battle arena League of Legends, is redesigning the interfaces between agile teams and support-and-control functions that operate conventionally, such as facilities, finance, and HR. Brandon Hsiung, the product lead for this ongoing initiative, says it involves at least two key steps.

One is shifting the functions' definition of their customers. "Their customers are not their functional bosses, or the CEO, or even the board of directors," he explains. "Their customers are the development teams they serve, who ultimately serve our players." The company instituted Net Promoter surveys to collect feedback on whether those customers would recommend the functions to others and made it plain that dissatisfied customers could sometimes hire outside providers. "It's the last thing we want to happen, but we want to make sure our functions develop world-class capabilities that could compete in a free market," Hsiung says.

Riot Games also revamped how its corporate functions interact with its agile teams. Some members of corporate functions may be embedded in agile teams, or a portion of a function's capacity may be dedicated to requests from agile teams. Alternatively, functions might have little formal engagement with the teams after collaborating with them to establish certain boundaries. Says Hsiung: "Silos such as real estate and learning and development might publish philosophies, guidelines, and rules and then say, 'Here are our guidelines. As long as you operate within them, you

can go crazy; do whatever you believe is best for our players."

In companies that have scaled up agile, the organization charts of support functions and routine operations generally look much as they did before, though often with fewer management layers and broader spans of control as supervisors learn to trust and empower people. The bigger changes are in the ways functional departments work. Functional priorities are necessarily more fully aligned with corporate strategies. If one of the company's key priorities is improving customers' mobile experience, that can't be number 15 on finance's funding list or HR's hiring list. And departments such as legal may need buffer capacity to deal with urgent requests from high-priority agile teams.

Over time even routine operations with hierarchical structures are likely to develop more-agile mindsets. Of course, finance departments will always manage budgets, but they don't need to keep questioning the decisions of the owners of agile initiatives. "Our CFO constantly shifts accountability to empowered agile teams," says Ahmed Sidky, the head of development management at Riot Games. "He'll say, 'I am not here to run the finances of the company. You are, as team leaders. I'm here in an advisory

capacity.' In the day-to-day organization, finance partners are embedded in every team. They don't control what the teams do or don't do. They are more like finance coaches who ask hard questions and provide deep expertise. But ultimately it's the team leader who makes decisions, according to what is best for Riot players."

Some companies, and some individuals, may find these trade-offs hard to accept and challenging to implement. Reducing control is always scary—until you do so and find that people are happier and success rates triple. In a recent Bain survey of nearly 1,300 global executives, more respondents agreed with this statement about management than with any other: "Today's business leaders must trust and empower people, not command and control them."

(Only 5% disagreed.)

Talent acquisition and motivation
Companies that are scaling up agile need systems for
acquiring star players and motivating them to make teams
better. (Treat your stars unfairly, and they will bolt to a sexy
start-up.) They also need to unleash the wasted potential of
more-typical team members and build commitment, trust,
and joint accountability for outcomes. There's no practical

way to do this without changing HR procedures. A company can no longer hire purely for expertise, for instance; it now needs expertise combined with enthusiasm for work on a collaborative team. It can't evaluate people according to whether they hit individual objectives; it now needs to look at their performance on agile teams and at team members' evaluations of one another. Performance assessments typically shift from an annual basis to a system that provides relevant feedback and coaching every few weeks or months. Training and coaching programs encourage the development of cross-functional skills customized to the needs of individual employees. Job titles matter less and change less frequently with self-governing teams and fewer hierarchical levels. Career paths show how product owners—the individuals who set the vision and own the results of an agile team—can continue their personal development, expand their influence, and increase their compensation.

Companies may also need to revamp their compensation systems to reward group rather than individual accomplishments. They need recognition programs that celebrate contributions immediately. Public recognition is better than confidential cash bonuses at bolstering agile

values—it inspires recipients to improve even further, and it motivates others to emulate the recipients' behaviors. Leaders can also reward "A" players by engaging them in the most vital opportunities, providing them with the most advanced tools and the greatest possible freedom, and connecting them with the most talented mentors in their field.

Annual planning and budgeting cycles
In bureaucratic companies, annual strategy sessions and
budget negotiations are powerful tools for aligning the
organization and securing commitments to stretch goals.
Agile practitioners begin with different assumptions. They
see that customer needs change frequently and that
breakthrough insights can occur at any time. In their view,
annual cycles constrain innovation and adaptation:
Unproductive projects burn resources until their budgets
run out, while critical innovations wait in line for the next
budget cycle to compete for funding.

In companies with many agile teams, funding procedures are different. Funders recognize that for two-thirds of successful innovations, the original concept will change significantly during the development process. They expect

that teams will drop some features and launch others without waiting for the next annual cycle. As a result, funding procedures evolve to resemble those of a venture capitalist. VCs typically view funding decisions as opportunities to purchase options for further discovery. The objective is not to instantly create a large-scale business but, rather, to find a critical component of the ultimate solution. This leads to a lot of apparent failures but accelerates and reduces the cost of learning. Such an approach works well in an agile enterprise, vastly improving the speed and efficiency of innovation.

Companies that successfully scale up agile see major changes in their business. Scaling up shifts the mix of work so that the business is doing more innovation relative to routine operations. The business is better able to read changing conditions and priorities, develop adaptive solutions, and avoid the constant crises that so frequently hit traditional hierarchies. Disruptive innovations will come to feel less disruptive and more like adaptive business as usual. The scaling up also brings agile values and

principles to business operations and support functions, even if many routine activities remain. It leads to greater efficiency and productivity in some of the business's big cost centers. It improves operating architectures and organizational models to enhance coordination between agile teams and routine operations. Changes come on line faster and are more responsive to customer needs. Finally, the business delivers measurable improvements in outcomes—not only better financial results but also greater customer loyalty and employee engagement.

Agile's test-and-learn approach is often described as incremental and iterative, but no one should mistake incremental development processes for incremental thinking. SpaceX, for example, aims to use agile innovation to begin transporting people to Mars by 2024, with the goal of establishing a self-sustaining colony on the planet. How will that happen? Well, people at the company don't really know . . . yet. But they have a vision that it's possible, and they have some steps in mind. They intend to dramatically improve reliability and reduce expenses, partly by reusing rockets much like airplanes. They intend to improve propulsion systems to launch rockets that can carry at least 100 people. They plan to figure out how to refuel in space.

Some of the steps include pushing current technologies as far as possible and then waiting for new partners and new technologies to emerge.

That's agile in practice: big ambitions and step-by-step progress. It shows the way to proceed even when, as is so often the case, the future is murky.

Originally published in May-June 2018. Reprint R1803F

# Operational Transparency

by Ryan W. Buell

BARCLAYS BANK INSTALLED the world's first successful automated teller machine to much fanfare in June 1967. Having a machine distribute cash was less expensive and more efficient than having a human teller do it. What's more, customers could access the ATM at any hour—even when the bank was closed. It seemed like a win-win, and ATMs quickly spread around the world. Today people are three times more likely to withdraw money from an ATM than from a human teller.

However, there's a wrinkle to the ATM success story. When customers use ATMs more and tellers less, their overall level of satisfaction with their bank goes down. It turns out that when consumers can't see the work that's being done to serve them, ...

# The Dual-Purpose Playbook

by Julie Battilana, Anne-Claire Pache, Metin Sengul, and Marissa Kimsey

CORPORATIONS ARE BEING PUSHED to change—to dial down their single-minded pursuit of financial gain and pay closer attention to their impact on employees, customers, communities, and the environment. Corporate social responsibility from the sidelines is no longer enough, and the pressure comes from various directions: rising and untenable levels of inequality, increasing evidence that the effects of climate change will be devastating, investors' realization that short-term profitability and long-term sustainability are sometimes in conflict. For reasons like these, a growing number of business leaders now understand that they must embrace both financial and social goals.

However, changing an organization's DNA is extraordinarily difficult. How can a company that has always focused on profit balance the two aims? It takes upending the existing business model. Not surprisingly, researchers have consistently found that companies are quick to abandon social goals in the quest for profitability.

Yet some enterprises successfully pursue both. The U.S. outdoor-clothing company Patagonia, for example, which initially prioritized financial goals, has come to pursue social good more seriously over time. Others began with social goals but must earn revenue to survive. Grameen Bank, the Nobel Prize—winning microlender in Bangladesh, is an iconic example. We've spent a decade studying how socially driven businesses succeed, and what we've learned from in-depth qualitative studies and quantitative analyses may prove useful to traditional companies that want to adopt a dual purpose.

Our research reveals that successful dual-purpose companies have this in common: They take an approach we call *hybrid organizing*, which involves four levers: setting and monitoring social goals alongside financial ones; structuring the organization to support both socially and financially oriented activities; hiring and socializing

employees to embrace both; and practicing dual-minded leadership. Taken together, these levers can help companies cultivate and maintain a hybrid culture while giving leaders the tools to productively manage conflicts between social and financial goals when they emerge, making the endeavor more likely to succeed.

## **Setting Goals, Monitoring Progress**

Dual-purpose companies need to set goals along both financial and social dimensions and monitor performance on an ongoing basis.

## Setting goals

Well-constructed goals are an essential management tool. They communicate what matters and can highlight what's working and what's not. These goals should go beyond mere aspirations to clarify a company's dual purpose for employees, customers, suppliers, investors, and regulators. Companies may need to experiment their way to a goal-setting model that works for them—something Grameen Veolia Water has managed by continually recalibrating its activities around explicit aims.

The company, which provides safe water in Bangladesh, started in 2008 as a joint venture between Grameen Bank and the water services provider Veolia. Veolia, which traditionally works under government contracts, recognized that no local authorities were responsible for providing drinking water to rural areas at that time. The partnership aimed to fill this gap. Its board set two goals for the new business at the outset: to provide safe, affordable drinking water to the inhabitants of the rural villages of Goalmari and Padua over the long term, and to sustain operations from sales without relying on grants.

## Idea in Brief

#### The Problem

Corporations are being pushed to dial down their singleminded pursuit of financial gain and pay closer attention to their impact on society. But how can a company balance the two?

#### The Research

The authors have studied companies around the globe that pursue financial and social goals simultaneously. They find that the successful ones build a commitment to both economic and social value into their core organizational activities.

#### The Solution

Companies that want to do well and do good should focus on four key management practices: setting and monitoring dual goals; structuring the organization to support both goals; hiring and socializing employees to embrace them; and practicing dual-minded leadership.

