HUMANOCRACY

CREATING ORGANIZATIONS AS AMAZING AS THE PEOPLE INSIDE THEM

GARY HAMEL + MICHELE ZANINI

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Guide

"Rarely has the case for dismantling bureaucracy been made as effectively, passionately, and comprehensively. The time to start is now, and the book to read is *Humanocracy*, Hamel and Zanini's practical guide to creating work environments that give everyone the opportunity to flourish. This is essential to revitalizing our organizations and reinvigorating our economies."

—**BENGT HOLMSTRÖM**, Paul A. Samuelson Professor of Economics, Massachusetts Institute of Technology; 2016 Nobel laureate in Economics

"Hamel and Zanini have achieved two remarkable feats. They've produced one of the most cogent critiques of bureaucracy that I've ever read—explaining the many ways that bureaucratic organizations undermine human autonomy, resilience, and creativity. And they've issued a stirring call to do better—to build organizations that liberate the everyday genius of the people inside them. Packed with keen insights and practical guidance, *Humanocracy* is an essential book."

—**DANIEL H. PINK**, #1 *New York Times* bestselling author, *Drive* and *To Sell Is Human*

"*Humanocracy* provides the reader with a road map to helping organizations unleash creativity, energy, and resiliency through leveraging the core of every organization—humans."

—**GEN. STANLEY MCCHRYSTAL**, US Army, Ret.; author, *Team of Teams*

"*Humanocracy* is the most important management book I have read in a very long time. This is not just another book about the power of purpose or the joys of empowerment. Rather, it's a detailed, well-researched, data-driven, compellingly argued exposé on the massive costs of bureaucracy in society. Hamel and Zanini offer an equally compelling argument for why it doesn't have to be this way, complete with a practical guide for creating organizations that really work."

—AMY EDMONDSON, Professor, Harvard Business School; author, *The Fearless Organization*

"Almost all large organizations create a bureaucratic system for the sake of elusive safety. In reality, bureaucracy paralyzes the organization and frustrates employees. *Humanocracy* is a practical guide about how to escape this trap and unlock the hidden potential of large organizations and, most importantly, of their biggest asset, their employees."

—OLIVER BÄTE, Chairman and CEO, Allianz

"Great companies in today's highly dynamic world need to unleash the power of their people to multiply value and impact. *Humanocracy* presents a compelling handbook for how large organizations can reduce bureaucracy, create a highly engaged workforce, and build leaders that serve their people."

—VAS NARASIMHAN, CEO, Novartis

"If an organization has ever crushed your hopes and dreams, this book just might help to rejuvenate you. It's hard to imagine a better guide to busting bureaucracies and building workplaces that live up to the potential of the people inside them."

—**ADAM GRANT**, *New York Times* bestselling author, *Originals* and
 Give and Take; host, TED *WorkLife* podcast

"Hamel and Zanini have written a bold, essential guide to building an organization infused with the same spirit of creativity and entrepreneurship as the people who work there. Their 'post-bureaucratic' vision of work is not just timely but energizing."

—**ERIC RIES**, author, *The Lean Startup*

"Fast technology and business innovations call for a big overhaul of traditional bureaucratic organizations. *Humanocracy* provides a stimulating and inspiring framework for creating the innovative organizations of the future."

—**MING ZENG**, former Chief Strategy Officer, Alibaba Group; author,
 Smart Business

"*Humanocracy* makes the case for replacing chain of command with chain of trust and radical transparency. It's a prescription for unlocking game-changing innovation and the value of every individual."

—**MARC BENIOFF**, Chair and CEO, Salesforce; author, *Trailblazer*

"At last, a playbook to take a sledgehammer to bureaucracy. The reasons for bureaucracy have long vanished in the digital age—and yet it persists. Hamel and Zanini introduce us to an alternative that energizes people rather than crushing their souls, humanizing the organization for higher levels of accountability and impact."

—**DIANE GHERSON**, Chief Human Resources Officer, IBM

"For a business to perform its role of producing products and services that help people improve their lives, its employees must be fully empowered to continually improve their ability to contribute. This requires roles that fit their unique abilities and a culture that celebrates and rewards innovation, collaboration, challenge, and all the other elements of principled entrepreneurship. *Humanocracy* illustrates a basic condition for bringing this about—eliminating bureaucratic management. Such a change is not only essential for long-term business success but for a free and open society that gives everyone the opportunity to rise."

—**CHARLES G. KOCH,** Chairman and CEO, Koch Industries; founder, Stand Together; and author, *Good Profit*

"In *Humanocracy,* Hamel and Zanini challenge the old order and, simultaneously, show the path to creating a new and better order capable of achieving higher goals for businesses and the communities they serve.

At a time when the digital revolution is changing every aspect of human life, the authors rightly caution businesses that their change-resistant and often wasteful bureaucratic structures are a drag on their growth. Bureaucracy impedes employees' creativity, undermines their self-motivation, and hinders their workplace happiness.

Therefore, the need to transform business organizations into human-centric entities has become more pressing than ever before. How can we succeed in this task? I have found no better guide than *Humanocracy*—a book that every change-seeker and change-agent must read."

—**MUKESH AMBANI,** Chairman and Managing Director, Reliance Industries Limited; named one of Time 100: The Most Influential

"Hamel and Zanini argue that bureaucracy is soul-crushing, and they're right. With only 15 percent of the world's 1.4 billion full-time workers engaged at their jobs, we have to empower the individual or human beings will never bloom. Depending on you, this book can change the world a little or a lot."

—JIM CLIFTON, CEO, Gallup

"*Humanocracy* is a must-read to survive and prosper in the future. The book is a tour de force."

—VIJAY GOVINDARAJAN, Coxe Distinguished Professor, Tuck School of Business at Dartmouth; author, *The Three-Box Solution*

"Innovation is as important to how we organize ourselves as it is to what we make. *Humanocracy* shows how it is possible to unlock the passion and creative potential within our organizations and give ourselves a fighting chance of successfully tackling the most important challenges of our time."

—TIM BROWN, Chair, IDEO; author, *Change by Design*

"*Humanocracy* is a book about unleashing human potential by replacing bureaucracy with passion and creativity. A must-read for anyone who wants to build efficient human-centric organizations."

—JIM HAGEMANN SNABE, Chairman, Siemens AG; Chairman, AP Møller—Mærsk A/S; author, *Dreams and Details*

"*Humanocracy* thoughtfully outlines why the time has come for organizations to abandon their bureaucratic ways and bring humanity back into the workplace. I found myself nodding throughout the book

and thinking 'YES! This is it. This is the new management paradigm we've been needing for decades. Hamel and Zanini have done it!' "

—**JIM WHITEHURST**, President, IBM; author, *The Open Organization*

"*Humanocracy* is the most insightful, instructive book for this new, purpose-driven decade and should be mandatory reading for all organizations seeking to thrive, survive, and, more importantly, make the human impact their teams long for."

—**ANGELA AHRENDTS**, former CEO, Burberry; former Senior Vice President, Apple

"Virtually all businesses are being disrupted by innovations from every direction. Bureaucratic hierarchy is simply too slow in making decisions and not innovative enough to be competitively successful in the third decade of the twenty-first century. *Humanocracy* shows us the path forward to creating less bureaucratic and more innovative and humane organizations."

—**JOHN MACKEY**, cofounder and CEO, Whole Foods Market; coauthor, *Conscious Capitalism*

"Gary Hamel and Michele Zanini effectively describe a way out of the bureaucratic gridlock which is frustrating so many people in their daily work. *Humanocracy* as a movement will lead us to more human organizations!"

—**JOS DE BLOK**, founder, Buurtzorg

"Hamel and Zanini insightfully diagnose the choking bureaucracy that makes many of today's organizations far less collectively intelligent than they could be. Then they give fascinating examples

and inspiring prescriptions for creating organizations that are vastly more innovative, adaptable, and fulfilling for the people in them."

—**THOMAS W. MALONE**, Patrick J. McGovern Professor of Management, MIT Sloan School of Management; Director, MIT Center for Collective Intelligence

"For over a decade, Gary Hamel has called for us to hack how we lead and organize. In this book, Hamel and Michele Zanini offer specifics about how to dismantle our bureaucratic enterprises and rebuild them into agile organizations in which employee passion and talents are unleashed and harnessed to cocreate, with customers, products and services that make a positive difference."

—**LINDA A. HILL**, Wallace Brett Donham Professor of Business Administration, Harvard Business School; coauthor, *Collective Genius*

"This book is an exhaustive analysis of the dysfunctional consequences of hierarchy and bureaucracy. Using multiple examples of companies that are trying a different approach, the authors provide an alternative model based on humans as committed, active problem solvers rather than 'resources' to be used for organizational goals. This alternative model is shown to be more effective across all of the traditional managerial functions."

—**EDGAR H. SCHEIN**, Professor Emeritus, MIT Sloan School of Management; coauthor, *Humble Leadership*

"To build a resilient business, everyone must think and act like an owner. *Humanocracy* provides a guide to building entrepreneurship within an organization."

—**TONY HSIEH,** CEO, Zappos; *New York Times* bestselling author, *Delivering Happiness*

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The web addresses referenced in this book were live and correct at the time of the book's publication but may be subject to change.

To Kelly Duhamel, for teaching me so much about life, love, and what it means to be human.
—Gary

To Ludovica, Clara, and Luigi, whose love and example inspire me to *be* more, every day.
—Michele

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Preface

How would you feel at work if …

You had the right to design your own job?

Your team was free to set its own goals and define its own methods?

You were encouraged to grow your skills and take on new challenges?

Your workmates felt more like family than colleagues?

You never felt encumbered by pointless rules and red tape?

You felt trusted in every situation to use your best judgment?

You were accountable to your colleagues rather than a boss?

You didn't have to waste time sucking up or playing political games?

You had the chance to help shape the strategy and direction of your organization?

Your influence and compensation depended on your abilities and not your rank?

You were never given reason to feel inferior to the higher-ups?

How amazing would it be if all these things were true where you work? Amazing enough, we reckon, that work would hardly feel like work. Unfortunately, this is not the reality for most employees. The typical medium- or large-scale organization infantilizes employees, enforces dull conformity, and discourages entrepreneurship; it wedges people into narrow roles, stymies personal growth, and treats human beings as mere resources.

In consequence, our organizations are often less resilient, creative, and energetic than the people inside them. The culprit is bureaucracy —with its authoritarian power structures, suffocating rules, and toxic politicking. Some might believe bureaucracy is on the wane, that it's headed for the same fate as landline telephones, gas-powered cars, and single-use plastics. The word "bureaucracy," like "horsepower," seems to be the relic of a bygone age—and in many ways it is, but sadly, bureaucracy is still very much with us. As we'll see in chapter 3, bureaucracy has been growing, not shrinking—a fact that is correlated, we believe, with the worrying slowdown in global productivity growth, a phenomenon that bodes ill for living standards and economic opportunity.

Bureaucratic organizations are inertial, incremental, and dispiriting. In a bureaucracy, the power to initiate change is vested in a few senior leaders. When those at the top fall prey to denial, arrogance, and nostalgia, as they often do, the organization falters. That's why deep change in a bureaucracy is usually belated and convulsive. Bureaucracies are also innovation-phobic. They are congenitally risk averse, and offer few incentives to those inclined to challenge the status quo. In a bureaucracy, being a maverick is a high-risk occupation. Worst of all, bureaucracies are soul crushing.

Deprived of any real influence, employees disconnect emotionally from work. Initiative, creativity, and daring—requisites for success in the creative economy—often get left at home.

Thankfully, bureaucracy isn't the only way to organize human activity at scale. Around the world, a small but growing band of post-bureaucratic pioneers are proving it's possible to capture the benefits of bureaucracy—control, consistency, and coordination—while avoiding the penalties—inflexibility, mediocrity, and apathy. When compared to their conventionally managed peers, the vanguard—many of which you'll meet in this book—are more proactive, inventive, and profitable.

These companies were built, or in some cases rebuilt, with one goal in mind—to maximize human contribution. This aspiration is the animating spirit of humanocracy, and stands in stark contrast to the bureaucratic obsession with control. Both goals are important, but in most organizations, the effort spent on ensuring conformance is a vast multiple of the energy devoted to enlarging the capacity for human impact. This gross imbalance is dangerous for organizations, a drag on the economy, and ethically troubling.

Bureaucracy is particularly problematic for large companies. As an organization grows, layers get added, staff groups swell, rules proliferate, and compliance costs mount. Once a company hits a certain threshold of complexity—around two hundred to three hundred employees, in our experience—bureaucracy starts growing faster than the organization itself. That's why big companies have more bureaucracy per capita than small ones, and why they're burdened with managerial diseconomies of scale.

The link between girth and "bureausclerosis" would be less worrying if large organizations weren't so dominant. Despite all the talk of the gig economy, a greater percentage of the US labor force works for large companies than ever before. In 1987, 28.8 percent of US employees worked in companies with more than five thousand employees. Thirty years later, the percentage was 33.8. Today, the number of employees working in companies with more than ten thousand employees exceeds the number who work in businesses with fifty or fewer employees.

Defenders of the status quo will tell you that bureaucracy is the inevitable correlate of complexity, but our evidence suggests otherwise. The vanguard companies prove that it's possible to build organizations that are big *and* fast, disciplined *and* empowering, efficient *and* entrepreneurial, and bold *and* prudent.

If you doubt this, here's an amuse-bouche—a short example of what's possible when an organization commits itself to "Humanity above bureaucracy." That's the motto of Buurtzorg, a leading provider of home health services in the Netherlands. The company's workforce of eleven thousand nurses and four thousand domestic helpers is organized into more than twelve hundred self-managing teams. Each nursing team comprises twelve caregivers who have responsibility for a particular geographic area, typically encompassing around ten thousand Dutch residents. These compact operating units are responsible for finding clients, renting office space, recruiting new team members, managing budgets, scheduling staff, meeting ambitious targets, and constantly improving the quality and efficiency of the care they provide.

In most organizations, these duties would fall to area or regional managers but at Buurtzorg they're divvied up among local team members. Every team has a "housekeeper and treasurer," a "performance monitor," a "planner," a "developer," and a "mentor." These are part-time roles filled by nurses who spend most of each day working with patients.

To support its hyperempowered workforce, Buurtzorg trains every employee in group decision making, active listening, conflict resolution, and peer-to-peer coaching. Teams are tied together by a social platform, "Welink," where nurses post questions and tips. Rather than dictate home care protocols top-down, Buurtzorg encourages teams to optimize their operating practices by tapping the collective wisdom of the network and innovating locally when they see opportunities to advance the state of the art. Detailed performance metrics on every team are visible across Buurtzorg. This transparency creates a powerful incentive for peer-to-peer learning and continuous improvement.

Buurtzorg's administrative personnel include fifty-two regional and head office coaches, fifty back office staff (mostly in IT), and two senior directors, including Jos de Blok, Buurtzorg's founder. That's lean: a fifteen-thousand-person organization with two line managers and a staff group of just over one hundred individuals.

Buurtzorg sets benchmarks in virtually every area of performance. (See figure P-1). The company's substantial lead over its competitors isn't the result of a brilliant top-down strategy, slavishly applied operating rules, or data-munching algorithms, but rather of an organizational model that empowers and equips every employee to be an inspired problem solver and a business-savvy decision maker.

Buurtzorg has been voted Dutch Employer of the Year five times —not bad for a company founded in 2006, but, as we'll see, it's not the only company to have harnessed the power of everyday genius.

Why, then, haven't more companies followed suit? Why would incumbents burden themselves willingly and unnecessarily with what is, in essence, a tax on human effort? Because, to put it bluntly, dismantling bureaucracy means dismantling traditional power structures. As you may have noticed, people with power are typically reluctant to give it up, and often have the means to defend their prerogatives. This is a serious impediment, since there's no way to build a human-centric organization without flattening the pyramid.

Rather than taking on the politically fraught task of excising bureaucracy, CEOs have sought to offset its cost through the pursuit of market power and regulatory advantage. Between 2015 and 2019, the value of global mergers and acquisitions amounted to $20 trillion, that's roughly the size of the entire New York Stock Exchange. Economists Gustavo Grullon, Yelena Larkin, and Roni Michaely estimate that between 1972–2014, more than 75 percent of US industries became more concentrated.[1]

FIGURE P-1

Buurtzorg versus its competitors

All too often, when a big company gets battered by the winds of creative destruction and starts to take on water, the first impulse of a

CEO isn't to jettison the ballast of bureaucracy, but to lash up to another wallowing supertanker.

While CEOs often justify megamergers by promising increased operating efficiencies, research suggests that the real benefits are less about economies of scale and more about oligopolistic advantage.[2] A comprehensive study of the US economy by Jan De Loecker, Jan Eeckhout, and Gabriel Unger found that "markups," a proxy for market power that measures firm-level difference between prices and marginal costs, have increased sharply over the last several decades. In 1980, the average firm charged 21 percent over marginal cost; by 2016, the average markup had grown to 61 percent. This trend has been observed not only in the United States, but in other developed economies as well.[3]

Bulking up also increases a company's political power. A $100 billion business with a lobbying effort to match has a lot more clout in Washington, Brussels, and other power centers than a business a tenth its size. Recent examples of big-dollar lobbying include the efforts of America's carmakers to prevent Tesla from opening company-owned stores, the promise extracted by the pharmaceutical industry that the US government won't use its heft to drive down drug prices, and the resistance of US hospitals to the government's demands for greater price transparency in health care.

Though CEOs gripe about regulation, a recent study by Boston University's James Bessen revealed a strong correlation between industry-specific regulation and a subsequent rise in profits.[4] Bessen calculates that in recent years, regulatory rent seeking added $2 trillion to corporate valuations and transferred $400 billion annually from consumers to businesses. Why bloody yourself on the playing

field, CEOs ask, when you can use your political power to tilt the field in your favor?

As many companies have discovered, it's easier to do another deal or hire more lobbyists than to de-bureaucratize a sprawling empire. This is bad news for consumers and citizens. As any economist will tell you, high levels of market power depress investment, stifle innovation, reduce job creation, and exacerbate income inequality.

It would be great if young, aggressive startups held the oligopolists to account, and this sometimes happens, but in aggregate, the impact of entrepreneurship is modest. As of this writing, the world contains 433 "unicorns"—venture-backed companies that boast a market value of $1 billion or more. While these companies get a lot of press, they're a relatively small part of their respective economies. In early 2020, US-based unicorns had a combined market value of $650 billion. This seems like a big number, but at the time amounted to just slightly more than 2 percent of the combined market value of the S&P 500. While entrepreneurial enclaves like Silicon Valley are important, we need to find ways to turn up the entrepreneurial flame in every organization.

Many leaders, it seems, have yet to reach this conclusion. They're betting, in essence, that the advantages of market power and political muscle will more than offset the disadvantages of bureaucratic drag. There's a risk, though, of banking on the continued acquiescence to ever-expanding corporate power. The White House's Council of Economic Advisers has called for a "robust reaction to market power abuses."[5] Legal scholars Eric Posner and Glen Weyl believe that "some of the country's biggest employers … need to be broken up," and "regulators need to get more aggressive with tech monopolies

and stop them from absorbing innovative rivals."[6] Even Goldman Sachs, officiant at countless corporate weddings, has noted that if the trend toward greater concentration persists, it will mean "there are broader questions to be asked about the efficacy of capitalism."[7] You can be sure that when Goldman Sachs wonders if consolidation has gone too far, the answer is yes.

And it's not just the experts. Citizens have also had enough. In a 2019 Pew Research poll, 82 percent of Americans said large corporations had too much power and influence in the economy. The argument that bigger is better is getting increasingly hard to swallow. As the change in sentiment starts to bite, and governments become more aggressive in challenging monopoly power, CEOs will need to find new routes to profitability and growth. Their best bet: committing wholeheartedly to creating organizations that allow human beings to do their best work, unfettered by the shackles of bureaucracy.

Critically, there are social as well as political and economic reasons for declaring war on bureaucracy. In recent years, policy makers and politicians have expressed concern about growing income inequality. Between 1979 and 2016, the top-quintile of US wage earners saw their compensation grow by 27 percent, while those in the bottom quintile experienced a 1 percent decline.[8] (See figure P-2.)

Many factors have contributed to this divergence, including competition from low-wage countries, the growing preference of large firms for contract labor, the shrinking power of unions, and the job-displacing effects of technology. The downward pressure these forces exert on low- and middle-income jobs has been blamed both for the rise of populism in America's rust belt and for the growing

allure of socialism among Gen Z voters who fear they'll never be as well off as their parents. The danger, already much in view, is that labor market polarization will further erode social cohesion and political amity.

Added to this is the fear that robotics and artificial intelligence will supplant many low- and mid-tier jobs. A 2019 Brookings Institution report estimated that 25 percent of US jobs are highly vulnerable to automation, with a further 36 percent of jobs at moderate risk.[9] A separate study, covering thirty-two OECD countries, judged 300 million jobs to be at jeopardy from automation. Elon Musk, founder of Tesla and SpaceX, has warned that human beings need to prepare for a world in which "robots will be able to do everything better than us."[10] These and similarly dire predictions have given currency to the idea of a guaranteed income for every citizen, funded in part by a tax on robots.

FIGURE P-2

Changes in real wages by quintile (1979–2016)

Source: Jay Shambaugh, Ryan Nunn, Patrick Liu, and Greg Nantz, "Thirteen Facts about Wage Growth," Brookings Institution report, September 2017.

The more general problem of stagnant or declining wages has produced a slew of policy proposals, including mandatory worker representation on corporate boards, sector-level collective bargaining, better benefits for gig economy workers, tax breaks for investment in human capital, and a greater emphasis on science and mathematics in secondary education.

While some of these ideas have merit, none of them addresses what we regard as an unwarranted and damaging assumption, namely that a great number of jobs are inherently and unalterably low skilled. Typically, a job is defined as low skilled if it doesn't require a university education or advanced training. Because such jobs require little in the way of specialized expertise, they tend to be low paid. According to a recent study, 53 million American workers, or 44 percent of the labor force, are in low-wage jobs.[11] This is a fact, but economists and policy makers err when they assume it's an immutable fact.

Contrary to conventional wisdom, what makes a job low skilled is not the nature of the work it entails, or the credentials required, but whether or not the people performing the task have the opportunity to grow their capabilities and tackle novel problems. The most important lesson to be gleaned from post-bureaucratic pioneers is that it's possible to radically upskill what would otherwise be regarded as low-skilled jobs—like operating a forklift truck, loading bags onto an airplane, or packing agricultural produce. This workplace alchemy—turning dead-end jobs into get-ahead jobs—becomes possible when an employer:

Teaches frontline staff to think like businesspeople

Cross-trains associates and organizes them into small, multifunctional teams

Gives these teams accountability for a local P&L

Pairs new employees with experienced mentors

Encourages employees to identify and tackle improvement opportunities

Grants associates the time and resources to run local experiments

Gives employees a financial upside that encourages them to do more than their job strictly requires

Treats every individual and role as indispensable to collective success

The vanguard companies offer better-than-average wages, not because they're unusually generous, but because their employees create exceptional value. There's a deep conviction in these organizations that when "ordinary" employees are given the chance to learn, grow, and contribute, they'll achieve extraordinary results. Over time, this conviction produces a workforce that's deeply knowledgeable, endlessly inventive, and ardently customer focused. The experience of the post-bureaucratic rebels testifies to a single luminous truth: an organization has little to fear from the future, or its competitors, when it's brimming with self-managing "micropreneurs."

Bureaucrats wrongly assume that commodity jobs are filled with commodity people. Unfortunately, this prejudice tends to be self-validating. When human beings are given scant opportunity to exercise their imagination, little creativity is forthcoming. This is then taken as proof that the average employee is a bit of a lunkhead.

Researchers trying to estimate the employment impact of automation frequently make the same error. For example, after reviewing detailed task descriptions for 702 occupations compiled by the US Bureau of Labor Statistics (BLS), Oxford University

researchers Carl Frey and Michael Osborne estimated that fully 47 percent of American jobs were at high risk of automation.[12] This conclusion is hardly surprising, since, according to our analysis of BLS data, 70 percent of US employees are in jobs deemed to require little or no originality. This fact says nothing about the imagination of the people in those jobs, but much about the way in which the bureaucratic paradigm strips initiative and creativity out of work.

Frey and Osborne rightly note that occupations which involve "complex perception and manipulation tasks, creative intelligence tasks, and social intelligence tasks" are resistant to automation. But it's a thinking error to assume that the vast majority of jobs in an economy offer little scope for the application of the uniquely human capabilities that distinguish people from machines. It is similarly wrongheaded to believe that such capabilities are narrowly distributed within the human population. Think for a moment about the boundaryless expanse of creativity that can be found on YouTube or in the vast reaches of the blogosphere. Are today's creators inherently more gifted than their forebears? Of course not. What's changed is that a couple billion people, thanks to new digital tools and platforms, finally got the chance to cultivate their latent creativity. Why would we expect the results to be any less spectacular if every employee at work was similarly equipped and empowered?

It is our bureaucracy-encrusted organizations that are slow witted, not the people inside them. This is not a conjecture; it is our lived experience. More than a decade ago, one of the authors led a large-scale training program in a midwestern US manufacturing company. Over the course of a year, more than thirty thousand employees, many of them blue-collar union members, were taught how to think

like business innovators. Out of this effort came thousands of game-changing ideas. In one memorable, though not unusual, case, a long-tenured assembly line worker hatched an idea that ultimately produced a multimillion-dollar payoff. For the first time in her career, this woman had been asked to think big, and when the chance came, she grabbed it. Sadly, many employees never get this opportunity. Rather than being seen as inventors and makers, they're regarded as "meatware"—costly machine substitutes that are incapable of being upgraded.

One of our primary goals in this book is to lay out a blueprint for turning every job into a good job. Rather than deskilling work, we need to upskill employees. Rather than outsourcing low-value jobs, we need to increase the creative content of every role. Instead of assuming that middle-class jobs must ultimately fall to globalization and automation, we need to redesign work environments so they elicit the everyday genius of every human being. While there may be a finite number of routine tasks to be performed in the world, there's no limit on the number of worthwhile problems that are begging to be solved. Viewed from this vantage point, the threat that automation poses for employment depends mostly on whether or not we continue to treat employees like robots.

The shift to humanocracy won't be easy. Consider that in Gallup's 2019 Great Jobs Demonstration survey, barely a third of US employees strongly agreed with the statement: "I have the opportunity to do what I do best every day." Less than a quarter said they were expected to be innovative in their job and only one in five felt their opinions mattered at work.[13] Given data like this, it's not a

stretch to argue that many organizations waste more human capacity than they use.

There are practical, philosophical, and political barriers to redressing this lamentable reality. In our consulting work, we've crashed into many of these hurdles, and have the scars to prove it. We're not naive. Yet we've also learned enough to be hopeful. Bureaucracy is not a cosmological constant. Nowhere is it written in the stars that our organizations must be clumsy, stifling, and callous. Bureaucracy was invented by human beings, and now it's up to us to invent something better.

The first task is to build an unimpeachable case for pulling bureaucracy up by the roots. This is the focus of part I, "The Case for Humanocracy." In chapter 1, you'll learn why the biggest liability for most organizations isn't a clunky operating model or a busted business model, but a sclerotic management model. While our organizations might once have been able to bear the costs of bureaucracy, this is no longer the case. In chapter 2, you'll get an up-close look at how the features of bureaucracy—stratification, specialization, formalization, and routinization—undermine resilience, innovation, and engagement. You'll also get an initial glimpse into how some heretical organizations have been challenging bureaucratic norms. In chapter 3, we'll show you how to calculate the hidden costs of bureaucracy in your own organization—a critical step in building commitment for a comprehensive management overhaul.

To move from diagnosis to action, you'll need to believe there's an alternative to the status quo—that the idea of a human-centric organization isn't some utopian fantasy. In part II, "Humanocracy in Action," we'll go inside two mind-bending companies that have

harnessed the power of humanocracy. Chapter 4 will give you a close-up view of Nucor, the world's most innovative steel company. You'll learn how Nucor's super-lean management model unleashes creativity and encourages everyone to think and act like an owner. In chapter 5, we'll expose the secrets of what is arguably the world's most creatively run company—the global appliance maker Haier. Over the past decade, Haier has been on a quest to build a company with "zero distance" between employees and customers. To that end, it divided its fifty-six-thousand-person organization into four thousand microenterprises, with just two levels separating frontline employees from the CEO. More a network than a hierarchy, Haier offers an astonishing yet practical model for achieving entrepreneurship at scale.

In part III, "The Principles of Humanocracy," you'll get introduced to the seven core tenets of a human-centric organization: ownership, markets, meritocracy, community, openness, experimentation, and paradox. In chapter 6, we'll argue that reinventing management requires not only new tools and methods, but entirely new principles. In chapters 7 through 13, we'll provide detailed examples of how to operationalize each of the principles in ways that will make your organization more resilient, creative, and daring.

As you may suspect, bureaucracy won't yield to new thinking alone. As the world's most ubiquitous social technology, bureaucracy is familiar, entrenched, and well defended. To prevail, you'll need to route around old power structures, energize a pro-change constituency, and launch dozens of audacious organizational experiments. These are the challenges we'll tackle in part IV, "The

Path to Humanocracy." In chapter 14, you'll learn how Bertrand Ballarin, an industrial relations manager at Michelin, catalyzed a bottom-up effort to radically empower frontline teams. His story will give you deep insights into how to achieve revolutionary goals with evolutionary means. In chapter 15, we'll give you a step-by-step guide for getting started with your own team. We'll show you how to rid yourself of bureaucratic thinking, get your colleagues on board, and turn your unit into a laboratory for radical management innovation. Finally, in chapter 16, we'll show you how to scale up. Drawing on lessons from management hackers and activists, we'll outline what it takes to build a companywide campaign that gets everyone involved in the work of reinventing management. We'll argue that installing humanocracy requires a bold new approach to large-scale transformation, one in which change rolls up, not out.

This book is a manifesto and a manual. It argues, persuasively we hope, that it's time to free the human spirit from the shackles of bureaucracy—and that doing so will produce profound benefits for individuals, organizations, economies, and societies. It also gives management renegades practical strategies for advancing the cause of humanocracy within their own organizations. Over the last few years, we've been blessed with the opportunity to work with an amazing band of organizational buccaneers. They've taught us that with courage, compassion, and contrarian thinking, anyone can transform a large organization—whatever their title or position. So if *you're* ready to build an organization that's fit for human beings and fit for the future, we invite you to start right here, right now.

Part One

The Case for Humanocracy

Why Poke the Bureaucratic Beehive?

— 1 —

Fully Human

We are defined by the causes we serve. Our identity is discovered in the challenges we embrace. However modest our means and finite our capabilities, we can gift ourselves the exhilaration of a noble quest. Thankfully, there are plenty of deserving problems to go around—like building machines that think, reducing CO_2 emissions, overcoming racial disharmony, combating drug-resistant superbugs, ending human trafficking, and building habitats on other planets.

At some deep level, we know that life is too short to work on inconsequential problems. We know the sages were right when they commended "the road less traveled." Solving new problems and forging new paths—this is what we were born to do. It's tragic, then, that so many of us work in organizations that are fainthearted and dispiriting. Suggest an unprecedented and audacious idea to your boss and you're likely to get pummeled with objections: "That doesn't fit our strategy." "We don't have the budget." "You'll never get it past legal." "That's not our culture." "It's impractical." "There's a lot of downside." The problem isn't your manager, who's just as

hamstrung as you are. The problem is that your organization, like most, is inherently hidebound, repressive, and fainthearted.

Take a moment and score your organization on the following dimensions:

Unless your organization is pint-sized or truly exceptional, it probably tilts to the right side of the scale. That's why you feel beleaguered. You've had the bold beaten out of you. "Epic quest," you snort. "I'm just trying to make the quarter."

Fair enough, but how did we end up with organizations so lacking in courage, creativity, and passion? And, as importantly, how did we become inured to this reality? The simple answer: it's all we've ever known. To one degree or another, *every* organization is diffident and dogmatic. Even world-beating companies seem burdened with intrinsic inadequacies.

Take Intel. You need thousands of wickedly smart people to pack 100 million transistors onto a square millimeter of silicon. Yet as a company, Intel botched what should have been a no-brainer: supplying chips for billions of mobile devices. Having failed to anticipate the explosive growth in the market for smartphones, Intel spent a decade, and more than $10 billion, trying to get back in the game. Finally, in 2016, it admitted defeat and shuttered its mobile communications unit. Other titans of tech—Microsoft, IBM, Hewlett-Packard, and Dell Technologies—similarly bungled the mobile revolution. How did this happen? How do companies with billion-dollar R&D programs, celebrity CEOs, and access to the best consultants in the world fluff the future?

Make no mistake, in many ways our organizations exceed us. Tour Tesla's manufacturing facility in Fremont, California, and you'll be awestruck. At more than 5 million square feet, it's the state's largest building. Hundreds of giant robots execute complex, ballet-like movements, driverless carts shuttle parts between workstations, giant hoists twirl car frames through the air, a seven-story press slams out body panels, and a hive of workers race to keep everything running smoothly. This symphony of synchronicity is, quite simply, beautiful. One can't help but be impressed by what human beings can accomplish when they work in concert.

Our organizations allow us to do together what can't be done alone. No single human can build a car, launch a satellite, create an operating system, train a doctor, erect a building, or mobilize a movement. Even Jesus needed twelve disciples.

Yet for all their accomplishments, our organizations are inertial, incremental, and uninspiring. These are the *core incompetencies* of the corporation, and they're so pervasive that we can be forgiven for assuming they're irremediable. We tell ourselves it's the nature of large organizations to be brittle and backward-looking, and to wish it otherwise is naive. Our pessimism would be justified except for one salient fact. As human beings, *we* are resilient, inventive, and exuberant. The fact that our organizations are not suggests that in some important ways, they are less human than we are. Ironically, it seems that human-built organizations have scant room for exactly those things that make us furless bipeds special—things like courage, intuition, love, playfulness, and artistry. We can't blame malevolent gods for this lamentable fact. If our organizations are inhuman, it's because we designed them to be so—whether consciously or not.

Every institution is an assemblage of choices about how best to organize human beings in light of some particular goal. The premise of this book is that most of these choices can and must be revisited.

We shouldn't have to content ourselves with organizations that are authoritarian and joyless. Legacy is not destiny. There was a time when most of the world was ruled by tyrants, but today, billions of human beings live in freedom. This shift from autocracy to democracy didn't occur spontaneously, nor was it led from the top. Instead, it was the work of a sprawling confederation of philosophers, protesters, and patriots who were inspired by the promise of self-government.

We must be no less radical in rethinking the foundations of human organizations. Like our forebears, we must do our part to emancipate the human spirit. It is here we find a cause worth serving—to build organizations that give every human being the opportunity to thrive.

If you believe that human beings deserve more from their jobs, and that we'd be better served by more dynamic and inventive institutions, there's a ton you can do to move the world forward. As we'll see, there are compelling, workable alternatives to the organizational status quo, and a way to get from here to there—though it'll take some bushwhacking. Have no doubt, if you start with the right principles and learn to think like an activist, you can make a decisive contribution to enriching the lives of your colleagues, and to helping your organization flourish in a world that, however unsettling, is awash in opportunity.

As we set off, we should remind ourselves that when we regard a problem as intractable, we conspire to perpetuate it. Think of the well-off urbanite who averts his eyes from the homeless rather than

volunteering at a shelter, or the beachgoer who picks her way through a scattering of plastic waste but doesn't stoop to pick it up. However daunting, even the most entrenched problems yield to courage and tenacity. We must not flinch or look away. Instead, we must confront what we have long known—our organizations are incapacitated by their inhumanity. We'll document this reality in the remainder of chapter 1, diagnose root causes in chapter 2, and build the case for a management revolution in chapter 3. In subsequent chapters, we'll lay out a blueprint for building organizations that are fully human and fully capable.

Human Beings Are Resilient. Our Organizations Aren't

We live in a world of accelerating change, where the future is less and less an extrapolation of the past. Change is unrelenting, pitiless, and occasionally shocking. (Picture robots working a stripper pole in Vegas. Yeah, that's a real thing.) Welcome to the age of upheaval.

Some argue that change has been accelerating since the Big Bang.[1] Across the eons, the rate at which matter organizes itself into more complex structures and systems has been gradually, imperceptibly quickening. And now, after 14 billion years, the pace of change has gone hypercritical. Lucky us!

This sudden acceleration is the product of radical shifts in the growth of computational power and network capacity. The latest iPhone has nearly six thousand times more transistors than the i486 chip that powered PCs in the late 1980s. In 2017, global internet

traffic amounted to more than 46,600 gigabytes per second—a nearly 40-million-fold increase over the number in 1992.[2]

This exponential growth has opened up dazzling new horizons. Thanks to computational biology, we're beginning to understand the elaborate biochemical processes of human cells. Greater computing power means radically more capable machines. DRIVE AGX Pegasus, the dual-chip system designed by Nvidia to support self-driving vehicles, performs 320 trillion operations per second.[3] As the cost of bandwidth has plummeted, entirely new industries, like social media, have emerged. Powerful networks allow human beings to collaborate in ways never before possible. The paper that announced the discovery of the Higgs boson, for example, had more than five thousand coauthors.

The shockwaves of this explosion in computation and communication are reverberating all around us: e-commerce, the sharing economy, synthetic biology, blockchain, augmented reality, machine learning, 3-D printing, and the internet of things. As these shocks dissipate, new ones will thunder across the landscape. Within the next few years, somewhere between 200 billion and a trillion things, mostly sensors, will get connected to the web.[4] Imagine a world in which every change of state—every movement, flow, transaction, and perturbation—produces data. The planet itself will finally be sentient.

In this maelstrom, the most important question for any organization is this: Are we changing as fast as the world around us? For most organizations, the answer is no.

CEOs are inclined to blame this lack of adaptability on human nature. "People," they solemnly intone, "are against change." Like so

many trite managerialisms, this is rubbish. Think about the people you know. Over the last three years, how many of them have done at least one of the following things:

Moved to a new city

Started a new job

Ended a romantic relationship or started a new one

Enrolled in a course

Adopted a new exercise regime

Taken up a new hobby

Lost ten pounds

Redecorated a room

Traveled to a new holiday destination

Formed a new friendship

Probably everyone you know has made a change in at least one of these areas. Fact is, we're change addicts. We have an insatiable appetite for the new. All those changes that are roiling our world, they're *our* doing. *We* are the agents of upheaval.

Unlike human beings, organizations are pretty much crap at change. That's why incumbents so often find themselves on the back foot. Today, we *expect* the newcomers to beat the geezers. Instinctively, we know that in a fast-changing world, resources are no substitute for resourcefulness—and that even the smartest companies are vulnerable.

Despite its commanding lead in search, Google missed the opportunity to take a pioneering role in social media. By the time it launched Google+, Facebook had built an insurmountable lead. When Apple's iTunes was slow to offer streaming content, it opened the door to newbies like Spotify and Netflix. When eHarmony, a pioneer in online dating, was tardy in responding to the smartphone revolution, Tinder filled the gap.

If you believe the future is essentially unknowable, you might argue that today's much-fêted insurgents were simply lucky. It was mere chance that they got the future right. Such a conclusion is wrong on two counts. First, the future isn't as opaque as is often assumed. If you pay attention to what's changing—the nascent trends that are gathering speed—you can often see the future a long way off.