These two goals came into conflict. When managers realized how difficult it would be to break even if they sold water only to poor rural households at a very low price, they designed a new revenue-generating activity: selling water in jars to schools and businesses in nearby urban areas. At this point it might have been tempting to focus attention and resources on the profitable new market segment at the expense of the original one. But leadership did not drift. The venture's clearly stated social goal reminded board members and managers that urban sales were meant to subsidize village sales. Ultimately the former amounted to half the company's revenues, helping Grameen Veolia Water pursue its social goal.

No single playbook exists for setting social goals. But our studies point to two rules of thumb. First, *do the research*. Often leaders try to set goals without developing a deep understanding of the specific social needs they aim to address—or of how they may have contributed in the

past to the buildup of problems. Just as they conduct market research to identify opportunities for profit, they should study those social needs. Their research should involve the intended beneficiaries along with other stakeholders and experts.

Prior to launching operations, Grameen Veolia Water conducted major research to understand water issues in Bangladesh, interviewing public officials and health and water experts along with community organizations. Managers discovered that some rural populations suffered not only from drinking surface water contaminated with bacteria (the researchers' initial assumption) but also from drinking water from wells built in the 1980s. Some well water, although clear and tasteless, was naturally contaminated by arsenic and was a major source of cancers in adults and cognitive impairment in children. This information led the business to focus its activity in Goalmari and Padua, which suffered from both sources of contamination. The company thus defined its goal as providing permanent access to clean water for everyone in those villages.

Second, set goals that are explicit and enduring (though they may have to be updated in light of a changing

environment). Impact would be limited if the village residents consumed clean water for just a few years; to achieve a significant positive change in their health, they would need access to clean water over decades.

### Monitoring progress

Just as important as setting goals is identifying and adapting key performance indicators (KPIs) in order to measure the achievement of specific targets, be they financial or social. While we know how to measure sales, revenue growth, and return on assets, no widely accepted metrics currently exist for many social goals (although more progress has been made on measuring environmental impact). Nonetheless, it is possible to set both financial and social KPIs successfully. Our research has found that companies succeed by dedicating substantial time and effort to developing a manageable number of trackable metrics during the goal-setting process and revisiting them regularly to assess their continuing relevance and adequacy.

At Grameen Veolia Water, managers consulted with members of the rural communities they sought to serve and with academic experts before formalizing four KPIs: the company's self-financing ratio (its ability to fund planned investments from its own resources), the number of villagers with access to its services, the rate of rural penetration, and the rate of rural regular consumption (which captures both financial and social performance). The four numbers are updated monthly to monitor operations, and the board discusses them quarterly to guide strategic decision making.

A learning mindset is essential for developing and using KPIs. A willingness to experiment and change on the basis of experience, whether their own or others', helps businesses better understand social problems and how to address them. Dimagi's approach to setting social performance metrics exemplifies this mindset. Founded in 2002 and led by Jonathan Jackson, one of its cofounders, Dimagi provides software that NGOs and governments can use to develop mobile apps for frontline health-care workers in developing countries. At first Dimagi's primary social metric was the number of active users, which was meant to indicate how many people the technology positively affected. Jackson hoped to improve this metric, because it failed to distinguish between those who actually used the data to improve service delivery to patients and those who collected but did nothing with it.

The company formed a dedicated impact team to refine the social KPI. After exploration, the team created a metric —"worker activity months"—to measure the number of health care providers who were actually applying Dimagi's technology, and it implemented internal data systems to track the metric across all projects. But Jackson soon realized that this, too, was flawed, because the outcome was beyond Dimagi's control: How workers used the software depended more on the actions of Dimagi's clients —NGOs and governments—than on its own.

After reaching out to other social enterprises for advice, Jackson reverted to the number of active users as the company's primary social barometer, yet combined it with a new entity—an impact review team—that focused on qualitative quarterly analyses and discussions about the impact of all projects. These reviews ensure that a team doesn't focus unduly on the quantifiable aspects of a project (revenue, costs, completion dates) but also explores the effectiveness of its service delivery and how that could be improved to better support frontline health-care workers. The team discusses indirect forms of impact as well, such as helping organizations assess their readiness for digitization.

Other successful businesses also complement KPIs with in-depth qualitative assessments of their social performance. For example, the Brazilian impact investing firm Vox Capital hired Jéssica Silva Rios, an executive dedicated to understanding and measuring its impact, and recently made her a full partner. Some companies also incorporate external social indicators developed by independent NGOs such as the Global Reporting Initiative, the Sustainability Accounting Standards Board, and B Lab. For example, Vox Capital monitors whether its rating from the Global Impact Investing Rating System is above average in comparison with other funds in developing markets and adjusts the fees it charges investors accordingly.

## Structuring the Organization

It's virtually impossible to succeed on financial and social fronts over the long run if the company isn't designed to support both. Achieving an effective design requires that you think about which organizational activities create economic value and which create social value, how those

activities relate to one another, and how you'll try to balance them.

Aligning activities and structure

Some activities create social and economic value at the same time. Others create predominantly one kind of value.

For activities that create both kinds, an integrated organizational structure usually makes sense. Otherwise the activities are often best managed separately.

Revolution Foods, founded in 2006 by Kristin Richmond and Kirsten Tobey, provides nutritious lunches to low-income students in the United States. Richmond and Tobey created the company to serve a social purpose, having witnessed how poor food options hold kids back in underfunded schools. Every time they sell a healthful meal to a school, two things happen: They enhance a child's health, and they make money. Their core activity thus creates both kinds of value. As a result, they opted for an integrated structure, with a single manager in charge of operational efficiency, business growth, and the promotion of child well-being. Account managers often engage students in nutrition education (either directly or through community organizations), introducing them to new foods

and collecting their feedback on taste. The exposure to healthful foods enhances the long-term wellness of students and supports sales at the same time.

In contrast, the French company ENVIE learned over time that it needed to decouple the two kinds of activities. Launched in 1984, it had the goal of reintegrating long-term unemployed people into the job market by hiring them on two-year contracts to collect and repair used appliances for sale in secondhand shops. The company also provides support and training in how to repair appliances, how to look for a job, how to write a CV, and how to interview. The resale of appliances is what creates economic value. The training to enhance individuals' ability to find jobs outside ENVIE creates social value, but it doesn't make the company more profitable—in fact, it increases costs.

In the early years, staff members were asked to do two jobs: give beneficiaries technical guidance on how to repair or dismantle appliances (economic value) and provide them with social support (social value). However, it was difficult to find supervisors with both social and technical expertise. Even when they had both, the supervisors struggled to balance the two dimensions of their jobs. ENVIE's founders accordingly decided to set up separate

organizational units, one for social support and one for repair, to be overseen by social workers and technical experts respectively. This increased the company's effectiveness in generating both kinds of value.

Creating spaces of negotiation

The rub is that tensions inevitably arise—particularly in differentiated structures. Left unattended, they can bring an organization to a halt. The Bolivian microlender Banco Solidario provides a cautionary example. In the 1990s constant resentment and fighting between bankers (concerned with fees and efficiency) and social workers (concerned with the affordability of loans and the livelihoods of microentrepreneurs) essentially froze the company. Loan officers quit left and right, the number of active borrowers plummeted, and the profit margin dropped. We've found that successful dual-purpose companies avoid such paralysis by supplementing traditional organizational structures with mechanisms for surfacing and working through tensions. These mechanisms don't make the tensions disappear—rather, they bring them into the open by letting employees actively discuss trade-offs between creating economic value and

creating social value. Such deliberation provides a powerful safety valve and can speed up effective resolution.

Consider Vivractif, another French work-integration company. Founded in 1993, it hires and trains the longterm unemployed at recycling facilities. Those responsible for achieving one kind of goal or the other at the company often did not see eye to eye. While production supervisors managed workers to meet recycling targets, social workers were eager to take them away from the floor for mentorship and job-search training. The company set up quarterly meetings between the two groups so that they could discuss each beneficiary's progress and bring up coordination issues. Joint work planning allowed both to share important deadlines (such as for commercial deliveries or social trainings) and to find joint solutions to scheduling conflicts. This improved productivity and furthered the company's social goals.

Spaces of negotiation can be successful in large companies as well. In one multinational cooperative bank headquartered in Europe, decision makers representing each of the local branches collectively make strategic decisions only after iterative debate, during which different

groups of employees are responsible for championing either the social or the financial objectives of the organization. When individuals speak up about issues, their assigned roles prevent tensions from becoming personal.

## Hiring and Socializing Employees

Embedding a dual-purpose focus in an organization's DNA requires a workforce with shared values, behaviors, and processes. Hiring and socialization are crucial to getting that right.

### Hiring

Employees in a company that pursues dual goals tend to be successful when they understand and connect with both the business and the social mission. We've seen companies mobilize such people by recruiting three types of profiles: hybrid, specialized, and "blank slate."

Hybrid individuals arrive equipped with training or experience in both business and social-value fields, such as environmental science, medicine, social work, and so forth. Such people are able to understand issues in both camps and can connect with employees and other stakeholders of either orientation.

Jean-François Connan is a good example. He was recruited in the late 1980s by Adecco, one of the largest temp work groups in the world, because he had training in industrial maintenance and human resources and experience as a teacher and a mentor for at-risk youth. The company hired him to help address a long-standing problem: A large number of its temp workers lacked strong qualifications. Connan played a leading role in building a dual-purpose subsidiary for Adecco that helps the longterm unemployed reenter the job market by hiring them for temp jobs. His background lets him interact seamlessly with Adecco leaders and corporate clients as well as with local partners (such as nonprofits dedicated to youth mentorship) and those whom they seek to serve. Now he is the company's head of responsibility and social innovation.

But hybrid employees aren't always available and may not always be the best fit. Dual-purpose corporations often hire *specialized* talent, which allows them to tap into deep expertise and networks in each area. The main weakness of this approach is that it is more likely to result in conflict between groups, which may not understand each other's norms, vocabularies, and constraints—especially if the organization separates economic activities from social ones.

As a result, tensions and turnover in these companies tend to be higher than in those with an integrated structure, producing a negative effect on the bottom line.

To mitigate this at Dimagi, Jackson explains the primacy of the organization's social purpose on his very first recruitment call with a technical expert (such as a software developer). After hiring, he creates opportunities for the expert to learn about the social business through formal talks, informal office interactions, and even face-to-face fieldwork in the underserved communities with which Dimagi works. Vox Capital, too, has hired managers with technical capabilities (such as fund management) and no experience in a social-mission-driven environment. Yet it systematically screens applicants for their ability to embrace and thus adapt to the company's hybrid culture.

When companies recruit *blank slate* individuals, who have experience in neither business nor the social sector, they put them in entry-level jobs and help them acquire dual values and skills. The Bolivian microcredit lender Los Andes S.A. Caja de Ahorro y Préstamo, founded in 1995, took this approach, hiring university graduates with hardly any professional experience to become loan officers. The sense was that they would embrace a hybrid organizational

culture more readily than experienced employees might. Of course, this approach has limitations. Taking inexperienced staffers into an organization may lower productivity. It also requires a considerable investment in training.

Although recruitment strategies obviously must be adapted to specific HR needs, we have observed that hybrid employees tend to be particularly well-suited for managerial and coordination positions; specialists can contribute useful expertise as middle managers in differentiated structures; and blank slates do best in entry-level jobs, where training won't be too challenging.

### Socialization

Once people are on board, socializing them can be daunting. Every employee needs to understand, value, and become capable of contributing to both financial and social goals in some form.

Formal approaches to socialization may include companywide events such as annual general assemblies and retreats where dual goals and values are explained, discussed, assessed, and put into perspective. Dedicated trainings can remind employees—particularly those who specialize in just one sector—of the interconnectedness of

revenue-generating and social-value-creating activities.

Job-shadowing programs and other forms of experiential training can also purposefully bring different groups together. At Vivractif social workers spend at least one day a year alongside recycling supervisors, and vice versa, so that each can learn and relearn about the company from the other perspective.

Another example comes from Oftalmología salauno, a Mexican company cofounded in 2011 by Javier Okhuysen and Carlos Orellana to provide high-quality, low-cost eye care to people who can't otherwise afford it. Although the pair saw economic goals and social goals as connected, they observed that some doctors focused only on patient care, and some managers considered only costs. So they formulated a set of core tenets and shared them at a daylong training for all employees, which clarified the interrelatedness of the company's financial and social aspects and gave employees a shared language for discussing tensions. Okhuysen and Orellana later instituted such sessions for new hires and continue to reinforce the training content in day-to-day interactions.

Spaces of negotiation can be valuable informal socialization opportunities, too. At Vox Capital a weekly

time slot allows anyone to pose a question if he or she feels that the company's practices don't align with the organizational mission and values or is witnessing financial-social tradeoffs. Employees haven't shied away from tough topics. Some have asked whether its investment portfolio sufficiently emphasizes the social missions of the businesses, while others have questioned whether the company's approach to raising capital is ethical.

Such conversations pushed cofounder Daniel Izzo to think critically about Vox's principles. "First I thought, It doesn't matter as long as [investors] don't have a say in what we do," he says. "But then someone asked, 'Would you take a drug lord as an investor?' Of course not. So there is a line. But where do we draw it? Do you take money from companies involved in corruption scandals in Brazil? Or from sons and daughters of top executives in those companies?"

Similarly, Bernardo Bonjean, who founded the Brazilian microfinance organization Avante in 2012, instituted a monthly breakfast where employees could come together and ask him questions. He also shares what's on his mind in letters to employees, discussing everything from the

company's KPIs to his concerns about cash flow in the coming months. Okhuysen and Orellana put posters showing a matrix of Oftalmología salauno's four core tenets—commitment, service, reach, and value—in every meeting room. They can refer to these tenets when decision points arise, supporting a shared language among employees.

To encourage questions from employees, it's important to create an environment where people feel safe raising contentious issues. And when employees see changes in thinking and processes result from these discussions, they know that what they say is valued.

Events and conversations aren't the only ways to socialize employees. Promotion and compensation are also important. At the multinational cooperative bank mentioned above, being promoted to general director of a local branch requires excelling in business development, cost reduction, and profit making while also demonstrating a clear adherence to the company's social goals and a willingness to work collaboratively. One candidate for promotion commented, "I have seen many brilliant people fail because they did not embrace our values enough."

Vox Capital, like several other companies we studied, bases individual bonuses on both financial and social performance. Furthermore, Izzo is clear that he does not want the economic inequality that Vox is trying to redress in Brazil reproduced inside the company itself, so the maximum difference between employees' highest and lowest salaries and bonuses is capped at a multiple of 10. (In the United States in 2017 the average ratio of CEO-toworker compensation was 312:1, according to the Economic Policy Institute.) Other companies, such as Revolution Foods, use shared ownership to motivate employees and increase their commitment to dual performance. Any full-time employee can become a shareholder through stock options. Richmond and Tobey believe that sharing ownership with employees, many of whom live in the low-income communities the company serves, is integral to their social mission.

## **Practicing Dual-Minded Leadership**

Leaders must manage the tensions that inevitably crop up on the path to achieving dual goals. These tensions often involve competition for resources and divergent views about how to reach those goals. Leaders must affirm, embody, and protect both the financial and the social side and address tensions proactively.

### Making decisions

Strategic decisions should embody dual goals. Whereas goals reflect aspirations, decisions provide real evidence of leaders' commitment to achieving specific aims. The experience of François-Ghislain Morillon and Sébastien Kopp is a good example.

Morillon and Kopp created Veja in 2004 to sell sneakers made under fair trade and environmentally friendly conditions in small cooperatives in Brazil. When they realized that advertising accounted for 70% of the cost of a typical major brand's sneakers, they made the bold decision not to advertise at all. That allowed them to sell sneakers at a price comparable to what their bigger competitors asked despite having production costs five to seven times as high. To make up for the absence of traditional advertising, the company formed strategic partnerships with high-end fashion brands such as agnès b. and Madewell and stores such as the Galeries Lafayette to increase media exposure, grow sales, and become profitable.

At first Veja's clients—shoe retailers accustomed to the marketing of major sneaker brands—were skeptical. So Veja trained salespeople to educate them about the benefits of its product for people and the environment. Clients and the media now view the "zero ads" decision as evidence of the founders' commitment to their social goals, ultimately both giving the company social impact and making it profitable.

Morillon and Kopp also decided to temper the company's growth, despite increasing consumer demand in the United States. They refused to lower their fair trade and environmental standards to sell more shoes. Instead they decided to set production targets in keeping with the capacity of their fair trade partners while working closely with them to increase that capacity, ensuring a growth rate compatible with financial sustainability. That decision demonstrated, to employees in particular, the genuine commitment of Veja's leaders to their dual goals. In making bold decisions, the cofounders both emphasized the company's priorities and created the conditions for achieving them. They also showed that it's possible to avoid one of the most common pitfalls for dual-purpose

companies: prioritizing profits over society when the pressure is on.

Profit allocation is another important area of strategic decision making. Dividends can be capped to ensure that financial goals don't overshadow social ones. When founding Oftalmología salauno, Okhuysen and Orellana pledged to reinvest 100% of their profits for at least seven years, so the investors they selected—a social impact fund, the World Bank, and a private wealth-management fund—knew that no dividends would be paid during that time. Okhuysen explains: "Our investors ultimately expect both financial and social returns on their capital. But the alignment between us around reinvesting profits to improve and grow our network of eye-care clinics has helped ensure that financial goals do not take precedence over our social purpose."

#### Engaging the board

In successful hybrid companies, board members serve as guardians of the dual purpose. Thus they must collectively bring a combination of business and social expertise to the table. Diversity on the board is important for drawing the organization's attention to both social and financial goals,

yet it increases the risk of conflict, because members with different perspectives are more likely to differ as to the best course of action. We have seen some companies experience near-paralyzing governance crises when socially and commercially minded board members with similar levels of influence strongly disagree.

Yet other companies have managed to avoid such crises because a chair or an executive director systematically bridged gaps between the two groups. By fostering regular interactions and information sharing between them, such leaders enabled the groups to develop mutual understanding. Recall the subsidiary Jean-François Connan founded at Adecco. He invited representatives from prominent local nonprofits to join the board as minority shareholders, enabling the company to benefit from their social expertise, networks, and legitimacy and helping to protect the company's social mission. His hybrid experience put Connan in a good position to bridge the gap between the two groups of directors, fostering common ground by constantly reminding each of the importance of the other.

Some major roadblocks to dual-purpose organizing are outside a company's control. Chief among them is that the business ecosystem is still set up to prioritize the creation of shareholder wealth. The Global Reporting Initiative, the Sustainability Accounting Standards Board, and B Lab, among others, have taken steps to overcome some of these barriers. Each of them has created metrics for tracking companies' impact on the lives of employees and customers, the communities served, and the environment, providing organizations with benchmarks. What is at stake is ensuring that companies don't pick and choose areas of social focus on the basis of convenience.

Rating agencies are only one part of the ecosystem, however. Although more changes are under way—such as awarding legal status to public benefit corporations in the United States, community interest companies in the United Kingdom, and *società benefit* in Italy—the regulations, educational standards, investment models, and norms that govern the production of economic value and social value are still mostly distinct from one another. As an increasing number of companies engage in hybrid organizing, the systems that support business also need to change.

But changing organizations and the ecosystem that surrounds them is difficult. Companies must fight the inertia of inherited ways of thinking and behaving. Tradeoffs and tensions are inevitable, and success is more likely when leaders address them head-on. The four levers we have outlined are meant to help.

Originally published in March-April 2019. Reprint R1902K

## How CEOs Manage Time

by Michael E. Porter and Nitin Nohria

IN THE LEXICON OF MANAGEMENT, the CEO is the epitome of leadership. Yet surprisingly little is known about this unique role. While CEOs are the ultimate power in their companies, they face challenges and constraints that few others recognize.

Running a large global company is an exceedingly complex job. The scope of the organization's managerial work is vast, encompassing functional agendas, business unit agendas, multiple organizational levels, and myriad external issues. It also involves a wide array of constituencies—shareholders, customers, employees, the board, the media, government, community organizations, and more. Unlike any other executive, the CEO has to engage with them all. ...

#### When No One Retires

### by Paul Irving

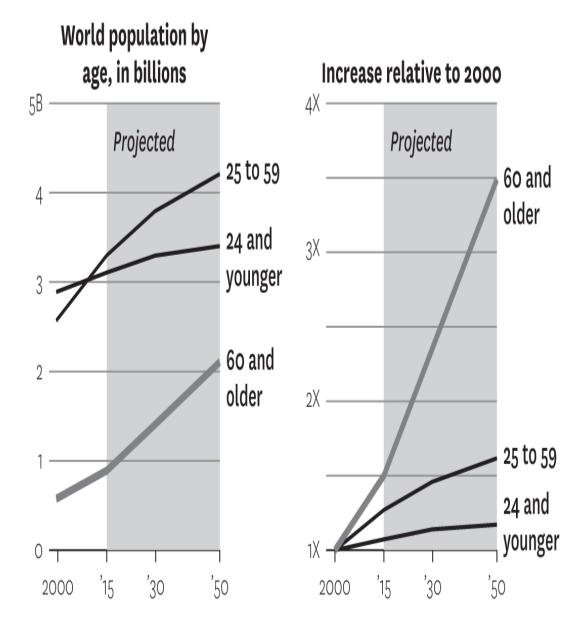
BEFORE OUR EYES, THE WORLD is undergoing a massive demographic transformation. In many countries, the population is getting old. Very old. Globally, the number of people age 60 and over is projected to double to more than 2 billion by 2050 and those 60 and over will outnumber children under the age of 5. In the United States, about 10,000 people turn 65 each day, and one in five Americans will be 65 or older by 2030. By 2035, Americans of retirement age will eclipse the number of people aged 18 and under for the first time in U.S. history.