Right now, America's cable television companies are scrambling to adjust to a world in which they no longer have a monopoly on the distribution of video content. By the end of 2019, over 40 million American households had shunned cable television for new, online services.[5] That same year, the number of streaming subscriptions surpassed the number of cable TV customers.[6] This shift was entirely foreseeable. In the early 1990s, technologists at AT&T predicted that video streaming would become commercially viable in 2005, and they were right. YouTube was launched in 2005, the first iteration of Apple TV appeared in 2006, and Netflix streamed its first movie in 2007.

Second, even if stumbling onto a future-friendly strategy is a matter of luck, one must still explain why the old guard is so predictably unlucky. If you watch someone play blackjack for several

hours and they lose every hand, you won't mark it down to bad luck. You'll assume the hapless gambler is incompetent.

The data suggests that institutional inertia is endemic, and costly. Consider:

- Only 11 percent of the companies that made up the *Fortune* 500 in 1955 are on the list today

- The average age of a company on the S&P 500 Index has fallen from sixty years in the 1950s to less than twenty years currently

- Between 2010 and 2019, US public companies reported more than $550 billion in restructuring charges, which are typically the product of belated or inept attempts at strategic renewal

All this is testament to a simple fact: the world is becoming more turbulent faster than most companies are becoming more adaptable.

In practice, organizational change tends to be either trivial or traumatic. Every day, companies refresh products and improve processes with little drama. Strategic pivots, by contrast, tend to be convulsive, not unlike the uprisings that occasionally concuss poorly governed dictatorships. In large companies, as in authoritarian states, regime change—replacing the top dog—is the only way to rescind calamitous or superannuated policies.

Given these dynamics, companies that fall behind tend to stay there. Since 1990, there have been only five years in which General Motors hasn't lost share in its domestic market.[7] The company is alive today thanks to a government bailout in the wake of the 2008 financial crisis.

Sadly, senescent companies can't be euthanized. Instead, semi-comatose, they hang on, closing facilities, killing brands, throttling R&D, shedding staff, merging with lethargic rivals, and lobbying for regulatory help. These are "treadmill companies," and there are more of them than you think.

In January 2020, there were 454 firms in the S&P 500 that had existed as public companies for at least ten years. Of these, 124 had failed to deliver top-quartile returns in more than one year out of the previous ten. Among the league of laggards: Berkshire Hathaway, Coca-Cola, Comcast, ExxonMobil, Ford, Intel, Merck, Oracle, PepsiCo, Procter & Gamble, United Parcel Service, Verizon, Viacom, Walmart, and Wells Fargo. Between 2009 and 2019, these and other treadmill companies produced a median cumulative return of 172 percent—or less than half the 388 percent median gain achieved by the other veterans in our data set.

Shareholders aren't the only losers when a company gets stuck in the mud. Organizations that are slow to change tie up talent and capital that would be better deployed elsewhere. This depresses wages and returns across the economy. Inertial organizations also postpone the future. Having been shamed by Tesla, every major vehicle maker now plans to bring a full range of electric vehicles to market.[8] That'll be great for the planet, but it would have been better if the incumbents had embarked on this quest years ago, rather than waiting for a newbie to rub their noses in the future.

What we need are organizations with an "evolutionary advantage"—a capacity to change as fast as change itself.

A truly resilient organization would …

Never take refuge in denial

Rush out to meet the future

Change before it had to

Continually redefine customer expectations

Capture more than its fair share of new opportunities

Never experience an unanticipated earnings shock

Grow faster than its rivals

Have an advantage in attracting the world's most dynamic employees

One of our favorite *New Yorker* cartoons portrays a pair of dinosaurs. One is lounging against a boulder while the other is sitting bolt upright, stubby forelimbs punching the air. "All I'm saying," says the reptile, "is now is the time to develop the technology to deflect an asteroid." Unlike those doomed dinosaurs, human beings have a large prefrontal cortex and opposing thumbs and forefingers. We're clever enough to see the future coming and dexterous enough to do something about it. We're not dinosaurs, and neither should be our organizations.

Human Beings Are Creative. Organizations Are (Mostly) Not

Innovation is the fuel for renewal. CEOs get this. In a Boston Consulting Group poll, 79 percent of leaders rated innovation a top priority. They know that innovation is the only insurance against irrelevance. Yet in another survey, this one conducted by McKinsey

& Company, 94 percent of executives expressed disappointment with their organization's innovation performance.

Despite this, a capacity for innovation is the hallmark of our species. Each of us was born to create—whether it's landscaping a garden, writing a blog, composing a photograph, inventing a recipe, developing an app, or starting a business. A recent study of US millennials, aged thirty to thirty-nine, found that 55 percent of them had used online videos to hone their creative skills, with a significant number also posting a handcrafted object for sale online.[9]

Digital technology has democratized the tools of creativity and given creators a global audience. Every day …

- More than 700,000 hours of new content gets uploaded to YouTube

- Three million blogs get created with WordPress

- Ninety-five million new photos get posted on Instagram

- Google Play adds 1,300 new apps to the 3 million already available

- Thousands of projects get launched on crowdfunding sites like Kickstarter, Wefunder, Indiegogo, and Crowdcube

Scientific innovation is also advancing at a blistering pace. Since 1985, the number of patents granted each year by the US Patent and Trademark Office has grown by more than 400 percent. There is no shortage of ingenuity in our world. Why, then, do long-established organizations generally suck at game-changing innovation?

Every year *Fast Company* magazine publishes a list of what its editors regard as the most innovative companies in the world. In a

recent year, the top fifteen innovators were:

1. Meituan Dianping
2. Grab
3. NBA
4. Walt Disney
5. Stitch Fix
6. Sweet Green
7. Apeel Sciences
8. Square
9. Oatly
10. Twitch
11. Target
12. Shopify
13. AnchorFree
14. Peloton
15. Alibaba

Notably, all but two of these companies are less than thirty years old, and two-thirds were born digital. It would seem that if an organization is old and analog, it's screwed. Yet many of the companies crowned "most innovative" turn out to be overhyped, one-hit wonders. In 2012, when Gilt Groupe appeared on *Fast Company*'s most innovative list, the online retailer boasted a $1 billion valuation.

Unfortunately, the company's business model, built around "flash sales" of high-end fashion items, turned out to be a flash-in-the-pan itself. After several rounds of downsizing, Gilt Groupe was acquired by Hudson Bay Company in 2016 for $250 million. Fifteen months later, Hudson Bay wrote off half the purchase price. Other once-lauded innovators have experienced similar slides, including Zynga, Groupon, SolarCity, and GoPro. Inventing a killer business model is hard; reinventing it is harder still. Serial innovators are rare.

Apple and Amazon are the exceptions that prove the rule. Despite their size, they have repeatedly created category-defining products and services like the iPhone and the iPad, and the Kindle and Echo. They've also pioneered radical new business models—such as the App Store and Amazon Web Services. In a rare feat, both Apple and Amazon have appeared on Boston Consulting Group's list of the world's most innovative companies for thirteen consecutive years, with Apple headlining the list in each of those years. So, yes, large organizations *can* be consistently innovative—but most aren't, and if innovation depends on having a creative genius like Steve Jobs or Jeff Bezos at the helm, most never will be.

Hoping to overcome their habitual incrementalism, many companies have set up purpose-built innovation "incubators" and "accelerators." By one estimate, there are now 580 idea labs around the world, up from 300 just two years ago. Despite their popularity, there's little evidence these creative outposts deliver significant returns. A few creative souls living large in their accelerator digs are no substitute for a deeply embedded capacity to continually reinvent the core business.

Acquisitions are another oft-used strategy for overcoming an innovation deficit. Unfortunately, like lonely barflies at closing time, perennial laggards are often overeager and indiscriminate suitors. Between 2008 and 2016, Hewlett-Packard, once an innovation luminary, spent over $37 billion on acquisitions aimed at transforming itself into an IT services powerhouse. Many of the deals led to big write-offs. As we write this, HP Enterprise is worth less than half what it spent on its acquisition binge.

Despite a torrent of books promising to unlock the secrets of innovation, large organizations seem as incapable as ever of unleashing the creative energy of their people. Some management pundits, like the nineteenth-century skeptics who believed human beings would never fly, claim that large companies are genetically incapable of game-changing innovation. We understand their pessimism, but are more hopeful. Across the globe, 1 million people are airborne at this very moment. If we aim high, there's no reason our organizations can't soar as well.

Human Beings Are Passionate. Our Organizations Are (Mostly) Not

Undoubtedly there's something in your life that ignites your passion, something that captivates and energizes you. Maybe it's your family, your faith, a social cause, a sports team, or a hobby. Passion can have a dark side, of course—like religious extremism, racial hatred, or sexual predation. These are passions misdirected and corrupted. Thankfully, most human passions are life-affirming.

When we're in the thrall of a healthy passion, we experience a magical melding of effort and enjoyment. Formidable obstacles become intriguing puzzles, and minor wins, badges of accomplishment. We are most alive when we're doing something that enchants us. Sadly, for most people, that something isn't found at work.

A 2018 Gallup study found that barely a third of US employees were fully engaged in their work—where engagement is defined as being "involved in, enthusiastic about and committed to work." The majority of employees, 53 percent, were "not engaged," while 13 percent—the maliciously compliant—were "actively disengaged."[10] Globally, the situation is even worse, with 15 percent engaged, 67 percent disengaged, and 18 percent actively disengaged.

Here's why this matters. Picture for a moment a hierarchy of work-related capabilities, a bit like Maslow's hierarchy of needs (see figure 1-1). At the bottom is obedience. Every organization depends on employees who are capable of following basic rules around safety, financial discipline, and customer care. Next is diligence. An organization needs employees who are willing to work hard and take responsibility for results. The third level is expertise. To be effective in their jobs, team members need the requisite skills. While these capabilities—obedience, diligence, and expertise—are essential, they seldom create much value. Winning in the creative economy requires more. An organization needs people with initiative—self-starters who are proactive, who don't wait to be asked and aren't bound by their job description. Equally critical is creativity—people who are able to reframe problems and generate novel solutions. Finally, at the top, is

daring—a willingness to stretch oneself and take risks for a laudable cause.

Hierarchy of work-related capabilities

These higher-order capabilities are the products of passion, of a commitment to something that inspires us, something outside ourselves that needs and deserves the best of who we are. Initiative, creativity, and valor can't be commanded. They are gifts. Every employee gets to decide, "Do I bring these gifts to work today, or not?" and as the Gallup data suggests, the answer is usually "no" and, sometimes, "hell, no."

Just as a company can't build an evolutionary advantage without an innovation advantage, it can't build an innovation advantage without an inspiration advantage. If the goal is to build a self-renewing organization that ventures boldly into the future, then *everything* hinges ultimately on willing, enthusiastic, joyful engagement.

There's no secret about what drives engagement. From Douglas McGregor's *The Human Side of Enterprise* to Dan Pink's *Drive*, the formula hasn't changed in sixty years: purpose, autonomy, collegiality, and the opportunity to grow. Unfortunately, engagement levels haven't changed much either. It seems that every generation rediscovers the essential elements of human engagement and then does nothing.

You might argue that disengagement is inevitable. After all, a lot of jobs aren't very appealing. Every day you meet people with jobs you wouldn't want. Maybe it's a retail clerk, a service center rep, a short-order cook, a delivery driver, a gardener, or a housekeeper. You can hardly expect these people to be enthusiastic about their jobs, right? Actually, wrong. In a study conducted by the Pew Research Center, 89 percent of employees said they were either "very satisfied" or "somewhat satisfied" with their daily activities.

The engagement deficit isn't about what people do at work, but how they're managed. In Gallup's research, 70 percent of the variation in engagement scores was explained by differences in the attitudes and behaviors of the employee's boss.[11] For example, employees who felt they could approach their boss with any type of question were more engaged than those who couldn't. "But wait," you say, "if two-thirds of employees are disengaged, does this mean most managers are jerks?" Maybe, but here's the thing: managers are no more engaged than their subordinates. Per Gallup, 51 percent of US managers are not engaged, and 14 percent are actively disengaged.[12] In other words, your boss is probably just as disheartened as you are. Good lord! Maybe it's assholes all the way up. Or maybe not.

The Legacy of Bureaucracy

What if the inhumanity of our organizations is symptomatic of something deeper, something that has nothing to do with any particular manager or organization? Doesn't that seem likely? If virtually every organization on the planet suffers from the same afflictions—inertia, incrementalism, and emotional anomie—maybe

there are common underlying disease mechanisms. A mutation in the BRCA gene raises the risk of breast cancer for a woman whether she lives in China or France. A carb-heavy diet raises the risk of diabetes whether you're Mexican or Australian.

Following this logic, we need to ask, in what ways are organizations alike? What traits are common to Sony, Telefonica, UNICEF, the Catholic Church, Oracle, Volkswagen, HSBC, Britain's National Health Service, Petromex, the University of California, Rio Tinto, Carrefour, Siemens, Pfizer, and millions of other, lesser-known organizations?

The answer: they are all bastions of bureaucracy. They all conform to the same bureaucratic blueprint:

There is a formal hierarchy

Power is vested in positions

Authority trickles down

Big leaders appoint little leaders

Strategies and budgets are set at the top

Central staff groups make policy and ensure compliance

Job roles are tightly defined

Control is achieved through oversight, rules, and sanctions

Managers assign tasks and assess performance

Everyone competes for promotion

Compensation correlates with rank

These organizational features may seem innocuous, but as we'll see, it's here, in the unremarkable landscape of bureaucracy, that we find the roots of institutional incompetence. Our organizations are less than fully human because they were designed to be so. Writing in the early twentieth century, Max Weber, the pioneering German sociologist wrote: "[B]ureaucracy develops more perfectly the more it is 'dehumanized,' the more it succeeds in eliminating all purely personal, irrational and emotional elements which escape calculation."[13] Then as now, the goal of bureaucracy was to turn human beings into semi-programmable robots.

The word *bureaucratie* was coined in the early eighteenth century by Jean-Claude Marie Vincent, a French government minister. Translated as "the rule of desks," the label was not intended as a compliment. Vincent viewed France's vast administrative apparatus as a threat to the spirit of enterprise. (*Plus ça change, plus c'est la même chose.*) A century later, in 1837, the British philosopher John Stuart Mill described bureaucracy as a vast tyrannical network.

This depiction seems as apt today as it did 180 years ago, so why haven't we yet rebelled? Why have we remained mired in an abusive relationship with our organizations? Because, to put it simply, we've lacked for a better alternative, or so we've assumed.

When compared to the despotic, disorderly organizations that preceded it, bureaucracy was a blessing. In pre-bureaucratic organizations, leaders were capricious and decision making mostly guesswork. Planning was haphazard and work practices idiosyncratic. Oversight was spotty, compensation poorly correlated with effort, and employee turnover often more than 300 percent per year.

Bureaucracy changed all this and, in so doing, turbocharged productivity growth.

Between 1890 and 2016, the value created by an hour of labor increased thirteenfold in the United States, sixteenfold in Germany, and eightfold in Great Britain. While other factors—such as capital accumulation, universal education, and scientific invention—contributed to this bonanza, the biggest boost came from advances in bureaucratic management including workflow optimization, production planning, variance reporting, pay-for-performance, and capital budgeting.

Though dehumanizing, bureaucracy was, as Weber noted, "superior to any other [organizational] form in precision, in stability, in the stringency of its discipline and in its reliability," and thus "capable of attaining the highest degree of efficiency."[14] It is thanks to large, bureaucratic organizations that a billion people on the planet now own a car, that 4 billion of us carry a mobile phone, that when inclined to travel, we can choose from more than one hundred thousand commercial flights each day, and that when we buy and sell we can rely on a global financial system that processes more than one million transactions per minute. Whatever its faults, bureaucracy has earned its spot atop the pantheon of human inventions.

Yet as with other instruments of progress—firearms, fossil fuels, the combustion engine, large-scale agriculture, antibiotics, plastics, and social media—this triumph came at a price. Bureaucracy multiplied our purchasing power but shriveled our souls.

The fault lies not with any particular manager, but with a management regime that empowers the few at the expense of the many, that prizes conformance over originality, that wedges human

beings into narrow roles, robs them of agency, and treats them as mere resources.

Like all technologies, bureaucracy is a product of its time. Since its invention in the nineteenth century, much has changed. Today's employees are skilled, not illiterate; competitive advantage is the product of innovation, not just scale; communication is instantaneous rather than tortuous; and the pace of change is hypersonic, not glacial. Yet the foundations of management have remained cemented in bureaucracy. This must change.

In recent decades, we've seen mind-flipping innovation in operating models and business models. Ocado, Britain's leading home-delivery grocery service, has a warehouse where dozens of robots scamper across an enormous grid of open-topped boxes, picking out items and delivering them to human beings who place them in plastic bags. That's radical. YouTube, Netflix, and Amazon Prime Video offer viewers a virtually unlimited menu of on-demand choices. For someone who remembers half a dozen channels of terrestrial television, that's radical.

To cure the disabilities that cripple our organizations, we need to be equally radical in reimagining the bureaucratic management model. Building organizations that are endlessly malleable, ridiculously creative, and brimming with passion requires entirely new approaches to mobilizing and coordinating human effort. We must try to imagine new management models that are as radically different from the bureaucratic template as FaceTime is from a landline phone call, or Alipay is from a wad of banknotes.

FIGURE 1-2

Bureaucracy versus Humanocracy

We need to put human beings, not structures, processes, or methods, at the center of our organizations. Instead of a management model that seeks to maximize control for the sake of organizational efficiency, we need one that seeks to maximize contribution for the sake of impact. We need to replace bureaucracy with humanocracy. We'll spend much of this book exploring the differences between these two models, but the essential distinction is this. In a bureaucracy, human beings are instruments, employed by an organization to create products and services. In a humanocracy, the organization is the instrument—it's the vehicle human beings use to better their lives and the lives of those they serve. (See figure 1-2.) The question at the core of bureaucracy is, "How do we get human beings to better serve the organization?" The question at the heart of humanocracy is, "What sort of organization elicits and merits the best that human beings can give?" As we'll see, the implications of this shift in perspective are profound.

To move beyond the old model, we must understand the precise ways in which bureaucracy has disabled our organizations. We must face up to the costs of bureaucratic malaise. We must learn from the management vanguard—progressive organizations that have demonstrated the viability and value of post-bureaucratic management practices. We must embrace new human-centric principles and operationalize them within our organizations. We must rid ourselves of bureaucratic mindsets and rethink our core

assumptions about "leadership" and "change management." We'll tackle all this and more in the chapters that follow.

For now, let's be clear on one thing: bureaucracy must die. We can no longer afford its pernicious side effects. As humankind's most deeply entrenched social technology, it will be hard to uproot, but that's OK. You were put on this earth to do something significant, heroic even, and what could be more heroic than creating, at long last, organizations that are fully human?

— 2 —

Bureaucracy in the Dock

Dismantling bureaucracy is a formidable challenge. Before signing on, you need to be convinced that the organizational disabilities described in chapter 1 are, in fact, the fault of bureaucracy. In this chapter, we will lay out the articles of impeachment. How, exactly, do the archetypical features of bureaucracy—stratified decision rights, formalized unit boundaries, specialized roles, and standardized practices—undermine adaptability, innovation, and engagement? Why must bureaucracy be deposed? Why is this a fight worth joining?

Stratified and Myopic

Ask just about anyone to draw a picture of their organization and you'll get the familiar pyramid of lines and boxes. A fixed chain of command is one of humanity's most durable social structures. It's simple, scalable, and seemingly timeless.

It's easy to believe that large-scale human action is impossible without a top-down power structure. Unity of command ensures clarity of direction. Clear lines of authority minimize ambiguity. Tiered decision rights align power and competence. Absent formal hierarchy, there's anarchy, right? Well, maybe not.

Consider the ATLAS project, one of four research initiatives that make up the Large Hadron Collider. Encompassing more than 3,000 scientists from 180 institutions, ATLAS was launched in 1992 in a bid to uncover the deepest secrets of the universe. To that end, the ATLAS team built one of the most sophisticated machines ever constructed—a giant particle detector, 45 meters high and 25 meters long, with more than 10 million parts that had to be assembled deep beneath the soil of a bucolic Swiss village.

In the early stages of the project, the ATLAS consortium struggled to find the right organizational design. Given the novelty of the undertaking, design and development would need to be broken down into subprojects that could be tackled by small teams. On the other hand, all the subsystems, and there were hundreds of them, had to fuse seamlessly together. Therein lay the dilemma. While autonomous teams would excel at creative problem solving, they'd struggle with high-level coordination. A centralized organization, by contrast, might be better at system integration, but would be overwhelmed by the sheer number of new-to-the-world problems that would need to be addressed. A top-down structure would also provoke resistance from the fiercely independent scientists whose expertise was crucial for success.

In the end, the consortium opted for a bottom-up structure that relied on peer-to-peer coordination rather than a cadre of senior

project managers. Every subsystem had its own board, which included all the scientists working on that aspect of the project. The deliberations within these boards were open and collegial, but could also be heated. In the case of an impasse, opposing teams debated the issue in front of colleagues who then voted for what they believed was the best option. As cross-system issues arose, temporary working groups were convened to hammer out solutions. When, for example, the design of the primary detecting magnet turned out to require more space than originally envisioned, thus shrinking the room for other equipment, a task force was mustered to invent a workaround. Throughout the project, subsystem boards published real-time information on their progress, and relevant experts were encouraged to comment online. At the strategic level, a collaboration board handled major decisions. Every participating institution had a seat on the board, and a two-thirds majority was required to green light a decision.

Bringing the ATLAS detector to life required tons of leadership and creativity. What it didn't require was a pyramid. No one within the ATLAS consortium had the power to give an order. Everyone was a colleague and no one was a boss. Despite this, the ATLAS detector was completed on time and within budget.[1]

When an organization confronts a large number of novel problems, a top-down structure is likely to be a choke point. As issues get escalated, problems pile up on the doorstep of senior leaders who often lack the experience and bandwidth to make smart, speedy decisions. Over time, the backlog grows and the pace of decision making decelerates. Stratification is the enemy of speed.

Proactive change is another casualty of centralization. In a formal hierarchy, the power to initiate change tends to be concentrated at the top. Major pivots require a top-level sign-off. The problem is, by the time an issue is big enough to capture the CEO's scarce attention, the organization is already playing catch-up. Leaders are insulated— organizationally, culturally, and geographically—from the fringes where new trends take shape. This isolation is exacerbated by kowtowing underlings who've learned there's little profit in delivering bad news. Most dangerous of all, senior executives are shackled by their own timeworn beliefs. Yet despite all this, they're expected to intercept the future. Fat chance.

Consider the experience of Microsoft. During the 1980s, Microsoft's PC-centric business model propelled the company to superstardom, but in subsequent decades, Microsoft often found itself struggling to keep up. (See table 2-1.)

As with most laggards, the problem wasn't a lack of expertise. In a host of races, Microsoft arrived at the starting gate on time. Deep in the organization, young teams had cobbled together resources and built cutting-edge prototypes. Yet few of these efforts attracted top-level sponsorship. Most languished, unnoticed, on the fringes of the company. Others were killed off by executive fiat.

The battle over search was typical. It wasn't until 2003, five years after the launch of Google's eponymous search engine, that Microsoft's executives set aside $100 million to develop a competing service. Chris Payne, the young vice president appointed to lead project "Underdog," had tracked Google for years and had repeatedly tried to get an audience with Bill Gates, Microsoft's chairman and

chief software architect. Unfortunately, by the time Payne got his long-sought meeting, Google had built an insurmountable lead.[2]

TABLE 2-1

Microsoft OS to mimic the features of the Mac

Product	Pioneer		Microsoft	
Graphical user interface	Apple Mac	1984	Windows 2.0[a]	1987
Dial-up internet	AOL	1989	MSN	1995
Web browser	Netscape	1994	Internet Explorer	1995
Search	Google	1998	Bing	2009
Digital music	Apple iPod	2001	Zune	2006

Online video	YouTube	2005	SoapBox	2006
Cloud apps	Google Docs	2006	Office 365	2011
Cloud infrastructure	Amazon EC2[b]	2006	Windows Azure	2010
Smartphone	Apple iPhone	2007	Windows Phone	2010

a. Windows 2.0 was the first Microsoft operating system to mimic the features of the Mac.

b. The precursor to Amazon Web Services.

In other cases, would-be innovators were stymied by Microsoft's fixation on Windows. In 2009, a year before the launch of Apple's iPad, a Microsoft team pitched a prototype tablet to Steve Ballmer, who had assumed Gates's CEO role in 2008. The device, code-named Courier, had been heralded as "an astonishing take on the tablet" by a respected blogger who had been granted an early peek. Ballmer was less impressed. Why, he demanded angrily, had the team not used the

Windows operating system for the new device? Dissatisfied with the answer, Ballmer spiked the project.

In 2014, Satya Nadella succeeded Ballmer to become Microsoft's third CEO. Since then, the company has been on a tear, with total shareholder returns up 450 percent. Free at last to admit what many employees and observers had long known, Nadella declared publicly that one of Microsoft's biggest mistakes had been "to think of the PC as the hub for everything for all time to come." Acting on this conviction, Nadella scaled back the influence of the Windows division and redirected investment toward Azure, Microsoft's fast-growing cloud business. In 2018, the Windows group was reorganized out of existence, with its staff transferred into the Azure and Microsoft Office teams.[3]

Gates and Ballmer deserve credit for selecting a leader who would challenge Microsoft's stifling PC orthodoxy, but their outdated worldview had long crippled the company. They believed the way to make money was to sell software licenses, rather than to deliver software as a monthly service. They saw CIOs, not teams or individuals, as their primary customers. To them, a phone was just a phone, rather than a pocket computer. In 2007, Ballmer declared that "there's no chance the iPhone is going to get any significant market share—no chance." Twelve years later, Gates admitted that had it been less myopic, Microsoft could have preempted Android—a failure he reckoned had cost Microsoft $400 billion in lost market value.[4]

While it's easy to blame Gates and Ballmer for Microsoft's missteps, it's off-target. The real culprit was bureaucracy. In a hierarchical organization, the responsibility for setting strategy and

direction is vested in a handful of senior executives. Those at the top are expected to be uniquely farsighted, inquisitive, and creative. In practice, this is often not the case.

First, senior leaders often have much of their emotional equity invested in the past. The average age of an S&P 500 CEO is currently fifty-eight, up three years since 2008. Average tenure is eleven years, the longest since 2002.[5] While veteran leaders may have the benefit of experience, they're weighed down by legacy beliefs. Many of their assumptions about customers, technology, and the competitive environment were forged years or decades earlier, and reflect a world that no longer exists.

Second, rank and humility are often inversely correlated. Power, as the late Karl Deutsch observed, "is the ability to afford not to learn." In this truth we find the single greatest threat to organizational resilience: the unwillingness or inability of senior leaders to write off their own depreciating intellectual capital. This failing would be less dangerous if subordinates felt empowered to challenge C-suite dogma, but most middle managers are disinclined to bite the hand that feeds them. Thus myopia, like authority, trickles down.

An organization's capacity for renewal should never depend on the capacity of a few senior leaders to learn and unlearn, but in a bureaucracy, it often does. The United States is a counterexample.

America's resilience has never depended overmuch on who occupies the Oval Office. Instead, the country's dynamism is the product of principles enshrined in the nation's founding documents: an aversion to autocracy, a belief in human agency, an openness to immigrants, a respect for religious and ethnic diversity, a commitment to unfettered speech, and an enthusiasm for commerce.

America has continually reinvented itself because millions of its citizens have had the freedom to reinvent themselves.

Some wag once remarked that America is a country that was invented by geniuses to be run by idiots—an observation that at times seems worryingly close to the mark. Bureaucracies, by contrast, seem to have been designed by idiots to be run by geniuses. It would be great if every CEO had the innovation instincts of Steve Jobs, the political skills of Lee Kwan Yew, and the emotional intelligence of Mother Teresa, but most don't.

Though mere mortals, CEOs are often paid as if they were omniscient. At present, the average CEO compensation in America's 350 largest companies is $17.2 million a year, or 278 times the pay of a typical frontline employee.[6] It's not clear those millions buy much in the way of vision. Repeated studies have shown that the correlation between CEO pay and relative share performance is negligible or slightly negative.[7] No amount of money can transform an executive into Iron Man or Wonder Woman.

In the age of upheaval, the quantities of foresight and ingenuity required to run a large organization exceed the abilities of any single human being or small team—and the bar keeps going up. Simply put, bureaucratic structures ask more of leaders than they can deliver. As our friend Vineet Nayar, the retired CEO of India-based IT giant HCL Technologies, once said to us: "The idea of the CEO as the captain of the ship is bankrupt." It's time to call off the search for superhuman leaders. What we need aren't extraordinary leaders, but organizations that mobilize and monetize the everyday genius of "ordinary" employees.

In a complex world, organizations need to flexibly match minds to problems. Unlike formal power, wisdom is partial; it waxes and wanes, and is contingent on the issue at hand. Thus instead of a single, fixed hierarchy, we need a multitude of dynamic hierarchies where who's in charge depends on the problem being addressed. We need organizations where everyone's views are contestable, where influence is the reciprocal of followership, and where incompetent leaders are voted off the island.

And what about alignment—getting all the noses pointed in the same direction? How can you have unity of purpose without unity of command? First, alignment is overrated. Yes, it's important, but it's not uniquely important. In a world filled with unexpected threats and opportunities, organizations need to experiment with dozens, if not hundreds, of strategic options. There's always the risk of wasting effort on tangential initiatives, but the more dangerous risk is the myopia of power. Second, as we saw with the ATLAS project, human beings are quite capable of pursuing a common goal without a pharaoh to command them.

Formalized and Ponderous

Enough about the lines. What about the boxes? A bureaucracy partitions activities into formally defined operating units, each with its own goals, team members, and budget. Where the aim of stratification is consistency, the goal of formalization is clarity. By precisely delineating roles and responsibilities, individuals know what they're accountable for, what decisions they can make, and what resources they control. It's hard to imagine how an institution could function without a formal organization, but perhaps we should try.

For all their benefits, formal structures are suboptimal, parochial, byzantine, and inflexible. These costs, like the costs of stratification, are largely invisible yet increasingly untenable.

SUBOPTIMAL. Every formal structure accentuates certain goals and attenuates others. A functional organization, for example, is well suited to building deep expertise and exploiting economies of scale, but will be less good at serving diverse customer groups. Conversely, while an organization built around market segments will be more customer-focused, it will fragment functional skills and struggle to exploit upstream efficiencies.

Organizing requires choices. While these choices may be right on average, they won't be right in every circumstance. To wit, there will be times in a global product organization when the built-in preference for consistency blinds the company to opportunities and trends that aren't easily seen from the center. This seems to be what happened to Germany's leading carmakers. With their engineering teams concentrated in Europe, and their US organizations little more than marketing arms, Daimler, BMW, and Volkswagen were slow to grasp the significance of Tesla's efforts to reimagine the car as a battery-powered, software-defined mobility platform.

By giving preference to one organizational dimension over another, formalization presets critical trade-offs, whether that's scale versus agility, consistency versus responsiveness, or efficiency versus innovation. Formalization is, by definition, suboptimal. That's why when companies reorganize, they often trade one set of problems for another.

PAROCHIAL. YOU'VE PROBABLY HEARD A BUREAUCRAT SAY, "THAT'S NOT MY RESPONSIBILITY." IN A HIGHLY FORMALIZED

ORGANIZATION, INDIVIDUALS TEND TO BE HYPERFOCUSED ON THEIR OWN, UNIT-SPECIFIC GOALS. EVERYTHING ELSE IS A DISTRACTION. UNFORTUNATELY, THE FUTURE SELDOM LINES UP WITH THE ORG CHART. PAROCHIALISM NOT ONLY MAKES NEW OPPORTUNITIES HARD TO SPOT, BUT HARD TO RESOURCE. UNIT LEADERS OFTEN FEEL THEY HAVE INSUFFICIENT RESOURCES TO DELIVER ON THEIR OWN COMMITMENTS, LET ALONE SOMEONE ELSE'S. SHARE RESOURCES, AND YOU RISK MISSING YOUR TARGETS.

BYZANTINE. IN A BUREAUCRACY, EVERY NEW CHALLENGE SPAWNS A NEW FIEFDOM, USUALLY HEADED BY A C*X*O. TODAY, IT'S NOT UNUSUAL FOR A COMPANY TO HAVE A CHIEF COMPLIANCE OFFICER, CHIEF DIGITAL OFFICER, CHIEF DIVERSITY OFFICER, CHIEF ENVIRONMENTAL OFFICER, CHIEF TRANSFORMATION OFFICER, AND MORE. EVERY FRESHLY MINTED C*X*O WILL SET UP NEW COMMITTEES, ISSUE NEW POLICIES, AND DEMAND THE COLLECTION OF NEW DATA. THERE WILL BE MORE CHECK-INS AND SIGN-OFFS, MORE TURF BATTLES, AND MORE COOKS IN THE KITCHEN. THE RESULT: MORE OVERHEAD, LESS ACCOUNTABILITY, AND EVER-LONGER DECISION CYCLES.

INFLEXIBLE. FORMAL STRUCTURES ARE RIGID AND HARD TO CHANGE. IN A MAJOR REORGANIZATION, JOB DESCRIPTIONS, METRICS, AND DECISION RULES MUST BE REWRITTEN FOR HUNDREDS OF NEW ROLES. SYSTEMS MUST BE COMPREHENSIVELY REDESIGNED, AND THOUSANDS OF INDIVIDUALS RETRAINED. THIS SUCKS UP A VAST AMOUNT OF ENERGY, SHIFTS ATTENTION INWARD, AND CREATES WAVES OF UNCERTAINTY AND ANXIETY. WORSE, THE

TWO- TO THREE-YEAR TIME FRAME FOR A BIG REORG MEANS THAT BY THE TIME THE CHANGES TAKE ROOT, AN ENTIRELY NEW SET OF CHALLENGES IS RUSHING OVER THE HORIZON.

Though expensive and usually belated, reorganizations are widely regarded as the only way to realign an organization with its environment. As a report by the Boston Consulting Group put it, "Rapid change requires companies to reorganize faster than ever before."[8] Good luck with that!

What's needed are radically new organizational models that downplay formal structure. In a world of relentless change, trade-offs need to be made as close to the front lines as possible. Boundaries must be malleable. Resources, rather than being hoarded, must flow unhindered toward promising opportunities. Interunit coordination must be the product of nimble, self-organizing communities and market-like transactions rather than blanket policies or cumbersome councils. In short, we need organizations that, like the biosphere, the internet, or a vibrant city, are more emergent than engineered.

Specialized and Circumscribed

Adam Smith's *The Wealth of Nations* opens with a tribute to specialization: "The greatest improvements in the productive powers of labor have been the effects of the division of labor." Smith recounts visiting a pin factory where the manufacturing process had been slivered into eighteen distinct steps, with each employee responsible for only one or two tasks. Together, the ten-person team produced forty-eight thousand pins per day, roughly four hundred

times the volume that had been achieved before subdividing the work.

Specialization is why a high-end iPhone costs $1,000 rather than $10,000. Assembling the device requires four hundred steps, one of which involves fastening a speaker to the case with a screw.[9] The employee responsible for this task is expected to attach eighteen hundred speakers during a twelve-hour shift.[10] The only job requirement: dexterity.

However diverse their talents and interests, most human "pegs" have little chance to reshape the bureaucratic "holes" they fill. Consider the results from parallel workplace surveys conducted in Europe and the United States.[11] (See table 2-2.) As you can see, only a minority of nonsupervisory employees are involved in setting objectives for their job, are able to weigh in on decisions that impact their work, and have a say in choosing their colleagues. In another survey, nonmanagerial employees in Britain were asked whether they had any influence over decisions that altered the nature of their work. Eighty-six percent answered no or "just a little." Employees may not be as rigidly programmed as robots, but that's not for lack of trying.

TABLE 2-2

Capacity to shape your job

	EU		US	
	ALWAYS	MOST OF THE TIME	ALWAYS	MOST OF THE TIME
Are you consulted before objectives are set for your work?	16	21	11	21
Can you influence decisions important to your work?	12	23	11	25
Do you have a say in choosing the colleagues you work with?	7	10	6	11

Source: Authors' analysis of data from the 2015 European Working Conditions Survey (European Foundation for the Improvement of Living and Working Conditions, March 2018) and the 2015 American Working Conditions Survey (RAND Corporation, November 2019).

While specialization yields economies, it curtails initiative and innovation. Those in overly specialized jobs have little scope to improvise or add more value. Whatever their capabilities, they can contribute only what the job engineer envisioned. This is like having a fat Swiss Army knife and using it only as a corkscrew. As our friend Anglican bishop Drew Williams put it, "Slot-shaped roles yield slot-shaped contributions."

If you are unconvinced that overspecialization imposes real costs, consider a counterexample. Based north of Sacramento in California's verdant San Joaquin Valley, Morning Star is America's largest and most profitable tomato processor. In peak season, each of its three sprawling plants devours a thousand tons of tomatoes per hour. This is a complex, capital-intensive business where dozens of critical processes must be precisely calibrated. Despite that, Morning Star boasts one of the most radical organizational models on the planet. There are no managers and no job titles. Instead, its five hundred full-time "colleagues" are expected to act like "self-managing professionals."[12]

Working in teams spanning more than twenty business units, colleagues write contracts with one another, enumerating their individual duties. One colleague may contract to unload and sort tomatoes, another to operate a boiler, and a third to provide accounting services. Every colleague is accountable to peers, but no one is accountable to a boss. Thanks to its superior efficiency, Morning Star has put many of its competitors out of business. The company's cost advantage is the product of a work environment that encourages team members to think creatively and expansively about their roles and contributions.

Paul Green Jr., who was responsible for the company's training and development efforts before enrolling in the PhD program at Harvard Business School, explains, "We believe you should do what you're good at, so we don't try to fit people into a job. As a colleague, you have the right to get involved anywhere you think your skills can add value. As a result, our people tend to have broader and more complicated roles than is typical elsewhere."

Chris Rufer, Morning Star's founder and president, has long operated on the belief that "An organizational philosophy has to start with people, and the conditions that allow them to be more creative and passionate about their work, and freedom unleashes this. Everyone does better if they are free to pursue their own path. If they are free, they will be drawn to what they *really* like, versus being pushed towards what they have been told to like. So they will do better; they'll be more enthused and charged up to do things."

Rufer goes on: "There are a lot of personal nuances in how people work together, and the freer individuals are to explore those nuances, and to tailor their relationships around their own particular competencies, the better all those contributions fit together. This is spontaneous order, and it gives you more fluidity. Relationships can change form more easily than if we tried to fix them from above."

"What is it," we inquired of a Morning Star plant mechanic, "that prompts team members to be proactive in offering help to colleagues?" His answer: "Our organization is driven by reputational capital. When you have something to add to another part of the company, some valuable piece of advice, that increases your reputational capital." Not surprisingly, when roles are broadly defined

and people get positive strokes for helping others, initiative flourishes.