The reasons for this age shift are many—medical advances that keep people healthier longer, dropping fertility rates, and so on—but the net result is the same:

Populations around the world will look very different in the decades ahead.

Some in the public and private sector are already taking note—and sounding the alarm. In his first term as chairman of the U.S. Federal Reserve, with the Great Recession looming, Ben Bernanke remarked, "In the coming decades, many forces will shape our economy and our society, but in all likelihood no single factor will have as pervasive an effect as the aging of our population." Back in 2010, Standard & Poor's predicted that the biggest influence on "the future of national economic health, public finances, and policymaking" will be "the irreversible rate at which the world's population is aging."

### The world is getting older



Source: United Nations, "World Population Prospects: The 2015 Revision."

This societal shift will undoubtedly change work, too:
More and more Americans want to work longer—or have
to, given that many aren't saving adequately for retirement.
Soon, the workforce will include people from as many as

five generations ranging in age from teenagers to 80-somethings.

Are companies prepared? The short answer is "no."
Aging will affect every aspect of business operations—
whether it's talent recruitment, the structure of
compensation and benefits, the development of products
and services, how innovation is unlocked, how offices and
factories are designed, and even how work is structured—
but for some reason, the message just hasn't gotten
through. In general, corporate leaders have yet to invest the
time and resources necessary to fully grasp the
unprecedented ways that aging will change the rules of the
game.

What's more, those who do think about the impacts of an aging population typically see a looming crisis—not an opportunity. They fail to appreciate the potential that older adults present as workers and consumers. The reality, however, is that increasing longevity contributes to global economic growth. Today's older adults are generally healthier and more active than those of generations past, and they are changing the nature of retirement as they continue to learn, work, and contribute. In the workplace, they provide emotional stability, complex problem-solving

skills, nuanced thinking, and institutional know-how. Their talents complement those of younger workers, and their guidance and support enhance performance and intergenerational collaboration. In encore careers, volunteering, and civic and social settings, their experience and problem-solving abilities contribute to society's well-being.

### Idea in Brief

Before our eyes, the world is undergoing a massive demographic transformation. In many countries, the population is aging rapidly. In the United States, about 10,000 people turn 65 each day, and one in five Americans will be 65 or older by 2030. This societal shift will affect every aspect of business operations, but corporate leaders have not yet grasped the unprecedented ways that an aging workforce will change the rules of the game. Those who *do* think about the impacts typically see a looming crisis—not an opportunity. This article helps companies develop a "longevity strategy" for fostering a vibrant multigenerational workforce.

In the public sector, policy makers are beginning to take action. Efforts are under way in the United States to reimagine communities to enhance "age friendliness,"

develop strategies to improve infrastructure, enhance wellness and disease prevention, and design new ways to invest for retirement as traditional income sources like pensions and defined benefit plans dry up. But such efforts are still early stage, and given the slow pace of governmental change they will likely take years to evolve.

## The Big Idea: The Aging

#### Workforce

"When No One Retires" is the lead article of HBR's **The Big Idea: The Aging Workforce.** Read the rest of the series at hbr.org/aging:

- "Rethinking Retraining," by Willy C. Shih, Howard Rudnick, and Colleen Tapen
- "Caring for Your Company's Caregivers," by Sarita Gupta and Ai-Jen Poo
- "Retirement-Proof Your Company," by Peter Berg and Matt Piszczek
- "Just How Old Are We Getting?" by Ramsey Khabbaz and Matt Perry

 "What Happens to Younger Workers When Older Workers Don't Retire," by Nicola Bianchi, Jin Li, and Michael Powell

Companies, by contrast, are uniquely positioned to change practices and attitudes *now*. Transformation won't be easy, but companies that move past today's preconceptions about older employees and respond and adapt to changing demographics will realize significant dividends, generating new possibilities for financial return and enhancing the lives of their employees and customers. I spent many years in executive management, corporate law, and board service. Based on this experience, along with research conducted with Arielle Burstein, Kevin Proff, and other members of our staff at the Milken Institute Center for the Future of Aging, I have developed a framework for building a "longevity strategy" that companies can use to create a vibrant multigenerational workforce. Broadly, a longevity strategy should include two key elements: internal-facing activities (hiring, retention, and mining the talents of workers of all ages) and external-facing ones (how your company positions itself and its products and services to customers and

stakeholders). In this article, I'll address the internal activities companies should be engaging in.

But first, let's examine why leaders seem to be overlooking the opportunities of an aging population.

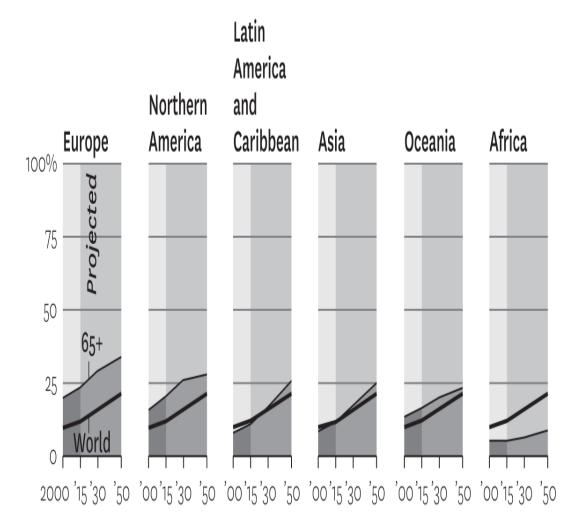
### The Ageism Effect

There's broad consensus that the global population is changing and growing significantly older. There's also a prevailing opinion that the impacts on society will largely be negative. A Government Accountability Office report warns that older populations will bring slower growth, lower productivity, and increasing dependency on society. A report from the Congressional Budget Office projects that higher entitlement costs associated with an aging population will drive up expenses relative to revenues, increasing the federal deficit. The World Bank foresees fading potential in economies across the globe, warning in 2018 of "headwinds from ageing populations in both advanced and developing economies, expecting decreased labour supply and productivity growth." Such predictions serve to further entrench the belief that older workers are an expensive drag on society.

What's at the heart of this gloomy outlook? Economists often refer to what's known as the dependency ratio: the number of people not typically in the workforce—those younger than 15 and older than 65—in a population divided by the number of working-age people. This measure assumes that older adults are generally unproductive and can be expected to do little other than consume benefits in their later years. Serious concerns about the so-called silver tsunami are justified if this assumption is correct: The prospect of a massive population of sick, disengaged, lonely, needy, and cognitively impaired people is a dark one indeed.

#### The global aging phenomenon

#### Projected breakdown of world population, by region



Note: Northern America consists of Canada and the United States. Source: United Nations, "World Population Prospects: The 2015

Revision."

This picture, however, is simply not accurate. While some older adults do suffer from disabling physical and cognitive conditions or are otherwise unable to maintain an active lifestyle, far more are able and inclined to stay in the game longer, disproving assumptions about their prospects for work and productivity. The work of Laura Carstensen and her colleagues at the Stanford Center on Longevity shows that typical 60-something workers today are healthy, experienced, and more likely than younger colleagues to be satisfied with their jobs. They have a strong work ethic and loyalty to their employers. They are motivated, knowledgeable, adept at resolving social dilemmas, and care more about meaningful contributions and less about self-advancement. They are more likely than their younger counterparts to build social cohesion and to share information and organizational values.

Yet the flawed perceptions persist, a byproduct of stubborn and pervasive ageism. Positive attributes of older workers are crowded out by negative stereotypes that infect work settings and devalue older adults in a youth-oriented culture. Older adults regularly find themselves on the losing end of hiring decisions, promotions, and even volunteer opportunities. Research from AARP found that approximately two-thirds of workers ages 45 to 74 said they have seen or experienced age discrimination in the workplace. Of those, a remarkable 92% said age discrimination is very, or somewhat, common. Research

for the Federal Reserve Bank of San Francisco backs this up. A study involving 40,000 made-up résumés found compelling evidence that older applicants, especially women, suffer consistent age discrimination. A case in point is IBM, which is currently facing allegations of using improper practices to marginalize and terminate older workers.

There's more: Deloitte's 2018 Global Human Capital Trends study found that 20% of business and HR leaders surveyed viewed older workers as a competitive disadvantage and an impediment to the progress of younger workers. The report concludes that "there may be a significant hidden problem of age bias in the workforce today." It also warns that "left unaddressed, perceptions that a company's culture and employment practices suffer from age bias could damage its brand and social capital."

The negative cultural overlay about aging is reinforced by media and advertising that often portray older adults in clichéd, patronizing ways. A classic example is Life Alert's ad from the 1980s for its medical alert necklace, immortalizing the phrase "I've fallen, and I can't get up!" Recent ads by E\*TRADE and Postmates have also drawn criticism as ageist. A more subtle, but just as damaging

example is the trumpeting of "anti-aging" benefits on beauty products as a marketing tool, suggesting that growing older is, by definition, a negative process.

Some companies are pushing back: In a recent video, T-Mobile's John Legere took on the topic of ageist stereotypes while promoting a T-Mobile service for adults age 55-plus. He chided competitors for what he called their belittling treatment of older adults in marketing campaigns that emphasize large-size phone buttons and imply that boomers are tech idiots. "Degrading at the highest level," Legere calls it. "The carriers assume boomers are a bunch of old people stuck in the past who can't figure out how the internet works. News flash, carriers: Boomers invented the internet."

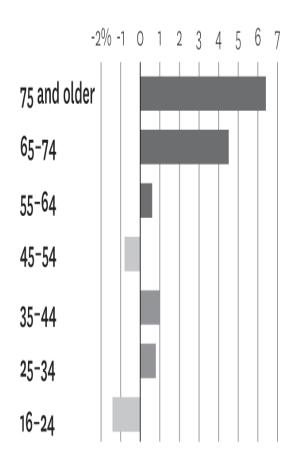
Yet for the most part, employers continue to invest far more in young employees and generally do not train workers over 50. In fact, many companies would rather not think about the existence of older workers all. "Today it is socially unacceptable to ignore, ridicule, or stereotype someone based on their gender, race, or sexual orientation," points out Jo Ann Jenkins, the CEO of AARP. "So why is it still acceptable to do this to people based on their age?"

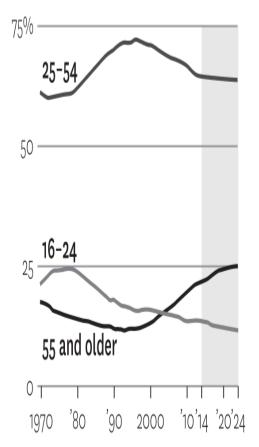
Over the past decades, companies have recognized the economic and social benefits of women, people of color, and LGBT individuals in the workforce. These priority initiatives must be continued—obviously, we're not even close to achieving genuine equality in the corporate world; at the same time, the inclusion of older adults in the business diversity matrix is long overdue. Patricia Milligan, senior partner and global leader for Mercer's Multinational Client Group, observes, "At the most respected multinational companies, the single class not represented from a diversity and inclusion perspective is older workers. LGBT, racial and ethnic diversity, women, people with physical disabilities, veterans—you can find an affinity group in a corporation for everything, except an older worker."

The U.S. labor force is getting older, too

# Projected average annual growth rate by age group, 2014 to 2024

## Breakdown by age group, 1970 to 2024





Source: U.S. Bureau of Labor Statistics.

## Managing a Multigenerational Workforce

How can companies push past stereotypes and other organizational impediments to tap into a thriving and talented population of older workers? A range of best

practices have been emerging, and some companies are making real progress. Each points to specific changes companies should be considering as they develop their own strategies.

#### Redefine the workweek

To start, you need to reconsider the out-of-date idea that all employees work Monday through Friday, from 9 to 5, in the same office. The notion that everyone retires completely by age 65 should also be jettisoned. Companies instead should invest in opportunities for creative mentorship, part-time work, flex-hour schedules, and sabbatical programs geared to the abilities and inclinations of older workers. Programs that offer preretirement and career transition support, coaching, counseling, and encore career pathways can also make employees more engaged and productive. Many older workers say they are ready to exchange high salaries for flexible schedules and phased retirements. Some companies have already embraced nontraditional work programs for employees, creating a new kind of environment for success. The CVS "Snowbird" program, for example, allows older employees to travel and work seasonally in different CVS pharmacy

regions. Home Depot recruits and hires thousands of retired construction workers, making the most of their expertise on the sales floor. The National Institutes of Health, half of whose workforce is over 50, actively recruits at 50-plus job fairs and offers benefits such as flexible schedules, telecommuting, and exercise classes. Steelcase offers workers a phased retirement program with reduced hours. Michelin has rehired retirees to oversee projects, foster community relations, and facilitate employee mentoring. Brooks Brothers consults with older workers on equipment and process design, and restructures assignments to offer enhanced flexibility for its aging workforce.

#### Reimagine the workplace

Your company should also be prepared to adjust workspaces to improve ergonomics and make environments more age-friendly for older employees. No one should be distracted from their tasks by pain that can be prevented or eased, and even small changes can improve health, safety, and productivity. Xerox, for example, has an ergonomic training program aimed at reducing musculoskeletal disorders in its aging workforce.

BMW and Nissan have implemented changes to their manufacturing lines to accommodate older workers, ranging from barbershop-style chairs and better-designed tools to "cobot" (collaborative robot) partners that manage complicated tasks and lift heavier objects. The good news is that programs that improve the lives of older workers can be equally valuable for younger counterparts.

#### Mind the mix

Lastly, you need to consider and monitor the age mixes in your departments and teams. Many companies will need to manage as many as five generations of workers in the near future, if they aren't already. Some pernicious biases can make this difficult. For example, research shows that every generation wants meaningful work—but that each believes everyone else is just in it for the money. Companies should emphasize workers' shared value. "Companies pursuing Millennial-specific employee engagement strategies are wasting time, focus, and money," Bruce Pfau, the former vice chair of human resources at KPMG, argues. "They would be far better served to focus on factors that lead all employees to join, stay, and perform at their best."

By tapping ways that workers of different generations can augment and learn from each other, companies set themselves up for success over the long term. Young workers can benefit from the mentorship of older colleagues, and a promising workforce resource lies in intergenerational collaboration, combining the energy and speed of youth with the wisdom and experience of age.

PNC Financial Group uses multigenerational teams to help the company compete more effectively in the financial markets through a better understanding of the target audience for products. Pharma giant Pfizer has experimented with a "senior intern" program to reap the benefits of multigenerational collaboration. In the tech world, Airbnb recruited former hotel mogul Chip Conley to provide experienced management perspective to his younger colleagues. Pairing younger and older workers in all phases of product and service innovation and design can create opportunity for professional growth. And facilitating intergenerational relationships, mentoring, training, and teaming mitigate isolation and help break down walls.

To begin this process, start talking to your employees of all ages. And get them to talk with each other about their

goals, interests, needs, and worries. Young and old workers share similar anxieties and hopes about work—and also have differences that need to be better understood companywide. Look for opportunities for engagement between generations and places where older and younger workers can support one another through skill development and mentorship. After all, if everyone needs and wants to work, we're going to have to learn to work together.

To be clear, all of these changes—from flexible hours to team makeup—will require a recalibration of company processes, some of which are deeply ingrained. Leaders must ask, do our current health insurance, sick leave, caregiving, and vacation policies accommodate people who work reduced hours? Do our employee performance-measurement systems appropriately recognize and reward the strengths of older workers? Currently, most companies focus on individual achievement as opposed to team success. This may inadvertently punish older employees who offer other types of value—like mentorship, forging deep relationships with clients and colleagues, and conflict resolution—that are not as easily captured using traditional assessment tools. Here, too, initiatives aimed at older

workers can benefit other workers as well. For instance, research suggests that evaluating team performance also tends to boost the careers of employees from low-income backgrounds.

#### **Turning a Crisis into an Opportunity**

I'm admittedly bullish about the positive aspects of working longer and believe that company leaders can harness the opportunity of an aging population to gain competitive advantage. But I'm not oblivious to the challenges a longevity strategy poses. We're talking about initiating a massive culture change for firms—a change that must come from the top.

But ignoring the realities of the demographic shift under way is no longer an option. CEOs and senior executives will need to put the issue front and center with HR leaders, product developers, marketing managers, investors, and many other stakeholders who may not have it on their radar screens. This will take guts and persistence: Leaders must bravely say, "We reject the assumption that people become less tech-savvy as they get older" and "We will fight the impulse to put only our youngest employees on

new initiatives." To genuinely make headway on this longrange issue, companies will have to make tough, and sometimes unpopular, decisions, especially in a world where short-term results and demands dominate leaders' agendas. But isn't that what great leaders do?

The business community has a chance to spearhead a broad movement to change culture, create opportunity, and drive growth. In doing so, companies will improve not only mature lives, but lives of all ages, and the prospects of workers for generations to come. This transformative movement to realize the potential of the 21st century's changing demography is the next big test for corporate leadership.

The Longevity Opportunity

by Paul Irving

AS THE GLOBAL POPULATION AGES, new consumer opportunities and markets will emerge. Every company should have a strategy for tapping into the needs, wants, and buying power of older customers.

In my previous article, I outlined the beginnings of an internal, employee-focused "longevity strategy" that organizations can use to reap the benefits of an aging workforce. In this one, I'll discuss its external, consumerfacing complement.

The market for products and services for older adults is already strong, and it will become even stronger. With distinct consumption habits and service needs, Americans over 50 accounted for \$7.6 trillion in direct consumer spending and related economic activity in 2015, and controlled more than 80% of household wealth, according to a 2016 joint report from Oxford Economics and AARP. Further, a 2010 AARP survey reveals that 90% of older adults say they want to be able to remain in their own homes as they age. Envisioning how communities will respond to the needs of aging people will keep many more of them in their homes and contributing to the economy. Bank of America Merrill Lynch projects that the global

spending power of those age 60 and over will reach \$15 trillion annually by 2020.

But the potential for forward-thinking companies goes beyond just an interesting business opportunity. Older adults are poised to shape consumer and capital markets in the years ahead. The McKinsey Global Institute concludes that the 60-plus population, one of the few engines of global economic growth, is on track to generate half of all urban consumption growth between 2015 and 2030. "The Longevity Economy is redrawing economic lines, changing the face of the workforce, advancing technology and innovations, and busting perceptions of what it means to age," states the Oxford Economics/AARP report.

Across industries, there are multiple avenues for offering products and services that make a difference in people's lives. In the health sector, "gray is the new black," a Reuters piece observed. New offerings in biotechnology, devices, pharmaceuticals, and care services all target older consumers.

Research reveals that older adults dominate spending in 119 of 123 consumer packaged goods categories, spend more in grocery stores and purchase more new cars than any other age group, and account for 80% of luxury travel.

The demographic is eager to spend on transportation, entertainment, food, and alcohol, representing an immense target market for fresh ideas and innovations.

The financial services industry has always catered to older people—primarily those planning for retirement. As customers and clients prepare for longer lives, retirement remains a powerful growth driver. But a financial market for older workers and entrepreneurs is rapidly expanding too. Driven by financial assets controlled by older investors, this segment of the longevity market simply cannot be ignored. People age 60 and over hold the majority of wealth worldwide and 70% of the disposable income in the U.S.

For most companies, longevity marketing is still in its early days. That must change. You need a strategy for older consumers, and identifying new opportunities and markets is just the first step. You and your employees also need to reconsider what you "know" about this population to avoid ageist and outdated messaging. Incorporate older employees into product planning, design, and communications to benefit from their experience and understanding. Use focus groups that include older

participants to test products and services before they make it to market.

While most companies are in the early stages of developing their strategies, it's worth exploring what some industry leaders are up to.

Philips and Nestlé have fundamentally shifted their businesses to capitalize on trends that are driven in many ways by the aging population. Both global companies have focused their futures on health and wellness, recognizing the massive opportunities ahead. In partnership with the Global Social Enterprise Initiative at Georgetown University's McDonough School of Business, Philips is developing new technologies that can meet the needs of its older customers, including connected care solutions, safety applications, and cognitive health innovations. Patients and their doctors will be able to see, monitor, and share vital health information through secure devices, for example. Nestlé is investing in personalized diet and nutrition initiatives, and is broadening its portfolio by buying or acquiring stakes in health supplement and pharmaceutical companies.

Best Buy, with its recent acquisition of GreatCall, the provider of connected health and personal emergency

services to the aging population, is focused on building relationships with older consumers. By gaining access to GreatCall's customer base, Best Buy can further penetrate the health services and monitoring business and grow through its supply chain efficiencies and marketing reach. Several analysts hailed the acquisition, praising Best Buy for recognizing the market's size and potential and the opportunity for a services business line to diversify the company's offerings and counterbalance the margin pressures on electronics products.