There's no cap on the number of problems that can be profitably addressed in a business. Nor is there a cap on the ingenuity of those at work. What's capped in a bureaucracy is the opportunity for individuals to develop and apply their gifts. Remove this cap, and *every* job becomes a good job—full of challenge, opportunity, and accomplishment, and every team member becomes part of the creative economy.

Like Morning Star, we must expand the creative content of every job. Instead of deskilling, we must upskill. This is more than a matter of harvesting latent capability; it's also a way of imbuing work with dignity.

We live in an age of fading faith and fractured communities. In consequence, work has become even more central to human identity. While we may regard this as regrettable, we cannot shirk our responsibility. We must nurture the innate problem-solving skills of every human being at work and create elastic roles that expand as human capabilities grow. We must strive to better align vocation and avocation. Of course, routine work still needs to get done, and not every task is inherently edifying, yet we must find ways of matching talents and tasks that don't slice the multitudinous and wonderfully unique shapes of human capability into dull, uniform lumps.

Standardized and Stupefied

In 1911, Frederick Taylor, the patron saint of standardization, published his opus, *The Principles of Scientific Management*. In the introduction, he laid out the case for systemizing work:

We can see and feel the waste of material things. Awkward, inefficient, or ill-directed movements of men, however, leave nothing visible or tangible behind them. Their appreciation calls for an act of memory, an effort of the imagination. And for this reason, even though our daily loss from this source is greater than from our waste of material things, the one has stirred us deeply, while the other has moved us but little.

Taylor believed that through meticulous observation and measurement, it was possible to discover the "one best way" of performing any task. Working in the early decades of the twentieth century, Taylor's goal was to make human beings as reliable and efficient as the machines they served. As he often told his clients, "In the past, the man has been first; in the future, the machine must be first."[13]

Standardization was a triumph of production engineering, but more so of social engineering. The spread of Taylorism across the world's industrializing economies turned millions of obstreperous and occasionally lackadaisical laborers into rule-following, clock-punching employees. Today, we are so habituated to thinking of ourselves as employees that we have little concept of how unnerving this revolution was to the farmers, traders, and artisans of the eighteenth century. To many, the idea of being economically dependent on a distant paymaster was abhorrent—it turned human beings into wage slaves. Yet for a multitude of poor and semiliterate workers, a steady job, however menial, was an advance.

Taylorism also cemented the distinction between "workers" and "managers." In scientific management, workers were no longer

responsible for selecting tools, devising methods, setting schedules, or resolving disputes. In Taylor's view, the average employee was too thick-headed for such work. In a particularly feculent passage, Taylor portrayed the typical steelworker as "so stupid that the term 'percentage' has no meaning to him."[14] Accordingly, it was necessary not only to standardize work, but to strip it of anything requiring judgment. On this point Taylor was adamant: "It is only through *enforced* standardization of methods, *enforced* adoption of the best implements and working conditions, and *enforced* cooperation that this faster work can be assured."[15] And who was to do the enforcing? Managers, of course.

In standardizing work, Taylor created both the demand function and the job description for a new class of workplace demi-czars. It was the manager's job to ensure that rules were followed, variances were minimized, quotas were filled, and slackers were punished. And so it is today. Look up the verb form of the word "manage" in any thesaurus and the first synonym is likely to be "control." You might be tempted to believe that twenty-first-century organizations have moved beyond this obsession with control, but you'd be wrong.

Near the end of his tenure as co-CEO of SAP, Jim Hagemann Snabe discovered that the German software giant had amassed more than fifty thousand key performance indicators (KPIs), covering every job across the company. Snabe was horrified. "We were trying to run the company by remote control," he recalls. "We had all this amazing talent, but had asked them to put their brains on ice."[16]

Snabe would readily admit that standards are important, yet there are limits to what can be routinized. To set standards, one must be able to specify the desired end state in advance, as well as the steps

necessary to achieve it. This assumes the target is unambiguous and stable. It further assumes that the tasks for hitting the target are not contingent on local conditions. Finally, one must know enough about the surrounding tasks to ensure the standards won't inadvertently undermine the pursuit of other equally important ends. Standardization becomes toxic when arrogance and a control fetish—frequently co-occurring pathologies—lead bureaucrats to ignore these limits.

For years, US fliers have lauded Southwest Airlines' affable service and customer-first mentality. It's not that Southwest's planes are fancier or fly faster. What's different is the freedom employees have to charm customers and improve the business. This freedom manifests itself in countless ways: crew members delivering humorous takes on the FAA's mandated safety briefing, pilots coming up with creative ways of saving fuel while taxiing, or a flight attendant escorting the children of a departing soldier onto the plane so they can give their dad a last hug before his posting.

Rules, no matter how enveloping, will never deliver an exceptional customer experience. Colleen Barrett, who in her forty-seven-year career at Southwest served as head of marketing, customer service, people, and operations, describes the airline's approach to rules: "The rules are guidelines. I can't sit in Dallas, Texas, and write a rule for every single scenario you're going to run into. You're out there. You're dealing with the public. You can tell in any given situation when a rule should be bent or broken. You can tell because it's simply the right thing to do in the situation you are facing."[17]

Backing up this freedom is a concerted effort to ensure every team member has the information needed to think and act like an owner. At Southwest, training programs cover industry economics, financial ratios, profitability drivers, and more. By investing in the judgment of its people, Southwest creates a business that is smarter, more innovative, and more profitable.

In contrast stands United Airlines. United has made headlines more than once for customer horror stories, but the mother of all public relations disasters occurred on April 9, 2017, when sixty-nine-year-old physician David Dao was forcibly removed from an oversold Louisville-bound flight. An uploaded video of the eviction, showing a bloodied Dao being dragged down the aisle, attracted millions of hits. In its formal review of the incident, United concluded that its employees "did not have the authority to act independently and authorize higher levels of compensation or provide other modes of transportation," and that the airline had failed by "providing insufficient employee training and empowerment to handle a situation like this."[18]

Nevertheless, the control habit is hard to break. When a TV reporter asked what United had learned from the incident, then-CEO Oscar Munoz replied, "We have not provided our frontline supervisors, managers, and individuals with the proper tools, policies, and procedures that allow them to use their common sense."[19] You spot the irony, right? Common sense is not the product of tools, policies, and procedures; those are *substitutes* for common sense. In our experience, many leaders like Munoz are frightened by the idea that an organization's fate rests on the ability of team members to use

their best judgment. The alternative, though, is institutionalized idiocy.

How is it that in their personal lives, employees can be trusted to buy houses and cars, but at work can't requisition a $300 office chair without a manager's approval? If we thought about it for a minute, we'd realize this is stupid. Autonomy correlates with initiative and innovation. Shrink an individual's freedom and you shrink their enthusiasm and creativity.

Unfortunately, the premise that employees are incapable of exercising judgment tends to be self-validating. First, jobs stripped of interesting cognitive work are unlikely to attract individuals looking to exercise their problem-solving skills. Second, overly scripted jobs give employees little opportunity to disprove the bureaucratic hypothesis that acumen correlates with rank. And third, after living for a few months in a reign of rules, most employees will quit or mentally check out.

Unlike Taylor, we don't slander the intelligence of frontline team members, but neither do we give them much scope to develop and deploy their unique capabilities. Though few would admit it, many still buy into the bureaucratic conceit that the thinkers are at the top and the doers at the bottom. The result is an intellectual caste system —a sort of intellectual apartheid.

If this seems like an exaggeration, consider the data. Using a scale of 0 to 100, the US Bureau of Labor Statistics rates hundreds of jobs by the degree of original thinking they require. The job of CEO earns a 72 rating. For sales managers, the score is 66, and for HR managers, 60. By contrast, the originality required of a customer service rep is rated at 44; a flight attendant, 41; and a bank teller, 31. Overall, 70

percent of US employees are in jobs that score below 50 on the originality index. That's over 100 million individuals who aren't expected to exercise their creativity at work. What a waste. (See figure 2-1.)

FIGURE 2-1

US employment in occupations based on importance of originality to job performance

Note: O*NET data on the importance of originality for individual occupations was matched with employment survey data by occupation.

Source: Authors' analysis based on O*NET and BLS employment survey data.

If the goal is to deliver exceptional customer experience, solve new problems, or simply survive in a chaotic environment, control needs to be based less on rules than on principles, norms, and mutual accountability—it's less about telling people what to do and more about equipping them to make smart decisions. To paraphrase the Nobel acceptance speech of Austrian economist Friedrich Hayek:

> If managers are to do more good than harm in improving organizational performance, they must learn that in a complex environment, they can't acquire sufficient knowledge to orchestrate the desired outcomes. Instead, they must use whatever knowledge they have not to shape results as a craftsman shapes a piece of handiwork, but to cultivate growth by providing a proper environment, much as a gardener does for plants.

This is how control works in our personal lives. How would you react, for example, if your spouse or partner generated a detailed set of rules for achieving relationship bliss? The mandates might include:

Never leave your clothes on the floor

Never leave the toilet seat in the "wrong" position

Never forget to call if you're going to be late

Never brag about what a catch you are

Never roll your eyes when my mother calls

Never criticize my friends

Never bring up something I did more than six months ago

Never assume I'm "in the mood"

Never eat food off my plate

Never leave the car low on gas

Never tell me to "calm down"

Never offer unsolicited advice about what I'm wearing

Never act like you're not mad when it's clear you are

Never go to sleep without asking me how my day was

Besides a long list of don'ts, there'd also be an exhaustive inventory of dos, involving flowers, date nights, housework, anniversaries, foot massages, compliments, apologies, and more. Trying to live up to all these rules would be exhausting and

humiliating. Moreover, your significant other would never know if you were acting from the heart or just ticking boxes.

Imagine instead what would happen if a couple strove to honor a few simple principles, like those found in I Corinthians 13:

> *Love is patient and kind.*
> *Love is not jealous, boastful, proud or rude.*
> *Love does not demand its own way.*
> *Love is not irritable and keeps no record of wrongs.*
> *Love never gives up, never loses faith.*
> *Love is always hopeful and endures through every difficulty.*

Living out these values would be both more challenging and more empowering than following a set of rules. You'd be challenged to aim high, but would have the headroom to improvise and grow. Standardization sets a floor on acceptable behavior, but it often sets a cap as well. Machines only do what they're told. Our organizations will never be fully capable until we rid them of "controlitis."

The Curse of Bureaucracy

It's no wonder that our organizations are inertial, incremental, and uninspiring. How could they be otherwise when bureaucracy …

Grants excessive credence to the views of precedent-bound leaders

Discourages rebellious thinking

Creates long lags between sense and respond

Calcifies organizational structures

Blinds silo-dwelling leaders to new opportunities

Suboptimizes trade-offs

Frustrates the rapid redeployment of resources

Discourages risk taking

Politicizes decision making

Creates long and tortuous approval pathways

Misaligns power and leadership capability

Caps opportunities for individual contribution

Undermines frontline accountability

Systematically devalues originality

Bureaucracy is dispiriting and debilitating, yet it persists. Instead of building human-shaped organizations, we're still hammering out bureaucracy-shaped human beings. If we're complicit in this, and have resigned ourselves to the endemic inadequacies of our organizations, it's because we've failed to do our sums. As we'll see in chapter 3, the first step in defeating bureaucracy is to count the cost.

— 3 —

Counting the Cost

Bureaucracy is like pornography: it's hard to find anyone who'll defend it, but there's a lot of it about. Doug McMillon, CEO of Walmart, calls bureaucracy a "villain." Jamie Dimon, chairman and CEO of JP Morgan Chase, labels it "a disease," while Charles Munger, vice chairman of Berkshire Hathaway, says the tentacles of bureaucracy should be treated "like the cancers they so much resemble."

With enemies like these, you'd think bureaucracy would be on the run, but that's not the case. Since 1983, the number of managers and administrators in the US workforce has more than doubled, while employment in all other occupations is up by only 44 percent. (See figure 3-1.)

This wasn't supposed to happen. Writing in 1988, Peter Drucker predicted that within twenty years, the average organization would have slashed the number of management layers by half and shrunk its managerial ranks by two-thirds. He was wrong. Bureaucracy is in rude health, and seems as unassailable as ever. To defeat it, we must understand what makes it so hardy.

A Formidable Enemy

First, and most obviously, bureaucracy is omnipresent. How do you kill something that is, quite literally, everywhere? Given its ubiquity, it's easy to assume that bureaucracy is rooted in immutable laws—the organizational equivalent of Kepler's laws of planetary motion or Bernoulli's law of fluid dynamics.

Second, the structures and rituals of bureaucracy constitute a set of social norms which, like all norms, are difficult to challenge without looking like a buffoon. Suggest abolishing the trappings of bureaucracy—the multiple management layers and all-powerful staff groups—and your colleagues will scoff at your naivete. What's next? Letting people design their own jobs, choose their colleagues, and approve their own expenses? Well, yes, actually, but if you go there, heads will explode.

Bureaucratic norms are powerful because they're backed by a global confederacy. Every organization is embedded in a web of institutional relationships predicated on the belief that bureaucracy is essential. Consulting firms tell their clients that deep change is impossible without the CEO's blessing, thus reinforcing the bureaucratic assumption that change starts at the top. Government agencies demand evidence of regulatory compliance and are satisfied only when presented with the artifacts of bureaucratic control—a chief compliance officer, compulsory training, and comprehensive reporting. In return for tuition dollars, business schools promise students a fast track up the corporate ladder. The cohesion of the bureaucratic coalition presents a formidable barrier to would-be management renegades. Their lot is not unlike that of an American tourist who rents a car in Britain. You can drive on the right-hand side of the road if you like, but the disincentives for doing so are manifold.

Third, like nuclear power plants and space rockets, bureaucracies are complex, integrated systems. Every process is connected to every other process. This lack of modularity makes it difficult to change one thing without changing everything. Where do you start? That's the paradox of change in a bureaucracy: what seems doable isn't transformational and what's transformational doesn't seem doable. The result: an endless succession of tweaks that never succeed in making the organization fundamentally more capable.

Fourth, bureaucrats are inclined to defend the status quo. Bureaucracy is a massive, multiplayer game in which millions of human beings compete for the prize of promotion. These are zero-sum battles. To advance, you must master the art of ducking blame,

defending turf, managing up, hoarding resources, trading favors, negotiating targets, and escaping scrutiny. Anyone who's spent years honing these skills is unlikely to be enthusiastic about a radical rule change. Asking an experienced bureaucrat to go from manager to mentor is like asking LeBron James, the star forward of the Los Angeles Lakers, to abandon basketball in favor of volleyball.

Fifth, bureaucracy works—sort of. All those bureaucratic structures and systems serve a purpose, however poorly. To simply excise them would create bedlam. Imagine, for example, what would happen if an organization decimated the ranks of middle management without first equipping employees with the skills, incentives, and information to be self-managing. Bureaucracy is a bulwark against disorder. Dismantle it and you risk anarchy—or so most leaders believe.

Finally, like Agent Smith in *Matrix Reloaded,* bureaucracy is self-replicating, and like the creature in *Alien,* it's relentless. The dynamics are familiar to anyone who has spent time in a large organization.

- In a bureaucracy, your power and compensation are the product of head count and budget. No one ever downsizes their empire voluntarily.

- Staff groups justify their existence by issuing rules and mandates, which seldom have a sunset clause. As a result, the clog of red tape grows ever bigger. Moreover, internal service providers can't be fired by their so-called customers.

- Every new challenge begets a new C*x*O or head office unit. These soon become permanent fixtures.

- As the organization grows, layers get added, and the ratio of managers to frontline team members creeps upward.

- With every crisis, authority moves to the center, and stays there.

- And as bureaucracy grows stronger, those who might resist it grow weaker.

Let us not pretend, though, that bureaucracy advances independent of human intention. The fuel that feeds the growth of bureaucracy is the quest for personal power. Power brings survival advantages, and we are wired to seek it. Having the power to direct your life is essential, but like the desire for food, alcohol, or sex, the lust for power can enslave us. That's why philosophers and moral teachers so often warn us of its dangers.

Centralization works like a ratchet because people with power are generally disinclined to give it up, and are often well positioned to acquire more of it. In a survey we conducted for *Harvard Business Review*, 63 percent of respondents listed the reluctance of leaders to surrender power as a significant barrier to reducing bureaucracy. Formal power is the currency of bureaucracy; it is the prize for which the game is played. Bureaucracy inflames our natural desire for power, sometimes to the point of caricature. As a result, bureaucracy often brings out the worst in people, whether it's a minor functionary gleefully enforcing a petty rule, or a CEO getting an ego massage from a deferential underling. In other words, bureaucracy isn't simply an organizational problem—it's a human problem.

For all these reasons, bureaucracy has proven to be an implacable foe. For generations, it has beat back every attempt to tame it.

In the 1960s, tens of thousands of managers from companies like IBM, GE, and Monsanto were sent off for sensitivity training. Employing a methodology developed by Kurt Lewin, facilitators divided participants into cohorts of five to ten individuals known as T-groups. Through role playing and peer feedback, managers were challenged to become more authentic and human-centered leaders. T-group sessions, typically lasting several days, were intimate and emotionally charged encounters. Many participants found the experience to be transformative, but in most cases the metamorphosis was short-lived. Once back in the bureaucratic bun fight, managers relapsed. As Art Kleiner describes it in *The Age of Heretics*, "Bullying managers who had learned to listen openheartedly began bullying again. Managers who had finally learned how to speak up at meetings, and to care about their company's future as a whole, reverted back to being passive-aggressive bureaucrats."[1] In other words, while T-group training built self-awareness, it didn't equip managers for the gritty work of retooling bureaucratic structures and systems.

As enthusiasm for T-groups waned, progressive leaders searched for other solutions to the problem of mechanistic and dispiriting work environments. Sociotechnical systems (STS), developed by British psychologist Eric Trist, was one promising, if clumsily named, candidate. STS was based on the premise that the technical and human aspects of work could be jointly optimized. Achieving this fusion required employees to be organized into small, self-managing teams.

In the 1960s and 70s, companies as diverse as Procter & Gamble, Shell, and Volvo launched STS-themed initiatives, but it was two

plant managers at a dog food factory, Lyman Ketchum and Ed Dulworth, who pushed the idea the farthest. In 1969, the pair had been asked to help their employer, General Foods, set up a plant in Topeka, Kansas. Veterans of a strife-ridden sister plant in Kankakee, Illinois, they were determined to build the new facility atop the principles of STS. Those tenets—which will be familiar to any advocate of "next generation" work practices—included:

- Assigning goals to teams rather than individuals

- Ensuring that all jobs encompassed both managerial and technical activities

- Giving teams responsibility for hiring and compensation decisions

- Rotating team members through different roles

- Integrating support functions into the teams

- Minimizing status differentials

- Providing open access to financial information

Putting these precepts to work required patience and experimentation, but the Topeka plant was soon setting benchmarks in every area of performance.

Though much studied and admired by outsiders, the Topeka system never spread to the rest of General Foods. Through the years, as the plant changed hands (General Foods, H.J. Heinz, Del Monte, a private equity group, and, currently, J.M. Smucker), its distinctive work practices were steadily diluted—this despite years of evidence that its hierarchy-lite management model produced superior results.

Harvard Business School professor Richard Walton, an early adviser at Topeka, blamed the recidivism on antagonistic managers:

> Topeka's success … was threatening to other managers whose leadership style was built on opposing principles. Moreover, the plant management's demands for autonomy in certain areas and its requests for exception from other corporate procedures was resented by staff groups. And many corporate executives simply did not understand the Topeka system.[2]

As one Topeka team member put it in a 1977 interview, "There were pressures almost from the beginning and not because the system didn't work. The basic reason was power."[3]

What about all those curious visitors who came to learn from Topeka? Most ended up frustrated. Unlike Ketchum and Dulworth, they didn't have the luxury of starting with a greenfield facility. How, they wondered, do you lead a management revolution when you're standing hip-deep in bureaucracy?

Since Eric Trist's death in 1993, there've been other campaigns to reinvent the workplace, around ideas like job enrichment, total quality management, participative management, and high-performance work teams. Like STS, most of these initiatives were ultimately neutered, cloistered, or aborted. And what of today's fads—mindfulness, agile, lean startup, and all the rest? Will they prove to be similarly inconsequential? Yes, unless we're honest about why bureaucracy is so hard to defeat—and then adjust our tactics accordingly.

So, let's face facts.

BUREAUCRACY IS FAMILIAR. You won't have the courage to take on bureaucracy unless you believe there are alternatives. We must search out organizations that have successfully defied management orthodoxy.

BUREAUCRACY IS COMPLEX AND SYSTEMIC. Fragmented, half-hearted attempts won't cut it. We need to replace the entire edifice of bureaucracy—one stone at a time.

BUREAUCRACY IS WELL DEFENDED. There will be resistance, so management rebels need to join forces. You have to build a grassroots movement that can overwhelm or route around the defenders of the status quo.

BUREAUCRACY SERVES A PURPOSE, HOWEVER POORLY. The goal is to carefully dismantle bureaucracy, not simply blow it up. You need a change strategy that is both audacious and prudent.

BUREAUCRACY IS SELF-REPLICATING. There will be no easy victories. Bureaucrats will fight back. To persevere, you'll need a sense of purpose that's as unshakable as the path is arduous.

Some believe that collaborative tools like Slack, Yammer, and Microsoft Team will soon turn our organizations into networks rather than hierarchies. Who needs managers when teams can seamlessly coordinate their efforts? Yet while messaging apps and groupware make it easy for employees to sync up, these technologies have done little to reduce management layers, roll back top-down mandates, cut compliance costs, or expand the decision-making rights of those on the front lines. While collaborative tools could be used to crowdsource strategy development, capital allocation, leadership

selection, and change management, this seldom happens. Thus far, these tools have mostly been used to expedite project work. They are to teams what Microsoft Office was to individuals a generation ago.

Rather than replace top-down structures, technology is more likely to reinforce them. Digital technology allows jobs to be sliced into ever-smaller segments and outsourced to the lowest bidder, further dumbing down work. Real-time analytics make it possible to assess job performance minute by minute—catnip to control-obsessed managers. Two academics, Brett Frischmann and Evan Selinger, call this "time cards on steroids." They rightly note that "technical innovations have made it increasingly easy for managers to quickly and cheaply collect, process, evaluate and act upon massive amounts of information."[4] Given the relentless growth of the bureaucratic class, and their susceptibility to "controlitis," where would you expect this to lead?

Let's not kid ourselves. The spread of digital technology gives us more reasons, not fewer, to fear the relentless spread of bureaucracy and more reasons to fight it.

Beating bureaucracy won't be easy, but there are reasons to be hopeful. Human beings have wrestled other complex problems to the ground. We're not helpless. But the first step is to get woke. Over the decades, many of us have become desensitized to the human and economic costs of bureaucracy. This needs to change.

Building the Case

A troubling reality can lurk for years in our peripheral vision without spurring action. Only when someone takes the trouble to

dimensionalize a problem do we gain a sense of its size and significance.

In the late 1990s, the US Institute of Medicine conducted a comprehensive meta study of patient safety. The ensuing report, *To Err Is Human*, published in 1999, estimated that as many as ninety-eight thousand lives were being lost each year to medical mistakes. Within days of the report's publication, President Clinton signed the Healthcare Research and Quality Act, a bill that increased funding for safety-oriented research and mandated an annual report on progress in reducing medical errors. Since then, US health providers have been engaged in a Herculean effort to reduce deaths and complications due to preventable errors—with remarkable results. Between 2008 and 2014, for example, the number of infections associated with central line catheters dropped by half in US hospitals.

The lack of gender and racial diversity in the tech industry is another long-ignored problem that was brought to light by data-driven consciousness raising. In 2008, Mike Swift, a reporter for the San Jose *Mercury News*, set out to measure diversity in Silicon Valley's fifteen largest companies. Swift's analysis, which showed blacks, Hispanics, and women losing ground even as staffing levels increased, prompted a rare instance of soul-searching among the tech elite.[5] Google, which had initially refused Swift's request for data, released its diversity statistics in 2014. The company confessed that only 17 percent of its tech employees were female, that 2 percent were Hispanic, and 1 percent African American.[6] The disclosure came with an apology: "We've always been reluctant to publish numbers about the diversity of our workforce at Google. We now realize we were wrong."[7]

The Bureaucratic Mass Index

In building the case against bureaucracy, we need more than theory and anecdotes. We need robust data on the prevalence and costs of bureaucratic drag. To that end, we built a simple instrument—the bureaucracy mass index, or BMI. The index covers ten questions across seven categories of bureaucratic drag. (See the sidebar "Bureaucratic Mass Index Survey Questions.")

Bureaucratic Mass Index Survey Questions

1. **How many layers are there in your organization (from frontline employees up to the CEO, president, or managing director)?**

2. **What percentage of your time do you spend on "bureaucratic chores" (e.g., preparing reports, securing sign-offs, complying with staff requests, and participating in review meetings)?**

3. **How much does bureaucracy slow decision making and action in your organization?**

4. **To what extent are your interactions with your manager and other leaders focused on internal issues (e.g., resolving disputes, securing resources, getting approvals)?**

5. **How much autonomy do frontline teams have to design their work, solve problems, and test new**

ideas?

6. **How often are frontline team members involved in the design and development of change initiatives?**

7. **How do people in your organization react to unconventional ideas?**

8. **In general, how easy is it for an employee to launch a new project that requires a small team and a bit of seed funding?**

9. **How prevalent are political behaviors in your organization?**

10. **How often do political skills, as opposed to demonstrated competence, influence who gets ahead in your organization?**

WASTE: Number of organizational layers and time spent on low-value bureaucratic tasks

FRICTION: Bureaucratic impediments to speedy decision making

INSULARITY: Percentage of time devoted to internal versus external issues

AUTOCRACY: Limits to frontline autonomy

CONFORMITY: Likelihood that unconventional ideas are greeted with skepticism or hostility

TIMIDITY: Constraints on experimentation and risk taking

POLITICKING: The prevalence of political behaviors and the role they play in determining personal advancement

To establish a cross-industry baseline, we conducted an online survey, again with the help of *Harvard Business Review*. More than ten thousand individuals participated. (See table 3-1 for more information about the respondents.) Here's what we learned.

BMI survey: Respondent demographics

Size of organization (number of employees)	Percent of respondents	Role	Percent of respondents
<100	14.7	CEO/SVP	11.2
100–1,000	29.6	Director	24.3

1,001–5,000	20.1	Manager	36.4
>5,000	35.6	Frontline employee	28.1
	100.0		100.0

WASTE. THE AVERAGE RESPONDENT WORKS IN AN ORGANIZATION WITH SIX MANAGEMENT LAYERS. IN LARGE ORGANIZATIONS (THOSE WITH FIVE THOUSAND OR MORE EMPLOYEES), FRONTLINE EMPLOYEES ARE BURIED UNDER EIGHT OR MORE LAYERS. (SEE TABLE 3-2.)

TABLE 3-2

BMI survey: Number of organizational levels by firm size

Size of organization (number of employees)	**Average number of levels**

<100	3.5
100–1,000	5.4
1,001–5,000	6.9
>5,000	8.1

In addition, respondents spend an average of 27 percent of their time on bureaucratic chores such as writing reports, documenting compliance, and interacting with staff functions. A significant portion of this work is deemed to be of little or no value. For example, barely a third of respondents judge budgeting, goal setting, and performance reviews to be "very valuable."

FRICTION. SEVENTY-NINE PERCENT OF THOSE FROM LARGE ORGANIZATIONS SAY THAT BUREAUCRATIC PROCESSES "SIGNIFICANTLY" OR "SUBSTANTIALLY" FRUSTRATE HIGH-TEMPO DECISION MAKING. SPEED IS NOT A HALLMARK OF BUREAUCRACY.

INSULARITY. SURVEY RESPONDENTS SPEND 42 PERCENT OF THEIR TIME ON INTERNAL ISSUES— RESOLVING DISPUTES, WRANGLING RESOURCES, ATTENDING MEETINGS, NEGOTIATING TARGETS, AND

THE LIKE. MOST INSULAR ARE EXECUTIVES IN LARGE COMPANIES, WHO DEVOTE NEARLY HALF THEIR TIME TO IN-HOUSE MATTERS. PREOCCUPIED AS THEY ARE, IT'S LITTLE WONDER THEY OFTEN FAIL TO SPOT EMERGING TRENDS.

AUTOCRACY. MORE THAN TWO-THIRDS OF NONMANAGERS IN LARGE ORGANIZATIONS REPORT HAVING "LITTLE" OR ONLY "MODERATE" CONTROL OVER THEIR WORK METHODS AND JOB PRIORITIES. ADDITIONALLY, ONLY A QUARTER OF THOSE SURVEYED INDICATE THAT FRONTLINE EMPLOYEES ARE "ALWAYS" OR "FREQUENTLY" INVOLVED IN THE DESIGN OF MAJOR CHANGE INITIATIVES. THIS LACK OF AUTONOMY SAPS INITIATIVE AND LIMITS CREATIVITY.

CONFORMITY. SEVENTY-FIVE PERCENT OF SURVEY TAKERS SAY THAT NEW IDEAS IN THEIR ORGANIZATION ARE MET WITH INDIFFERENCE, SKEPTICISM, OR OUTRIGHT RESISTANCE—A DEEPLY WORRYING FINDING GIVEN THAT NEW IDEAS ARE THE LIFEBLOOD OF EVERY ORGANIZATION.

TIMIDITY. EQUALLY TROUBLING IS A LACK OF SUPPORT FOR EXPERIMENTATION. NINETY-FIVE PERCENT OF RESPONDENTS WORKING IN COMPANIES WITH MORE THAN A THOUSAND EMPLOYEES REPORT THAT IT'S "NOT EASY" OR "VERY DIFFICULT" FOR A FRONTLINE EMPLOYEE TO LAUNCH A NEW INITIATIVE. WHILE COMPANIES LIKE AMAZON AND INTUIT RECOGNIZE THE VALUE OF BOTTOM-UP INNOVATION, MOST ORGANIZATIONS DON'T.

POLITICKING. SIXTY-TWO PERCENT OF RESPONDENTS BELIEVE THAT POLITICAL SKILLS "OFTEN" OR

"ALMOST ALWAYS" DETERMINE WHO GETS AHEAD. IN LARGE ORGANIZATIONS, THE FIGURE JUMPS TO 75 PERCENT. WHEN ASKED TO RATE THE PREVALENCE OF OVERTLY POLITICAL BEHAVIORS, 68 PERCENT OF RESPONDENTS IN LARGE COMPANIES SAY SUCH CONDUCT IS "OFTEN" OBSERVED. IN A BUREAUCRACY, IT'S THE BEST INFIGHTERS WHO END UP ON TOP, RATHER THAN THOSE WHO ARE MOST CREATIVE OR COMPETENT.

We scored each of the BMI questions on a scale of zero to ten, where zero denotes the complete absence of bureaucracy-related traits and ten a high degree of bureaucratic drag. Adding these results together, we calculated an overall BMI score for each respondent, ranging from zero to a hundred. The average score across the survey was sixty-five. (Figure 3-2 presents the distribution of BMI scores.)

FIGURE 3-2

Distribution of scores from the BMI survey

This simple survey starts to bring the costs of bureaucracy into focus. For too long, large organizations have ignored these costs, perhaps assuming they were unavoidable. Yet as we've already hinted, bureaucracy *isn't* inevitable. In subsequent chapters, we'll introduce you to some amazing, human-centered alternatives. But as they say about alcoholism, the first step is to admit you have a problem. To size the problem in *your* organization, have your colleagues take the full BMI survey, which you'll find in appendix A and online at www.humanocracy.com/BMI.

The Economic Impact of Bureaucracy

Finding the will to battle bureaucracy requires us to confront its impact not only on individual organizations, but on the economy overall.

In 2018, there were 146 million employees in the US workforce (excluding farm and household workers and the self-employed). Of these, 20.5 million were managers and supervisors. In addition, there were 6.4 million individuals working in administrative support functions—including human resources, finance, accounting, and compliance (but excluding IT). In total, then, the bureaucratic class comprised 26.9 million individuals, or 18.4 percent of the US workforce. This group claimed more than $3.2 trillion in compensation, or nearly a third of America's total wage bill. (See appendix B for details on our approach to sizing the bureaucratic class.)

Added to this price tag is the cost of all the low-value chores bureaucrats create for everyone else. A 2014 survey by Deloitte Economics on the costs of bureaucratic busywork in Australia found that nonmanagerial employees spent an average of 6.5 hours per week, or 16 percent of their time, complying with internal rules and regulations. This jibes with the results of the BMI survey, where respondents reported spending 27 percent of their time on internal *and* external compliance. If Deloitte's data holds in the United States—if America's 119 million nonmanagerial employees are spending an average of 16 percent of their time on internal bureaucratic tasks—

this equates to an additional 19 million full-time equivalent bureaucrats. (See figure 3-3.)

The question is, how much bureaucracy could be eliminated without sacrificing organizational performance? The answer: more than you think. The experience of post-bureaucratic pioneers like Buurtzorg, Haier, Morning Star, Nucor, Spotify, Svenska Handelsbanken, Vinci, W.L. Gore, and others proves it's possible to run large, complex organizations with super-flat structures and skinnied-down staff groups. On average, these organizations boast a span of control that is more than twice the US average.

While General Electric has had a rough ride in recent years, its assembly plant in Durham, North Carolina, is a standout example of humanocracy. There, in a cavernous and immaculately clean factory, more than three hundred technicians assemble the world's largest jet engines. Employees are organized into small, self-managing teams, with but a single leader overseeing the plant. A 1:300 span of control may seem extreme, but it has helped GE Durham achieve productivity levels that are twice that of a conventionally managed plant.

FIGURE 3-3

Bureaucrats and bureaucratic work as a percentage of the US workforce

Source: US Bureau of Labor Statistics, Deloitte Economics, and authors' estimates.

For the moment, let's set a more modest goal. Let's assume we can reduce the number of managers and administrators by half—from 26.9 million to 13.45 million. This would shrink the ratio of

bureaucrats to employees from 1:4.3 (146 million less 26.9 million, divided by 26.9 million) to 1:10 (146 million less 13.45 million divided by 13.45 million). It would also reduce the $3.2 billion bureaucrat wage bill by half. Could bureaucratic busywork be cut by 50 percent as well? Almost certainly.

Numerous polls give us reason to question the value of many bureaucratic rituals. Despite HR budgets reaching new highs (from less than 1 percent of operating costs in 1997 to more than 3 percent in 2017), the percentage of executives who think HR plays a strategic role in their organization has been stuck at 25 percent since 1995. Many HR processes, like the annual performance review, are widely viewed as ineffective.[8] The same is true of other processes. A scant 11 percent of executives believe that strategic planning creates value, only 17 percent of managers regard the budgeting process as effective, and less than a third rate their company's capital allocation process as "very" or "extremely" effective.[9]

It seems reasonable to believe that half the compliance load in a typical organization could be eliminated without unleashing the forces of chaos. Doing so would yield an annual savings of 9.5 million worker years, and over $580 billion in compensation costs.

Together, unnecessary bloat and busywork saddle US organizations with $2.2 trillion a year in unnecessary wage and salary costs. Beyond this are the ancillary costs—travel, training, office space, equipment, and IT support—of supporting all those bureaucrats. Let's assume these expenses are 20 percent of compensation costs—that's another $430 billion, for a total cost of roughly $2.6 trillion. To put this in context, in a recent twelve-month period, the net income of *all* the companies in the Russell 3000 index

(which encompasses 98 percent of investable equities in the United States) was a comparatively modest $1.3 trillion. The implication is clear: busting bureaucracy is probably the most profitable thing any organization can do—a conclusion that's buttressed by the fact that the post-bureaucratic organizations we'll profile in coming chapters are, on average, significantly more profitable than their peers.[10]

The $10 Trillion Prize

Cutting bureaucratic waste would also boost productivity. In the United States, nonfarm productivity growth averaged just 1.3 percent per annum over the past decade, and a meager 1.62 percent since 1970.[11] This compares poorly with the 2.82 percent average growth rate recorded between 1909 and 1969.[12] Declining productivity growth isn't unique to the United States. Of the thirty-five countries profiled in the OECD's 2015 Compendium of Productivity Indicators, twenty-three failed to match US productivity growth between 1995 and 2015. Most of the countries that surpassed the United States were late-blooming economies such as Hungary, Poland, and Estonia.[13] As we write this, the US economy is humming along, and productivity is edging up, but at the present pace, it would take years to offset the productivity slowdown of the last several decades.

There's a reason economists obsess over productivity growth. When it stagnates, so do living standards. The ensuing economic frustration opens the door to populism, protectionism, and social divisiveness. That's why George Osborne, Britain's former Chancellor of the Exchequer, described rekindling productivity growth as "the challenge of our time."[14]

Techno-optimists, like MIT's Erik Brynjolfsson, believe the productivity drought will be reversed by a wave of new technologies. In this view, the world is on the cusp of a "second machine age," fueled by the internet of things, robotics, artificial intelligence, and genomics. Will this reenergize productivity growth? Perhaps, but only if today's emerging technologies have a much bigger impact than the advances of the past forty years, which included the personal computer, GPS, the World Wide Web, e-commerce, smartphones, and social media.

While emerging technologies may yet produce a productivity windfall, we believe defeating bureaucracy offers a more promising and less speculative route to raising output. It is more than coincidental, we think, that bureaucracy has surged while productivity growth has withered.

Let's go back to our earlier calculations. We estimate there are 13.45 million managers and the equivalent of 9.5 million employees in the US economy who are producing little or no economic value. This suggests that the United States could achieve current levels of economic output with 14 percent fewer people in the labor force (22.95 million divided by a total labor force of 146 million employees and 16 million self-employed workers). Excising bureaucratic deadweight would raise US GDP per employed person from $127,000 (the figure for 2018) to $148,000. The goal, of course, is not to throw 23 million people out of work, but to refocus their talents on productive activities. If each of these individuals contributed $148,000 to the economy, rather than zero, GDP would increase by roughly $3.4 trillion. That gain, if achieved in equal increments over the next ten years, would add nearly 1.6 percent to

annual productivity growth, which would more than double the 1.3 percent rate turned in between 2007 and 2018. Achieving similar gains across the OECD would add $10 trillion to global output. To our knowledge, no other policy proposal offers a productivity dividend even close to this scale.[15]

On top of these efficiency gains would be the large but difficult to quantify benefits of a workforce no longer infantilized by supercilious rules and immobilized by leaden processes. More freedom and responsibility would mean more initiative, innovation, and resilience. These benefits could be substantial. For example, within the pharmaceutical industry, a number of respected leaders have argued that the only way to raise R&D yields and reduce the soaring costs of drug discovery is to perform what might be termed a "burecotomy." Roger Perlmutter, the president of Merck Research Laboratories, has suggested that a good start would be to "scrape off the top five levels of management, including myself."[16]

The Moral Imperative

The bureaucratic fortress may seem impregnable, but three hundred years ago, the same could have been said of monarchical authority. Before the eighteenth century, most human beings were ruled by unaccountable leaders whose only qualification was their royal lineage. Two centuries ago, slavery was viewed as an unalterable fact. Some poor souls, it seemed, were fated to be property. A hundred years ago, patriarchy was regarded as preordained—at least by men. Women were systematically disadvantaged, both socially and economically. Today we regard autocracy as indefensible, slavery as iniquitous, and patriarchy as injurious. While these evils still exist,

they have been steadily, and sometimes impressively, rolled back. And yet these social cankers were once as deeply rooted as bureaucracy is today.