Bank of America Merrill Lynch is training its customerfacing workforce to understand the needs of its aging clients. The bank recognizes that increasing longevity leads to new health care choices, housing issues, and questions about retirement and financial security. In partnership with the USC Leonard Davis School of Gerontology (which I'm affiliated with), the company's longevity training program teaches financial advisers about older people's experiences, priorities, and goals.

Uber and Lyft have developed programs to provide rides for older adults through age-friendly web tools, apps, and phone systems. Recognizing the importance of mobility to health and well-being, both ride-hailing companies are creating partnerships and scaling up efforts to facilitate access and ease of use for older adults and their families and caregivers. For example, both companies are working with call services (Lyft with GreatCall and Uber with RideWith24) to make it easier for older adults to book rides.

Intel is working on internet-of-things software that flags health concerns, and projects such as enabling wearables to analyze and communicate health data faster than ever through 5G internet connections. And Nest has begun modifying its line of smart home products to help older adults continue to live independently.

These are just a few examples of the longevity market's prospects and possibilities.

Finally, as longevity strategies are developed and implemented, companies must consider not only how their products and services are designed but also how they are promoted. The power of media and advertising should be used to reflect realistic images of older adults instead of stereotypes. Older consumers do not want to be patronized, but they do want their needs acknowledged, and companies can do this while emphasizing both positive and real aspects of aging. While many companies have a long way

to go, some are getting it right. On the positive side, Unilever's Dove successfully employed its Pro-Age campaign, realizing significant market share increases. The smart marketing for Dannon's Activia yogurt is focused on the common issue of digestive health. And in 2017 *Allure* Magazine showed leadership when it announced that it would no longer use the term "anti-aging" to describe skin care or makeup.

We're still in the early stages of understanding what older consumers' needs are and how to address them. The aging population is diverse, and the answers are not simple; one size certainly does not fit all. But we do know that there's already a clear demand for products and services that can help people live longer, more-comfortable, and more-meaningful lives—and that are promoted without stigma or stereotype. This demand will grow rapidly in the coming decades, and companies that start meeting it now can reap a sizable dividend. It's a huge opportunity, one that will have benefits both to their bottom lines and to society.

Originally published on hbr.org in November 2018. Reprint BG1806

## About the Contributors

JULIE BATTILANA is the Joseph C. Wilson Professor of Business Administration at Harvard Business School and the Alan L. Gleitsman Professor of Social Innovation at Harvard Kennedy School.

ADAM BRANDENBURGER is the J.P. Valles
Professor at the Stern School of Business, Distinguished
Professor at the Tandon School of Engineering, and
faculty director of the Shanghai Program on Creativity +
Innovation at New York University.

**ALISON WOOD BROOKS** is an assistant professor at Harvard Business School.

**RYAN W. BUELL** is the UPS Foundation Associate Professor of Service Management at Harvard Business School.

**PAUL R. DAUGHERTY** is Accenture's chief technology and innovation officer. He is a coauthor of *Human + Machine: Reimagining ...* 

## Index

```
AARP, 169, 174–175
Acquisti, Alessandro, 7
Activia, 177
Adecco, 129, 135
Agassi, Shai, 72
ageism, 166–169
agendas, CEOs and, 143–146
agility
  benefits of, 102
  building across the business, 97–101
  getting started with, 91–97
  large-scale initiatives, 96–97
  leading, 88–91
  operating architectures and, 98–100
  scaling, 87–102
  sequencing the transition to, 93–96
  talent acquisition and motivation and, 100–101
aging population, 163–177
AI (artificial intelligence), 20–21, 43–59
  amplifying with, 47, 51
  assistants, 45–46
  embodying, 47, 52
  employee skills for working with, 58–59
```

```
fashion personalization and, 61–70
  humans assisting machines, 45–47
  humans explaining to, 45, 46
  humans sustaining, 45, 47
  interacting with, 47, 51–52
  machines assisting humans, 47–52
  operational transparency and, 103-120
  reimagining your business for, 52–58
  at Stitch Fix, 69–70
Aida virtual assistant, 51–52
Airbnb, 172
air rage incidents, 114
Alibaba, 20
Allure Magazine, 177
Alta Gracia, 117
Amazon, 85
  agility at, 88
  Alexa, 46
  automation at, 104
  initiative profitability at, 95
  Nest Labs and, 20
  operating architecture at, 98
  technology choices at, 74
Apple
  AI data collection by, 47, 59
  Nike and, 20
  Siri, 46
```

```
Watch, 20
Aravind Eye Hospital, 108–109
architectural strategy, 81–82
architectures, operating, 98–100
Aron, Arthur, 8
assumptions
  about aging workforce, 166-169
  about women in the workplace, 28–29, 31–32, 33, 37,
    39–41
  in agility and annual planning, 101
  identifying for strategy innovation, 17–19
  questioning, 39–41
ATMs, 103, 109
AT&T, 59
Audi, 23
Aulet, Bill, 83
authority, 160
Autodesk, 48, 51
Avante, 132
baggage tracking, 116
Bain, 100
Balliet, Daniel, 31
Banco Solidario, 127-128
Bank of America Merrill Lynch, 174, 176
Barasz, Kate, 12, 114
Barclays Bank, 103
```

```
Barden, Mark, 23
Battilana, Julie, 121–136
BBVA, 109
A Beautiful Constraint (Morgan & Barden), 23
Bernanke, Ben, 163
Bernstein, Ethan, 110-111, 113
Best Buy, 176
Better Place, 72
Bezos, Jeff, 74, 95
bias
  ageism, 166–169
  closed questions in introducing, 5, 7
  gender difference perceptions and, 27–42
  judgment of mistakes and, 35–36
  mistakes by women vs. men and, 32–33, 35–36
  multigenerational workforces and, 171–172
biomimetics, 24
B Lab, 126, 135
black-box problem, 46
blank slate individuals, 130
Blockbuster, 17–18, 63, 79
blockchain, 20
BMW, 20, 171
board members
  CEO time with, 157
  engaging, 134–135
Bonjean, Bernardo, 132
```

Bonobos, 22–23

Bosch, 90-91, 98

Boston government, 108

Brandenburger, Adam, 15–26

brand loyalty, 70

Brandt, Anthony, 19

Branson, Richard, 72

"Break Free from the Product Life Cycle" (Moon), 16

Brescoll, Victoria, 36

"Bringing Science to the Art of Strategy" (Lafley, Martin, Rivkin, & Siggelkow), 83