Are these analogies overdrawn? Perhaps. How can we possibly compare the life of a retail clerk at Tesco, a millwright at ArcelorMittal, or a service rep at the Department of Motor Vehicles with the lot of a serf or plantation slave? For most human beings, working conditions are immeasurably better than they were in centuries past. True enough. Yet buried in this objection is the assumption that at some point we should accept our gains and submit to the status quo—but at what point is that?

The subsistence farmers lured to the "satanic mills" of Victorian England were often better paid, fed, and housed than those who remained on the land. Despite that, they fought for safer working conditions, an end to child labor, and the right to collective bargaining. Thanks to their efforts, we have better jobs than they did. Is that enough, then? No. We have an obligation to pay it forward. A living wage, equal pay, respect for diversity, parental leave, flextime, health-care coverage—these are worth fighting for, but should we aim still higher? We think so.

Aristotle argued that an individual cannot achieve happiness without self-direction. If we believe that a just society is one in which people have the opportunity and freedom to become their best selves, then we shouldn't tolerate the soft tyranny that millions of employees face each day at work—what oral historian Studs Terkel called "a Monday through Friday kind of dying."[17]

Rather than doubting our ability to eradicate bureaucracy, we should draw courage from the patriots, abolitionists, and suffragettes

who championed the cause of human dignity in centuries past. Their successes teach us that a purely utilitarian argument is not enough to dislodge a deeply embedded social system that serves the interests of the few rather than the many. While data can crack the ice, real progress is possible only when hearts begin to melt.

Consider the case of Thomas Clarkson, one of the leading figures of the British abolitionist movement. Clarkson spent much of his life collecting eyewitness accounts of the slave trade. Traveling more than thirty-five thousand miles by horseback, he interviewed twenty thousand sailors who had worked on slaving ships. His unsparing essays mobilized antislavery groups across Britain, but Clarkson believed artifacts were more persuasive than words. When he was invited to speak, he displayed shackles and thumbscrews retrieved from slave ships. Alongside them, he laid out delicate carvings and beautiful fabrics produced by African artisans. This jarring juxtaposition of brutality and beauty drove his point home: the poor captives on the slave ships were no less human than those sitting in his audience. It was Clarkson's tireless campaigning, along with that of activists like John Newton, the former slave trader who penned "Amazing Grace," that compelled the young parliamentarian William Wilberforce to take on the challenge of eradicating slavery across the British empire, a feat that was accomplished in 1833.

Wrongs are wrong whatever their magnitude. If we are not daily struck by the inhumanity of bureaucracy, it's because our outrage has been dulled by time and familiarity. Yet what Thomas Paine said of monarchy in 1776 is equally true of bureaucracy today: "A long habit of not thinking a thing wrong gives it a superficial appearance of being right."

Throughout the long history of social progress, the most powerful argument for change has been the assertion that every human being deserves the fullest possible opportunity to develop, apply, and benefit from their natural gifts, and that unnecessary human-made impediments to this quest are unjust. *That* is why we stand against bureaucracy: because human beings deserve better.

So collect all the data you can. Build the case for excising bureaucracy in *your* organization. But know that only a keenly felt and widely shared moral imperative has the power to break through the indifference, self-interest, and fear that have long guarded the bureaucratic citadel.

Part Two

Humanocracy in Action

Can We Really Go Bureaucracy-Free?

— 4 —

Nucor

Building People Not Products

Let's be honest: most of us would have been reluctant to sail with Columbus. "Hey, Chris," we would have asked, "is there a TripAdvisor review on this so-called New World?" Many are similarly hesitant to embark on the journey to humanocracy. While data and moral courage may get your colleagues to the port, most will hesitate to step aboard until you can paint a picture of the destination. The problem is, conjuring up a plausible image of a super-flat, thoroughly decentralized organization isn't easy. As human beings, we're prisoners of the familiar—and there's little that's more familiar than bureaucracy.

Luckily, the post-bureaucratic future isn't entirely terra incognita. A handful of vanguard organizations have been mapping its contours, and there's much to learn from their endeavors. In this chapter and the one that follows, we'll delve into two pioneering organizations that have sailed far beyond shores of bureaucratic orthodoxy. Nucor, the world's most innovative and consistently profitable steelmaker, is

a case study in what happens when you invert the pyramid and unleash the capabilities of those on the front lines. Haier, the Qingdao-based home appliance maker, has built a culture that encourages everyone to think and act like an entrepreneur. While their approaches are different, both companies have upended canonical management beliefs. By doing so, they've built highly successful organizations that give us confidence in setting sail for humanocracy.

Meet Nucor

Have you ever been inside a steel mill? If so, you'll know why the people there are considered the ultimate blue-collar workers. In the furnace, operators clad in heat-resistant jackets and face shields carefully manipulate a forty-foot cauldron of molten metal—what's left of a few hundred tons of ferrous scrap after a thirty-minute, 175-megawatt electroshock treatment. In the nearby caster—a machine the size of a school bus that pours molten steel into different shapes—crew members gaze intently at the glowing orange stream of liquid metal, periodically adjusting and lubricating the nozzle to ensure a steady flow.

Watching steelworkers tend to these giant machines, you might conclude their work requires more brawn than brain, and data from the Bureau of Labor Statistics supports that view. Physical strength and dexterity are considered to be far more important for steelworkers than creative and analytical skills. (See table 4-1.) While that may be true in some steel plants, it's certainly not the case at Nucor, America's largest steelmaker.

TABLE 4-1

Importance of specific skills in select metal-working occupations

0 = unimportant, 100 = very important

	Caster operators	Furnace operators
Handling and moving objects	86	71
Control precision	63	72
Manual dexterity	63	72
Analyzing data or information	37	36

Developing objectives and strategies	29	26
Originality	25	25
Customer service	19	29
Drafting and specifying technical devices	16	19
Management of financial resources	13	16

Source: US Bureau of Labor Statistics; authors' analysis.

At Nucor, it's the expertise and autonomy of frontline workers that drives progress. Consider the team running the furnace at Nucor's Blytheville, Arkansas, facility, who turned out the giant I-beams that undergird New York's One World Trade Center. It was crew members —not a finance or engineering executive—who conducted a detailed cost-benefit analysis and decided it was time to replace the aging furnace shell (the colossal bowl where scrap metal is turned into molten steel). Once the decision was made, it was the team—not the

purchasing department—that solicited bids from suppliers. Unimpressed by the proposals they received, the crew decided to design the shell themselves. They chose the fabricator and during the build-out provided minute feedback at every step. The result? A highly efficient piece of equipment that cost Nucor $3 million—one-tenth the price of the original bids.

It is this sort of initiative and innovation that has made Nucor America's steel leader. In 2018, Nucor's 26,000 employees—called teammates—shipped 27.9 million tons of steel and generated $25 billion in sales. Nucor is also the most diversified steelmaker in North America, supplying beams, sheet, plate, reinforcing bar, and steel grating to a broad range of customers. Nucor runs its plants on scrap steel and is the largest recycler in the western hemisphere.

Steelmaking is a tough business. When compared to other industries, return on capital is meager and bankruptcies common. Nucor, though, isn't an average steel company. Since 1969, it's suffered only one unprofitable year, following the 2008 financial crisis, and has consistently delivered industry-leading returns. Not only does Nucor outperform its peers on profitability and return on capital, it also leads by a wide margin on growth in market value, revenue, income, and tons shipped per employee (see table 4-2). The company's ratio of capital per employee is in line with the competition, but its output per capita is almost 50 percent higher than the industry average. These results are the product of a remarkable culture—one that values contribution over rank and innovation over compliance.

TABLE 4-2

Nucor performance versus peers, five-year average (2014–2018)

Profitability and returns metrics	Nucor	Peer group[a]
Return on capital	8.3%	5.7%
Profit margin (EBIT)	8.4%	5.2%
Total returns to shareholders (Average trailing, 5-year returns)	38.7%	1.4%

Employee productivity metrics (thousands)	Nucor	Peer group[a]
Market value per employee	$697	$324

Revenue per employee	$805	$663
Net income per employee	$42	$14
Net value of plant, production, and equipment per employee	$210	$233
Steel tons shipped per employee (2018 only)	1.06	0.67

a. Simple weighted averages including AK Steel, ArcelorMittal, Commercial Metals Company (CMC), Gerdau, Steel Dynamics, and United States Steel. For employee productivity metrics, CMC and Gerdau were not included due to lack of data.

Source: Capital IQ; World Steel; company reports; authors' analysis.

Nucor produces its steel in mini-mills, which are typically half the size of an integrated, blast furnace mill.[1] Mini-mills are more flexible than integrated mills and have lower capital costs. Historically, integrated plants had an advantage in producing thin, high-grade steel. Yet over the past thirty years, Nucor's relentless innovation has erased much of this advantage. In 1989, Nucor pioneered a new technology that allowed it to produce slabs that were four times

thinner than what had previously been possible (1.2 versus 4.8 mm). With thinner sheets, the time required to roll the steel into its final shape was cut from several days to a few hours. (It would be eight years before Nucor's competitors matched this advance.) In 2002, Nucor introduced ultra-thin cast steel, which reduced thickness to less than a millimeter. Compared to an integrated facility, the ultra-thin cast process consumed 95 percent less energy. Over the past decade, this breakthrough, along with many others, has pushed Nucor's share of North American crude steel production from 16 percent to nearly 25 percent.[2]

Nucor's employees, who live in rural communities across the American Midwest and Southeast, are the soul of the company and share directly in its success. Since the Great Recession, Nucor has increased its payroll by 30 percent, while industrywide employment shrank by 15 percent.[3] Not surprisingly, employee turnover is significantly lower than the sector average.

Underpinning Nucor's performance is a radical, bottom-up organizational model that reflects the convictions of the company's former chairman and CEO, Ken Iverson. Foundational to Iverson's worldview was a belief in the capacity of ordinary human beings to do extraordinary things. As he explained in his book, *Plain Talk: Lessons from a Business Maverick*,

Most of today's corporations were conceived as command-and-control organizations. The founders of integrated steel mills, for example, clearly assumed that the "genius" of the organization resided almost completely in management … In contrast, we built Nucor under the assumption that most of the "genius" in

our organization would be found among the people doing the work. From the outset, we shaped our business to let employees show management the way to goals that once seemed unreachable.[4]

Built on Freedom and Responsibility

As you'd expect of a company built to encourage creative problem-solving, Nucor is highly decentralized. In essence, the company is a confederation of seventy-five divisions that operate independently but compete collectively. The average division has $330 million in annual revenues and operates one or two plants. These units make their own decisions on procurement, products and staffing. Each division is also responsible for creating the demand for its products by winning and retaining customers. Unlike other steel companies, Nucor's plants aren't mere manufacturing sites, but end-to-end businesses. Accordingly, each division has its own P&L, which is entirely free of corporate cost allocations.

Thanks to this decentralization, the entrepreneurial spirit runs deep at Nucor. Attend a plant meeting, and you'll undoubtedly hear teammates discussing new commercial opportunities. Consider, for example, the experience of the Hickman, Arkansas, sheet division. For years, the bulk of its revenue came from selling steel tubes to oil and gas companies. Riding the fracking boom of the early 2010s, Hickman became one of Nucor's most profitable units. But in late 2014, oil prices collapsed and, with it, demand for Hickman's tubes. In a matter of weeks, the division went from being maxed out to

losing money. This triggered an urgent search for solutions. How can we diversify our product range and industry exposure? What can we produce that's differentiated from competitors and other Nucor plants? A small ad hoc team fanned out to capture ideas from colleagues and customers. The brainstorming surfaced two promising opportunities: specialized steel for electric motors and high-strength steel for auto parts. Team members were soon on airplanes, traveling the world to locate the technology and equipment needed to make the new products. In parallel, other team members worked up a proposal for a $230 million mill expansion that would add 650,000 tons of capacity. MaryEmily Slate, who at the time was Hickman's general manager, pitched the proposal to Nucor's executive group in February 2016 and, within a few months, had secured the necessary funding.

Reflecting later on how her team had mobilized to right the ship, Slate said, "The greatest thing is you get it done without somebody from the top saying, 'This is what you're going to do.' The idea came from the ground floor, based on a shared assessment of what we needed. We're all responsible for the financial performance of our facility."[5]

An oft-repeated mantra at Nucor is that decisions should be "pushed down to the lowest level." It's no surprise, then, that the company has a miniscule corporate center—about a hundred people occupying two floors of a nondescript office building on the outskirts of Charlotte, North Carolina. Head office acts as the corporate bank, reviewing major capital requests, and also sets a few basic rules such as base salary levels and minimum performance standards for the divisions.

Unlike most industrial companies, Nucor has chosen not to centralize functions like R&D, sales, marketing, strategy, safety, engineering, compliance, and purchasing. Beyond the CEO, Nucor's executive ranks include only one other functional head, the CFO. Similarly sized U.S. Steel, based in Pittsburgh, has at least eight central functions—including performance analytics, strategic planning, compliance, supply chain, manufacturing excellence, IT, HR, and finance—which are supported by a head-office staff group of about a thousand individuals.

Nucor's lean management philosophy also applies at the divisional level. The thousand-strong Blytheville beam division, for example, has a scant seven full-time managers—including the plant manager. Across the company, full-time managers and executives, a population that doesn't include team supervisors, account for only 2 percent of employment—four times less than the percentage in the overall economy. As a percentage of revenue, Nucor's general and administrative expenses hover around 3 percent, or roughly half that of its competitors.

Nucor's Post-bureaucratic Recipe

Nucor's faith in its people has produced a management model that breaks the bureaucratic mold in five important ways.

1. Creativity: Paying for Breakout Thinking

Through its compensation system, Nucor focuses everyone's attention on innovating in ways that maximize asset productivity and growth. While competitors may assume that investment is the fastest

way to raise output, Nucor bets on the imagination of its people. Here's how it works.

REWARDING PRODUCTIVITY. AT NUCOR, A TEAM'S EARNING POWER IS LINKED TO ITS PRODUCTIVITY. BASE PAY FOR FRONTLINE TEAMMATES IS ABOUT 75 PERCENT OF THE INDUSTRY AVERAGE, BUT ONCE A TEAM'S OUTPUT EXCEEDS A THRESHOLD, TYPICALLY 80 PERCENT OF THE PLANT'S RATED CAPACITY, A BONUS PLAN KICKS IN. THE BONUS THRESHOLD IS FIXED AND GETS ADJUSTED ONLY WHEN CAPITAL INVESTMENTS INCREASE THE RATED OUTPUT OF A PARTICULAR PIECE OF MACHINERY OR THE ENTIRE PLANT. KNOWING THIS, TEAM MEMBERS HAVE A POWERFUL INCENTIVE TO "SWEAT THE ASSETS," SINCE THE ONLY WAY TO INCREASE THEIR BONUS IS TO PRODUCE MORE STEEL FOR A GIVEN AMOUNT OF CAPITAL. IN PRACTICE, THIS MEANS USING THEIR INGENUITY TO SHRINK COSTS AND SPEED UP WORKFLOWS. WHEN A NEW PIECE OF EQUIPMENT IS INSTALLED, IT'S NOT UNUSUAL FOR A TEAM TO BLOW THROUGH THE RATED CAPACITY LEVEL IN A MATTER OF MONTHS.

Critically, bonuses are paid to teams, not individuals. A typical team comprises twenty to thirty operators who work across multiple shifts and have joint accountability for a particular process. Team rewards encourage collaborative problem solving, which is essential in a process industry where tasks are highly interdependent. (See figure 4-1.) The furnace, caster, and maintenance teams, for example, are all part of a continuous process, so they have a common production target. One caster crew member in the Hickman plant remarked, "If one area goes down, we all go down with it. My problem is their problem, and everyone will jump in to solve it."

FIGURE 4-1

The steelmaking process at a mini-mill

Steel is produced through an interdependent and continuous process with integrated teams working toward a shared production target.

Within each plant, teams have access to real-time information on their performance and, hence, their compensation. The expectation is that a well-performing team will exceed its target and generate a substantial weekly bonus—which in most cases is exactly what happens. As you might expect, team members have little patience with slackers. A furnace operator in the Blytheville plant noted, "Peer pressure is a wonderful motivator."

Highly variable compensation is unusual for frontline workers, but Nucor's success demonstrates the value of giving everyone an incentive to innovate. With bonuses included, Nucor's factory workers make about 25 percent more than their industry peers.

Nucor's compensation model yields other benefits as well.

SHARED RESPONSIBILITY FOR GROWTH. WHEN DEMAND IS SLACK, PAYCHECKS REFLECT THE IDLE CAPACITY, SO TEAMS USE THE SLOWDOWN TO VISIT CUSTOMERS AND PITCH NEW PRODUCT IDEAS. WITHIN THE PLANT, CREW MEMBERS TEST THOSE IDEAS BY EXPERIMENTING WITH CHANGES TO THE PRODUCTION PROCESS. WHEN, FOR EXAMPLE, DEMAND SOFTENED AT NUCOR'S PLATE MILL IN TUSCALOOSA, ALABAMA, TEAMMATES EXPERIMENTED WITH WAYS TO MAKE ARMORED PLATE—A PRODUCT THAT WAS NEW TO THE PLANT. AN UNDERUTILIZED MILL ALSO TURNS UP THE HEAT

ON MANAGERS. TEAM MEMBERS WILL GRILL THEIR LEADERS: "WHAT ARE YOU DOING TO HELP US INNOVATE AND FIND NEW CUSTOMERS?"

No one at Nucor is looking to the center for direction. Instead, strategy typically emerges from below, as dozens of teams and divisions scan the horizon for opportunities and take the initiative in courting customers, hiring teammates, and experimenting with new products and methods.

LESS POLITICKING. NUCOR'S TOP TEAM UNDERSTANDS THAT WHEN EXECUTIVES HAVE THE POWER TO MONKEY WITH TARGETS, THE RESULT IS FAVORITISM, SANDBAGGING, AND AN EROSION OF TRUST. NUCOR'S CLEAR, CONSISTENT GOALS ARE DESIGNED TO MINIMIZE GAMESMANSHIP. SIMPLE, UNDERSTANDABLE GOALS ALSO REDUCE THE NEED FOR THE SORT OF DETAILED TEAM-LEVEL KPIS THAT CAN LEAD TO SUBOPTIMIZATION WHEN EMPLOYEES CHASE PIECEMEAL TARGETS RATHER THAN FOCUSING ON THE HEALTH OF THE OVERALL BUSINESS.

FINANCIAL FLEXIBILITY. NUCOR'S OUTPUT-BASED COMPENSATION MODEL ALLOWS THE COMPANY TO RAPIDLY TRIM ITS LABOR COSTS WHEN DEMAND SOFTENS. THIS FLEXIBILITY ELIMINATES THE NEED FOR LAYOFFS AND GIVES NUCOR A HEAD START IN RAMPING UP WHEN THE BUSINESS CYCLE TURNS AROUND.

Taken together, the elements of Nucor's compensation model send a strong message: everybody is essential to building a better business and will be rewarded for doing so.

2. Competence: Cultivating Expertise

It's no accident that Nucor's employees are more skilled—technically and commercially—than their industry peers. Team members understand that to become ever more efficient, and generate ever more demand, they have to solve ever tougher problems—which in turn means getting progressively smarter, both individually and collectively. Nucor's people practices, not surprisingly, are attuned to building deep knowledge.

SELECTIVE HIRING. NUCOR HIRES PEOPLE FOR A CAREER, NOT A SHORT-TERM GIG. THE EXPECTATION IS THAT TEAMMATES WILL GROW THEIR SKILLS OVER THE ARC OF THEIR CAREER. ACCORDINGLY, NUCOR'S HIRING PROCESS IS AIMED AT FINDING INDIVIDUALS WHO ARE EAGER TO LEARN. THE PROCESS INCLUDES A TWO-HOUR, STANDARDIZED TEST TO GAUGE QUANTITATIVE AND VERBAL PROBLEM-SOLVING SKILLS, FOLLOWED BY A BEHAVIORAL INTERVIEW WITH A PSYCHOLOGIST. THE FINAL HIRING DECISION IS MADE BY TEAMMATES WHO TAKE PART IN AN HOUR-LONG PANEL INTERVIEW. TYPICAL QUESTIONS INCLUDE:

- What is something you are passionate about that helps to motivate you at work?

- Have you ever fixed something?

- Describe learning a new skill—how did you go about it?

- Tell us about a time when you made a mistake at work. How did you correct it?

- If a coworker really can't stand you, what would you do?

As these questions imply, the focus is less on specific skills (which can be learned on the job) and more on the candidate's resourcefulness and capacity to self-manage. Nucor's highly selective approach also carries symbolic value: new hires understand they're joining an exclusive organization that sets a high bar for performance and cares for its members.

CROSS-TRAINING. INSTEAD OF SPECIALIZING IN A SINGLE TASK, NUCOR TEAMMATES ARE TRAINED FOR A VARIETY OF ROLES. IN THE BLYTHEVILLE DIVISION, NEW MEMBERS IN THE MELT SHOP DEPARTMENT ROTATE THROUGH MULTIPLE CREWS, LIKE THE FURNACE AND CASTER. THIS GIVES THEM AN OVERVIEW OF THE ENTIRE PRODUCTION CYCLE AND ENHANCES THEIR ABILITY TO SOLVE CROSS-BOUNDARY PROBLEMS. IN MANY DIVISIONS, TEAMMATES CAN COME IN ON THEIR OFF DAYS AND GET PAID TO TRAIN FOR A DIFFERENT ROLE. IN A TYPICAL YEAR, MORE THAN 20 PERCENT OF TEAMMATES WILL RECEIVE SOME FORM OF CROSS-TRAINING; FOR ENTRY-LEVEL POSITIONS, THE PERCENTAGE IS EVEN GREATER.

The best way to advance your career at Nucor is to move across departments and even plants. It's common to find former salespeople working in shipping, or furnace operators working in maintenance. At the Blytheville beam mill, more than half the teammates with five or more years of tenure have made at least one departmental rotation. Rotations are facilitated by Nucor's internal job market, which gives teammates visibility into every open position across the company.

Exposing people to multiple skills and functions is a win-win. For individuals, the change in pace, activity, and colleagues makes work

more interesting. In return, Nucor gets a workforce that's able to solve complex, multidisciplinary problems.

BUILDING BUSINESS ACUMEN. WHILE MOST COMPANIES FOCUS BLUE-COLLAR TRAINING ON NARROW TECHNICAL TOPICS, NUCOR INVESTS IN DEVELOPING TEAMMATES' COMMERCIAL SKILLS. THE COMPANY BELIEVES PEOPLE NEED TO UNDERSTAND THE BUSINESS IF THEY'RE GOING TO IMPROVE IT. AS PART OF THEIR TRAINING, NUCOR TEAMMATES PARTICIPATE IN A DAYLONG, MONOPOLY-LIKE GAME CALLED "DOLLARS AND TONS," WHERE FIVE-PERSON TEAMS RUN A FICTIONAL NUCOR DIVISION. TEAMS MAKE DECISIONS ON HOW MUCH SCRAP TO BUY AT WHAT PRICE, ON HOW MANY PEOPLE TO HIRE, AND WHEN TO INVEST IN NEW EQUIPMENT TO EXPAND CAPACITY. AT THE END OF THE SIMULATION, TEAMS ARE ASSESSED ON PROFITABILITY, RETURN ON ASSETS, WORKING CAPITAL MANAGEMENT, AND BALANCE SHEET STRENGTH—ALL DRIVERS OF A PLANT'S PERFORMANCE.

By bolstering business thinking deep in the organization, Nucor maximizes the quality of decision making at all levels and reduces the perceived status gap between frontline employees and commercially savvy managers.

ENCOURAGING PERSONAL GROWTH. MANY COMPANIES TREAT FRONTLINE EMPLOYEES LIKE EXPENDABLE RESOURCES, BUT NOT NUCOR. EVERY TEAM MEMBER HAS A PERSONAL DEVELOPMENT PLAN OUTLINING FIVE- TO TEN-YEAR CAREER GOALS. ONE DEPARTMENT MANAGER SAID, "WE'RE ALWAYS TRYING TO FIND SOMETHING THAT A TEAMMATE WANTS TO GET BETTER AT. SOME WANT TO GROW

FAST AND SOME DON'T, BUT WE WORK TO PUT PEOPLE IN THE BEST POSITION TO SUCCEED."

3. Collaboration: Building Social Networks

In most organizations, cross-unit coordination is the job of corporate staffers. They're responsible for spotting opportunities to standardize practices, share resources, and jointly pursue new initiatives. At Nucor, coordination, like everything else, happens bottom-up. A dense network of lateral connections helps stitch together far-flung divisions with little or no top-down direction.

LEARNING EXCHANGES. EVERY YEAR, NUCOR'S TEAM MEMBERS MAKE THOUSANDS OF "BEST-MARKING" TRIPS TO SISTER PLANTS. DURING THESE VISITS, COLLEAGUES SHARE OPERATIONAL EXPERTISE AND TACKLE COMMON PROBLEMS. WHEN THE HICKMAN DIVISION SET OUT TO REDUCE THE THICKNESS OF ITS SHEET STEEL, A CASTER CREW FLEW IN FROM NUCOR'S PLANT IN GHENT, KENTUCKY, TO SHARE WHAT IT HAD LEARNED WHEN IT ENGINEERED A SIMILAR CHANGE. MOST VISITS LAST A FEW DAYS, BUT WHEN THE TECHNICAL CHALLENGE IS SIGNIFICANT, A BEST-MARKING TRIP MAY EXTEND TO SEVERAL WEEKS.

Nucor also hosts regular cross-plant events. Plant managers get together every month, and department managers every six months. In addition, there are annual gatherings of frontline teams. This represents a substantial investment in time and travel, but Nucor believes it's the best way to transfer expertise and tackle new problems. A member of the Hickman caster team described the benefits: "You're engaging and investing in people, building relationships, and generating opportunities to improve. During a visit,

the ideas pile up. By the time you get back, you have a ton of energy to try something new. It's never a question about whether it's worth the time. You always bring something back."

SPONTANEOUS NETWORKS. WHEN DIVISIONS IDENTIFY A NEED FOR SUSTAINED COORDINATION, THEY ASSEMBLE A TEAM. IN A TYPICAL CASE, SALES MANAGERS FROM THIRTEEN BAR MILLS DEVELOPED A NATIONAL PRICING SCHEDULE TO PROVIDE A CONSISTENT OFFERING FOR THEIR LARGEST CUSTOMERS. SOME TEAMS ARE AD HOC, WHILE OTHERS ARE LONG-LASTING. THERE'S A NETWORK OF FRONTLINE TEAM MEMBERS, FOR EXAMPLE, THAT COORDINATES PROCUREMENT OF RAW MATERIALS AND PARTS. MOST NETWORKS BEGIN INFORMALLY. THOSE THAT ADD VALUE BECOME QUASI-PERMANENT.

OPPORTUNITY MASH-UPS. PLANTS OFTEN SHARE LEADS AND COLLABORATE ON NEW BUSINESS DEVELOPMENT. ONE OF THE MOST SIGNIFICANT EFFORTS INVOLVED A COORDINATED ASSAULT ON THE AUTOMOTIVE MARKET. A DECADE AGO, NUCOR LACKED THE ABILITY TO PRODUCE THE HIGH-GRADE, FLEXIBLE STEEL THAT CARMAKERS USE FOR ENGINE COMPONENTS AND BODY STAMPINGS. SEVERAL DIVISIONS HAD FLAGGED THE AUTO INDUSTRY AS AN ATTRACTIVE SEGMENT, BUT INDIVIDUALLY THEY LACKED THE SKILLS TO MAKE MUCH HEADWAY. RECOGNIZING THIS, THEY JOINED FORCES TO CRACK THE MARKET.

In each mill, cross-functional teams mapped out the skills and technologies that they would need to acquire. The teams hired metallurgists and partnered with local universities to explore new

production methods. Through regular cross-team meetings and frequent best-marking visits, the automotive initiative took shape. The informal team of teams solved technical problems, developed marketing strategies, and divvied up product responsibilities. Today, Nucor ships more than 1.5 million tons of steel to carmakers each year—an amazing testament to the power of grass roots coordination!

TRANSPARENCY. NUCOR'S CAPACITY FOR COLLABORATION RESTS ON A FOUNDATION OF TRANSPARENCY. COMPANY POLICY ENCOURAGES TEAMMATES TO "SHARE EVERYTHING." EVERY EMPLOYEE HAS ACCESS TO DETAILED PERFORMANCE METRICS INCLUDING TONS PRODUCED, COST PER TON, TONS LOST TO DEFECTS, AND MUCH MORE. COMMERCIAL DATA IS SIMILARLY OPEN. THIS INCLUDES BIDS, ORDERS, INVENTORY, SHIPMENTS, RETURN ON ASSETS—ANYTHING THAT'S POTENTIALLY RELEVANT TO RUNNING THE BUSINESS. MOST OF THIS INFORMATION IS AVAILABLE IN REAL TIME, BUT IN EACH FACILITY, PERFORMANCE DATA ALSO GETS POSTED WEEKLY NEAR THE PLANT ENTRANCE OR IN THE CAFETERIA.

Nucor's profligate transparency creates a healthy competition between divisions, prompting friendly contests to see which plant will be first to achieve a particular goal around safety or efficiency. It also makes it easy to spot plants and practices that deserve to be best-marked.

4. Commitment: Creating an Environment of Trust

Commitment flourishes in an environment of trust. To go all in, team members need to feel they work in an organization that values fairness, honesty, and loyalty. Sadly, trust is often a scarce commodity

in large companies. In a 2016 Ernst & Young global survey, fewer than half of the ten thousand employees surveyed said they had a "great deal of trust" in their colleagues or the company overall.[6]

By contrast, Nucor teammates speak of the company as a "community" or "family." According to John Ferriola, the company's CEO from 2013 to 2019, "Nucor doesn't have a chain of command; it has a chain of trust."

Many of the practices we've described boost trust: the compensation process ensures that the fruits of innovation are equitably shared; investment in personal development creates reciprocal loyalty; and radical transparency brings people together around shared goals. Beyond this, there are other pillars that strengthen trust.

JOB SECURITY. NUCOR HAS NEVER LAID OFF EMPLOYEES AT ITS STEEL MILLS, A REMARKABLE FEAT IN AN INDUSTRY THAT SHED 40 PERCENT OF ITS EMPLOYEES BETWEEN 2000 AND 2018.[7] NUCOR COULD HAVE FOLLOWED SUIT, BUT THAT WOULD HAVE VIOLATED THE COMPANY'S LONG-STANDING PROMISE TO EMPLOYEES: "DO YOUR JOB WELL TODAY, HAVE IT TOMORROW." WHEN ORDERS PLUMMET, THE COMPANY REDUCES THE WORKWEEK, NOT THE WORKFORCE. THIS REDUCES THE ODDS OF MAKING THE WEEKLY BONUS, BUT FOR MOST EMPLOYEES, THAT'S BETTER THAN BEING LAID OFF. IN THE RARE INSTANCES WHEN NUCOR CLOSES OR SCALES BACK A PLANT, PEOPLE ARE OFFERED POSITIONS IN OTHER MILLS.

Ferriola says the company could have avoided its one and only loss-making year, 2008, by laying off a small number of people, but he and other executives never considered it. That was a good call.

Nucor's local teams have made the company a leader in process automation because nobody's worried about being replaced by a smart machine.

FEW STATUS SYMBOLS. IN CONTRAST TO ITS COMPETITORS, WHERE MANAGERS OFTEN WEAR UNIQUELY COLORED HARD HATS (IN ONE COMPANY, THE CEO'S HELMET IS GOLD-PLATED), THERE ARE FEW STATUS SYMBOLS AT NUCOR. EXECUTIVES FORGO THE SORT OF PERKS OFTEN DOLED OUT IN OTHER LARGE COMPANIES. THERE ARE NO COMPANY CARS, COUNTRY CLUB MEMBERSHIPS, OR PERSONAL TRIPS ON CORPORATE AIRCRAFT.

Some benefits, such as Nucor's profit-sharing scheme, scholarship program, employee stock purchase plan, and service awards program, are off-limits to senior officers. With few status differentiators, communication tends to be candid and forthright. At Nucor, executives don't sit on pedestals.

REVERSE ACCOUNTABILITY. WHILE NUCOR DOES HAVE A FORMAL HIERARCHY, THERE'S A COMMITMENT TO REVERSE ACCOUNTABILITY THAT'S SELDOM SEEN IN LARGE COMPANIES. THIS REFLECTS IVERSON'S BELIEF THAT POWER SHOULD TRICKLE UP, NOT DOWN: "A MANAGER'S AUTHORITY COMES FROM EMPLOYEES. WE HAVE SEEN GENERAL MANAGERS FAIL TO EFFECTIVELY LEAD PEOPLE TO THE AMBITIOUS GOALS WE SET AT NUCOR. WHEN THAT HAPPENS, WE SAY, 'THE EMPLOYEES FIRED THE GENERAL MANAGER.' IT'S SIMILAR TO WHEN A FOOTBALL TEAM LOSES FAITH IN THE COACH. WHO ARE YOU GOING TO FIRE, THE COACH OR THE WHOLE TEAM?"[8]

Team members are directly involved in the selection of supervisors and managers. There's also a formal process for giving upward feedback. A supervisor in Hickman said, "You get a bad score on the survey and you're toast." Head-office managers make frequent plant visits and host local town halls. During these dinner meetings, teammates can raise any issue that comes to mind. Said one plant manager, "These dinners aren't done until the teammates are ready to call it a night. I often feel like I'm getting grilled, and I can't BS my way out of their questions."

PROFIT SHARING FOR ALL. NUCOR'S PROFIT-SHARING PLAN IS ANOTHER MECHANISM FOR BUILDING COMMITMENT. EACH YEAR, THE COMPANY CONTRIBUTES AT LEAST 10 PERCENT OF ITS PRETAX EARNINGS TO THE PLAN. IN 2018, NUCOR PAID IN $308 MILLION, WHICH WORKED OUT TO ABOUT $12,000 PER EMPLOYEE. TEAMMATES RECEIVE A SMALL PORTION IN CASH AND THE REMAINDER GOES INTO A RETIREMENT ACCOUNT, WHICH, FOR MANY EMPLOYEES, CONSTITUTES THEIR LARGEST FINANCIAL ASSET.

5. Courage: The Confidence to Act

When compared to its competitors, Nucor's production crews are ridiculously empowered. Shift teams are supported by a supervisor who's more coach than boss, but it's frontline team members who take the lead in setting production targets, allocating tasks, meeting safety and quality standards, and solving production snags. The financial impact of these decisions can run to tens or even hundreds of thousands of dollars.

Beyond controlling the production process, teams are also responsible for:

PEOPLE PLANNING AND PEER SUPPORT. PRODUCTION TEAMS MANAGE ATTENDANCE AND SHIFT PLANNING. WHEN, FOR EXAMPLE, TEAMS IN THE BLYTHEVILLE DIVISION DECIDED TO CHANGE FROM FIVE-DAY EIGHT-HOUR SHIFTS TO FOUR-DAY TWELVE-HOUR SHIFTS, THEY DIDN'T ASK MANAGEMENT FOR PERMISSION.[9] TEAMMATES ARE ALSO THE FIRST TO INTERVENE WHEN COLLEAGUES UNDERPERFORM. THEY'LL WORK TO IDENTIFY THE UNDERLYING ISSUE AND TYPICALLY RESOLVE THINGS WITHOUT THE HELP OF A SUPERVISOR.

The team takes the lead in professional development. Teammates give each other feedback through an annual survey that focuses on performance, safety, reliability, and leadership skills. While the peer review process doesn't have a direct bearing on compensation, it gives every employee a clear sense of his or her standing within the team, and informs decisions on rotation, advancement, and special assignments. Being accountable to peers inspires individuals to give their best. As one teammate working in the Blytheville furnace put it, "Every day is an interview."

CAPITAL SPENDING. NUCOR'S PRODUCTION TEAMS HAVE A DEGREE OF FINANCIAL AUTONOMY THAT'S UNPRECEDENTED WITHIN THE STEEL INDUSTRY. TEAM MEMBERS REGULARLY ISSUE PURCHASE ORDERS IN THE TENS OF THOUSANDS OF DOLLARS WITHOUT CONSULTING PLANT MANAGEMENT. BEFORE PULLING THE TRIGGER, THEY'LL CONSULT WITH COLLEAGUES, BUT THE GOAL IS TO GET INPUT, NOT APPROVAL.

DEPLOYING NEW TECHNOLOGY. NUCOR'S TEAMS ARE CONSTANTLY ON THE HUNT FOR TECHNOLOGY THAT WILL GIVE THEIR BUSINESS A COMPETITIVE EDGE. HERE, AS ELSEWHERE, FRONTLINE OPERATORS ARE DEEPLY INVOLVED IN THE DECISION-MAKING PROCESS.

The $230 million expansion at the Hickman division mentioned earlier was meant to give the mill access to rolling machines that could switch between different product specs in minutes rather than hours. The project team, led by Jay Wheeler, a former maintenance engineer, included both operators and managers. After visiting equipment suppliers in Europe and Asia, they arrived in Vienna for talks with a local vendor. During the meeting, engineers from the supplier probed the Nucor team members to better understand their needs and constraints. Wheeler recalls the Austrian engineers were confused when their questions were answered not by Nucor managers but by frontline team members.

The logic of relying on operators to source and deploy technology seems obvious to people at Nucor. After all, it's the people at the sharp end of the business who have the best perspective on what they need to succeed.

INTERACTING WITH CUSTOMERS. IN LARGE INDUSTRIAL COMPANIES, IT'S RARE FOR FRONTLINE EMPLOYEES TO INTERACT DIRECTLY WITH CUSTOMERS, UNLESS THEY'RE IN A SALES OR TECH SUPPORT ROLE. NOT SO AT NUCOR. FROM THE CRANE OPERATOR TO THE FORKLIFT DRIVER, EVERYONE KNOWS THE CUSTOMER. PRODUCTION TEAMS MAKE REGULAR CUSTOMER VISITS, KNOWN AS "LINE-TO-LINE" MEETINGS. A MILL TEAM, FOR EXAMPLE, WILL SPEND A DAY AT AN AUTOMOTIVE PLANT TALKING

TO THE MANUFACTURING TEAMS WHO TURN STEEL SHEETS INTO CAR PARTS. THE VISITORS WILL PEPPER THEIR HOSTS WITH QUESTIONS: HOW DOES THE MACHINE HANDLE OUR STEEL? HOW DO RESULTS COMPARE WITH OUR COMPETITORS' PRODUCTS? WHERE CAN WE IMPROVE? THESE CONVERSATIONS GENERATE A MYRIAD OF IDEAS AND CREATE PERSONAL RELATIONSHIPS THAT ENSURE FUTURE ISSUES ARE SPEEDILY RESOLVED.