Brooks, Alison Wood, 1–13

Brooks Brothers, 171

budgeting cycles, 101

Buell, Ryan W., 103–120

bundling/unbundling, 18–19

Burstein, Arielle, 166

Business Model Generation (Osterwalder & Pigneur), 83

Byrnes, James, 32

Cable, Dan, 3–4

call centers, 109-110, 115

Cambridge Analytica, 115

cancer treatment, human/AI collaboration and, 48

capabilities, 74

career development

```
agility and, 100–101
  CEOs in, 151
  dual-purpose strategy and, 132–133
  multigenerational workforce and, 170–171
  for women vs. men, 29–30, 37–38, 39–40
Carnegie, Dale, 2
Carnival Corporation, 50, 58
Carstensen, Laura, 168
casino management, human/AI collaboration and, 49
CEOs
  accessibility of, 154
  agenda driven, 143–146
  all-consuming job of, 140–141
  alone time for, 154–155
  constituency management by, 155–156
  constraints and challenges facing, 137
  direct reports to, reliance on, 147–148
  executive assistants and, 144–145
  face-to-face interactions with, 141–143
  importance of successful, 162
  influence of, 157–160
  management mechanisms of, 149–151
  reactive, 144-145
  role of, 140, 157–161
  routine duties of, 146
  time in meetings, 151–155
  time management by, 137–162
```

```
time with investors, 156–157
  workday length of, 140
change
  resistance to, 19
  strategy innovation and, 19
Chun, Jinseok, 11
Citizens Connect, 108
cobots, 52, 171
co-creation, human/AI, 53
cognitive distance, 16
cognitive errors, 33
collaboration
  human/AI, 43–59
  intellectual property and, 76–78
  questioning in, 5, 6
  start-up strategy and, 76
Colson, Eric, 66–67
combination strategy, 16, 19–21
communication
  email, 142–143
  goals of, 2–3, 5, 6
  group dynamics and, 10–11
  listening in, 2
  power of questions in, 1–13
competition
  architectural strategy for, 81-82
  decisions about for start-ups, 74, 75
```

```
disruption strategy and, 78–80
  intellectual property and, 76–78
  questioning in, 5, 6
  trade-offs and strategy for, 76–77
  value chain strategy for, 80–81
confidence
  feedback and development of, 38
  myths about women and, 31–32, 34–35
confirmation bias, 33
conflict management, 127-128
Congressional Budget Office, 166–167
Conley, Chip, 172
Connan, Jean-François, 129, 135
constraints
  CEOs and, 159
  strategy innovation and, 16, 21–23
consumer protection, 46, 47
context
  strategy innovation and, 16–17, 24–25
  for women vs. men in the workplace, 30, 33, 38–40
contrast, strategy innovation and, 16, 17–19
Co-opetition (Nalebuff & Brandenburger), 20
corporate social responsibility, 121–136
  setting goals and monitoring progress in, 122–128
Cortana, 45–46, 51
Counter Culture Coffee, 117
creativity. See also innovation
```

```
human/AI collaboration and, 51
  identifying assumptions and, 17–19
  strategy and, 15–26
  tools to foster, 15–16
customers
  agility and, 101
  CEOs and finding time for, 155–156
  decisions about for start-ups, 74, 75
  disruption strategy and, 79
  focusing on experience of, 95–96
  operational transparency and, 103–104, 107–109
customer service, human/AI collaboration and, 49
CVS, 171
The Daily (podcast), 109
Daimler, 20
Dannon, 177
Danske Bank, 55
data science, at Stitch Fix, 65–70
Daugherty, Paul R., 43–59
DeCelles, Katherine, 114
decision making
  with dual-purpose strategy, 133–134
  human/AI collaboration and, 49, 51, 56–57
  for start-ups, 74–75
  in strategy selection, 83-84
Deepwater Horizon oil spill, 117
```

```
delegation, 140–141, 147, 151, 153
Deloitte, 168
DeLong, Tom, 141
de Mestral, George, 24
demographic transformation, 163–177
Denner, Volkmar, 90-91
dependency ratio, 167
Detroit Neighborhood Improvement Tracker, 109
differentiation, 81
digital twins, 57
Dimagi, 125–126, 130
Disciplined Entrepeneurship (Aulet), 83
disease prediction, human/AI collaboration and, 49
Disneyland, 114
disruption strategy, 78–80
diversity. See also women
  aging workforce and, 163–177
  on boards, 134–135
  judgment of mistakes and, 36
  promotion and retention rates and, 39–40
Dolby Laboratories, 77–78, 85
Domino's, 109, 112
DonorsChoose.org, 18
Dove, 177
Dreamcatcher, 51
dual-purpose strategy, 121–136
  employees for, 129–133
```

```
engaging the board in, 134–135
  leadership for, 133–135
  organizational structure and, 126-128
  roadblocks to, 135
  setting goals and monitoring progress in, 122–128
Duhigg, Charles, 16
Dwyer, Peggy, 32
Eagleman, David, 19
effect size, 40–41
Einstein, Albert, 13, 19
Ely, Robin J., 27–42
email, 142–143
emotional intelligence, questions in improving, 1
employees
  aging population and, 163–177
  CEO contact with, 148
  for dual-purpose strategies, 129–133
  multigenerational, 170–173
  operational transparency and, 109–112
  skills for collaboration with AI, 58–59
  socialization of, 130–133
entrepreneurial strategy compass, 72–77
  definition of, 72
  the four decisions in, 72–75
ENVIE, 127
environmental issues, 117
```

```
Equifax, 115
equipment maintenance, human/AI collaboration and,
    49, 57
ergonomic workplaces, 171
ethics. See also dual-purpose strategy
  AI and, 47
  dual-purpose strategy and, 131–132
  human/AI collaboration and, 59
  operational sustainability and, 116-118
E*TRADE, 169
executive assistants, 144–145
extreme-user strategies, 24–25
Facebook, 81–82, 115
failure, treatment of women vs. men for, 32-33, 35-36
family
  assumptions about women vs. men and, 28–29
  CEOs and time for, 145
fashion industry
  disruption strategy in, 79–80
  guideshops in, 22-23
  human/AI collaboration in, 50
  personalization in, 61–70
  Stitch Fix, 61–70
Federal Reserve Bank of San Francisco, 168
feedback, to women vs. men, 32–33, 36–37
financial services
```

```
agility in, 88
  aging population and, 175
  fraud detection, 48, 55
  human/AI collaboration and, 49, 51–52
  operational transparency in, 109
Fleiss, Jennifer, 79–80
flexibility, human/AI collaboration and, 48, 54–55
Frankenstein (Shelley), 21
fraud detection, human/AI collaboration and, 48, 55
fusion skills, 58–59
Gans, Joshua, 71–85
Gavetti, Giovanni, 16
gender and gender differences, 27–42
  explanations for, 32–37
  persistence of belief in, 33
  popular myths about, 31–32
  science on, 28–29
  Stitch Fix and, 65
General Data Protection Regulation (GDPR), 46, 47
General Electric (GE), 49, 57
Getty Images, 78
GGH Morowitz, 49
Gigster, 48
Gino, Francesca, 2–3
Global Human Capital Trends, 2018, 168
Global Impact Investing Rating System, 126
```

```
Global Reporting Initiative, 126, 135
Global Social Enterprise Initiative, 176
GNS Healthcare, 53
goals, setting social, 122–126
Gong.io, 9
Google, 81–82, 104, 118
Google Docs, 65
Google Duplex, 118
government, trust in, 107–108
Government Accountability Office, 166
Grameen Bank, 122
Grameen Veolia Water, 122–123, 125–126
Grant, Adam, 109–110
graphical user interface (GUI), 24
GreatCall, 176
group dynamics, questioning and, 10–11
guideshops, 22–23
Halifax, Nova Scotia, 113
Hastings, Reed, 79
have-to-dos, 146
HAX, 25
health, time for, 141
health care
  agility in, 94
  cancer treatment, 48
  disease prediction in, 49
```

```
human/AI collaboration in, 48, 49, 50, 53
  operational transparency in, 108–109, 119
Hieronymi, Felix, 90–91
Hill, Colin, 53
hiring
  for agility, 100-101
  asking questions in, 3–4
  for dual-purpose strategy, 129–130
Home Depot, 171
Horelik, Nick, 71–72
"How Strategists Really Think: Tapping the Power of
    Analogy" (Gavetti & Rivkin), 16
How to Win Friends and Influence People (Carnegie), 2
HR (human resources)
  hiring, asking questions in, 3–4
  human/AI collaboration in, 49-56
  recruiting for fusion skills, 58–59
  talent acquisition and motivation and, 100–101
  taxonomy of teams and, 93
HSBC, 48, 55
Hsiung, Brandon, 98–100
Huang, Karen, 2–3
Hybrid Designs, 68
hybrid individuals, 129, 130
hybrid organizations
  definition of, 122
  setting goals and monitoring progress in, 122–128
```

```
Hyman, Jennifer, 79–80
Hyundai, 52
IBM, 82
Icahn School of Medicine at Mount Sinai, 49
identity, 74
  disruption strategy and, 79
IDEO, 26
impression management, 2–3
influence, 142, 157–160
information
  CEOs' access to, 148
  management, AI and, 46, 47
  networks, connection to for women vs. men, 32, 34
    35
  questions for sensitive, 7, 8
ING Netherlands, 94
initiatives
  large-scale, mastering, 96–97
  operational transparency in, 118–120
  ownership of, 90
  sequencing, 93–96
innovation
  agile, scaling up, 87–102
  agile teams in, 88–91
  combination approach to, 19–21
  constraints approach to, 16, 21–23
```

```
context approach to, 16–17, 24–25
  contrast approach to, 16, 17–19
  by data science, 68–69
  questions in encouraging, 1
  in strategy, 15–26
Intel, 24, 177
intellectual property, 76–78
intelligence
  collaborative, 43–59
  emotional, 1
interviews, asking questions in, 3–4
investors, 156–157
Irving, Paul, 163–177
Izzo, Daniel, 131–132
Jackson, Jonathan, 125, 130
Jenkins, Jo Ann, 169
Jewel-Osco, 80–81
Jobs, Steve, 16
job shadowing, 131
John, Leslie K., 1–13, 107
Kalkanci, Basak, 117
Kayak, 105–106
key performance indicators (KPIs), financial and social,
     124–126
Kim, Tami, 110, 114
```

```
Kimsey, Marissa, 121–136
Kling, Kristen, 31–32
Koko, 46
Kopp, Sébastien, 133–134
KPIs. See key performance indicators (KPIs)
KPMG, 172
Lafley, A. G., 83
Lake, Katrina, 61–70
Lane, Julie, 11
leaders and leadership
  agile, 88–91
  agile teams and, 98
  aging workforce and, 173
  CEOs, time management by, 137–162
  dual-purpose strategy, 133–135
  operational transparency and, 104
  pipeline for, 151
  staying connected with other, 147–148
Leader Ventures, 62–63
lead-user strategies, 24–25
League of Legends, 98–100
The Lean Startup (Ries), 83
learning
  agility, 91–92, 95–96, 102
  easy wins and, 95–96
  with KPIs, 125
```

```
questions in encouraging, 1, 2–3
Legere, John, 169
legitimacy, 160
Lehman Brothers, 32
leverage, 159
Liebert, Carl, 93
Life Alert, 169
listening, 2
Livingston, Robert, 36
Loewenstein, George, 7
longevity strategy, 166, 173–177
Looma Project, 117
Los Andes S.A. Caja de Ahorro y Préstamo, 130
Lyft, 176–177
machine learning. See AI (artificial intelligence)
management. See also time management by CEOs
  of agile teams, 88–91
  with broad integrating mechanisms, 149–151
  of multigenerational workforces, 170–173
  by trust and empowerment vs. command and control,
    99–100
  of women vs. men, 39-41
Mariadassou, Shwetha, 116
Martin, Michael, 71–72
Martin, Roger L., 83
```

promoting continual, 40–41

```
Mason, Malia, 11
maternity leave, 29–30
Mazei, Jens, 31
McKinsey Global Institute, 26, 174–175
meetings
  CEO time in, 151–155
  management of, 145
  number and composition of attendees in, 153–154
  videoconferencing vs., 142–143
  women compared to men in, 35–36
Mercedes-Benz, 48, 54–55
Mercer's Multinational Client Group, 169
mere exposure effect, 33
meta-analysis, 40–41
metrics, 150–151
  for social goals, 124–126
  at Stitch Fix, 69
Michelin, 171
Microsoft, 45–46, 51, 82
Milken Institute Center for the Future of Aging, 166
Millennials, 172
Milligan, Patricia, 169
Minson, Julia, 2–3, 7
MIT Media Lab, 46
mobile payment platforms, 19–20
Mohan, Bhavya, 107
Moon, Youngme, 16
```

```
Morgan, Adam, 23
Morgan Stanley, 49
Morillon, François-Ghislain, 133–134
Musk, Elon, 17, 72, 98
Muthuram, Vidhya, 111
Nalebuff, Barry, 20
National Institutes of Health, 171
negotiation
  myths about women and, 31–32
  questioning in, 7
  spaces of, dual-purpose strategy and, 127-128, 131-
     132
  transparency vs. secrecy in, 11–12
Neiman Marcus, 80
Nest Labs, 20, 177
Nestlé, 176
Netflix, 18, 63, 67, 79
  agility at, 87–88
networks, connection to for women vs. men, 32, 34–35
New CEO Workshop, 138–139, 160–161
New Nordic Food manifesto, 23
New York Times, 109
Nike, 20
Nike+ iPod Sport Kit, 20
911 services, 71–72, 75, 83–84
Nissan, 171
```

Noble, Andy, 87–102 Nohria, Nitin, 137–162 Noma, 23 norms, gender, 33 Norton, Michael, 12, 105–106, 108, 114, 115 NPR, 109