CONTINUOUS EXPERIMENTATION. AT NUCOR, TEAMMATES HAVE BOTH THE INCENTIVES AND THE FREEDOM TO EXPERIMENT WITH NEW PRODUCTION TECHNIQUES. THE RESULT: A COMPANY WHERE *EVERYONE* INNOVATES. IN ONE CASE, AN EMPLOYEE IN THE BLYTHEVILLE MELT SHOP WORKED FOR SEVERAL YEARS TO REDESIGN THE LADLE—THE GIANT CONTAINER THAT FEEDS THE CASTER WITH MOLTEN STEEL. THROUGH A SERIES OF EXPERIMENTS, HE REWORKED THE CAULDRON'S LINER USING MATERIALS THAT WERE MORE RESISTANT TO DECOMPOSITION. THE NEW DESIGN DOUBLED THE RELIABILITY OF THE LADLE AND YIELDED REDUCTIONS IN DOWNTIME AND MAINTENANCE EXPENSES. EXPERIMENTS LIKE THIS HAPPEN ACROSS THE COMPANY, AND ARE CORE TO NUCOR'S COMPETITIVE ADVANTAGE.

Though it's widely regarded as one of the world's most innovative steelmakers, Nucor doesn't have a central R&D function, nor does it boast a chief technology officer. Yet as Ferriola notes, "It's not quite right to say that Nucor lacks an R&D department. We do have one, and it's 26,000-people strong."

With empowerment comes a degree of personal risk—what happens to you if you screw up? In a rule-worshipping culture, that risk may not be worth taking, but at Nucor, the tolerance for "smart" failures runs deep. Said Ferriola: "We encourage our people not to fear failure. You cannot stretch the limits of your knowledge, your imagination, or your skills, if you're afraid to fail. It's very typical to hear a manager or a supervisor coach a new teammate by saying something like: 'If you're not failing, you're not pushing the limits of your abilities.' "

The Spirit of Humanocracy

Nucor's management model has been built to maximize creativity, competence, collaboration, commitment, and courage. Not coincidentally, it is these human attributes and behaviors that are most critical to producing extraordinary results. True to the spirit of humanocracy, Nucor's model isn't about pushing employees to *do* more, but giving them the opportunity to *be* more—more than blue-collar workers, more than order takers, more than mere operators, more than employees. Nucor's frontline team members are experts, innovators, risk takers, and owners. Nucor proves unequivocally that *every* job can be a good job, whatever the industry.

In chapter 2, we laid bare the foundations of bureaucracy: stratification, standardization, specialization, and formalization. Nucor's model challenges management orthodoxy in each of these areas.

STRATIFICATION. Nucor has a formal hierarchy, but the company is far less stratified—fewer levels, fewer managers, and fewer top-down commands—than most organizations of its size. Nucor has

distributed the work of managing to frontline team members by giving them expansive decision rights and a substantial voice in choosing their own leaders. At Nucor, there's no caste system, no distinction between thinkers and doers.

STANDARDIZATION. FORCED STANDARDIZATION CHOKES OFF INNOVATION AND TURNS EMPLOYEES INTO AUTOMATONS. THAT'S WHY NUCOR RESISTS THE TEMPTATION TO DICTATE OPERATING STANDARDS TOP-DOWN. EVERY PLANT IS FREE TO DEVELOP ITS OWN PROCEDURES AND PROTOCOLS. THERE ARE NO ATTEMPTS TO IMPOSE UNIFORMITY MERELY FOR THE SAKE OF ORDERLINESS, AND NO RIGID POLICIES DESIGNED TO MAKE THE COMPANY MORE HOMOGENOUS AND THUS MORE EASILY MANAGED FROM THE TOP. INSTEAD, TRANSPARENT PERFORMANCE DATA AND A SHARED PASSION FOR GETTING BETTER FACILITATE THE SPREAD OF BLEEDING-EDGE PRACTICES. AT NUCOR, PRODUCTION PROCESSES CONVERGE NATURALLY WHEN IT MAKES SENSE, BUT NOT WHEN IT DOESN'T.

FORMALIZATION. EVERY ORGANIZATION NEEDS A CERTAIN AMOUNT OF STRUCTURE—BOUNDARIES THAT DELINEATE TEAMS, FUNCTIONS, AND OPERATING UNITS. YET DESPITE HAVING NEARLY A HUNDRED DIVISIONS, NUCOR ISN'T BALKANIZED. RATHER THAN USING CORPORATE STAFF GROUPS—PLANNING, MARKETING, SALES, AND R&D—TO HARVEST SYNERGIES, NUCOR RELIES ON SOCIAL NETWORKS. AS WITH STANDARDIZATION, COORDINATION HAPPENS ORGANICALLY, WHEN TEAMS IDENTIFY A COMMON INTEREST. COORDINATION IS THE PRODUCT OF COLLABORATION, NOT CENTRALIZATION.

SPECIALIZATION. NUCOR'S TEAM MEMBERS ARE DEEPLY SKILLED, BUT THEY'RE ALSO MULTISKILLED. SHARED TARGETS, CROSS-TRAINING, AND MALLEABLE ROLES HELP THEM TACKLE THE SORT OF TOUGH, BOUNDARY-SPANNING PROBLEMS THAT YIELD BIG PRODUCTIVITY GAINS. THERE ARE NO "SLOTS" AT NUCOR AND, THUS, NO ARTIFICIAL LIMITS ON WHERE AND HOW TEAM MEMBERS CAN CONTRIBUTE.

In the end, no single system or practice explains Nucor's success, but if you're looking for an overarching lesson, it's this: whatever your organization makes or sells, its real business is growing human beings. As they say at Nucor, "We don't build steel, we build people."

Haier

Everyone an Entrepreneur

In recent years, startups have reimagined just about every industry on the planet, often at the expense of the incumbents.[1] To fight back, consultants advise their lumbering clients to sequester new ventures in purpose-built accelerators. The problem is, an accelerator, however successful, is unlikely to generate sufficient returns to compensate for the declining fortunes of a legacy business that's lost its mojo. What seldom occurs to the advisers or their clients is that it might be possible to turn the entire company into an entrepreneurial platform. To those trapped by bureaucratic dogma, it seems inconceivable that a large company could behave like a swarm of startups. That's because they've never been inside of Haier, the world's largest appliance maker.

Meet Haier

Based in Qingdao, China, Haier competes with household names such as Whirlpool, LG, and Electrolux. At present, Haier has some eighty-four thousand employees, including twenty-eight thousand outside China. Many of the company's international employees joined via acquisition. The biggest deal to date was Haier's 2016 acquisition of GE's appliance business.

With revenues of more than $38 billion annually, Haier's been on a tear. Over the past decade, gross profits in Haier's core appliance business grew by 22 percent per year, while revenues advanced by 20 percent annually. The company also created more than $2 billion in market value from new ventures. Those feats are unmatched by any of Haier's domestic or global competitors.[2]

Haier's success is the result of a root-and-branch overhaul of its once-traditional management model. Led by Zhang Ruimin, Haier's renegade chairman and CEO, the radical makeover focused on three objectives:

1. Turning every employee into an entrepreneur

2. Creating "zero distance" between employees and users

3. Making the company a power node in an ever-expanding, web-centric ecosystem

Haier's shorthand for these goals is *rendanheyi*, a mash-up of Chinese characters that connotes a tight coupling between the value created for customers and the value received by employees. The rendanheyi model departs from bureaucratic norms in seven critical ways.

1. From Monolithic Businesses to Microenterprises

Large corporations often consist of a few dominant businesses, each with its own orthodoxies about strategy, customers, and technology. These monolithic entities and their monocultures make a company vulnerable to unconventional competitors and blind it to white space opportunities. To avoid these risks, Haier has divided itself into more than four thousand microenterprises (or MEs), each with ten to fifteen employees.

Microenterprises come in three varieties. First, there are the roughly two hundred "transforming" MEs that have their roots in Haier's legacy appliance business. These market-facing units are charged with reinventing themselves for today's customer-centric, web-enabled world. Zhisheng, which makes refrigerators for young urban customers, is a typical example.

Second, are fifty-plus "incubating" MEs. These are new homegrown startups like ThunderRobot, a unit that makes super-fast gaming computers, and Xinchu, a smart refrigerator that connects users with third-party services like fresh food delivery.

Finally, there are roughly thirty-eight hundred "node" MEs that sell components and services, such as design, manufacturing, and HR support, to Haier's market-facing MEs. Other nodes, spread across China, handle sales and marketing.

Microenterprises are key to Zhang's goal of building the world's first company for the internet age. This entails more than developing web-enabled products; it means creating an organizational model that mimics the architecture of the internet. While incredibly diverse, the web is held together by common technical standards that make cyberspace navigable and allow sites to swap common resources like data. That's the model for Haier's modular structure. MEs are free to

form and evolve with little central direction, but share a common approach to target setting, internal contracting, and cross-unit coordination.

2. From Incremental Goals to Leading Targets

Audacity is the hallmark of every successful startup. In an entrepreneurial firm, aspiration outstrips resources, and innovation is the only way to bridge the gap. In established companies, by contrast, there's little stretch. It's enough to do a bit better than last year and keep pace with one's peer group.

At Haier, every microenterprise pursues ambitious growth and transformation goals known as "leading targets." Rather than taking last year's performance as a starting point, growth objectives are set "outside in." A dedicated research unit collects product-by-product statistics on market growth rates around the world and uses this data to establish ME growth goals. In the Chinese market, these goals are derived from a highly granular, bottom-up assessment of the size and expected growth of specific customer segments and product categories across thousands of territories.

A transforming ME is expected to grow revenue and profit four to ten times faster than the industry average, with the exact target depending on the competitive position of the ME. In product categories or geographies where Haier lags, the bar is set higher, since the ME has plenty of headroom to increase market share. In areas where Haier leads, the target is more modest but still a multiple of the market baseline.

An ME's leading target also includes a transformation component. Every market-facing ME is expected to work hard to become an

"ecosystem" business. The first step is mass customization. Haier has invested heavily in advanced manufacturing, and most factories can now build to order. The next step is to turn customers into users by offering services that yield a recurring revenue stream. An ME selling commercial heat pumps, for example, may decide to offers its customers a real-time monitoring service that helps them maximize the energy efficiency of their office buildings.

The ultimate goal is to build a platform that connects users with third-party service providers. A good example is Community Laundry, a business that installs and maintains over forty thousand internet-connected washing machines across a thousand Chinese college campuses. Having developed a popular smartphone app that allows students to schedule and pay for the use of dormitory laundry facilities, the ME team gave outside vendors access to the app's more than 10 million users. Today, the Community Laundry platform hosts dozens of other businesses, such as food delivery and dorm room furniture, and takes a share of the revenues they generate. The Community Laundry team is now expanding this model to budget hotels and has inspired similar Haier microenterprises in Japan and India.

The focus on building platforms reflects Haier's belief that the only way to match the valuation multiples of successful internet companies is to steadily grow its user base while reducing marginal costs. The goal: capital-light businesses where variable costs are close to zero.

Haier tracks the transformation of every ME with a "win-win value-added" statement that captures detailed metrics such as the extent of user involvement in product development, the degree to

which Haier's products offer unique customer value, and the percentage of profits derived from ecosystem revenue.

Nodal MEs also have leading targets pegged to external benchmarks. A manufacturing node, for example, may be responsible for lowering costs, cutting delivery time, improving quality, and further automating its production facilities.

In most organizations, old habits get challenged only when a business hits the wall. Change is reactive, not proactive. At Haier, leading targets compel MEs to continually reexamine their core assumptions. As in a startup, everyone knows that more of the same won't cut it.

3. From Internal Monopolies to Internal Contracting

In a startup, everyone reports to the customer. Most employees have a financial stake in the business and understand the only way to create value is to do amazing things for customers. In large organizations, by contrast, employees are often insulated from market forces. They work in functions like HR, R&D, manufacturing, finance, IT, and legal that are, in essence, internal monopolies. However inept or inefficient these providers may be, they can't be fired. Internal relationships are governed by mandates, transfer prices, overhead allocations, and hierarchical relationships rather than by freely negotiated contracts. The result: mediocrity, inflexibility, and inefficiency.

Again, it's different at Haier. Every ME is free to contract, or not, with other MEs. A typical user ME will have contracts with a dozen or more nodes. If it believes its needs could be better served by an external vendor, it can go outside. Whether internal or external,

agreements are negotiated with virtually no interference from senior executives.

Every ME team looks at its performance objectives and asks, "What sort of design, technology, production, and marketing support do we need to meet our goals?" It then asks the nodes for bids. A service request typically attracts two or three proposals. The ensuing discussions provide an opportunity for the parties to challenge existing practices and brainstorm new approaches. Specific marketing and sales nodes, for instance, may challenge manufacturing nodes on how they will address quality issues for products shipped to their region.

While this process may sound cumbersome, it's facilitated by "presets," predefined rules about minimum performance standards and margin splits that reduce friction during negotiations. Once negotiated, a mobile app provides a real-time view of how each node is performing against its targets. Terms can be renegotiated over the course of a year if circumstances change—hence Haier's preference for the term "agreement" rather than "contract." One ME leader told us that he had replaced a dozen nodes in the previous eighteen months. Nodes that are unable to provide competitive service can and do go out of business. A substantial part of a node's revenue depends on the success of its ME customers.

In 2019, Haier began facilitating direct agreements between supply nodes, like distribution and manufacturing. The goal of this change was to make supply nodes even more accountable to end customers. Initial results have been encouraging: in one region, wait times for replacing defective refrigerator parts dropped from five days to twenty-four hours.

When a market-facing ME fails to meet its leading targets, the node takes a hit—since every internal agreement has a clause that ties the node's compensation to the performance of the market-facing ME. In this way, every employee's pay is linked to market outcomes. Zhang is only slightly exaggerating when he says, "At Haier we are no longer paying our employees. Instead, they are paid by customers." Or, as another senior leader put it to us, "every employee at Haier is a capitalist."

Haier's compensation model has three benefits. First, it encourages excellence. Nodes that don't deliver high levels of service lose their internal customers. Second, it unites everyone around the goal of creating great customer experiences. When a user ME seems in danger of missing its targets, representatives of all its supplier nodes quickly convene to resolve the problem. Third, it maximizes flexibility: market-facing MEs are free to reconfigure their network of internal and external vendors as new opportunities emerge.

4. From Top-down Coordination to Voluntary Coordination

By now you may be asking, how does a company with nearly four thousand independent units synchronize investments in technology and facilities? How does it achieve coordination without trampling on the autonomy of its microenterprises?

In a startup, coordination happens spontaneously. When there's a problem, people huddle up and hash things out. As a company grows, and operating units become more siloed, it becomes increasingly difficult to manage the ever-expanding array of interdependencies. The typical response is to give central staff groups the responsibility for coordinating strategy and investment in functional areas such as

marketing, manufacturing, procurement, and logistics. Inevitably, this leads to greater centralization, higher overhead costs, and diminished responsiveness.

Haier's approach is different. In pursuing economies of scale and scope, it emphasizes collaboration over compulsion. Every ME is a member of a platform, and it's the job of the platform owner to identify opportunities for cross-ME coordination. Some platforms bring together MEs operating in similar product categories, like washing, refrigeration, or audiovisual products, while others focus on shared capabilities such as digital marketing and mass customization. A typical platform encompasses more than fifty MEs. (See figure 5-1 for an example.)

FIGURE 5-1

Haier's cooling platform

Haier is made up of thousands of microenterprises (MEs), which are grouped into platforms. Below is a map of the refrigeration platform.

The responsibilities of the platform owner include:

- Minimizing overlaps in ME product portfolios

- Identifying opportunities for MEs to use common components

- Coordinating major investments in technology and facilities

- Coordinating ME interactions with outside business partners

- Aiding the diffusion of best practices

- Coordinating with other industry platforms

Critically, no one reports to the platform owner, nor does the platform owner have a staff group. So how does the owner exert influence? Mostly by bringing ME teams together and helping them build strategies in areas of common interest, like getting smart about the internet of things or creating products that communicate with each other. The owner's job is to facilitate, not force, coordination. Wu Yong, a former refrigerator platform owner, says, "My job is to open up channels and create incentives for the ME teams to collaborate. This is different from the old pyramid-based structure where I would give orders."

A typical example of coordination involved the shift to frost-free refrigerators, a move that required an expensive upgrade of production facilities. As platform owner, Wu Yong worked with user MEs and manufacturing nodes to develop a joint strategy for making the necessary changes. Reflecting on the initiative, Wu Yong said, "I helped facilitate, but the microenterprise teams planned and executed the job together."

Platform leaders are expected to grow the platform by developing new MEs. In 2014, motivated by Haier's goal to become the world leader in smart appliances, Wu Yong funded a networked refrigerator startup, the above-mentioned Xinchu. Beyond developing the product itself, Xinchu was charged with developing an ecosystem that would allow users to buy fresh food from a network of partners and arrange delivery within a thirty-minute window. At Haier, platform owners are entrepreneurs as well as connectors.

The work of the platform owner is supported by integration nodes, which are found within every industry platform. These units help MEs import technology from other parts of Haier and identify

internal partners to co-invest in new initiatives. Like platform owners, integration notes encourage collaboration rather than enforce conformity.

MEs also rely on the expertise of competence-focused platforms. Two of the most important are smart manufacturing and marketing, each of which employs fewer than a hundred individuals. The largest node within the manufacturing platform provides technical support for mass customization. Another node, smart engineering, deploys advanced production tools for the company.

The primary role of the marketing platform is supplying MEs with customer information. While every user ME collects copious amounts of information through its own social media channels, the marketing platform's big-data node integrates information from Haier's corporate website and from other sources within the company and without. The idea is to unearth cross-business insights and build predictive models that help MEs respond to emerging customer needs. One example: alerting MEs in the washing platform that a customer has bought a refrigerator and an oven and may be in the midst of a remodel that will call for new laundry equipment as well.

While the marketing and manufacturing platforms do set standards —for brand visuals and factory automation software, for example— they issue few commands. And like other units at Haier, they have a financial stake in the success of their internal clients.

A final bit of grease on the axle of internal collaboration comes from Haier's shared accountability to customers. When, for example, several MEs began hearing that Haier's smart products didn't talk to one another, they got together and hammered out a grand bargain in which Xinchu would provide a common technology platform for the

company's networked devices while other MEs would contribute customer research and supporting technologies. This informal grouping was an early example of what Haier now calls an "ecosystem micro-community." The company's "Internet of Food" community, for example, includes microenterprises from multiple product platforms, including refrigeration, cooking, and small appliances. Externally, it encompasses millions of users and hundreds of partners including online shopping sites and providers of organic food.

In most companies, coordination means centralization, but not at Haier. Zhang believes trade-offs are best made by those closest to the customer, by MEs that are free to choose when to collaborate and when to go it alone.

5. From Not-Invented-Here to Open Innovation

Startups tend to be open. They engage users early and often in the development process. The goal is to create a virtuous circle in which an expanding customer base yields a torrent of insights that can be harnessed to improve the offering and attract still more customers. In a startup, customers are cocreators.

With limited resources, startups also have to be creative in leveraging outside resources. Rather than bulking up internally, they buy critical services from cloud-based providers and often rely on Google and Facebook for marketing. Whenever possible, they rent instead of buy.

In comparison, bureaucracies are closed systems. They make a sharp distinction between insiders and outsiders, put a premium on secrecy, and are generally reluctant to tap external partners for

mission-critical tasks. The problem with a closed system is that it doesn't adapt—it atrophies. Recognizing this, Haier sees itself not as a company but as a hub in a much larger network. The implications of this view are profound.

First, every new product or service at Haier is developed in the open. When the company set out to build a new home air conditioner, it used Baidu, a social media site, to ask consumers about their needs and preferences. More than 30 million responses flooded in. Lei Yongfeng, the project leader, then invited more than seven hundred thousand users to go deeper and share their thoughts about pain points and potential product features. Unexpectedly, the top concern was the danger of contracting Legionnaires' disease. Minimizing that risk became a key priority and led to a radical rethink of the fan blade.

Second, Haier has assembled a network of four hundred thousand "solvers"—experts from around the world, covering more than a thousand technical domains. More than two hundred problems are posted each year on a customer-built platform, the Haier Open Partnership Ecosystem (HOPE). Lei's team, for example, asked solvers for help in designing the blades for its new air conditioner. Within a week, the challenge attracted several proposals. The winning design, mimicking a jet turbofan, came from researchers at the China Aerodynamics Research and Development Center. In all, thirty-three institutions contributed to the development of the air conditioner. When it launched at the end of 2013, the Tianzun wind tunnel was an instant hit.

In collaborative projects like the Tianzun, Haier creates a "patent pool" in which its partners confidentially share their inventions—

with the understanding they'll be rewarded if their technology is used in the final product. Suppliers that contribute to the early design process also get preferred consideration when it comes to vendor selection.

By moving product development online, Haier has reduced the time from concept to market by up to 70 percent. Manufacturing and design nodes, user MEs, potential customers, and business partners work in parallel throughout the process, starting with the earliest discussions about customer needs.

A third feature of Haier's commitment to openness is its use of crowdsourcing to defray development costs. In part, this is a response to the company's "zero fund" policy, in which new offerings are refused significant funding until they're validated by users. Take the Air Cube, a groundbreaking combination of humidifier and air purifier. During its gestation, more than eight hundred thousand online fans offered comments. Once a prototype was ready, it was made available on a popular crowdfunding site, where more than seventy-five hundred individuals opted to buy a preproduction model. Their feedback helped Haier further refine the Air Cube before its formal launch.

Tan Lixia, Haier's chief financial officer, sums up the company's mindset toward open innovation this way: "The border of the company is not important. If you can help create value for users, it shouldn't matter whether you're an employee or not."

6. From Innovation Phobia to Internal Venturing

Unlike startups, bureaucracies are intrinsically conservative. As Laurence J. Peter, author of *The Peter Principle*, wryly said,

"Bureaucracy defends the status quo long past the time the quo has lost its status." To combat this tendency, Haier has turned its entire organization into a startup factory. Its fifty-odd incubating MEs currently account for more than 10 percent of Haier's market cap. They run the gamut from Hairyongi, a fintech startup that securitizes loans to small businesses, to Express Cabinets, a network of storage lockers that allows farmers to deliver directly to consumers in some ten thousand communities. (For more on how Haier builds new ventures, see the sidebar "The Birth of a Microenterprise.")

The Birth of a Microenterprise

In May 2013, Lu Kailin, along with two of his colleagues at Haier, set out to build a powerful laptop computer that would excel at video gaming. The three had recently graduated from college, where they spent much of their free time playing computer games with friends. Captivated by the allure of video games, they wondered how they could turn their passion into a business. The upside seemed enormous. Rising incomes and ever cheaper technology were stoking demand for online games. On the other hand, the trio felt that most of the laptops on the market were poorly suited for the demands of hard-core gaming.

The team's first step was to pore over thirty thousand online reviews of gaming PCs. Serious gamers, like them,

were frustrated by the lack of power, uneven screen quality, and stodgy design of the business-oriented laptops offered by Haier and its competitors. Having distilled their research in thirteen customer pain points, Lu and his compatriots wrote a note to Zhou Zhaolin, head of the platform that included Haier's laptop business, begging for a meeting. Zhou was skeptical at first: "These three young fellows brought a laptop into my office. It was a 15″ laptop, and it was heavy—normally we sell 11″ or 13″ machines that are highly portable. My first instinct was to kill the project." But then Zhou realized this really wasn't his call. "In making decisions," he says, "we have to let users and entrepreneurs speak—not managers." Zhou gave the team a modest amount of seed capital (RMB1.8 million, or roughly $270,000), with the understanding that further funding from Haier would be conditional on a successful market test.

With this capital infusion, the team set out to design and manufacture Haier's first gaming laptop. Much of the ThunderRobot's early design and production work was conducted with the help of outside partners such as Quanta Computers, a Taiwanese manufacturer that produces computers for Dell, Hewlett-Packard, and others. By December 2013, only seven months after the venture was launched, the team was ready to introduce its first product. Launched on JD.com, a Chinese e-

commerce site, the first batch of five hundred brightly colored and aggressively styled laptops sold out in less than a minute. A few weeks later, a second batch of three thousand units was gone within twenty minutes.

Jazzed by this early success, the team spent the first quarter of 2014 crafting a detailed business plan and in April received an additional RMB1.2 million from Haier. Concurrently, the founding team invested RMB400,000 of their own money for a 20 percent stake. Additional funding rounds would bring in a handful of venture capital firms. In September 2017, ThunderRobot listed on China's NEEQ market with an IPO valuation of RMB1.2 billion (about $180 million). Since then, the company has nearly doubled its market cap and expects to soon list its shares on one of China's main exchanges.

With a staff of 110, ThunderRobot is the leading provider of e-gaming laptops in China and has made significant inroads into other Asian markets. Taking a lesson from its corporate parent, ThunderRobot is creating its own incubating MEs, which include a business that streams video games (the site already receives 3 million visits per day), a platform for organizing e-sports teams and tournaments, and a foray into virtual reality technology and other gaming peripherals.

There are three ways to launch a new business at Haier. In the first and most common case, an internal entrepreneur posts an idea online and invites others to help flesh out the nascent business model. That's how Zhang Yi, a field service manager at the time, launched the idea of Express Cabinets. Second, a platform leader can ask for proposals around a potential white space opportunity. Third, Haier conducts monthly road shows across China where would-be entrepreneurs can pitch their ideas to platform leaders and members of Haier's investment and innovation platform.

Every incubating ME is a separate legal entity, funded in part by the founding team. Recognizing that internal leaders may not be well placed to judge the merits of a new idea, Haier often requires a startup team to obtain outside venture funding before contributing internal resources. In a recent period, nine out of fourteen newly hatched MEs received external investment before getting money from Haier. Despite this, Haier often ends up with a majority stake in the startups, as it typically secures the option of buying out its venture partners using a preset valuation formula.

Like other units within Haier, incubating MEs contract with nodes for development, distribution, and administrative support. Arm's-length agreements allow fledgling MEs to leverage Haier's size and bargaining power while avoiding the risk of bureaucratic meddling.

Haier understands the only way to find that next billion-dollar opportunity is to launch a slew of startups and give each one the freedom to chase its dream. As one of the company's venture capital partners explained, "Microenterprises are like a reconnaissance unit—they scan the battlefield and identify the most promising opportunities. It's like a giant search function."

7. From Employees to Owners

In a startup, employees think and act like owners, because most of them are. Team members have a large degree of autonomy and no one to blame if things go south. It's the combination of upside and autonomy that gives startups their edge. Not surprisingly, Haier has sought to capture these advantages in its own management model.

At Haier, MEs operate as self-managing business units, and their freedoms are formally enshrined in three rights:

- **STRATEGY:** The right to decide what opportunities to pursue, to set priorities, and to form both internal and external partnerships

- **PEOPLE:** The right to make hiring decisions, align individuals and roles, and define working relationships

- **DISTRIBUTION:** The right to set pay rates and distribute bonuses

These rights come with a commensurate degree of accountability. Leading targets are broken down into role-specific weekly, monthly, and quarterly goals. This makes it easy to see who's performing and who's not. As is true in most startups, base salaries are low. Opportunities for additional compensation are tied to three performance thresholds:

- **BASELINE.** When an ME's quarterly sales and earnings growth exceed a base target, team members get a bonus proportionate to the amount by which the target was exceeded.

- **VALUE-ADJUSTED MECHANISM (VAM).** If the ME achieves a midpoint goal between the quarterly baseline and its leading

target, known as the VAM target, the team's bonus is doubled. At this point, employees also get the option of investing their own money, typically RMB15,000 (about $2,200), in a special investment account. If the team hits the VAM target the subsequent quarter, that investment produces a 100 percent dividend.

- **VAM ANNUAL TARGET.** When an ME team beats its VAM target for four consecutive quarters, it becomes eligible for profit sharing. Twenty percent of the ME's net profits in excess of the VAM goal is distributed to the team, though 30 percent of that amount will be set aside to fund bonuses in the following year. As an ME closes in on its leading target, the profit share increases proportionately, sometimes exceeding 40 percent.

This combination of bonuses, dividends, and profit sharing gives employees the opportunity to multiply their base pay many times over. With so much at stake, it's hardly surprising that ME team members have little tolerance for incompetent leaders. If an ME fails to hit its baseline targets for three months in a row, a leadership election is automatically triggered. If the ME is meeting its baseline targets but failing to reach its VAM targets, a two-thirds vote of ME members can oust the existing leader.

New leaders are chosen competitively. Typically, three or four candidates will present their plans to the ME team. Occasionally, the team rejects the entire slate of candidates, and the search process goes to round two.

Poorly performing leaders are also vulnerable to a hostile takeover. Anyone at Haier who believes he or she could better manage a

struggling ME can make a pitch to the team. Since performance data for all MEs is transparent across the company, it's easy to spot takeover opportunities. If an interloper's plan is convincing, a leadership change will ensue. In principle, this is no different than what happens when an underperforming company gets taken over by a rival or a private-equity firm, but unlike Haier, most companies don't have an internal market for control.

The Road to Rendanheyi

Unlike Alibaba or Tencent, Haier isn't one of China's new-economy superstars. Thirty years ago, the company was a struggling, collectively owned enterprise turning out products of dubious quality. Today, it's a case study in what can be accomplished when an established company uproots bureaucracy's authoritarian structures and rule-choked processes. Who would have imagined that it's possible to run a sprawling global business with just two layers of management between frontline employees and the CEO?

Haier may be the most radically managed organization of its size, and yet its revolutionary practices don't make it invincible. Like every organization, it's vulnerable to the geopolitical forces and human foibles that can put any company at risk. Nevertheless, its success suggests we should no longer conflate the idea of entrepreneurship with the notion of a particular piece of geography—be it Silicon Valley or a purpose-built incubator. Nor should we assume that entrepreneurship is the exclusive preserve of small, pubescent organizations. Inspired entrepreneurship shouldn't be any more remarkable in a multinational giant than in a Palo Alto garage.

Yet as Zhang will tell you, the road from bureaucracy to humanocracy is twisty and boulder-strewn. Rendanheyi has been a decade in the making. The company began testing the concept of small, entrepreneurial sales and marketing teams in 2010. A year later, it introduced self-managing teams in product units. Those early tests were instructive. At the outset, internal contracting proved problematic. Negotiations were protracted and adversarial as every unit sought to maximize its own success. The solution? Build in a clause that links compensation to marketplace results. That reduced friction and increased alignment, turning a zero-sum game into a quest to create value for customers.

Not all of the changes have been easy. In the move to rendanheyi, more than ten thousand midlevel managers were redeployed or dismissed. Yet, at the same time, Haier has empowered thousands of new ME leaders and generated tens of thousands of new jobs in its rapidly expanding ecosystem.

Zhang often reminds his colleagues that it's impossible to engineer a complex system from the top down. It has to emerge through an iterative process of experimentation and learning. When asked how Haier can accelerate its transformation, Zhang has a simple answer: run more trials and replicate the most successful ones faster.

Zhang knows that to evolve into something holistic and durable, those trials have to be guided by deep principles. The nearly three thousand-year-old Chinese book of wisdom, the *I Ching*, provides one guidepost. Says Zhang,

> According to this book, the highest level of human activity should be like "a host of dragons without a leader." In Chinese

culture, the dragon is the mightiest animal. Today, each and every microenterprise is a kind of dragon, very capable and competent. But they don't have a leader. They start their own businesses on the market without the guidance of a leader. That is the highest level of human governance.

Zhang finds another beacon in the writings of Immanuel Kant, the nineteenth-century German philosopher whose "categorical imperative" holds that we must never regard human beings as mere tools. In a long-ago meeting with the authors, Zhang echoed this belief when he laid out his aspirations for Haier: "We want to encourage employees to become entrepreneurs because people are not a means to an end but an end in themselves. Our goal is to let everyone become their own CEO." You won't find many CEOs whose organizational philosophy gives preeminence to human dignity and agency, but if you want to build a humanocracy, that's the only perspective you can take.

Part Three

The Principles of Humanocracy

What's the DNA of a Human-Centric Organization?

— 6 —

Principles over Practices

Positive deviants like Nucor and Haier challenge the assumption that bureaucracy is indispensable to large-scale human enterprise, yet neither company would claim to be a perfectly developed specimen of humanocracy. Moreover, they would be the first to tell you that not all of their systems and processes are exportable. What makes these companies valuable as role models isn't so much their unique practices as the distinctive belief systems that gave birth to those practices. Drawing lessons from these and other vanguard companies is a bit like trying to learn from Tiger Woods. The challenge is less to mimic the mechanics of his golf swing, which are uniquely suited to his physique and are constantly evolving, than to learn something about the reserves of stamina and determination that helped him win fifteen major golf tournaments.

When benchmarking other organizations we tend to ask, what do they do differently? But when we're trying to make sense of a

company that is different in almost *every* respect, we need to ask, how does it *think* differently?

What beliefs or principles drove Ken Iverson to build a company that grants team members unprecedented freedom to learn and grow? Why did Zhang Ruimin sign up for the seemingly impossible task of turning a mature manufacturing company into an entrepreneurial hothouse? Being a pioneer isn't easy. There's no trail map. The only thing that can guide you is your worldview about people, organizations, and success.

Zhang's worldview is centered on the power of human agency. Like Chris Rufer at Morning Star, he believes the best organization is the one that gives human beings the maximum freedom to excel. Iverson's worldview revolved around the idea of everyday genius. He believed that it's employees, rather than managers, who drive a business forward. If you believe this, heart and soul, then bureaucracy isn't something you whine about, it's something you try to kill.

The extent to which someone regards a problem as important, or even acknowledges its existence, depends on their worldview—their paradigmatic beliefs. If, for example, you believe human beings have a sacred trust to be good stewards of the natural environment, you're likely to take the threat of climate change very seriously. If, instead, you see the earth as a reservoir of resources to exploit for short-term gain, environmentalism will make little sense to you. So it is with humanocracy. If your worldview places a premium on human freedom and growth, you'll regard the inhumanity of bureaucracy as intolerable and feel compelled to act. If, on the other hand, you regard human beings as factors of production, you'll make excuses for bureaucracy and be content with minor reforms.

Your worldview matters—a lot. Yet as a rule, most of us spend a lot more time thinking about practices than principles. That, as much as anything, explains why we're stuck.

You can't solve a truly novel problem, like building organizations that are fully human, with fossilized principles. In the eighteenth century, the enchanting idea of "popular sovereignty" inspired political philosophers to challenge the norms of monarchical power. With great imagination and effort, they created in its stead a new matrix of pro-democracy principles. These included:

Popular elections

Universal suffrage

Equality before the law

Separation of powers

Independent judiciary

Freedom of the press

Religious liberty

Similarly, in their quest to map the subatomic world, physicists such as Niels Bohr and Werner Heisenberg were forced to abandon the comfortable certainties of Newtonian physics and unravel an entirely new set of principles—like particle/wave duality, superposition, indeterminacy, and nonlocal correlation. Thus was born quantum mechanics.

The managerial obsession with processes is understandable. Corporate processes like planning, budgeting, and performance reviews are pivotal in determining whose ideas prevail, what projects

get funded, and how rewards get distributed. Yet if the goal is to build a humanocracy, a focus on processes is insufficient. Individual processes, like Haier's approach to setting "leading targets," are often context-specific. What works in one organization may not work in another. Additionally, each process is part of a larger whole. Bolting a single, vanguard process onto a conventional management model is usually a fruitless exercise—like donning Cristiano Ronaldo's number 7 jersey in hopes of becoming a soccer legend.

Think again about the principles of self-government. While political systems in mature democracies differ in their particulars (Britain, unlike the United States, lacks a written constitution), they're all grounded in the same corpus of pro-democracy principles. The strength of a democracy doesn't hinge on any specific structure or process. A dictator can hold elections, but if he stuffs the ballot box and persecutes the opposition, the results won't be democratic.

Consider this diagram:

In any established field of human endeavor—like politics, physics, or management—you'll find a high degree of congruence up and down this hierarchy. Within the relevant professional community, there will be a shared worldview, broad agreement on the core problems to be solved, and an allegiance to a common set of guiding principles. Over time, as those principles get operationalized, a body of supporting processes and practices will emerge. They, in turn, will determine the system's performance.

Within the management profession, the hierarchy might look like this:

As a system matures—as bureaucratic management has over the past hundred-plus years—performance gains get harder and harder to come by. In the nineteenth and twentieth centuries, the disciplines of bureaucracy produced stunning advances in labor and capital efficiency, but in the last several decades, productivity growth has slowed. The rich seam of operational inefficiencies addressable by bureaucracy is largely tapped out. The point is this: over time, a system's performance becomes limited less by processes and practices than by paradigms and principles.

As researchers and consultants, it took us many years to understand this simple truth. Over the decades, we've spent a lot of time helping large organizations innovate. In a typical project, we'll spend weeks lining up the necessary sponsors, co-designing the initiative, and recruiting a project team. After that will come weeks of training, brainstorming, and coaching, then months spent building and testing new business concepts. When, at last, a slew of new products hits the market, there will be an uptick in revenue. But when we return, a couple of years later, we invariably find that the innovation pipeline has run dry. The bureaucrats are back in control and top-line growth has stalled out.

Having watched this movie a few dozen times, it finally hit us—we were working to achieve a category of results—rule-busting innovation—that was constitutionally incompatible with the system's basic design. We were, to take an analogy, trying to teach a dog to walk on his hind legs. We'd get Fido's attention, hold a treat above his head, and beam as he took a few shaky steps. We'd stroke his head and say, "Good boy." But when we walked away, Fido soon

reverted to type. Rather than go, "Wow, cool! Let me try that again," he just stood there, bothering a bone, thinking, "What the hell was that all about? Doesn't this idiot know I'm a quadruped?"

To be more innovative, adaptable, and inspiring, our organizations need new DNA. They need to be rebuilt on human-centric principles. Tweaks to existing systems and processes—a smidgen of mindfulness training, a dollop of agile teams, a spritz of digital transformation, or a fresh coat of analytics—will never produce nonlinear improvements in organizational effectiveness. For that to happen, we have to go back to first principles.

As a tightly integrated system, bureaucracy was designed to produce exactly what it does: compliance, discipline, and predictability. It's a sausage-making machine that produces—wait for it—sausages! Maybe it can be upgraded to make fatter sausages, or vegan sausages, or more sausages per hour, but it's never going to produce anything *other* than sausages until we go back to the drawing board.

If we're going to build organizations that are as capable as the people within them, we need to start over. We need a new organizational paradigm—one in which human beings are no longer viewed as "resources" or "capital." We must also reframe the problem—the goal is to maximize contribution, not compliance. And we need to embed new human-centric principles in every structure, system, process, and practice. If we're serious about creating organizations that are fit for human beings and fit for the future, nothing less will do.

So let's press forward. In the next seven chapters, we'll explore the core principles of humanocracy. Gleaned from the management

vanguard, they comprise a comprehensive and generalizable set of guidelines for building a post-bureaucratic organization. Together, they form the humanocracy genome.

— 7 —

The Power of Ownership

In what sort of organization are people most inclined to give their best—to stretch themselves, take risks, and challenge conventional thinking? In what sort of organization do people feel most connected to the customer, most accountable, and most committed? In our experience, the answer is a startup.

In a successful startup …

- Employees are united in their passion to break new ground

- Teams are small, roles are loosely defined, and policies are flexible

- There are few levels and little pressure for conformance

- Ambitious goals and tight timelines challenge everyone to do more with less

- The imperative of scaling fast creates an eagerness to leverage outside resources

- There are few formalities and the preferred method of communication is an all-hands meeting

- Initiative is prized, and individuals are encouraged to take prudent risks

In other words, a startup is bold, simple, lean, open, flat, and free. Not the words you'd use to describe the typical, lumbering incumbent.

No wonder it's the insurgents who change the world. As the late Harvard historian Arthur Cole wrote: "To study the entrepreneur is to study the central figure in economic history."[1] The Industrial Revolution was powered by entrepreneurial energy. In the nineteenth century, as political and economic freedoms advanced, millions of human beings were at last free to make of themselves whatever their passions and energies allowed. Out of their ranks came entrepreneurs like Josiah Wedgwood, Richard Arkwright, William Lever, John Cadbury, John Wilkinson, and Matthew Boulton—individuals of extraordinary imagination and courage who set out to satisfy the world's demand for housewares, fabrics, soaps, chocolate, iron, and locomotive power.

Entrepreneurship, or what Nobel Prize–winning economist Edmund Phelps calls "grassroots innovation," is as central to economic dynamism today as it was in the nineteenth century.[2] Entrepreneurs unlock the value of new technologies, spur competition, satisfy unmet needs, and create new jobs.

Entrepreneurship is equally essential to human flourishing. Phelps is right when he argues that we're most alive when we have "the

experience of mental stimulation, the challenge of new problems to solve, … and the excitement of venturing into the unknown."[3]

When entrepreneurship is stifled by bureaucratic or statist policies, economies and human beings suffer. This, Phelps argues, is precisely what happened over the last seventy years as giant corporations came to dominate the economic landscape. He notes that in earlier times, when economies were populated by small proprietorships,

> [E]ven the lowest-paid employee, if he had an idea for doing something new or different, could expect a chance to get the ear of someone well up the ladder, if not at the top. So employees of the company were alert to new ideas crossing their minds and were, for that reason, more likely to have new ideas. There is no such prospect in giant companies larded with managerial hierarchies.[4]

On this point, Phelps echoes Cole, who, writing fifty years earlier, warned his readers that entrepreneurship was increasingly at risk from bureaucratic "dry rot."[5] Bureaucracies are run not by inventors but accountants, not by builders but administrators. In a large company, only a fraction of employees are active members of what Phelps evocatively calls the "imaginarium."

It's troubling, then, that entrepreneurship is on the wane. Over the past four decades, the percentage of companies in the US economy less than a year old has dropped by nearly half—from just under 15 percent of all companies to barely 8 percent. At the same time, big companies have gotten bigger. Decades of consolidation, along with the winner-take-all dynamics of digital technology, have left us with

an economy that is dominated by powerful, politically connected oligopolies.

The results, notes Chris Hughes, cofounder of Facebook, is "a decline in entrepreneurship, stalled productivity growth, and higher prices and fewer choices for consumers."[6] More robust antitrust enforcement is undoubtedly part of the answer, but we must also work to infuse every company with the spirit of entrepreneurship.

Employees versus Entrepreneurs

What percentage of the people who work in your organization would agree with the following statements?

- My work is my passion

- I get to make meaningful business decisions

- I feel directly accountable to customers

- I intuitively think lean

- My team is small and super-flexible

- The success of this business depends critically on me

- I measure progress in days and weeks, not months and quarters

- Every day I have the chance to solve new, interesting problems

- I have a significant financial stake in the success of this business

Ten percent? Five percent? One percent? These are the sort of comments you'd expect from a small business owner, but they're seldom heard in large organizations.

The paradox is that in some ways, large companies are well equipped to be entrepreneurial hot spots. They have deep pockets, thousands of talented employees, terabytes of customer data, and powerful brands. What they lack, though, are employees who feel like owners.

At present, 42 million Americans work for companies that have five thousand or more employees. It's a good bet that among those 42 million are tens of thousands of entrepreneurially minded souls who, for whatever reason, haven't had the opportunity to strike out on their own. Unlike Larry Page and Sergei Brin, cofounders of Google, or Evan Spiegel, founder of Snap, they didn't attend Stanford and get plugged into the school's VC network. Unlike Mark Zuckerberg, they didn't meet a well-off classmate at Harvard, Eduardo Saverin, who was willing to invest thousands of dollars in a zero-revenue business. So their ideas remain untested, and their entrepreneurial passions unrequited.

You'd think that CEOs would recognize that the best way to fight off a battalion of hungry disruptors is to build an army of homegrown entrepreneurs. Today, no one is surprised when a twenty-something kid launches a startup. Valentin Stalf was just twenty-seven years old when he cofounded N26, Europe's fastest-growing all-digital bank. Yet few CEOs seem to believe there are inspired moppets within their organization who could pull off a similar feat. So while companies spend millions of dollars on "leadership development," they invest next to nothing supporting bottom-up entrepreneurship. This has to change. Unleashing the problem-solving, business-building energies of every team member is essential to building a humanocracy.

The bedrock of entrepreneurship is ownership. Yale law professor Henry Hansman argues that every business owner has two formal rights: "the right to control the firm and the right to appropriate the firm's residual earnings"—in other words, the freedom to make decisions and a shot at the brass ring.[7] In most organizations, team members have little of either. No wonder most would rather be working for themselves. In a recent study, 62 percent of Americans said they dreamed of starting their own business. The figure for millennials was even higher, at 77 percent.[8] The top-rated reason for taking the entrepreneurial plunge: the ability to "control my own destiny."

All those would-be entrepreneurs aren't naive. They understand that as owners, they'd be putting in more hours than they do now, with no guarantee of success. Nevertheless, 61 percent of millennials, many of whom first entered the job market in the aftermath of the Great Recession, believe there's more job security in owning your own business than in working for someone else, and not without reason. They have family members who've fallen victim to downsizing, and friends who are struggling to escape dead-end "gig economy" jobs. Even in a strong economy, they know it's hard to build a career when most employers would rather hire contractors than full-time employees.

Autonomy and Upside

While image-savvy employers often talk about building their "employee brand," or enhancing the "employee value proposition," few established companies offer recruits what they crave most: autonomy and upside.

More than a hundred studies have explored the impact of autonomy and gainsharing on firm performance, and most have found a positive correlation.[9] Dutch researchers Dirk von Dierendonck and Inge Nuijten conducted one particularly revealing study.[10] They started by building an eight-factor model of servant leadership. Critical behaviors included:

EMPOWERMENT: Increasing the decision-making autonomy of one's subordinates

ACCOUNTABILITY: Holding individuals accountable for the consequences of their decisions

SELFLESSNESS: Giving priority to the needs of others

HUMILITY: Openly acknowledging one's limitations and mistakes

AUTHENTICITY: Relating honestly and openly with others

COURAGE: Challenging institutional norms in the interest of supporting others

FORGIVENESS: Demonstrating empathy and a willingness to forgive

STEWARDSHIP: Taking responsibility for the success and integrity of the institution as a whole

Next, the researchers asked more than fifteen hundred employees in the Netherlands and the UK to rate their managers on these attributes and to then score themselves on various job-related factors. As you can see in table 7-1, of the eight leadership behaviors, empowerment was the most highly correlated with employee

engagement, job satisfaction, and organizational commitment, while accountability was the strongest factor impacting job performance.

Correlation between leadership attributes and job-related factors (R-squares)

Leadership behavior	Engagement	Job satisfaction	Organizational commitment	Job performance
Empowerment	**.43**	**.62**	**.62**	.21
Accountability	.41	.33	.14	**.32**
Selflessness	.18	.32	.54	.16
Humility	.33	.48	.54	.09

Authenticity	.29	.35	.36	.08
Courage	.32	.31	.39	.07
Forgiveness	.08	.20	.36	.14
Stewardship	-	-	.60	.17

In another study, Joseph Blasi, Richard Freeman, and Douglas Kruse explored the relationship between autonomy, upside, and employee turnover.[11] Looking at figure 7-1, you'll notice that differences in upside and autonomy, taken individually, have little impact on attrition rates. However, in combination, they reduce turnover by more than half. This interaction shouldn't be surprising. Asking someone to take on more responsibility without giving them a bigger piece of the pie is likely to be perceived as unfair. Conversely, offering someone the chance for a bigger payout while denying them the right to make the necessary decisions will produce frustration and resentment. It is the *combination* of autonomy and upside that fuels entrepreneurial fervor.

FIGURE 7-1

Impact of financial upside and autonomy on employee retention rate (annual voluntary separation rates)

Given this, it's regrettable that most employees are locked into rigid wage scales that give employees little incentive to do more than is required. Consider:

- The 2015 European Working Conditions Survey found that just 14 percent of nonmanagerial employees were eligible for bonuses based on individual or team performance. The figure from a parallel American survey was slightly higher, at 15 percent, but only a scant 4 percent of frontline employees were eligible for productivity-related rewards.

- Data compiled by Great Places to Work revealed that only one in five of the reporting companies paid out cash bonuses, with the median payout a meager 4.7 percent of employee pay.[12]

- Nonproduction-based bonuses, which include profit-sharing schemes, accounted for just 2.1 percent of total compensation costs for US employees in the second quarter of 2019.[13] Within the US private sector, less than one in six frontline employees participates in profit sharing. The figure for Europe is 10 percent.[14]

It's patently stupid to starve employees of autonomy and upside, yet this is the norm. What gives? The most plausible explanation is that senior leaders believe frontline staff have little to contribute. In

their view, employees are commodity resources doing commodity work—they're "meatware" that can't be upgraded. A former managing partner at McKinsey & Company expressed this view when he advised executives to focus their attention on the "2 percent [of employees] who are really going to drive [results.]" "It's a very small proportion of people," he argued, "who drive a lot of value." When pressed, he admitted his assertion had "no regression analysis or analytics behind it."[15] It was, in other words, an untested assumption or, to be more accurate, a prejudice.

This sort of disdain for the average employee mirrors the hauteur of eighteenth-century aristocrats—and has the same stifling effect on creativity and initiative. Stunted freedom and upside yield stunted commitment and performance.

Owners Everywhere

For those who doubt it's possible to create a top-to-bottom culture of ownership, consider again Haier and Nucor.

Haier

As we saw in chapter 5, Haier has thousands of internal entrepreneurs. Everyone who works for one of the company's four thousand microenterprises has substantial upside. While base pay is modest, often not much more than the minimum wage, teams that achieve their "leading targets" can multiply their salary by five or ten times. Frontline teams also have the freedom to run their businesses as they see fit—they're empowered to set direction, develop products, define roles, hire colleagues, and apportion rewards. The result: a

company buzzing with entrepreneurial energy that consistently outgrows its rivals, both domestic and international.

Nucor

Nucor also reaps the fruits of ownership. The company produces more tons of steel per employee than any of its traditional rivals, and its per capita profit is three times that of its peer group. Nucor's bonus system encourages team members to search relentlessly for new ways of improving productivity, a search that is abetted by the freedom to experiment with new products and work methods. Nucor regards its workforce as a bottomless well of ingenuity—and the chance to earn industry-beating rewards is the pump that brings that creativity to the surface.

By refusing to treat employees like commodities, Nucor has decommoditized its business. Across the Atlantic, one of Sweden's leading banks and a Paris-based conglomerate have built similarly robust ownership cultures.

Svenska Handelsbanken

Based in Stockholm, Handelsbanken's twelve thousand employees operate more than 760 branches. While the bank operates in twenty-five countries, it regards Sweden, Denmark, Finland, Norway, Great Britain, and the Netherlands as its home markets. When measured by return on equity, Handelsbanken has outperformed its European peers every year over the last forty-eight years.

Unlike its rivals, Handelsbanken regards every branch as a stand-alone business. Each branch is operationally independent and has its own P&L. There are few corporate cost allocations and virtually no top-down mandates. Anders Bouvin, a past CEO, explains: "If you

really believe that customer satisfaction is the main reason for achieving superior results, you have to eliminate any kind of steering mechanisms that could push one of your employees to do something that is not in the interest of customers."[16]

Branch teams—typically eight to ten individuals—are responsible for making credit decisions, pricing loans and deposits, communicating with customers, and setting staffing levels.

In Bouvin's view, the primary argument for the bank's "fundamentally humanistic" model is that it yields better decisions: "Having so much faith in people leads to high levels of motivation and leads to better quality decisions than you get with a traditional command and control model, where head office people take decisions far away from where the customer is based."[17]

Like Nucor, Handelsbanken shares the rewards of its success with those on the front lines. In any year that the bank's return on equity exceeds the average of its peer group, one-third of the difference is paid into a foundation that invests on behalf of employees, mostly in Handelsbanken shares. The proceeds are distributed equally among all employees, regardless of rank. The contribution in 2018 was $90 million, or approximately $7,500 per employee—a significant sum for a frontline staff member. Withdrawals can be made once an employee turns sixty. The stake for a long-tenured associate can be worth over $1 million.

As with other vanguard companies, the combination of autonomy and upside keeps employee turnover low. Owners, as a rule, are in it for the long term.

Vinci

The $45 billion French construction and concession giant, Vinci SA, is another A-list example of distributed ownership. Employing 221,000 people in more than 100 countries, Vinci operates toll roads, airports, high-speed rail lines, and sports venues. Its construction business takes on hundreds of thousands of projects each year. One of the most challenging was a 36,000-ton, dome-shaped structure designed to entomb the radioactive remains of Chernobyl nuclear reactor number 4.

Over the past decade, Vinci's stock price has grown twice as fast as its European peers. The company's success reflects, in part, the dynamism of its business portfolio. Revenue from Vinci Energies, the group responsible for energy and communication projects, surged from $5 billion in 2008 to $14 billion in 2018. Airport concessions grew from $430 million in 2013 to $2 billion by the close of 2018. Much of this growth came from outside Vinci's home market.

Vinci CEO Xavier Huillard attributes his company's growth to its unique management model, which is designed to minimize bureaucracy and maximize entrepreneurship. Like Haier's Zhang Ruimin, Huillard believes the best way to create a sense of ownership is to keep units small. Vinci is divided into three thousand compact business units, two-thirds of which have fewer than a hundred employees. So strong is the commitment to disaggregation that businesses are frequently split in two as they grow.

The average microbusiness has just over forty team members and revenues of $8 million. This swarm of hyperspecialized units—a business based in Nantes, for instance, makes industrial equipment for pet food manufacturers—maximizes both market coverage and

operational focus. Vinci understands that to get bigger on the outside, a company must often get smaller on the inside.

To capture synergies, individual businesses are clustered into divisions and divisions into groups. These additional groupings are responsible for finding and exploiting cross-unit opportunities. Several divisions, for example, are currently collaborating to develop new sensor technologies for remote monitoring.

Vinci's management model recognizes the inseparability of autonomy and accountability. Each unit has its own P&L and is responsible for developing its business plan and acquiring the resources necessary to execute it. As Huillard notes, "Authority and responsibility necessarily go hand in hand. One cannot give responsibility to someone without having given the relevant authority. When a dysfunction takes place in a unit, it is always because of a separation between these two."[18]

One advantage of a disaggregated and empowered organization is that it multiplies the opportunities for leadership and impact. Says Huillard, "It is not unusual for us to entrust a business unit making 10 million Euros to an employee who is less than 30 years old."

Vinci's buccaneering spirit is illustrated by its entry into the airport business. A decade ago, the company was about to sell off two Cambodian airports it had acquired as part of a larger deal. Nicolas Notebaert, then a business development director working in France, thought the airports could be the launching pad for a new business. After lobbying successfully to keep the airports, he moved to Asia to run them. The experiment validated the opportunity, and today Vinci employs 14,500 airport staff who support 240 million passengers a year. Huillard notes that as CEO, "My sole merit was that I provided

[Nicolas] with the conditions which helped him to demonstrate his enthusiasm. In other words, I let 'wild grass' grow." At Vinci, ambitious young leaders can be entrepreneurs without having to set up in a garage.

Vinci encourages employee ownership with a compensation plan that discounts shares by 5 percent and matches employee stock purchases up to $4,000 per year, or 10 percent of the average salary. More than 62 percent of employees participate in the plan—three times the average for large European companies. As with Handelsbanken, personal prosperity is linked tightly to the company's continued growth.

Employees who think and act like owners don't need a lot of oversight. Accordingly, just 250 employees work at Vinci's Paris headquarters—about 0.1 percent of total head count. Says Huillard, "It is useless having armies of auditors who just get in the way."

Each of these companies—Nucor, Haier, Handelsbanken, and Vinci—has built an organization that is, at its core, a league of owners. Over the decades, each company has demonstrated conclusively that distributed ownership …

- Reduces turnover and creates a smarter, more experienced workforce

- Unlocks reserves of discretionary effort

- Increases the incentives for innovation

- Creates more cohesion and camaraderie

- Strengthens the connection with customers

- Produces faster, better-informed decisions

- Leads to a flatter, leaner organization

- Yields above-average returns

Think again of the 77 percent of millennials who dream of running their own business. Why shouldn't they be able to do this inside a large organization? The two most frequently mentioned barriers to starting a business—access to capital and lack of expertise—are problems large companies are uniquely capable of solving. Handelsbanken opened a hundred branches in the United Kingdom in just three years. No self-funded, bricks-and-mortar startup could have matched that pace. Big companies also have vast reservoirs of knowledge. It often takes years, and lots of mistakes, for a small business owner to develop sound financial judgment. An established company, by contrast, can rapidly upskill employees—as Nucor does with its "Dollars and Tons" game. Employees shouldn't have to choose between the freedom to run their own business and the ability to leverage the resources of a large company—and if they work for Nucor, Haier, Handelsbanken, or Vinci, they don't have to.

Getting Started

So how might you increase the sense of ownership in your own organization? Here are a few suggestions:

1. Start by redistributing a chunk of your own authority. Step back from critical decisions and let your team decide. (We'll say more about this in chapter 15.)

2. If your company doesn't have a profit-sharing plan, lobby for one and make sure it's available to every employee. In a good

year, profit sharing should raise average compensation by 10 percent or more.

3. Wherever possible, disaggregate big units into small ones. In general, keep operating units to fewer than fifty people.

4. Give every unit a full-fledged P&L. Minimize corporate overhead allocations and avoid building targets around detailed KPIs.

5. Expand the decision-making prerogatives of frontline operating teams. Give them responsibility for decisions around unit strategy, operations, and people.

6. Roll back legacy policies that have truncated the freedom of frontline units. Give businesses the right to negotiate the price of centrally provided services and opt out if they don't think they're getting a good deal.

7. Once every unit has a genuine P&L, significantly increase the proportion of individual or team compensation that's at risk. Ensure that above-average performance brings above-average rewards.

There was a time when the idea of an "employee" was novel. In the nineteenth century, America was a "republic of the self-employed," as Roy Jacques so aptly puts it.[19] Those who worked for someone else—in a tanning shed, a blacksmith yard, or a general store—dreamed about striking out on their own, and many did. One can only imagine the distress they would have felt if they had known that their progeny, two centuries later, would be working as hirelings.

We can't go back to the nineteenth century, but every organization can become a confederation of owners and thereby catalyze the pride, passion, proficiency, and performance that are the hallmarks of humanocracy.

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The Power of Markets

You probably wouldn't want to live in a centrally planned economy where a distant authority decides what should be produced and in what quantities. You wouldn't want prices to be set by fiat, or be forced to buy from state monopolies. You prefer choice to compulsion.

Over time, centralized control creates profound distortions—unbalanced sectoral growth (typically favoring capital-intensive industries), bloated state enterprises, chronic under- or overcapacity, and epic waste. China's state-owned enterprises, for example, generate about 20 percent of Chinese output, but account for more than three-quarters of all corporate borrowing.[1] Moreover, the state sector's return on assets is barely a fifth of what China's privately owned companies achieve.[2]

Investment decisions are smarter when they're driven by commercial rather than political logic. Businesses are more efficient when they're not buoyed up by state subsidies, and consumers get a

better deal when markets are open to all comers. These are the bounties of Adam Smith's invisible hand.

While most CEOs acknowledge the virtues of free markets, the companies they run are typically structured like command economies. As in the former Soviet Union, decision-making power is highly concentrated at the top. Changing this is essential to making our organizations more resilient, innovative, and human. To see how this might be done, we need to understand the conditions under which markets outperform hierarchies and then try to imagine how these advantages might be replicated within our organizations.

Collective Intelligence

Would you buy a stock if a single individual—the company's CFO, let's say—had set the price? Probably not. You know that one person's opinion is an unreliable guide to the value of an asset—be it a stock, a painting, or a vintage car. Before parting with your money, you'd want to be sure you were paying a fair, that is, market-based, price.

Markets aggregate a vast array of information into a single estimate of value. The price of a share in Google, for example, reflects everything investors currently know about the factors that may bear on Google's future profitability.

If you wouldn't trust a small group of experts to determine the price of a share, why would you trust a small group of executives to evaluate a major strategic opportunity—be it an acquisition, product line extension, or new technology? No single mind, or small group of minds, can encompass the full gamut of information that is relevant

to a major strategic decision. It's worrying, then, that bureaucratic authority structures are heavily top-weighted.

All too often, the opinions of a few senior executives are granted an immense and unwarranted credibility premium. In a bureaucracy, the bigger the decision, the smaller the number of people who can challenge the decision maker. That's dumb.

The costs of unquestioned authority can be substantial. During his tenure as Intel CEO, Paul Otellini passed on the opportunity to build chips for the original iPhone. Justifying the decision a decade later, Otellini said the iPhone turned out to be "100X more successful than anyone thought."[3] Really? Than *anyone* thought? If you take the most ubiquitous electronic device in the world, the mobile phone, and make it remarkably better, why *wouldn't* you expect a home run? One wonders just how many young Intel engineers were consulted before Otellini made his fateful decision.

The irony is that Intel has been the subject of one of the longest-running experiments on the advantages of collective intelligence.[4] Over eight years, professors from Caltech compared sales projections made by Intel's expert forecasters with wisdom-of-the-crowd estimates culled from a cross-section of employees. Each month, members of the crowd were asked to make product-line revenue forecasts for the next four quarters. Participants used a virtual currency called "francs" to buy tickets tied to a specific range of revenue outcomes. One ticket, for example, might cover a revenue spread of $15 million to $15.2 million for a particular product family, while another ticket would cover $15.2 million to $15.4 million in expected sales. Every ticket carried the same price. Participants could buy several tickets for one revenue band or spread their bets across

several bands. Critically, the market was open for just one hour each month. This reduced the ability of participants to free ride on the wisdom of their peers.

Once the actual sales numbers came in, everyone who'd purchased a winning ticket got a payout. Between 2006 and 2013, Intel ran 959 prediction experiments, and in nearly two-thirds of the cases, the crowd beat the experts.

In recent years, opinion markets have demonstrated their value in predicting elections, scientific breakthroughs, the spread of infectious diseases, movie ticket sales, and the replicability of academic studies.[5] In a typical case, researchers found that US presidential election predictions made by the Iowa Electronic Market beat professional pollsters 74 percent of the time.[6] Other research has shown that markets outperform experts even when markets are thin, that is, when there are dozens, rather than hundreds or thousands, of participants.[7]

All this suggests that organizations are likely to incur an "ignorance tax" when senior leaders fail to consult the crowd before making important decisions. Consider Cisco. In October 2010, the San Jose, California, manufacturer of networking gear introduced the Umi, a $600 consumer device designed to turn a high-definition television into a video conferencing terminal—as long as you paid Cisco $25 per month and had friends and family who were also subscribers. Despite a global launch featuring talk show host Oprah Winfrey, Umi survived only eighteen months before being pulled from the market. Even before the doomed product had reached store shelves, *Fortune* magazine had deemed it "the answer to a question nobody asked."[8] Had Cisco's leaders polled an internal market about

Umi's prospects, there's little doubt the company would have saved itself an expensive embarrassment.

Collective intelligence can be an invaluable asset in assessing the potential returns of a new product launch, a pricing shift, a major reorg, or a new marketing campaign. Building an internal opinion market takes work, but it's cheaper than a major business blunder.

Allocational Agility

Over the past fifty years, the New York Stock Exchange, as a whole, has outperformed each of its constituent companies. In other words, ordinary investors in their millions made smarter investment decisions than all those handsomely paid CEOs. Why? Because markets are better than hierarchies at allocating resources.

In a market, funding decisions are distributed, dispassionate, and dynamic. Investors are free to put their money where they like, tend to be unemotional about selling off underperforming securities, and can transact with little friction. In a bureaucracy, by contrast, major funding decisions are made by a small number of senior executives in what is usually a highly politicized budget brawl. Researchers have identified a cluster of anomalies that corrupt this process and lead to suboptimal allocation decisions.[9] Among the most pernicious …

DEFEND WHAT'S YOURS. Leaders tend to be territorial about the resources they control and are typically reluctant to share money and talent with other units, even when the returns might be higher.[10]

THE RICH GET RICHER. The biggest units in a multibusiness company tend to get more than their fair share of capital, not

because they offer better returns, but because the leaders of these businesses have more political clout.[11]

GOOD MONEY AFTER BAD. Executives tend to overinvest in struggling businesses in hopes of turning them around. Research shows that in most cases, returns would have been higher if the money had been invested in less troubled units.[12]

SHARE THE PAIN. When cash is short, executives tend to cut spending across the board rather than protect high-priority areas.[13]

IT'S WHO YOU KNOW. Senior leaders with strong internal networks typically win more resources than leaders who are less well connected, irrespective of the merits of the particular business case.[14]

HOME IS WHERE THE HEART IS. Senior executives are less likely to defund or divest a business in which they worked earlier in their career.[15]

PRETTY IT UP. In competing for funds, business unit leaders have an incentive to inflate the merits of their investment proposals. These distortions are often difficult for corporate-level executives to ferret out.[16]

MORE OF THE SAME. Funding decisions are often made relative to last year's budget. Every business or product line gets pretty much what it got the year before, plus or minus a few percentage points.[17]

On this last point, a McKinsey & Company study of sixteen hundred US companies found that over a fifteen-year period, the

year-to-year correlation in the funding received by individual business units was 0.92.[18]

For all these reasons, internal investment decisions tend to be highly skewed by individual biases and political gamesmanship. The net effect: a high degree of allocational inertia and a propensity to overinvest in "what is" at the expense of "what could be." No wonder startups often get to the future first.

In recent decades, no place on earth has created more wealth per capita than the ten-mile-long strip of land that runs from San Francisco to San Jose. Between 2010 and 2019, $350 billion of venture money poured into Bay Area startups.[19] Currently, half of America's 122 unicorns—private, venture-backed companies worth at least $1 billion—call Northern California home.

There's no CEO of Silicon Valley, Inc. There's no central authority that decides how much to invest in artificial intelligence, cloud services, pharmacogenomics, virtual reality, fintech, or cybersecurity. Instead, thousands of angel investors and venture capitalists compete to create value at the intersection of three markets—the market for new business ideas, for world-class talent, and for risk-tolerant capital. These markets are vibrant and restless. Everyone in Silicon Valley, it seems, is chasing the next deal, looking for the next round of funding, or trying to sign on with the next Google or Airbnb. Resources shape-shift into whatever forms seem most likely to generate value. In large organizations, by contrast, resources are indolent. They don't move until some executive vice president orders them to move—which is often too late.

In a bureaucracy, there's only one place to sell an idea—up the chain of command. Any idea that doesn't sync with near-term

priorities or executive dogma gets spiked. In Silicon Valley, by contrast, it's not unusual for a would-be entrepreneur to get turned down a dozen times before finding a willing backer, but in most organizations, a single *nyet* is enough to kill a new idea.

It doesn't have to be this way. Take the case of IBM. Recently, the 109-year-old IT services company has been working to internalize the ethos of Silicon Valley by opening up its resource-allocation process. After several small-scale experiments, the company launched its first enterprisewide funding platform, ifundIT in 2013. Francoise LeGoues, then head of IBM's CIO Lab, explained the goal: "How do we make sure everyone with a great idea gets a chance to have it seen and heard?"[20] Each of the company's twenty thousand IT employees was given a maximum of $2,000 to invest. Once an investment proposal attracted $25,000 in peer funding, it moved forward as an officially sanctioned project. In the first year, more than a thousand employees from thirty countries participated.

One winning idea, submitted by software engineer Ryan Hutton, was the Tap-o-Meter, an online tool designed to give internal developers real-time data on how their apps were being used across the company. Thanks to ifundIT, the project went from idea to approval in a month—a blistering pace by the standards of most large companies. Hutton, who joined IBM out of college, and was just twenty-four when his app launched, was understandably elated: "It's great to see such fast results, and it's kind of amazing to have this kind of impact so early in my career."[21]

A dramatically more ambitious crowdfunding effort was launched in 2016 when IBM invited 275,000 employees to submit ideas for exploiting the company's pioneering work in artificial intelligence.

Christened "Cognitive Build," the project kicked off with a round of brainstorming that bubbled up 8,361 ideas.[22] Out of this pool, 3,924 contributors submitted their ideas for a technical review, which winnowed the field to 2,603 ideas. Every IBMer was given $2,000 in virtual currency and encouraged to invest in the ideas they found most promising. In total, more than 225,000 employees participated, investing $291 million of fantasy cash. Relying heavily on the crowd's picks, internal reviewers narrowed the field to 50 finalists. After a final pitch fest to a panel of customers and executives, three grand-prize winners were announced, one of which was a text-based mental health counseling solution. Semifinalists and finalists received substantial monetary awards, and a number of the top-rated ideas were green lighted for further development.

In the absence of an expansive idea market, many of the most promising Cognitive Build solutions would never have emerged, much less been funded. Markets, by their very existence, energize sellers and attract buyers.

Cognitive Build also unleashed a ton of voluntary effort as investors signed on to help teams advance their ideas. Without the market, most of this discretionary effort would have remained dormant.

Perhaps most importantly, IBM's internal market gave unconventional ideas the chance to develop and attract a following before facing executive scrutiny. Contributors received a torrent of feedback and, in many cases, were able to activate a network of internal advocates. By ensuring that no one could single-handedly kill an idea, the process avoided the usual limitations of top-down, Soviet-style resource allocation.

We believe every company needs to build an army of angel investors. The benefits—more ideas, more passion, fewer blind spots, and faster development—are critical to building an evolutionary advantage. And from a human perspective, no creative soul should ever be stymied by a resource-allocation process that gives more weight to political connections than the quality of an idea.

Dynamic Coordination

Markets are capable of extraordinary feats of coordination. Imagine that you live in London and are putting together a menu for a dinner party. When you go online to shop, everything is magically there: beef from Scotland, asparagus from France, potatoes from Jersey, butter from Denmark, strawberries from Kent, a lovely brie from France, single-source chocolate from Guatemala, wine from New Zealand, and coffee from Kenya. Two hours after placing your order, everything's on your doorstep.

This wizardry is facilitated by a globe-spanning web of contracts that defies comprehension. Somehow, dozens of farmers, packers, shippers, wholesalers, and retailers all conspired to help you prepare a culinary tour de force. That's the miracle of the market.

It costs money to write and enforce contracts, yet market-based coordination is often more efficient and flexible than the bureaucratic alternatives—top-down directives, meddling staffers, and a glut of committees.

Given the superiority of markets in synchronizing activities, why do hierarchies exist at all? The answer given by most economists is that hierarchies emerge when the cost of market-based coordination via contracts exceeds the cost of bureaucratic coordination via

administrative fiat. Contracting becomes expensive when the skills and resources to be acquired are difficult to value, are scarce (thus putting the buyer at risk of being held hostage), or need to be integrated with other activities in complex ways that can't be specified in advance. It's hard to imagine, for example, how Apple could have created the iPhone—a multiyear effort that fused together a mind-boggling array of skills and technologies—via a gaggle of independent contractors.

Economists like Roland Coase and Oliver Williamson were right to argue that it is sometimes more efficient for firms to "internalize" activities than to acquire them via arm's-length contracts. They were wrong, though, to assume that once internalized, those activities couldn't be coordinated through market-like mechanisms. Economists divide the world into markets and firms. Markets are decentralized and firms are not—by definition.

Yet, as Haier so clearly demonstrates, hybrids are possible. Haier's microenterprises are bound together by a web of contracts that yield the coordination advantages typical of a hierarchical organization, while also delivering the blessings of the market—freedom, accountability to customers, and incentives for innovation. Haier is best described not as a pyramid of power relationships, but as an ecosystem of fraternal contracts.

The same is true for Morning Star, the tomato processor profiled in chapter 2. Despite running a complex, vertically integrated business, Morning Star has no managers. Instead, the choreography required to turn farm-fresh tomatoes into shelf-stable products is the product of internal contracting.

Every year, each of Morning Star's five hundred full-time employees negotiates a personal performance contract with their teammates. The "Colleague Letter of Understanding" (CLOU) is a detailed catalog of responsibilities and metrics. The CLOU for someone working in a warehouse will include duties such as procuring packing materials, loading trucks and railcars, maintaining and repairing forklifts, evaluating new warehouse technology, developing capital proposals for new equipment, and training colleagues. Performance metrics will cover the average time taken to load a truck, the percentage of loads shipped on time, the number of customer complaints received, and warehouse costs per ton shipped. All CLOU agreements are filed online, and can be viewed by any team member.

Of the eight to ten signatories on a typical CLOU agreement, roughly half will come from the employee's immediate team, with the others working in adjacent areas. Critically, every team member has the freedom to choose his or her own counterparties. If two team members can't agree on the terms of a CLOU, they can request a disinterested colleague to serve as a mediator. Should that fail, the dispute goes to a panel of peers who settle the matter through binding arbitration. At the end of the year, locally elected compensation councils review the performance of team members against their CLOUs and distribute bonuses accordingly.

From the outside, it might appear that negotiating and enforcing a sprawling web of contracts would be contentious and time consuming. For several reasons, this isn't the case. First, every colleague is committed to the same goal—ensuring that Morning Star remains the world's premier tomato processor. Team members know

that their industry-beating compensation is possible only as long as Morning Star outperforms its competitors. This awareness puts upward pressure on performance standards and creates intolerance for sandbagging. Second, because Morning Star is a great place to work, colleagues tend to be long serving. As a team member, you know that if you take advantage of a colleague or fail to deliver on a promise, the repercussions will catch up with you. This encourages colleagues to think in terms of relationships rather than transactions. CLOU negotiations are tough, but friendly, with none of the zero-sum thinking that often afflicts external contracting. Third, since every CLOU is open to inspection and has multiple signatories, there's little risk of a team member or unit exploiting personal relationships to negotiate a uniquely advantageous CLOU. Fourth, because most folks at Morning Star have been in the tomato business for years, they are well placed to assess the skills and contributions of their colleagues. Fifth, because everyone at Morning Star has access to all of the company's financial data, there are no information asymmetries that might give one party an advantage over another. Finally, since roles and responsibilities are reasonably stable, not every element of every CLOU needs to be renegotiated each year.

In short, Morning Star's internal market works because it's socially dense. The contracting parties are bound together by common aspirations, intersecting roles, widely available information, and shared industry context. These connections reduce the ambiguity, uncertainty, and opportunism that inflate transaction costs in cases where the buyers and sellers are socially detached.

As Haier and Morning Star demonstrate, you don't need a posse of managers to coordinate individuals and teams. If it were

conventionally organized, a business the size of Morning Star would have four management layers (assuming a 1:10 span of control); instead, it has two—Chris Rufer, the president, and everyone else. Haier has only four levels. That's the efficiency dividend of well-functioning internal markets.

Competitive Discipline

In a market economy, customers are sovereign. A company that misses the chance to reinvent its business model, upgrade its products, or give customers a better deal will soon find itself at a disadvantage. That's what happened to Gillette, a division of Procter & Gamble, when it allowed new competitors like Harry's to take the lead in selling midpriced razors online. Gillette's US market share shrank from 71 percent to 59 percent before the long-complacent market leader cut its prices and launched its own subscription service.[23]

CEOs claim to be fans of competition even when they're getting spanked by customers. Why, then, do they tolerate monopolies within their own organizations? Internal functions like HR, planning, procurement, manufacturing, marketing, finance, IT, and legal affairs are usually sole providers. Even when components of these functions are outsourced, internal customers are forced to do business with a single, HQ-approved vendor.

With rare exceptions, those who work in internal functions aren't exposed to market forces. While staffers may be individually competent and compassionate, collectively they're the corporate equivalent of the administrative state. They wield immense power, but are subject to few checks and balances.

The argument for centrally run functions is that they ensure consistency, promote best practices, and mitigate risk. Problem is, few leaders stop to ask whether these benefits could be acquired more cheaply or with fewer side effects.

Ask the head of an operating unit about the downside of internal monopolies and you'll get an earful. Some typical grumbles …

It takes months or years for the IT function to deliver critical system upgrades

Byzantine procurement rules make it hard to bring on new suppliers

Inflexible HR policies make it difficult to reward and retain top talent

Overzealous lawyers seem to delight in throwing up roadblocks

Cost-obsessed finance execs seem clueless about what really drives customer value

The plans produced in the annual budgeting marathon are forgotten almost as soon as they're written

Staffers seem more interested in ticking boxes than solving business problems

These aren't mere gripes. They are evidence of a fundamental disconnect in incentives. Employees in market-facing roles know that if they fail to satisfy user needs, they'll get fired by their customers. Corporate staffers, by contrast, can only be fired by their overlords, so that's where their loyalties lie. Internal administrators suffer little

or no penalty when they inflate costs, offer substandard services, or insist on compliance at any cost.

If you think we're overstating this, reflect on your own experience. On average, when you're forced to interact with central staffers, does it feel as if they're doing something *for* you or *to* you? Our bet: it's the latter. This is how it feels when you rub up against a monopoly—be it your cable TV provider, the IRS, the department of motor vehicles, or your company's HR department.

A few years ago, *Harvard Business Review* declared on its cover that "it's time to blow up HR and build something new." Yet in the two feature articles, one by a Wharton professor and the other by a team of experienced consultants, the words "customer" or "user" never appeared—not even once.[24] We found this a striking omission, evidence of the extent to which HR professionals take their monopoly status for granted.

What can you do to put some competitive pressure on internal service units? Start by digging into the costs that get allocated to your unit for corporate services. Ask your finance colleagues to deconstruct these allocations into their constituent elements. How much are you paying for HR, IT, legal, and other services? Next, ask each function to prepare a document that details how it's going to add value to your unit over the next year and how this maps against its allocated costs. Then try to benchmark these costs against market alternatives. Finally, go back to internal functions and challenge them to meet the external benchmarks if they're falling short on service or cost. If you want to be treated like a customer by internal staff groups, start acting like one.

The logic for tearing down internal monopolies is unimpeachable: a company can't expect to win in hypercompetitive markets if operating units are forced to buy uncompetitive services from internal providers. Haier gets this. That's why it turned its central functions into microenterprises and made them compete with outside vendors.

In an open market, internal units should have a leg up in supplying services. Presumably, they understand the business better than outsiders and have a privileged position with internal buyers. Given these advantages, if in-house functions fail to offer competitive services, they should go out of business. As is true at Haier, every internal staff group should have a genuine P&L and be responsible for earning its keep.

Collective intelligence, allocational agility, dynamic coordination, and competitive discipline—these are the blessings of the market, and they are as essential to organizational resilience as they are to the vitality of an entire economy.