Oberoi Hotels, 111–112 Ocean Medallion, 58 Oftalmología salauno, 131, 132, 134 Okhuysen, Javier, 131, 132, 134 online dating websites, 115 OpenTable, 75, 82 operating architectures, 98–100 operational transparency, 103–120 anxiety from, 113 backfires in, 112–118 benefits of, 105–109 deceptive, 117–118 definition of, 104–105 employees and, 109–112 how to reveal, 119-120 magic destroyed by, 114 relationships damaged by, 114 what to reveal in, 118–119 when to reveal, 119 opportunities, for women vs. men, 32, 34–35

```
Orellana, Carlos, 131, 132, 134
organizational culture
  aligning structure and, 150
  data science in, 62, 68–69
  decisions about for start-ups, 74, 75
  treatment of women vs. men and, 27-42
organizational structure
  agile teams and, 89–90, 97–98
  CEO time management and, 149–151
  dual-purpose strategy and, 126-128
  treatment of women vs. men and, 27-42
Osterwalder, Alexander, 83
Oxford Economics, 174–175
Pache, Anne-Claire, 121–136
Pandora, 57–58
Parthenon Group, 62
Patagonia, 121–122
PayPal, 17
Peapod, 80-81
performance
  human/AI collaboration and, 43-44, 48-50
  questions in improving, 1
performance appraisals
  agility and, 100–101
  multigenerational workforce and, 173
  of women vs. men, 30
```

```
personality traits, 33
personalization
  of ads, 114
  human/AI collaboration in, 50, 57–58
  at Stitch Fix, 61–70
Pew Research Center, 107
Pfau, Bruce, 172
Pfizer, 50, 172
Philips, 176
Pigneur, Yves, 83
Pizza Tracker, 109, 112
planning, agility and, 101
PNC Financial Group, 172
Porter, Ethan, 108
Porter, Michael E., 137–162
Postmates, 169
power, 160
Predix, 57
Premier Health Plans, 118
priorities
  agility sequencing and, 91–92
  sequencing initiatives and, 93–96
privacy
  answering questions and, 11–13
  human/AI collaboration and, 47, 59
  operational transparency and, 108–109
processes
```

```
CEO time management and, 149–151
  human/AI collaboration in, 52–58
  ineffective, operational transparency and, 115
  strategy innovation and, 25
productivity, human/AI collaboration and, 43–44
products
  designing, human/AI collaboration and, 48
  operational transparency and inferior, 116
  strategically combining/connecting, 19–21
Proff, Kevin, 166
profitability
  agility and, 95
  dual-purpose strategy and, 121–136
  strategy innovation and, 21
profit allocation, 134
public safety, human/AI collaboration and, 48
purpose, strategy choice and, 84
Qualcomm, 78
questions and questioning, 1–13
  answering, 11–13
  benefits of good, 2–4
  encouraging employee, 132
  follow-up, 5
  full-switch, 5
  group dynamics in, 10–11
  introductory, 5
```

```
mirror, 5
  new Socratic method for, 4–7
  open-ended vs. closed, 5, 7
  in sales, 9
  sequence in, 8–11
  tone in, 9–10
  types of, 5
Quick Lane Tire and Auto Center, 119
Raman, Ananth, 111
Ramdas, Kamalini, 108–109
Rana Plaza, Bangladesh, 117
Randolph, Marc, 79
RapidSOS, 71–72, 75, 83–84
R&D, context and innovation in, 25
recognition programs, 101, 132–133
recruiting
  for agility, 100–101
  for fusion skills, 58–59
  human/AI collaboration and, 49, 56
Reeves, Martin, 20–21
relationships. See also family
  CEOs in developing, 151
  human/AI collaboration and, 47, 51–52
  meetings and, 153–154
  operational transparency and, 114
  questioning in developing, 2, 4, 8–9
```

```
transparency and, 11–12
Rent the Runway, 79–80
research
  market, 73
  meta-analysis in, 40–41
  for setting social goals, 123-124
Revolution Foods, 126-127, 132-133
Richmond, Kristin, 126–127, 133
Ries, Eric, 83
Rigby, Darrell K., 87–102
Rios, Jéssica Silva, 126
Riot Games, 98–100
risk
  myths about women and, 31, 32
  questions in mitigating, 1
Rivkin, Jan W., 16, 83
robots, 52
Roche, 48
Rogers, Todd, 12–13
Rosette, Ashleigh, 36
Rumsfeld, Donald, 53
The Runaway Species (Brandt & Eagleman), 19
Saab, 96–97
Sadun, Raffaella, 138
sales
  operational transparency and, 107
```

```
power of questions in, 9
SAP, 95
scale
  agile at, 87–102
  human/AI collaboration and, 49, 54, 55–56
  personalization and, 61-70
Schwarz, Norbert, 8–9
Schweitzer, Maurice, 7
Scott, Erin L., 71–85
SEB, 51–52
secrecy, 11–13
Sengul, Metin, 121–136
Shell, Michelle, 113
Shelley, Mary Wollstonecraft, 21
Sidky, Ahmed, 99–100
Siggelkow, Nicolai, 83
silver tsunami, 167
Singapore government, 48
Slepian, Michael, 11
Smarter Faster Better (Duhigg), 16
social capital, 151
socialization of employees, 130–133
social responsibility. See dual-purpose strategy
software development, human/AI collaboration and, 48
Sonmez, Nazli, 108-109
SpaceX, 18, 102
Sparrow, Tammy, 95
```

```
specialized talent, 129–130
speed, 55
spontaneity, 145, 154
Spotify, 87–88
Standard & Poor's, 163
Starbucks, 58
start-ups
  architectural strategy for, 81–82
  choosing strategy for, 83–84
  competitive trade-offs and, 76–77
  context for learning and growth for, 25
  disruption strategy for, 78–80
  entrepreneurial strategy compass for, 72–77
  exploration and commercialization by, 71–72
  intellectual property and, 76–78
  strategy for, 71–85
  value chain strategy for, 80–81
Steelcase, 171
Stern, Scott, 71–85
Stitch Fix, 50, 61–70
  algorithms at, 65–70
  human stylists at, 69–70
  style profiles at, 66–67
Stop & Shop, 81
strategy
  analytical tools for, 15, 26
  architectural, 81–82
```

CEO time management and, 149 choosing, 83–84 combination approach to, 16, 19-21 competitive trade-offs and, 76–77 constraint approach to, 16, 21–23 context approach to, 16-17, 24-25 contrast approach to, 16, 17–19 creativity and, 15–26 disruption, 78-80 dual-purpose, 121–136 identifying assumptions in, 17–19 on intellectual property, 76–78 longevity, 166 for start-ups, 71–85 value chain, 80–81 sunshine laws, 107 supply chain sustainability, 116–117 SurveyMonkey, 65 surveys, 7 Sustainability Accounting Standards Board, 126, 135 sustainers, 45, 47 Sutherland, Jeff, 87–102 SWOT analysis, 22–23 symbolic influence, 160

taxonomy of teams, 92–93 teams

```
agile, 88–91
  interaction of with the organization, 97–101
  multigenerational, 171-172
  readiness of, 96
  taxonomy of, 92–93
  values and principles for, 97–98
technology
  architectural strategy and, 81–82
  collaborative intelligence with, 43–59
  combinatorial possibilities in new, 20–21
  customer perceptions of value and, 103–104
  decisions about for start-ups, 74, 75
  human combinations with, 20–21
  humans assisting machines, 45–47
  humans explaining to, 45, 46
  humans sustaining, 45, 47
  machines assisting humans, 47–52
  operational transparency and, 103–120
Templeton, Chuck, 82
Tencent, 19–20
Tesla, 22, 72, 98
Tessei, 110–111
3M Health Information Systems, 94, 95
time management by CEOs, 137–162
  agendas in, 143–146
  constituency management and, 155–156
  crises and, 144–146
```

```
delegation and, 140–141, 147, 151, 153
  face-to-face interactions and, 141–143
  management mechanisms and, 149-151
  meetings and, 151–155
  personal well-being and, 141
  reliance on direct reports and, 147–148
  research on, 138–139
  routine duties and, 146
Tinsley, Catherine H., 27–42
T-Mobile, 169
Tobey, Kirsten, 126–127, 133
tone, of questions, 9–10
Toyota, 98
train-cleaning service, 110–111
training
  agility and, 100–101
  for dual-purpose strategy, 131
  of machines by humans, 45–46
  for women vs. men, 38
transparency
  answering questions and, 11–13
  operational, 103–120
trash collection, 113
travel, 141
TravelFinder, 105–106
trust
  operational transparency and, 107
```

```
questions in encouraging, 1
Tsay, Chia-Jung, 110
```

```
Uber, 112, 176–177
Ueda, Daichi, 20–21
Unilever, 49, 56, 177
unknown unknowns, 53
UPS, 119
USAA, 88, 93
U.S. Department of Veterans Affairs, 119
```

```
value
  created by operational transparency, 108–109
  customer perceptions of, 103-104
  operational transparency and, 104–105
value chain, 18
  strategy for start-ups, 80–81
values, 97–98
  agile, 102
VanEpps, Eric, 7
Veja, 133–134
Velcro, 24
venture capital, 64–65
videoconferences, 142–143
video rental industry, 17–18, 63, 79
Virgin Trains, 49
Vivractif, 128
```

### Vox Capital, 126, 130, 131-132

```
Wagner, Sebastian, 95
Webvan, 80
WeChat, 19–20
WeChat Pay, 19–20
Wegner, Daniel, 11
Wilson, H. James, 43–59
women, 27–42
  alternative explanations for workplace
    accomplishments of, 37–38
  assumptions about family and, 28–29
  changing the context for, 38–40
  continual learning for, 40–41
  different treatment of, 27–42
  "fixing," 37
  parity of, failure to achieve, 27–28
  performance appraisals and, 30
  popular myths about, 31–32, 33
  questioning the narrative on, 37
  at Stitch Fix, 65
workforce, aging, 163-177
  ageism and, 166–169
  managing, 170–173
  as opportunity vs. crisis, 173–177
  stereotypes of, 167–169, 177
workweek, redefining for the aging workforce, 170–171
```

World Bank, 167

Xerox, 171

Yabe, Teruo, 111
Yeomans, Michael, 2–3
Yip, Jeremy, 7

Zheng, Yanchong, 116



## Invaluable insights always at your fingertips

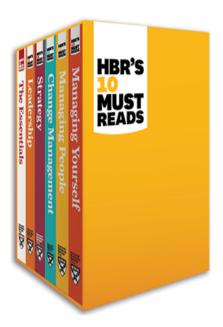
With an All-Access subscription to Harvard Business Review, you'll get so much more than a magazine.

## Exclusive online content and tools you can put to use today

My Library, your personal workspace for sharing, saving, and organizing HBR.org articles and tools

**Unlimited access** to more than 4,000 articles in the *Harvard Business Review* archive Subscribe today at hbr.org/subnow

# The most important management ideas all in one place.



We hope you enjoyed this book from Harvard Business Review.
Now you can get even more with HBR's 10 Must Reads Boxed Set.
From books on leadership and strategy to managing yourself and others, this 6-book collection delivers articles on the most essential business topics to help you succeed.

#### **HBR's 10 Must Reads Series**

The definitive collection of ideas and best practices on our most sought-after topics from the best minds in business.

- Change Management
- Collaboration
- Communication
- Emotional Intelligence
- Innovation
- Leadership
- Making Smart Decisions

- Managing Across Cultures
- Managing People
- Managing Yourself
- Strategic Marketing
- Strategy
- Teams
- The Essentials

#### hbr.org/mustreads

#### Buy for your team, clients, or event.

Visit hbr.org/bulksales for quantity discount rates.