Getting Started

Not every relationship in an organization can be mediated by a market, but many can and should be. So what's it going to take to embed marketplace principles in *your* organization? Here are a few essential steps:

1. Challenge leaders to publicly acknowledge the limits to centralized, top-down decision making in a complex and uncertain world.

2. Test the merits of major strategic initiatives with an internal opinion market. See how the crowd ranks competing projects,

or how it rates the probability that a major new initiative hits its milestones.

3. Be alert to the factors that distort resource allocation, and challenge decision makers to take positive steps to eliminate those distortions.

4. Make sure internal innovators have access to multiple funding sources, and engage the crowd in making funding decisions.

5. Wherever possible, use arm's-length contracts to direct the internal flow of goods and services. Avoid mandates, overhead allocations, and centrally determined transfer prices.

6. Break administrative functions into smaller units and make them compete with outside providers.

7. Over time, slowly expand the jurisdiction of the crowd. Let it define company values, rank the promotability of senior leaders, suggest acquisition targets, identify low-value bureaucratic rituals, and more.

While markets can't function in the absence of appropriate regulatory structures, and are prone to occasional bouts of euphoria and dysphoria, they're unmatched in their capacity to harness human wisdom and initiative. They unshackle human creativity from the yoke of top-down control and are thus essential to building a humanocracy.

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The Power of Meritocracy

The triumph of meritocracy as a social ideal was a turning point in human history. Before the Enlightenment, most societies were elaborately stratified—be it England's hierarchy of king, duke, earl, viscount, and baron, or China's imperial order of emperor, *heshuo qinwang, duoluo junwang, duoluo beile*, and *gushan beizi*. In these regimes, the vast majority of human beings—peasants, servants, and slaves—had little hope of bettering their station.

Philosophers like John Locke, Charles Montesquieu, and Jean-Jacques Rousseau questioned the idea of an unelected elite. Writing on the eve of the American Revolution, Thomas Paine boldly proclaimed that "[o]f more worth is one honest man to society and in the sight of God than all the crowned ruffians that ever lived." In Paine's view, power was the gift of the people rather than the divine right of the monarch.

We are now so far removed from the late eighteenth century that the breathtaking novelty of this power inversion is mostly lost on us.

Few today would question the morality or utility of meritocracy. Instead, the debate is about how to make our societies more meritocratic still. Prejudice and poverty still prevent millions of individuals from achieving their potential. But unlike our pre-Enlightenment forebears, we see this as a lamentable failing rather than the hand of fate.

Even as we work for equality of opportunity, we acknowledge the indisputable value of meritocracy. We're glad that the licensing of physicians depends on exams rather than the socioeconomic status of medical students. We celebrate athletic accomplishments because we know the winners didn't buy their way onto the podium. We trust the findings of science because studies are subject to peer review. We welcome the fact that you don't need to be Hollywood royalty to win a million hits on YouTube.

Meritocracy raises the returns on talent by ensuring that individuals are free to contribute and succeed, whatever their social rank or personal connections. Given this, it's troubling that bureaucracy—the world's most ubiquitous social structure—systematically undermines the cause of meritocracy. In our survey with the *Harvard Business Review*, 76 percent of big-company respondents said that political behaviors highly influence who gets ahead in their organization. It wasn't supposed to be this way. Bureaucracy was designed to overcome the nepotism, elder worship, and class consciousness that hobbled preindustrial organizations. One of the great breakthroughs in organizational design occurred in the early nineteenth century when the Prussian army, after its defeat by Napoleon, adopted a competitive selection process for would-be officers. Previously, military commanders had been drawn from the

nobility, but titles, not surprisingly, were a poor proxy for military genius.

In theory, a bureaucracy is a ranking of merit where those with exceptional capabilities get promoted over those who are less accomplished. In practice, organizations seldom come remotely close to achieving this ideal.

In this chapter, we'll review the ways in which bureaucracy threatens meritocracy and suggest some fixes.

Exaggerated Competence

As human beings, we tend to overestimate our abilities and underestimate our faults. In one survey, 84 percent of middle managers and 97 percent of executives claimed to be among the top 10 percent of performers in their organization.[1] So common is the habit of overrating one's abilities that it has a name: the better-than-average effect. One oft-cited meta study found that the correlation between self-assessed and actual performance was just 0.29 and, in the case of managerial performance, a paltry 0.04.[2]

While the inclination to self-aggrandizement is universal, it's particularly pronounced at the top. Here's why.

First, highly confident people tend to have an advantage in competing for power. Research shows that in judging the competence of others, we're heavily influenced by bluster. The more confident someone appears, the more likely we are to believe they're genuinely capable, whether or not that's true. Genuine competence is often hard to assess, so instead we gauge an individual's self-confidence. Working with colleagues at the University of California, professor Cameron Anderson conducted six studies on overconfidence and

social status. The research strongly confirmed the proposition that "overconfident individuals [are] perceived as more competent by others."[3] The implication: it's often the most confident people, not the most competent, who get to the top. Stated more bluntly, the gap between self-perception and reality is likely to be greatest where the air is thinnest. In case you had any doubt, it really is possible to bullshit your way to the top.

Second, in a formal hierarchy, power relationships are highly asymmetric. Managers have a lot more control over their subordinates than the reverse. This makes it risky to question a superior's competence. Stick a pin in your boss's overinflated ego and it's your career that will go "pop!" Power differentials encourage acquiescence, which leaders often mistake for agreement. It's more gratifying to believe that a sea of nodding heads betokens assent than to entertain the hypothesis that one's subordinates are merely buying career insurance. In the presence of the powerful, discomforting facts get ignored, contrary opinions go unexpressed, and doubts about executive competence are raised only in hallway whispers.

There's a third reason hierarchy promulgates unrealistic assumptions about executive competence. Among those who subscribe to a top-down view of authority, there's a common belief that "big" issues are the sole preserve of "big" leaders. While it's true that the senior leaders are ultimately accountable for strategy, it doesn't follow that they're the best ones to create it. There's only so much wisdom and experience within the executive team—and it's often not enough. Yet senior leaders are often reluctant to crowdsource strategy. After all, how can they justify their generous

pay packets if they're not the ones plotting the future and making the "big calls"?

That's the problem with formal hierarchy: leaders are expected to make crucially important decisions on precisely the sort of complex and ambiguous issues that exceed the cognitive limits of any small group of individuals. As we argued in chapter 2, hierarchy asks too much of too few. Unfortunately, executives often believe they're up to the task.

Take the case of Jeff Immelt, the chairman and CEO of General Electric from 2001 to 2017. A few of Immelt's decisions, like selling GE's plastic business, were widely praised. Unfortunately, these moves were not enough to offset a plethora of questionable bets—like bulking up GE Capital just before the financial crisis, overpaying for French power company Alstom, and sinking $93 billion into stock buybacks while loading up on debt. During Immelt's tenure, GE's stock rose by a scant 27 percent, compared with 183 percent for the Dow Jones Industrial Average. In interactions with outsiders, Immelt came across as smart, charming, and eager to learn, yet internally, he was often treated as an infallible seer. As one former GE staffer told *Fortune* writer Geoff Colvin, "When the top guy is the smartest guy in the world, you've got a real problem."[4] Immelt never claimed to be all-knowing, but bureaucratic power structures invariably cast the CEO as a superhero—a myth that's often willingly perpetuated by reverential employees, star-struck journalists, and fawning consultants.

The point is, assumptions of exaggerated executive competence are endemic to bureaucracy—a fact that undermines the quality of

decisions and, over time, erodes the confidence of employees in their leaders.

Misjudged Competence

However much we may struggle to be objective about our own capabilities, we score even worse when it comes to judging the abilities of others. Research shows our assessments usually say more about us than those we're evaluating. Again, this phenomenon has its own name—idiosyncratic rater bias. Three factors, in particular, sabotage our ability to reliably assess others.

First, some of us grade tough, while others are consistently generous. In three studies conducted between 1998 and 2010, managers, peers, and subordinates were asked to rank the performance of their colleagues. On average, more than 60 percent of the variation in ratings could be traced to the rating style of the evaluators.[5] These differences make individual assessments highly unreliable.

Another distortion comes from the fact that we tend to rate most highly those who are most like us. Much as we might wish it otherwise, we tend to divide the world into "us" and "them"—native-born versus immigrant, conservative versus liberal, believer versus nonbeliever, and beautiful versus plain. Psychologists call this "in-group bias." Despite our enthusiasm for diversity, in-group biases are deeply rooted and are observed even in preverbal children. In one study, eleven-month-old babies were given the chance to choose between two snacks, graham crackers or Cheerios, and then offered two puppets, one of which expressed a preference for the child's favorite snack, and one which chose the alternative. By a four-to-one

margin, babies opted to play with the puppet that shared their culinary preference.[6]

As woke adults, we're more conscious of our biases, but it's still hard to disentangle the question of "who's competent?" from the question of "who makes me feel comfortable?" In her book, *Brotopia*, Emily Chang notes that while Wall Street banks employ roughly the same number of men and women, women hold only 25 percent of tech industry jobs.[7] Worse, women attract a minuscule 2 percent of venture funding. While most tech leaders claim to be all in on meritocracy, the evidence suggests that excellence counts most for those who've already passed the "bro-hood" test. This sort of insidious in-group bias produces what software pioneer Mitch Kapor calls a "mirror-tocracy."[8]

There's another cognitive quirk that leads to misjudgments—the halo or horns effect. As human beings, we're prone to judge others hastily, often on the basis of first impressions. These initial opinions are resistant to change, even in the face of new data. Researcher David Schoorman found that the biggest factor impacting an employee's performance review was whether or not he or she had been hired by the person doing the evaluation.[9] Thanks to the halo bias, a favored deputy may underperform for months or years before getting the boot.

The corrosive effects of these biases are exaggerated by the fact that judgments about an individual's competence are often dependent on the views of a single assessor—the employee's boss. In a poll conducted by consultant John Gardner, more than three hundred executives were asked about the prevalence of favoritism in promotional decisions.[10] For the purposes of the study, favoritism was

defined as "preferential treatment based on factors unrelated to a person's abilities, such as background, ideology or gut instincts." Gardner's study revealed:

- Seventy-five percent of the executives had witnessed favoritism in hiring decisions

- Ninety-four percent believed policies aimed at preventing favoritism were ineffective

- Eighty-three percent said favoritism produced poor-quality promotion decisions

Put simply, the "data" used in hiring and promotion decisions is riddled with bias—and everyone knows it. In a study conducted by the Corporate Executive Board, 77 percent of HR executives conceded that typical assessment methods don't accurately measure employee capabilities and contributions. A separate CEB study found zero correlation between individual performance ratings and actual business results.[11] That's about as uncorrelated as you can get.

While many HR professionals recognize the need to overhaul performance management, the usual fixes—abandoning forced rankings, moving the process online, and creating more frequent opportunities for assessment—do little to counter systematic bias.

Overweighted Competence

Among the panoply of skills that are critical to an organization's success, bureaucracy elevates one above all others: administrative expertise. What distinguishes managers from nonmanagers is not creativity, foresight, or technical expertise, but their the mastery of

administrative arcana—developing plans, building budgets, doling out tasks, preparing reports.

Admittedly, there are a certain number of administrative tasks that have to be performed in any organization, but as rule, this work is tangential to the creation of competitive advantage. It's not administrative competence that generates a patent, spawns a new product, or reimagines a business model. We're not saying that managerial work is unimportant; it's vitally important, and when done badly can bring a firm to its knees. As a rule, though, administrative competence is unlikely to lift a company above its peers. It is to organizations what breathing, eating, and sleeping are to human beings—necessary, but not pivotal.

There was a time, several generations past, when administrative skill was rare, but as we'll argue in chapter 16, this is no longer the case. Nevertheless, in the United States, managers and administrators take home 30 percent of all wages and salaries, despite making up only 18 percent of the workforce.

In a bureaucracy, compensation correlates with rank. In a *Fortune* 500 company, an executive vice president may make $5 million a year, while a vice president, two rungs down earns a comparatively measly $500,000. In theory, this multiple reflects differences in the difficulty and impact of the work performed. In practice, such differences are often more imagined than real. While an executive vice president (EVP) is likely to oversee a bigger organization than a VP two levels down, this alone doesn't make the EVP's job more difficult. To take a hypothetical case, it's not obvious that the work of overseeing a thousand employees spread across dozens of regional sales teams is intellectually more taxing than leading a one-hundred-

person product development team. As a rule, EVPs aren't solving partial differential equations while their subordinates are struggling with long division—and yet, they're often paid as if they are.

You might argue that the decisions of an EVP are likely to be more momentous than those of a lowly VP, but even if that's the case, a yawning salary differential would be justified only if the senior executive was demonstrably more sagacious than his or her subordinates. Unfortunately, there's little evidence that wisdom correlates with rank. Indeed, a growing body of research suggests the opposite—that positional power *increases* the odds of bone-headed decisions. Dacher Keltner, professor of psychology at UC Berkeley, has spent more than two decades studying the effects of power. His conclusion: "Power makes individuals more impulsive [and] less risk-aware."[12] In other words, while an EVP's decisions may be more consequential than those made by lower-level managers, they're no more likely to be right, and when they're wrong, they're *really* wrong. That's why we argued in the previous chapter that, whenever possible, big decisions should be vetted by the crowd.

In short, administrators enjoy a disproportionate share of power and financial emoluments not because their work creates a disproportionate amount of value, is more challenging, or is more likely to be "on the money," but because bureaucracies tend to overvalue administrative competence, and to pay managers based on the size of their budget or headcount rather than on their net value-added.

Again, it doesn't have to be this way. Vanguard organizations like Haier, Nucor, Vinci, W.L. Gore, and others distribute a substantial share of administrative work to frontline employees. You'll recall that

Haier shed ten thousand middle management jobs when it moved to its microenterprise model—a shift that enhanced rather than impaired its organizational effectiveness.

Earlier we mentioned GE's jet engine plant in Durham, North Carolina, noting that the facility employed three hundred technicians and only a single senior administrator—the plant manager. In the hour-long overlap between shifts, teams huddle in conference rooms to review production plans, resolve supply chain issues, adjust work assignments, review productivity data, and work through HR issues —all without the oversight of any formally titled managers.

Hard as it may be to admit it, in a meritocracy, management is one skill among many, rather than one skill to rule them all.

Toxic Competence

In chapter 3 we described bureaucracy as a massive multiplayer game in which employees compete for the prize of promotion. In these tournaments, there's a single winner—a lone contestant who gets bumped up to become a manager, department head, or VP. Ideally, promotion testifies to an individual's superior leadership skills or technical knowledge. In practice, promotion often rewards those who've mastered the dark arts of bureaucratic combat: hoarding talent, ducking tough decisions, deflecting blame, undermining rivals, and brownnosing the boss.

In a bureaucracy, megawatts of emotional energy get wasted on petty battles, data gets weaponized against adversaries, collegiality gets shredded by zero-sum promotion tournaments, and decisions get corrupted by artfully concealed self-interest. As we've noted before,

and will again, bureaucracy doesn't bring out the best in people, nor does it reliably get the best people to the top.

To change all this, to replace bureaucracy with meritocracy, we must do four things: decontaminate judgments about merit, better align wisdom and authority, match compensation to contribution, and build natural, dynamic hierarchies. Let's take each in turn.

Decontaminating Judgments about Merit

Despite its struggles to hire more women and minorities, Google has long been committed to the idea of meritocracy. The company hasn't eliminated traditional reporting structures, but it does take pains to reduce managerial bias. This starts with the hiring process. Outside candidates for the position of team leader or above get interviewed by at least four individuals: the manager seeking to fill the slot, a peer of the hiring manager, a representative from a different department, and one or two direct reports. Each interview contributes equally to a candidate's rating. Those who pass these in-person interviews are further vetted by hiring groups at the departmental and senior leadership level.

Promotions are made by cross-unit groups that rely heavily on feedback from peers and subordinates. In a bid to ensure objectivity, every candidate's qualifications are benchmarked against the profiles of those who've recently been promoted into similar roles across the company.

Performance reviews are similarly broad-based. Every year, colleagues rate one another's work in an online survey. Subsequently,

groups of five to ten senior leaders meet to compare the distribution of ratings within and across teams. This process reduces the pressure managers might otherwise feel to inflate their team's scores and reveals idiosyncracies in how teams are rated.

By reducing the influence of individual managers in hiring, promotion, and performance reviews, Google minimizes bias and favoritism while making it clear that competence counts for more than gamesmanship. Laszlo Block, Google's former head of people operations, argues that this approach "sends a strong signal to candidates about Google being nonhierarchical, and it also helps prevent cronyism."[13] As a Googler, you know your career isn't in the hands of your boss. Instead of wasting time sucking up, you can focus on doing great work.

Connecticut-based Bridgewater Associates, the world's largest hedge fund, has taken an even more radical approach to building a meritocratic organization. With $160 billion under management, the company's fifteen hundred team members are charged with producing superior returns by making bets on macrotrends like inflation, exchange rates, and GDP growth. Bridgewater's flagship fund, Pure Alpha, generated $45 billion in investor returns between 1991 and 2015—an industry record.[14]

Ray Dalio, the son of a jazz musician, started Bridgewater in his two-bedroom New York City apartment in 1975. In his book, *Principles*, Dalio writes that the company operates as "an idea meritocracy, not an autocracy in which I lead and others follow, and not a democracy in which everyone's vote is equal, but a meritocracy that encourages thoughtful disagreements and explores and weighs people's opinions in proportion to their merits."[15]

To operationalize the notion of a meritocracy, Bridgewater developed the "Dot Collector"—a real-time feedback app that gives employees the opportunity to rate one another on a one-to-ten scale across more than a hundred attributes, such as "learns from mistakes," "diagnoses root causes," "thinks strategically," "demonstrates intellectual horsepower," "exercises creativity," "is a meticulous problem solver," and "proactively shapes change."

Team members are encouraged to use the Dot app throughout the day as they interact with one another. A twenty-four-year-old junior associate participating in an investment meeting with Dalio is expected to be as honest in evaluating the company's founder as senior leaders. (Twenty percent of the dots Dalio receives are ratings of four or below, which is considered negative feedback.) Over the course of a year, a typical associate will garner more than two thousand dots—or roughly eight per day.[16] Senior leaders often rack up many times that amount.

Open the Dot app, and you'll see your average rating across ten broad areas, such as "practical thinking," "management skills," and "determination." Double-click on a category, and the app reveals the ratings you've received within the subcategories. Each rating shows up as a color-coded dot along a timeline. (Green dots correspond to ratings of seven or above and red dots to ratings of five and below.) Click on a dot, and you can see who rated you, and when. You can check out everyone else's ratings as well.

Not surprisingly, Dot profiles get intensely scrutinized when making staffing decisions. A typical case involved the question of whether or not to promote an interim department head to a full-time role. While the candidate was convinced he had the right abilities,

others were less sure. Instead of the CEO adjudicating the matter, the interested parties gathered in a conference room and threw the candidate's Dot scores up on a screen. Dalio recounts the experience: "We stared hard at it together. We then asked the employee to look at that body of evidence and reflect on what he would do if he were in the position of deciding whether he'd hire himself for the job. Once he was able to step back and look at the objective evidence, he agreed to move on and try another role at Bridgewater more suited to his strengths."[17]

Maybe the idea of an "always-on," hypertransparent review process makes you queasy, but the Dot Collector isn't as radical, or unique, as it seems. Most university professors get reviewed by their students at the end of every semester. Detailed feedback is collected online and can be easily viewed by other students and faculty. Though disconcerting to some, this sort of open, peer-based review is a far better barometer of competence than a once-a-year, top-down performance review. Bridgewater's approach highlights expertise, improves the fit between aptitude and responsibility, encourages leaders to be honest about their limits, and creates incentives for personal growth. Most of all, it reduces the risk of single-rater bias. That makes the Dot Collector an essential tool in creating an honest appraisal of individual capabilities.

Aligning Wisdom and Authority

In a perfect world, influence would correlate with expertise rather than positional power, and would be contingent on the topic at hand. Here again, a process like Bridgewater's Dot Collector pays dividends. Transparent and nuanced competence data is a powerful

tool for determining how to weight competing views on a particular decision.

Consider the debate within Bridgewater's investment team at the height of the European debt crisis in 2012. There were some who expected the European Central Bank (ECB) to break with precedent and buy large chunks of sovereign debt from countries like Italy, Ireland, and Spain. Others thought the ECB would line up behind Germany, which was opposed to a bailout. Hours of debate surfaced compelling arguments on both sides, and a poll indicated a virtual deadlock. As a final step, the opinion of each team member was assigned a credibility score based on their relevant Dot Collector ratings. It quickly became clear that those who were the most credible thought the ECB would print money to buy government debt. That judgment became the investment team's consensus and was proven right a few days later when Mario Draghi, ECB president, announced the bank would do "whatever it takes" to save the euro.[18]

This is how most decisions are now made at Bridgewater, where influence is a product not of tenure or title but of an individual's peer-attested "believability." In Dalio's view, believability-based decision making …

> Eliminates what I believe to be one of the greatest tragedies of mankind, and that is people arrogantly, naively holding opinions in their minds that are wrong, and acting on them, and not putting them out there to stress test them. Collective decision-making is so much better than individual decision-making if it's done well. It's been the secret sauce behind our success. It's why we've made more money for our clients than

any other hedge fund in existence and made money 23 out of the last 26 years.[19]

Dalio claims that in his forty-five years at Bridgewater, he's never made a decision contrary to the believability-weighted advice of his peers, because "to do so [would be] arrogant and counter to the spirit of the idea meritocracy." For Dalio, the risk of reverting back to positional authority is that he'd "lose both the best thinking and the best thinkers, and … be stuck with either kiss-asses or subversives who kept their disagreements and hidden resentments to themselves."[20]

It's hard to argue with Dalio's point that "power should lie in the reasoning, not the position, of the individual." Whatever the approach, there's a pressing need for decision processes that better align expertise and authority.

Matching Compensation to Contribution

If wisdom doesn't correlate with rank, neither should compensation. Google gets this. The range of rewards for Googlers working at the same level often varies by more than 300 percent.[21] A few particularly capable engineers are rumored to have multimillion-dollar pay packages, based on their ability to improve the speed and efficacy of Google's algorithms.[22] As Google's then chairman Eric Schmidt wrote with Jonathan Rosenberg in *How Google Works*: "What's most important in the Internet Century is product excellence, so it follows that big rewards should be given to people who are close

to great products and innovations. Pay outrageously good people outrageously well, regardless of their title or tenure."[23]

Compensation at W.L. Gore, the maker of Gore-Tex and more than a thousand other high-tech products, is similarly divorced from rank. Once a year, every associate is asked to compile a list of five to twenty colleagues who have firsthand knowledge of their work. These nominations are then used in a peer-rating process based on pairwise comparisons. By way of example, assume that Tom and Rebecca both list Jennifer as a potential reviewer. In this case, an algorithm will identify the match, and Jennifer will be asked to indicate which of her associates, Tom or Rebecca, contributed more to Gore's success over the preceding year. (Contribution is defined as the extent and nature of one's impact on business results.) Tens of thousands of such comparisons are collected across the company and aggregated to create a contribution ranking for every associate. Once the ratings are in, local contribution committees review the results and, when appropriate, fine-tune the rankings. For example, if an associate received substantially higher rankings from top performers than her overall ranking indicates, her position might be nudged upward. Each local committee includes an "equity champion" who's responsible for alerting the committee to potential biases.

Armed with the rankings, the committees then review compensation data. The goal is to ensure that an individual's pay reflects his or her peer-derived rating and stays in sync with the pay of similarly rated peers. If the average pay raise in a given year is 4 percent, a highly ranked associate might get a 15 percent increase, while a poorly ranked associate would get no raise at all. Global and regional compensation committees focus on specific functions such

as engineering, production, and finance, and review the results to ensure they're appropriately calibrated across the enterprise and with external benchmarks.

Gore's peer-based compensation system pushes everyone to think about how they could add more value. The system also encourages collaboration. At Gore, associates understand they report to their peers, not a boss, and are thus more inclined to go the extra mile for colleagues.

Though their approaches are dramatically different, both Google and Gore work hard to ensure that compensation reflects contribution, not rank. They want the energies of every employee to be invested in building a better business rather than winning a promotion tournament.

Building Natural, Dynamic Hierarchies

The idea of meritocracy doesn't negate the value of hierarchy. As noted earlier, depending on the topic, some individuals *deserve* to have more authority than others. Not everyone is equally competent and/or believable. The problem with bureaucracy isn't hierarchy per se, but the dominance of a single, *formal* hierarchy. In the traditional pyramid, power is vested in positions—it's binary and allocated top-down. This creates perilous pathologies.

FIRST, POSITIONAL AUTHORITY IS DANGEROUSLY EXPANSIVE. In a formal hierarchy, senior executives have broad decision rights. A VP, for example, gets the last word on *every* issue within his or her purview. This leads to the common yet perverse case in which a senior executive, promoted out of a particular function, suddenly

decides he's qualified to weigh in on matters where he has little or no relevant expertise. A classic case is a career finance executive who, having recently been appointed CEO, now believes himself to be an astute judge of product design.

Particularly at senior levels, positional power tends to be more expansive than the abilities of the person in the role. This wouldn't be a problem if every leader were a model of humility, but bureaucracy works against this. As a senior leader, you're expected to be a savant —that's how you validate your vaunted organizational status. The result can be an irresistible temptation to pontificate on issues you're ill-equipped to address.

SECOND, POSITIONAL POWER TENDS TO BE BLACK OR WHITE. YOU'RE EITHER A VP, DEPARTMENT HEAD, OR SUPERVISOR, OR YOU'RE NOT. THIS MEANS THAT A BUMBLING MANAGER RETAINS ALL HER AUTHORITY RIGHT UP TO THE MOMENT SHE'S FIRED OR DEMOTED. BECAUSE MOVING SOMEONE OUT OF A ROLE IS PRACTICALLY AND EMOTIONALLY DIFFICULT, THE EVIDENCE OF INCOMPETENCE HAS TO BE COMPELLING BEFORE SUCH A STEP IS TAKEN. AS A RESULT, THERE ARE OFTEN LONG LAGS IN REALIGNING COMPETENCE AND AUTHORITY, WHICH UNDERMINES MORALE AND DEGRADES PERFORMANCE.

FINALLY, FORMAL HIERARCHIES GIVE SUBORDINATES LITTLE OR NO VOICE IN CHOOSING THEIR LEADERS. IN A BUREAUCRACY, A MANAGER'S POWER DOESN'T DEPEND ON THE CONSENT OF THE GOVERNED. CONTRAST THIS WITH THE SOCIAL WEB, WHERE POWER TRICKLES UP, NOT DOWN. IF YOU'RE A YOUTUBER WITH MILLIONS OF FOLLOWERS, LIKE VIDEO GAME MAVEN DANTDM, LGBTQ ACTIVIST

TYLER OAKLEY, OR SEVEN-YEAR-OLD TOY REVIEWER RYAN, IT'S NOT BECAUSE SOMEONE APPOINTED YOU VICE PRESIDENT. INSTEAD, PEOPLE CHOSE TO FOLLOW YOU BECAUSE THEY FOUND YOUR WORK VALUABLE OR ENTERTAINING.

Most of us follow lots of people online. When someone goes stale, we shift our attention elsewhere. It seems to us that power in organizations should be similarly dispersed and mutable. An organization needs multiple hierarchies corresponding to the range of problems and issues which it confronts. In addition, power should be fluid—flowing toward those who are adding value and away from those who aren't.

This is how power works at Morning Star, the managerless tomato processor. Ask a cross-section of Morning Star's associates to name their most valuable colleagues, and you'll find the same names popping up again and again. There's little doubt about who's indispensable and who's not. Morning Star's organization isn't flat—some associates add more value and get paid more than others—but authority is the product of expertise rather than positional power, and varies from issue to issue.

In a meritocracy, hierarchies are natural rather than magisterial. Power is dynamic. Authority ebbs and flows depending on an individual's track record. Earlier, we described Gore's peer-based compensation model. As you might expect, Gore places great credence in the sovereignty of followers. You won't find an org chart at Gore or a formal hierarchy. Instead, the company describes itself as a lattice. Gore's eleven thousand employees are organized into small teams. Each team has a leader, who's likely to be a member of a boundary-spanning super-team. Gore's billion-dollar medical

materials business, for example, has a global sales and marketing team whose members head up regional teams. Gore eschews titles, so while you'll occasionally see the word "leader" on someone's business card, you'll struggle in vain to find a VP, SVP, or EVP.

Critically, Gore's leaders serve at the pleasure of the led. Team members have the biggest share of voice in selecting leaders, and their support is essential to a leader's ongoing effectiveness. Like everyone else, leaders get ranked each year by their peers—principally by those they serve. While leaders usually rank in the top quartile, a particular leader may not be the highest-rated or the best-paid individual on the team. Nevertheless, leaders who tumble down the rankings know they're at risk of being replaced. Not surprisingly, they're highly attentive to the quality of their "followership."

One of Gore's core tenets is that "commitment is voluntary." No one has the power to give an order. If you want people to follow you, you have to give them a reason for doing so. Persuasion, data, and competence carry the day—not raw power. As one associate told us, "If you call a meeting and no one shows up, you're probably not a leader, because around here, no one has to go to meetings."

Everyone at Gore has a financial stake in the company, and for most associates, this constitutes their single largest financial asset. Given that, there's little tolerance for mediocre leaders. Underperform and your followers will find someone better to lead them.

The same is true at Haier. As we noted in chapter 5, the failure of a microenterprise to meet its baseline targets for three months running prompts an automatic leadership reselection, and at any time, a no-

confidence vote by two-thirds of the members on a team will force a leader out. In both cases, it's up to the team to choose a new leader.

This process recently played out with an ME in the washing machine platform. Having voted out its leader, the ME advertised for a new one. Among the applicants were three associates from the ME team. Once the candidate list was complete, the remaining team members assembled in a conference room. One by one, the candidates came in and made their case. Each was asked, "What's your vision?" "What makes your plan better?" "Why should we believe your targets are achievable?" "How will things change under your leadership?" After the presentations, the ME members exchanged views on what they had heard. Finally, with all the candidates back in the room, the team voted by a show of hands.

Getting Started

Whether Morning Star, Gore, Haier, or Bridgewater, the point is the same: you can't build a robust meritocracy until the formal hierarchy gives way to natural hierarchies that are less imperious and rigid.

Here's a short menu for building a genuine meritocracy in your organization:

1. As a start, ask your peers to rate your expertise across a range of categories, as well as your value added. Share your ratings with those in your network and ask them for advice on how you can improve. Invite others to follow your lead.

2. More generally, ensure that competence and performance ratings are peer-based, with at least five assessors for every individual. Make these ratings transparent to all.

3. Give significant weight to peer assessments in all hiring and promotion decisions.

4. Wherever possible, divorce compensation from rank and tie it more closely to peer-based ratings.

5. Redesign decision processes to give a greater share of voice to those with relevant, peer-attested competence. Downgrade the influence of positional power in decision making.

6. Give teams the right to "fire" incompetent or tyrannical leaders.

7. Finally, create more opportunities for individuals to become meritorious. Rotate team members across roles, challenge people with stretching assignments, open up management training to frontline team members, and take time to mentor others.

The goal of humanocracy is to create an environment in which *everyone* is inspired to give their best. That won't happen as long as a significant share of individuals in an organization believe that it's the blowhards who get ahead, that their own capabilities and contributions are often misjudged, that the suits get an excessive share of the spoils, and that many of their leaders aren't actually worth following. The antidote to these poisonous realities is meritocracy—a principle that is central to the work of creating human-centric organizations.

— 10 —

The Power of Community

Think of a time when you accomplished something worthwhile with people you cared about, a time you felt inspired and supported, when you gave your best and felt deeply appreciated, when the emotional rewards far outstripped any monetary payoff. Maybe you were volunteering at a homeless shelter, helping out at your kid's school, organizing a fund-raiser for a political candidate, or working with a "tiger team" to launch a new product. Whatever the experience, you probably felt you were part of something that wasn't merely a team, but felt like a genuine community.

As human beings, we're programmed for community. While primates and other animals form groups, no other species demonstrates the sort of intentional, intimate collaboration that is central to human life. Some researchers have argued that conscious thought, the distinguishing trait of human beings, emerged primarily as a tool for social interaction.[1] Our brains, it seems, are wired for community.

Abraham Maslow ranked the need for belonging just above the need for sustenance and safety, and innumerable studies have confirmed the link between social connection and well-being. A 2015 meta study found that loneliness is as dangerous to one's health as obesity, inactivity, smoking, excessive alcohol consumption, or heart disease. Overall, those with strong social relationships have half the risk of premature death as those with insufficient connections.[2]

In our hyperbusy, digitally mediated world, the sort of human connections that buoy us up—those that are stable, frequent, and caring—are getting harder to come by. This is a problem not only for our emotional health, but for our capacity to solve problems big and small. When French philosopher Alexis de Tocqueville visited the United States in the early 1800s, he was surprised to find that the catalysts of social progress were neither aristocrats nor bureaucrats, but voluntary associations of ordinary people:

> Americans of all ages, all conditions, all minds constantly unite. [They] use associations to give fêtes, to found seminaries, to build inns, to raise churches, to distribute books, to send missionaries to the antipodes; in this manner they create hospitals, prisons, schools. Everywhere that, at the head of a new undertaking, you see the government in France and a great lord in England, count on it that you will perceive an association in the United States. I often admired the infinite art with which the inhabitants of the United States managed to fix a common goal to the efforts of many men and to get them to advance to it freely.[3]

One of the quintessential acts of community on the American frontier was constructing a barn. When new settlers joined a rural community, neighbors would often unite to build a barn for them. Barn raising fortified norms of reciprocity and increased social cohesion. That paid dividends later when a community was confronted with a crisis that required a coordinated response. Today, businesses and government have absorbed many of the functions of community. Despite this, communities remain indispensable to individual well-being and collective accomplishment. To underline this point, let's look briefly at two examples of community in action.

Alcoholics Anonymous

Each week, roughly 2 million people around the world meet in small groups to encourage one another in their sobriety. As members of Alcoholics Anonymous, they form a vast network of ad hoc communities. There is only one criterion for joining—a desire to stop drinking. Each AA meeting—in a church basement, recreation center, or public hall—is self-organizing and self-supporting. Volunteers secure meeting rooms, arrange coffee, collect donations, hand out literature, and compile phone lists. In every meeting, there will be "sponsors"—regular attendees who are eager to offer time and advice to those new to recovery.

AA's effectiveness is the product of the relationships that get forged during meetings. Self-acknowledged drunks encourage one another and serve as emotional ballast in the stormy seas of recovery.[4] AA's model stands in stark contrast to the credentialed and hierarchical structures of formal treatment programs. In AA, there's no certification, supervision, or monitoring. Therapists and

physicians aren't allowed to participate in AA meetings unless they too suffer from alcoholism. Yet despite the lack of professionalism, AA's twelve-step communities have helped countless individuals overcome addiction.[5]

Equally remarkable is the fact that AA delivers its service without a formal organization. AA's 118,000 groups operate autonomously. Guidelines known as the "Twelve Traditions"—such as the tenet that every AA group should be self-supporting and nonprofessional—provide a framework, but there are no formal rules. Groups form whenever two or three alcoholics decide to establish one. Groups in nearby locations can choose to share resources like a meeting space or telephone helpline, but coordination is always voluntary. Despite AA's global reach, its central organization comprises fewer than ninety people. These individuals are responsible for distributing AA materials and running an annual meeting for local coordinators.

As the former editor of the *American Journal of Public Health* observed in a piece summing up AA's first seventy-five years: "From what looks like anarchy—traditions rather than rules, maximum local autonomy and independence, and absence of centralized or layered tiers of authority—emerges consistency and stability."[6] That's the power of community.

Strive Together

Here's a tough question: What would you do to achieve dramatic improvements in the quality of public education? Over many decades, this has proven to be one of the thorniest problems facing educators, parents, and taxpayers. Despite countless efforts at reform, the performance of US public secondary schools has been on a long,

downhill slide. Once ranked first in graduation rates, the United States now comes eighteenth out of twenty-four industrialized countries.[7]

The causes of this decline are so varied and complex that it's tempting to regard the problem as intractable. No single fix—lower student-teacher ratios, higher teacher salaries, greater parental involvement, or curriculum reform—has proved capable of turning things around. Yet in 2006, a window on real progress opened when KnowledgeWorks, an education-focused think tank, launched its "StrivePartnership" in Cincinnati, Ohio. What made this effort unique was the size and scope of the community that came together to tackle the problem of poor academic performance. More than three hundred institutions participated, including school districts, private foundations, city agencies, area employers, local universities, and dozens of advocacy groups.

Recognizing the systemic nature of the problem, members of the Strive community set themselves the goal of improving education "from cradle to career." To ensure cohesion, the partners adopted a single set of overarching goals. Fifteen subcommunities, deemed Student Success Networks, self-organized to focus on specific issues such as early childhood education and tutoring. Each network agreed on common metrics to evaluate progress and committed itself to being scrupulously evidence-based in recommending and evaluating actions. Many also elected to use common problem-solving methodologies such as Six Sigma. This helped forge a common language and a shared understanding of root causes.

Network members met in person for two hours every two weeks to refine goals, craft plans, and calibrate progress. Between meetings,

their conversations moved forward on social platforms like Google Groups. As networks became more cohesive, parochial concerns receded into the background. For example, when data showed that private preschools often did a better job of preparing children for kindergarten than public ones, the city school system redirected resources into private programs.[8]

The Success Networks often spawned subsidiary networks within member institutions. Many local schools established "data war rooms" with performance charts plastered on the walls. Teachers would meet every two weeks to review data on academic performance, absenteeism, and behavioral problems. By carefully tracking these trends, teachers became better at connecting at-risk students with outside help, and identifying the sort of interventions that could make the biggest difference.[9]

Within four years of its launch in Cincinnati, the StrivePartnership had produced gains in thirty-four of fifty-three key performance areas. Kindergarten readiness advanced by 9 percent, fourth-grade math skills went up by 14 percent, and high school graduation rates jumped 11 percent.[10] These results attracted national attention, and today there are seventy Strive communities across the United States.

The challenge of scaling up forced Strive's coordinating body to articulate its "Theory of Action"—the core steps required to build strong, problem-focused communities:

1. Clarify shared, measurable results important to community partners

2. Identify audiences that need to be involved in working to achieve the result

3. Determine the skills different partners need to take effective action

4. Design teams of leaders and practitioners and support them in ongoing, experiential learning

As different as they are, AA and Strive are both committed to solving complex, nonroutine problems. Every recovering alcoholic is a unique bundle of predispositions, traumas, and traits, and needs to be uniquely supported in recovery. Every underperforming school faces a unique mix of circumstances—demographic, cultural, pedagogical, and institutional—and must develop a similarly distinctive set of responses. In both cases, success depends on local improvisation. That's why these organizations are communities, not hierarchies. They are driven forward not by executive fiat, but by unity, selflessness, determination, and accountability.

Bureaucracies excel at solving routine problems—like processing millions of credit card transactions or churning out a zillion computer chips. They're also good at integrating diverse inputs, as long as the coordination tasks can be clearly specified in advance. Bureaucracies struggle, though, when confronted with novel problems that require new and unscripted patterns of collaboration. As Strive's founder, Jeff Edmondson, rightly notes, "Under conditions of complexity, predetermined solutions can neither be reliably ascertained nor implemented."[11]

Markets are similarly powerless to solve cutting-edge problems. Markets can reveal preferences, like establishing how many people are willing to part with $55,000 to buy a Tesla Model 3, but they

can't solve novel problems like designing a car that drives itself. That takes a community, not merely a clutch of contracts.

To solve unprecedented problems, individuals have to surmount unforeseen obstacles and extend the frontiers of human knowledge. That's best accomplished by a community—a band of physically proximate compatriots who trust one another, are unmindful of rank and unencumbered by petty rules, and are mutually accountable and knit together by a common goal. This is the reality one experiences in a startup, on a winning football team, or in a platoon of US Navy Seals.

The rich, moist loam of community yields a harvest of commitment, capability, and creativity that can't be extracted from the desiccated soil of bureaucracy. That's why "performance-oriented communities" are the backbone of a humanocracy.

Before going any further, let's spend a moment defining what we mean by "community." A community is more than a work group—a collection of individuals who report to the same boss, or do similar work. Instead, it's a network of trust relationships among people who are breaking new ground and have a shared passion for making a difference.

While a community shares some features with agile teams, such as clear targets and a measure of autonomy, there are important differences. The prototypical agile team is a small group of programmers tasked with developing a particular piece of software. For the most part, agile teams operate independently. Where interdependencies do exist, they tend to be embodied in technical standards that specify how various bits of software connect together. More complicated interconnects get handled in periodic team leader

meet-ups. For all their advantages, agile teams are limited in their ability to address broad, complex problems that can't be easily partitioned. When interdependencies are varied, multidisciplinary, and difficult to specify in advance, you need a community.

"OK," you say, "but can you actually build a pervasive sense of community in a large, commercial organization?" Luckily, the answer is yes.

Southwest Airlines: Community at Scale
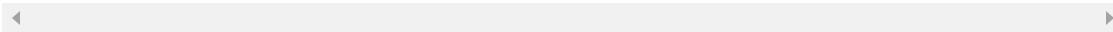
With more than fifty-eight thousand employees, Southwest Airlines has been profitable for forty-six consecutive years. Between 1990 and 2018, the company generated half of US airlines' net income while accounting for only 6 percent of industry revenues.[12] Not only is Southwest America's most profitable airline, it's also the largest domestic air carrier by passenger numbers. On average, more than four hundred thousand passengers take flight each day with Southwest. According to one industry website, Southwest commands an average 65 percent market share on its one hundred busiest routes.[13] More importantly, the airline handily beats all its major competitors in revenue per employee, passenger seat miles per employee, and other efficiency metrics. (See table 10-1.)

TABLE 10-1

Selected performance data for major US airlines (2014–2018 averages)

	Passengers/employee	Employees/aircraft	Flying hours/employee	Available seat miles/employee (thousands)	Revenue/employee ($ thousands)
Southwest	2,978	74	53.1	2,901	370
Delta	1,697	104	36.0	2,691	341
American	1,437	106	34.6	2,429	296

| U ni te d | 1,180 | 122 | 32.3 | 2,648 | 310 |

Southwest's cost advantage is due in part to its preference for low-cost, second-tier airports such as Chicago Midway and Baltimore-Washington International. Savings also come from a laserlike focus on simplicity. Southwest operates a single aircraft type, the Boeing 737, and doesn't offer assigned seating. Nevertheless, the airline's biggest advantage is not its business model but its people model. As Herb Kelleher, Southwest's whiskey-loving, chain-smoking founder, put it: "The core of our success—that's the most difficult thing for a competitor to imitate. They can buy all the physical things. The things you can't buy are dedication, devotion, loyalty—the feeling that you are participating in a crusade."[14]

Dedication, devotion, and loyalty—these are the hallmarks of genuine community, and the things that distinguish Southwest from its competitors. Though 83 percent of Southwest's employees are unionized, the company has never experienced a strike—a remarkable exception to the adversarial labor relations that typify the

airline industry. The company also boasts the industry's highest employee retention rates.

Planes don't make money sitting on the ground, so airlines work hard at minimizing turnaround times. Though seemingly a plebeian task, getting a jet liner unloaded, reprovisioned, and back in the air is a demanding test of real-time problem solving.

Ground equipment has to be prepositioned before an arriving aircraft is guided in. The jet bridge must be connected, and assistance offered to disembarking passengers. There is cargo to unload, waste tanks to empty, and water tanks to fill. The aircraft must be cleaned, catered, and fueled. There may be a faulty seat to repair or a cockpit instrument that needs replacing. Departing passengers must be boarded, and safety checks performed. Weight and balance factors have to be calculated, and departure paperwork filled out. Onboard, there's a mountain of carry-on luggage to secure while checked bags are loaded below. In all, a turnaround involves more than a hundred distinct tasks distributed across a dozen or more teams, including customer service agents, gate personnel, ramp agents, baggage handlers, maintenance crew, provisioners, fuelers, pilots, flight attendants, and others.

In just about every turnaround there will be gremlins—malfunctioning equipment, extra-needy passengers, computer glitches, last-minute gate changes, late-arriving crew, bad weather, and inadvertent screwups. The ability and willingness of the station team to swarm and solve these problems makes the difference between a flight that departs on time and one that doesn't. At Southwest, there's a strong sense of collective responsibility for achieving quick turns. A delayed flight is seen as a team failure,

whatever the cause. Hence, it's not unusual to see a pilot picking up rubbish, or a skilled mechanic pitching bags. At crunch times, silos and titles disappear. Everyone works shoulder to shoulder to get the plane back in the air. While employees at Southwest have clearly differentiated roles, every job description includes the implicit injunction to do, in the words of a ramp manager, "whatever else you need to do to enhance the overall operation."

At thirty-five minutes, Southwest's average turnaround time is the best in the industry—a remarkable accomplishment given that Southwest's gate crews are half the size of those deployed by other airlines.[15] A Southwest 737 averages fifty-three hours of flight time per employee per year, 50 percent more than the airline's nearest rival. At other carriers, narrow job roles, poor communication, status differences, and a lack of team spirit frustrate the sort of community spirit that underpins Southwest's dynamic real-time coordination.

Despite its zeal for keeping costs low, Southwest ranks high among travelers. This, too, is the product of the company's community ethos. For Kelleher, who passed away in 2019, the secret to building a great business was to "treat your people as family and lead with love."[16] The logic is simple: when employees feel valued and respected, so do customers. That's why employees have always come first at Southwest. Depending on the role, salaries at Southwest exceed industry norms by 16 to 31 percent. Notably, this premium doesn't extend to managers, where average compensation lags industry benchmarks by about a third. Southwest also has a generous profit-sharing program. In a recent year, the plan paid out $544 million, or roughly 11 percent of each employee's base compensation. As Kelleher once said to a group of employees: "We

want to reduce all of our costs, except our wages, benefits and profit sharing. This is Southwest's way of competing, unlike others who lower their wages and benefits."

Many things go into building an organization that is a community first and a business second. At Southwest, the building blocks include …

1. A Mission Worth Caring About

What brings a community together is a sense of purpose—like getting sober or helping high schoolers go to college. Since its founding, Southwest's mission has been to make air travel affordable and fun for all. In 1971, when Southwest launched its inaugural flight, air travel was a luxury. Kelleher and his colleagues were determined to change this by "democratizing the skies." Up against tough competitors and a hostile regulatory environment, Southwest doggedly pursued its dream of giving everyone "the freedom to fly." As Roy Spence, a longtime Kelleher confidant, once remarked, "Business strategies change, but purpose does not change. Everyone at Southwest is a freedom fighter."[17]

New employees at Southwest are flown to the company's Dallas headquarters for an orientation session known as "Now Onboarding." Employees get practical advice on how to live out the airline's values of a "Warrior Spirit," "Fun-LUVing Attitude," and "Servant's Heart." Company veterans share the airline's origin story, emphasizing Southwest's abiding passion for giving everyone the opportunity to fly. Says Cheryl Hughey, an internal adviser on culture, "We teach our people about where we came from and what we stand for,

because that's what families do. Families share their history with each other."[18]

Just about every company has a mission statement, but most don't have employees who believe they're *on* a mission. More than fifty years after the airline was founded, the freedom to fly is still the beating heart of Southwest's companywide community.

2. Open Communication, Transparent Data

Heart-to-heart relationships make a community, and relationships are based on communication. Forthright conversations can be difficult in any circumstance, but are particularly challenging in hierarchical settings. In a bureaucracy, censorious managers often deter individuals from asking questions or admitting mistakes. Functional silos bottle up information, factionalism sabotages teamwork, and an atmosphere of distrust discourages people from sharing information.

These pathologies cripple coordination. Turning around an airplane requires real-time, high-fidelity communication between dozens of individuals. When someone is slow to share a problem, or ask for help, a small delay can turn into big one. That's why Southwest encourages honest, proactive communication. As a Southwest pilot put, "It's a matter of working together. No finger-pointing."[19]

Open communication also requires open books. At Southwest, financial information gets shared each quarter in LuvLines, an internal newsletter. Particular attention is given to four "magic numbers": net income, margin, costs per available seat mile, and return on capital. Employees can see how the airline is doing against its "prosperity goals," and calculate the implications for their

compensation. They would know, for example, that if the airline doesn't improve its performance on a particular variable, profit sharing will be reduced by $850 per $25,000 of compensation.[20] The fact that everyone at Southwest speaks the same financial language adds immeasurably to the quality of communication and the spirit of collaboration.

Many companies default to secrecy. Southwest defaults to openness. A poster adorning a Southwest office in Phoenix makes the point neatly: "If you have knowledge, let others light their candles off it."[21]

3. Feeling Safe Enough to Be Yourself

When you're part of a community, you feel safe and able to be yourself. That opens the door to learning and improvement. It also gives people the confidence to take risks, which is essential for innovation.

Unlike many big-company CEOs, Herb Kelleher never took himself too seriously. He'd wear brightly flowered Hawaiian shirts to business meetings, stick out his tongue to feign anger, show up at company parties in over-the-top costumes, and regale his colleagues with self-deprecating anecdotes. Kelleher once settled a legal dispute with an arm-wrestling contest, having closed the company's head office so employees could watch the spectacle at a run-down boxing ring.[22] By being his unbridled, unedited self, Kelleher gave everyone at Southwest permission to be equally authentic. Said Kelleher, "We give people the opportunity to be a maverick. You don't have to fit in a constraining mold at work—you can have a good time. People respond to that."[23]

If you feel safe enough to be wacky, you'll also feel safe enough to raise your hand when you bungle something. Forgiveness, like fun, is part of Southwest's culture. Colleen Barrett, whose long career at Southwest culminated in a seven-year stint as president and COO, explains:

> You have to be forgiving. We are very tolerant and forgiving when people make an honest mistake. You have to be very careful about how you approach that mistake, call it to the person's attention, and how you discipline, if at all, and how you counsel, if at all.[24]

Finally, encouraging employees to be themselves upgrades the customer experience. Every Southwest passenger has a story that involves a gate agent in a zany costume, a safety briefing delivered in rap, or a silly inflight game.

It's tempting to believe that a high-performance culture has to be stiff, judgmental, and ruthless, but Southwest proves otherwise. Authenticity, fun, forgiveness—these are the things that make a community worth joining.

4. The Right of Self-Determination

America's nineteenth-century homesteaders didn't have to ask anyone if it was OK to erect a barn, paint it red, or give it a tin roof. Then, as now, the most effective communities are self-managing. During her tenure as Southwest's COO, Barrett told employees "[Y]ou are empowered to make decisions on behalf of the customer and to ignore and waive policy and procedure as long as by doing so you are not being illegal, immoral or unethical."[25]

Frontline teams at Southwest know they have the freedom to do whatever it takes to serve the customer. It's this freedom, rather than a set of protocols, that allows Southwest employees to create memorable moments for their customers—like helping a couple arrange a midair wedding, house-sitting the dog of a harried passenger who showed up at the gate without the requisite animal crate, or inviting home a cancer patient who arrived for treatment in an unfamiliar city and had no one to greet her.[26]

Shared accountability and the freedom to make choices welds a community together. This simple truth underpins Southwest's culture and is also a Nucor hallmark. As Ken Iverson, Nucor's pioneering CEO, said, "We let our employees define their own jobs as they search for ways to optimize their productivity."[27] It's through ongoing conversations about goals and tasks that personalities and viewpoints get revealed, hopes and fears get expressed, and the bonds of friendship get built. That's why there's no such thing as a community of order takers.

5. Peer-to-Peer Accountability

At Southwest, team members are accountable first to their customers and colleagues, and only secondarily to their overseers. As one station manager noted, "We all succeed together and fail together."[28] Echoing this sentiment, a gate agent said simply, "You can always count on the next guy standing there."

As a rule, peer-to-peer accountability produces higher levels of collaboration and commitment than minion-to-manager accountability. A pilot who joined Southwest from another airline expressed amazement at his colleagues' productivity: "I've never

seen so many people work so hard to do one thing."[29] Said another team member, "Here it's one goal: 100% customer service. You can see it just walking through the terminal. There's a desire to be part of the team." In a performance-oriented community, there's little tolerance for idlers. Yet the pressure to excel feels qualitatively different when it reflects the shared aspirations of colleagues rather than the exhortations of a whip-cracking boss.

Southwest knows you can't expect employees to be accountable to one another if the company isn't accountable to them. Though the airline business is highly cyclical, Southwest has never used downsizing to shore up profits. As Kelleher often reminded his colleagues, "Nothing kills your culture like layoffs."

6. Mutual Respect

As human beings, we're inclined to rank one another—by wealth, education, competence, physical attractiveness, fashion sense, athletic prowess, or the number of likes garnered on social media. At times, these rankings are useful, but they're often the product of egoism. To feel better about ourselves, we down-rank others. Needless to say, condescension is toxic to the spirit of collaboration.

In a community, status differentiators are muted. Everyone feels as if they matter. This doesn't happen by accident. Instead, it reflects a conscious choice to treat everyone as an equal and to celebrate everyone's contribution.

Over the years, Southwest has worked hard to ensure that every associate feels valued and that every role is seen as equally critical to delivering great customer service. To drive the point home, Southwest encourages employees to shadow one another at work. A

pilot, for example, might load luggage to better understand the work of baggage handlers.

In most airlines, there's a clear hierarchy on the ramp, with highly skilled mechanics at the top and cabin cleaners at the bottom, but not at Southwest. "I would never go work at [a competing airline]," said one Southwest gate agent. "The animosity there is tremendous. Here it's so cool. Whether you have a college degree or a GED it doesn't matter. There's no status here, just a good work ethic." A customer service agent concurred: "No one takes the job of another person for granted. The skycap is just as critical as the pilot."

Southwest understands that mutual respect is a performance booster. While markets reward some skills more highly than others, it's dangerous when the respect paid to colleagues is indexed by the size of their paycheck. Kelleher was famously adamant on this point: "Positions and titles mean absolutely nothing," he said. "They're just adornments; they don't represent the substance of anybody. Every person and every job is worth as much as any other person and any other job."[30] To Kelleher, Southwest was a mosaic of capabilities, not a pyramid of power.

7. A Sense of Family

Family is the most intimate community most of us experience, followed closely by the fellowship we have with close friends. What distinguishes these relationships is love—the sense that you have inherent worth, that you are known and loved in spite of your faults. Love is food for the soul, yet most of us don't get much of it at work. In Gallup's State of the American Workplace survey, which polled

more than 195,000 employees, only two out of ten respondents said they had a close friend at work.[31]

Ask anyone at Southwest, "What makes your airline different?" and you'll likely hear the word "family." Since its founding, Southwest has worked tirelessly to build strong bonds of affection across its workforce. It's no accident the company's stock symbol is LUV.

Remember Kelleher's admonition to "treat your people as family and lead with love"? This would sound hopelessly corny if it weren't backed up by a consistent effort to embrace the virtues of generosity, kindness, and inclusiveness. At Southwest, this starts with recruitment, which encompasses much more than formal interviews. As Luke Stone, senior manager for people, said to us:

> We take into account how our candidates interact with our people throughout the entire process, since they all have a say in the final decision. From the moment we contact them, how do they treat our frontline employees when traveling in for an interview? How do they treat our employees who schedule their travel and interviews? How do they interact with everyone in the interview room—not just the most senior level leader? We want employees to be themselves at work—just as they are at home—so our interview process is all about the interactions they have with everyone.[32]

Empathy—the capacity to understand and respond to the feelings of others—is the essence of love. Southwest knows it's easier to teach someone how to be a flight attendant than to teach them empathy.

The value Southwest places on love is captured in the phrase "a servant's heart." Every team member is encouraged to "follow the Golden Rule," "treat others with respect," and "embrace our Southwest Family."

In 1990, Barrett established the "Companywide Culture Committee" and charged it with nurturing the company's unique values. Today, the Culture Committee encompasses approximately 240 individuals drawn from across the airline. Throughout their three-year term, members serve as advocates for culture in their locations and come together at an annual summit to share best practices.

Throughout the year, there are numerous rewards, both local and corporate, for employees who've been recognized by their peers for living out the company's values. In addition, there's an ever-changing roster of events designed to foster the spirit of service. During "Hokey Day," for example, members of the Culture Committee surprise incoming crewmembers with treats and a packed lunch. Committee members then help tidy aircraft with their "hokeys"—small hand-powered sweepers—while crewmembers take a break. One Hokey Day participant said, "What makes our company a success is that employees appreciate employees."[33]

Nowhere is that more evident than at Southwest's employee rallies. Held annually in three or four cities across the US, these events attract thousands of team members, many of whom attend with family or friends. Employees visit booths set up by teams from across the company, get updates from the executive team, celebrate milestones, and party with their "cohearts."

In a bureaucracy, relationships are primarily defined by roles and power differentials. In a community, they're defined by bonds of compassion and camaraderie. This distinction between love and power intrigued Hans Morgenthau, one of the twentieth-century's leading thinkers on global politics. His views, published in a 1962 essay, were neatly summarized decades later by a pair of American academics, Roy Baumeister and Mark Leary:

> The main difference between love and power is that love aspires to a mutual dissolving of personal boundaries, leading to an egalitarian merging into a new whole, whereas power seeks a unilateral overcoming of boundaries, by which the will of the more powerful person becomes the will of both.[34]

The quest for power is incompatible with the quest for authentic relationship. That's why Southwest makes such a big deal about "servant leadership." Unlike most CEOs, Kelleher wasn't afraid to use the L-word. "A company," he said, "is stronger if it's bound by love rather than fear." For him, every team member was family. The result: a culture that is full of heart. A customer service supervisor in Phoenix summed it up nicely: "The main thing is that everybody cares. Now I know why everyone is smiling here."[35]

Without vigilance, communities can become insular and clannish. Kelleher was always quick to head off tribalism. He once related the story of an employee who started a conversation by saying, "In my department …" Herb jumped in and said, "Oh, are you not part of Southwest Airlines anymore? Excuse me, I didn't realize you'd split off. Have we notified the SEC?"[36] The point: everything Southwest

does is aimed at creating not only local communities but a "community of communities" that spans the entire company.

Toward Community

Most of us have two distinct selves. There's the professional self that shows up at work each day, and the private self that sticks its head out in the company of family and friends. The professional self is stiff, on guard, and emotionally cautious. Our colleagues catch only glimpses of our inner selves. They are generally uninformed about our hobbies, family dynamics, health issues, emotional wounds, and dreams. We tell ourselves, or are told by others, that these things aren't relevant at work. That, of course, is rubbish.

If you are going through a divorce, have a child struggling with addiction, have recently lost a parent, are facing surgery, or find yourself in the midst of some other life crisis, you need people to talk to—people who care. If there's no such person at work, if you're obligated to spend a succession of eight- or ten-hour days alone with your anxieties and fears, then you, your colleagues, and your organization will be the worse for it. Remember the Gallup finding that only two out of ten employees say they have a best friend at work? Based on its research, Gallup estimates that if this number was tripled, to six out of ten, the average company would increase its profitability by 12 percent.[37] Again, when you think about it, this just makes sense. You can hardly expect employees to be engaged in their work if they're not engaged with each other.

You hear plenty of chatter about work-life balance, but much less about work-soul integration. Work should neither deny the personal nor overwhelm it. Instead, it should acknowledge and integrate it. In

a performance-oriented community, the professional and personal are neither disconnected nor fused, but instead are intertwined. At work, as in life, we spend most of our time simply getting things done. But when it matters, we need to know we can depend on the people around us. We need more than mere coworkers; we need advocates, allies, and mates—workplace friends who are sympathetic and stalwart.

As we noted earlier, Southwest and Nucor have remarkably similar cultures. Where Nucor claims to "build people not steel," Southwest describes itself as a "company of people, not planes."[38] Both companies have spent decades embedding the ethos of community in their hiring, training, and processes. And for decades, both companies have handily outperformed their rivals. A coincidence? Hardly.

Getting Started

What can you do to strengthen the bonds of community in your organization? Here are seven suggestions, based on what we've learned from Nucor and Southwest:

1. Recraft the mission statement for your unit or, if possible, the entire organization, in a way that makes it emotionally resonant for every team member and gives people a common cause.

2. Do whatever you can to provide team members with the skills and information they need to collaborate and exercise their collective judgment. Help them become less reliant on their managers.

3. In interpersonal encounters, look for opportunities to reveal something of yourself, and encourage others to do the same. Have a tender heart for those who are struggling with issues outside of work.

4. Ask your team to identify areas where greater autonomy would help them deliver a better customer experience or improve operations, and then carefully expand their decision-making prerogatives.

5. Institute team-based goals and rewards as a way of encouraging mutual accountability.

6. Cultivate mutual respect by creating opportunities for individuals to shadow other jobs, and work to reduce distinctions of rank and hierarchy wherever possible.

7. Hire for compassion, follow the golden rule, and celebrate acts of kindness.

In all of this, take the long view—strong communities don't get built in a month, or even a year.

You'll know you're succeeding when the people on your team, in your unit, or across the company can say, like Nucor's John Ferriola, "We are more of a family than a company."[39]

— 11 —

The Power of Openness

Institutions and societies thrive when they're open and stagnate when they're not. The resilience of cities like New York and London is the product of openness and diversity. Residents of New York's five boroughs speak eight hundred different languages, making the city the most linguistically diverse in the world.[1] On the other side of the Atlantic, 30 percent of London's residents hold a non-British passport.[2]

In a vibrant city, one encounters a multitude of differences in how individuals think, dress, worship, work, love, and play. This diversity creates an immense combinatorial space—a nearly limitless number of opportunities for mashing up ideas, talents, and resources in new ways.

Openness is also the secret to the resilience of the world's leading universities. Oxford, Cambridge, the Sorbonne, and the University of Bologna have been attracting scholars for more than eight hundred years. Like cities, great universities benefit from positive feedback

effects. Imagine you're a brilliant young physicist who dreams of winning a Nobel Prize. Where do you want to do your postdoctoral research? Most likely in a university that already has a clutch of Nobel Prize winners. Clever people attract clever people—that's why elite universities tend to stay that way.

Not surprisingly, cities and universities are wellsprings of innovation. Together, San Francisco, San Jose, New York, and London accounted for nearly thirteen thousand venture capital deals between 2015 and 2017, a quarter of the global total.[3] Between 2013 and 2017, US universities claimed more than thirty-three thousand patents and spawned more than forty-eight hundred startups.[4]

The Allure of Open Innovation

In recent years, companies eager to reap the fruits of openness have launched an array of open innovation initiatives. Crowdsourcing has been one of the most popular variants. In a typical case, Zillow, the online real estate listing service, offered a $1 million prize for an algorithm that improved its ability to estimate property values. The tournament attracted thirty-eight hundred entries from ninety-one countries, and the winning team included innovators from Canada, Morocco, and the United States.

Companies have also reached out to customers. Lego, the Danish toy maker, supports co-creation through a website where ardent fans can submit ideas for future products. Proposals that attract more than ten thousand endorsements get reviewed by Lego experts, and those that go into production, like the DeLorean car from *Back to the Future*, generate a 1 percent royalty for the originator. In operation

for over a decade, Lego Ideas has garnered more than twenty-six thousand submissions.

Incubators are another open innovation gambit. Often located in creative hot spots like Silicon Valley, Berlin, and Tel Aviv, corporate-backed incubators offer startups space, tools, and mentorship in return for equity. Airbus, Coca-Cola, Johnson & Johnson, Mastercard, and Walmart are just a few of the giants that have set up new business hatcheries.

Yet despite its popularity, there's little evidence that open innovation has made large companies more inventive or adaptable. In practice, external crowdsourcing and co-creation often yield only marginal gains. Zillow's innovation tournament, for example, produced a scant 13 percent improvement in the accuracy of the company's "Zestimate" algorithm—enough perhaps to justify the million-dollar prize money, but unlikely to be a game changer. The impact of Lego Ideas has been equally modest. In the course of ten years, only twenty-three customer-proposed kits have made it to market—a tiny fraction of the seven thousand internally sourced products that were launched over the same time period.

We might expect more from incubators, since most are designed to support radical innovation. Walmart's New Jersey–based incubator, Store N$\underline{^o}$ 8, was established in 2017 with the aim of developing capabilities that "transform the future of retail."[5] That's a bold goal, but the odds of achieving it are long. The fault lies not with Walmart but with inherent limitations of dedicated venture units. Most incubators are located far from head office. In theory, this helps insulate them from stale, corporate thinking, but it also makes it difficult to leverage parent-company skills—a problem that becomes

even more acute when the incubator is staffed by newbies who lack strong internal networks. In practice, while locating the incubator in Silicon Valley or Shoreditch, London's startup hub, may make it easier to hire fresh talent, it doesn't offer much protection from executive meddling. In our experience, corporate paymasters often saddle incubators with expectations, policies, and processes that are ill-suited to the risky and hard-to-script work of birthing a new business. Moreover, a single incubator, with a relatively small staff, is unlikely to work on more than a few ideas at a time. This limits the chance of stumbling on the next big thing. For all these reasons, incubators seldom have a catalytic effect on the parent's fortunes.

Henry Chesbrough, whose 2003 book *Open Innovation* brought the idea to prominence, notes that open innovation programs typically lose steam when a supportive CEO moves on, a fact that suggests these initiatives often fail to produce the sort of results that would ensure they get institutionalized.[6] Karim Lakhani, a researcher at Harvard's Laboratory for Innovation Science, concurs: "Open innovation processes promise to enhance creative output, yet we have heard little about successful launches of new technologies, products or services arising from these approaches."[7]

The irony, of course, is that large organizations *are* open. Employees interact with thousands or millions of customers each day. Executives and managers talk constantly with suppliers, consultants, regulators, and other stakeholders. Why, then, hasn't open innovation made a bigger difference? Why isn't the typical corporation as resilient and innovative as a city or a university? Because, to put it bluntly, they're often run by people whose minds are hermetically sealed against unconventional ideas.

Closed Minds

As Thomas Kuhn argued more than a half-century ago, we are prisoners of our paradigms. Even scientists, a guild whose members loudly profess their allegiance to open inquiry, are often reluctant to jettison familiar theories in the face of new evidence. As Kuhn observed, "All significant breakthroughs are break-'withs' old ways of thinking."

There are several reasons we get stuck in our thinking, but denial tops the list. As human beings, we tend to discount discomforting facts. In 2016, for example, a senior executive at Comcast, the US broadcaster and cable operator, told a conference that his company had little to fear from new media. YouTube, he claimed, was "basically a side bar," and Netflix's programming wasn't "consistent enough to affect us in a meaningful way."[8] This, despite the fact that both streaming services were growing at near exponential rates.

Second, even when we're not in denial, we're often oblivious to data that doesn't fit our existing mental categories. Before C. K. Prahalad's pioneering work on the "bottom of the pyramid," most businesses ignored the 3.5 billion human beings who live on less than $5.50 per day.[9]

Finally, most of us are consumed by the urgent. Eyes down, we scurry along the furrows of ritual and routine. There's a world of wonder around us, but we frequently mistake the edge of our rut for the horizon.

There's a reason, in other words, that we remind each other to "keep an open mind." We know that denial, conventional thinking, and busyness shrink our peripheral vision. For several reasons, bureaucracy makes this worse: top-down power structures penalize

heretical thought; near-term operational pressures leave little time for discovery; silos limit cross-boundary learning; an obsession with alignment truncates the search for new opportunities; and a penchant for secrecy bottles up valuable information. The net result: bureaucratically induced blindness.

Open innovation is a capital idea. Raise the windows. Open the doors. Blow off the roof. But don't expect to see a great flourishing of imagination, or an organization reborn, until you and your colleagues open your minds to a world of near-limitless possibilities.

Open Minds

Why do some people see dazzling new possibilities where others see only the flat, gray tones of the familiar? Are some minds endowed with a unique creativity gene? Perhaps, but in most cases, enlightenment is less the product of a remarkable brain than of remarkable experiences.

Consider what Steve Jobs said in 2005 about his personal odyssey:

Because I had dropped out [of college] and didn't have to take the normal classes, I decided to take a calligraphy class to learn how to do this. I learned about serif and sans-serif typefaces, about varying the amount of space between different letter combinations, about what makes great typography great. It was beautiful, historical, artistically subtle in a way that science can't capture, and I found it fascinating. None of this had even a hope of any practical application in my life. But 10 years later, when we were designing the first Macintosh computer, it all came back to me.[10]

Who would have thought that an unexpected experience in a calligraphy class could change how human beings interact with computers? But that's how innovation works. Epiphanies can't be programmed in advance. Lightning doesn't strike on cue. You can, however, build a lightning rod. If you're intentional about opening your mind to new possibilities, you can dramatically raise the odds of a creative flash.

Over years of research with some of the world's most storied innovators, we've learned that four perceptual habits are particularly powerful in illuminating new opportunities.

Habit #1: Challenge Unexamined Assumptions

Let's go back to Kuhn's classic study of scientific innovation. Having reviewed decades of scientific progress, he concluded that:

> Individuals who break through by inventing a new paradigm are almost always either very young … or very new to the field whose paradigm they change. These are [individuals] who, being little committed by prior practice to the traditional rules of normal science, are particularly likely to see that those rules no longer define a playable game and conceive another set that can replace them.[11]

Maybe you're no longer young, but you can still cultivate what Buddhist priest Shunryū Suzuki famously called "a beginner's mind."[12] Suzuki, who died in 1971, couldn't have foreseen Innocentive, the crowdsourcing platform where companies bid out problems to an army of more than 390,000 "solvers," yet a study of 166 Innocentive contests confirmed his thesis: most of the successful

solvers came from disciplines that weren't directly connected to the problem at hand.[13] By applying knowledge from other domains, these lateral thinkers succeeded where the experts had failed.

Conventional beliefs yield conventional results. That's why newcomers have an innovation advantage—their thinking isn't constrained by years of industry experience. There's a danger though: conventional wisdom is often right. In the airline business, it would be foolish to challenge the assumption that "safety is a priority," or that "people want to get to their destination on time." Yet, it was genius when Southwest flipped the assumption that competitive fares mean grim, impersonal service.

The challenge, then, is to distinguish between the laws of physics and the iron grip of dogma. This is a subtle task. How do you get started?

First, spot the similarities. Over time, the strategies of incumbents tend to converge. A useful exercise is to overlay the business models of companies in the same industry and then look for areas of overlap. Wherever you see competitors doing the same thing, ask yourself, "What's the shared assumption behind this policy or practice?" and then, "What would happen if we challenged that belief?" For centuries, innkeepers assumed you had to own rooms to offer guests a bed for the night. Airbnb inverted this belief and now has more than six million listings across the world.

Second, focus on what hasn't changed. What aspects of your strategy have remained stagnant for years or decades? Over time, legacy practices, like wallpaper, become invisible. Your job is to question whether those taken-for-granted practices still make sense. For example, though it endured a lot of pushback from traditional

carmakers, Tesla challenged the long-held practice of selling cars through independent dealers. The company's sleek stores, often located in luxury shopping venues, offer customers a hassle-free buying process. Tesla understands that the best orthodoxies to challenge are those that degrade the customer experience.

Third, go to extremes. Pick some parameter of performance—price, choice, availability, speed—and ask what would happen if we aimed for a 10X improvement? Fifty years ago, a retired physician, Dr. Govindappa Venkataswamy, launched an epic quest to eradicate unnecessary blindness in India. Millions of his compatriots had cataracts but couldn't afford corrective surgery. How, Dr. V. wondered, could he reduce the cost of surgery by 90 percent or more? For inspiration, he looked at the fast-food industry. "If McDonald's can sell millions of burgers," he thought, "why can't [we] sell millions of sight-restoring operations?"[14] Today, Dr. V.'s network of specialty hospitals, the Aravind Eye Care System, performs half a million cataract surgeries annually. Each surgeon carries out 2,000 operations per year, versus an average of 125 for their American counterparts. These and other economies have reduced the price per surgery to roughly 5 percent of what is typical in advanced economies—and yet Aravind has complication rates that are often less than those found in the West.

For much of life, you simply go along with the conventional wisdom—there's no shame in that. But every once in a while you need to step back and examine what you believe. Develop the habit of treating every assumption as a hypothesis that's forever open to disconfirmation.

Habit #2: Be Alert to What's Changing

Having an open mind means being open to what's changing. Successful innovators pay attention to things that are peeking over the horizon—nascent trends that seem ripe with revolutionary potential.

Large companies often seem incurious about new trends. Why was it Lululemon, for example, and not Nike or Under Armour that capitalized on the growing passion of women for fitness in general and yoga in particular? Orthodox thinking was partly to blame. Traditional athletic-wear companies didn't regard yoga as a sport. Yoga has no professional league and no superstar endorsements. Yet if a sport is something that requires athletic prowess, yoga definitely qualifies. (If you doubt this, open your browser and search "side crow pose.")

Nike and others also failed to notice two accelerating trends. The first was the growing number of time-starved women who took fitness seriously and wanted great-fitting clothes that could go from the street to the gym and back. The second was a change in the definition of fitness. Being healthy was no longer just about dropping a few pounds, but about achieving better mind-body balance—hence Lululemon's ubiquitous sloganeering: "Your outlook on life is a direct reflection of how much you like yourself." As we're writing this, Lululemon has a market value of $29 billion. For Nike and its peers, that's the price of myopia.

So how do you open your mind to the future?

First, give yourself the chance to be surprised. This means hanging out in new places and talking to people with whom you don't normally interact. It means expanding your news sources and following people online who work in fields that are new to you. As

the novelist William Gibson observed, "The future is already here—it's just not evenly distributed." In other words, you may not be able to see it from where you're sitting now, but if you go looking for it, you can find it.

If you want to glimpse the digital future, for example, you're better off visiting China than Silicon Valley. China currently accounts for over 55 percent of global e-commerce sales, boasts the world's largest digital payments systems, is leading in the internet of things, and is already running a trade surplus in digital services.[15]

So take a moment to reflect. What have *you* seen lately that's new, surprising, and gathering speed?

Maybe it's …

The growing preference to "subscribe" rather than "own"

The increasing use of augmented reality (AR) to bridge the digital and physical worlds

The shift in retailing from transactions to experiences

The increasing appetite for local brands

The expanding use of blockchain technology

The ever-shrinking center ground in European and American politics

The negative effects of digital technology on mental health

The declining trust in large institutions

Or perhaps something entirely different

Having zeroed in on an intriguing trend, ask yourself: Where does this lead? What's the chain of consequences? Will it spawn a countertrend? It's not enough to spot a trend; you have to anticipate the ripples.

Habit #3: Repurpose Skills and Assets

An open mind means rethinking the identity of your organization. You're probably used to defining your business by what it makes or sells, but to see new opportunities, you have to look deeper. You need to ask, "What are the skills, or 'core competencies,' that underpin our success?" And then, "How might we use those skills to create new products and services?"

Time Out, the venerable publisher of city entertainment guides, is a great example of competence-based innovation. Its magazines are read by 7.4 million people each month, and more than 217 million access the company's recommendations online. Like many publishers, Time Out has struggled to survive on advertising revenue alone. One of Time Out's principal assets is its network of dedicated culture hounds. With noses on the ground in more than forty cities, it's adept at sniffing out the best restaurants, clubs, and events. A couple of years ago, Time Out's Lisbon team came up with an ingenious new way of exploiting the company's talent for cultural curation.

Rather than merely reporting on the best new venues for food and drink, the team members wondered how they could make it easier for visitors and locals to enjoy the best fare the city had to offer. The answer: invite Lisbon's coolest restaurants, bars, and food vendors to set up outposts in a single, fun-to-visit venue. That was the dream,

and in less than a year it went from concept to reality. The Time Out Market in Lisbon covers seventy-five thousand square feet and boasts twenty-four restaurants, three Michelin-starred chefs, eight food kiosks, eight bars, four food shops, and a nightclub. In addition, there's a cooking school, coworking spaces, and a nine-hundred-seat music venue. Time Out takes a 30 percent cut of the revenues and handles alcohol and soft-drinks sales. The Market attracted 3.9 million visitors in 2018—making it Lisbon's second-most-visited attraction. Not surprisingly, the concept is now being rolled out to other cities, including Chicago, Miami, Boston, New York, and Montreal.

Look around your organization. Are there skills or assets that you could similarly repurpose? You won't know until you look.

Habit #4: Unearth the Unmet Needs

Sometimes you have to open your heart to open your mind. You have to get close enough to customers to feel what they feel. Only then will you see opportunities to transform the customer experience in ways that lift the human spirit.

Bureaucracies value thinking over feeling. That's why most businesses are astoundingly bad at reading customer emotions. Every day they irritate their customers in countless ways. You'll know this if you've ever been stuck on hold waiting to talk to a customer service rep. What makes the hold time even more intolerable is the pointless prattle you have to endure—which seems to have been designed solely to increase the production of cortisol.

Luckily, there are examples of companies that get it—that upsize rather than downsize the customer experience, and do so profitably.

When it set up its Prime subscription service, which offers unlimited two-day delivery on all orders, Amazon relieved its customers of the need to think about shipping costs each time they placed an order. Reducing friction in the customer experience is also the goal of Amazon Go, the physical stores Amazon is currently rolling out that do away with the checkout process—just scan the Amazon Go app when you enter the store, pick up what you need, and walk out.

Customer-pleasing innovation doesn't have to be high-tech, or even expensive. Have you ever experienced the small nightmare of leaving your phone in a public bathroom? If not, lucky you, but it happens more often than you think. A Japanese company that manages motorway service stations found that their employees were spending as much as thirty hours a month trying to reunite customers with their phones. Its creative solution? A latch on the stall door that, when closed, is wide enough to hold a smartphone or a key ring—a simple hack that makes it pretty much impossible to leave your stuff behind. As Steve Jobs once said, "Things don't have to change the world to be important."

The key is to tune in to the emotional states that are produced, or not, at each stage of the customer journey. You have to look for the emotional cues—a pinched brow, pursed lips, confused look, clenched jaw—and then ask, "What's generating that emotion? How have we let this person down?"

The future isn't a lion in the veld. It doesn't pad stealthily through the long grass and suddenly spring upon its prey—though to the inattentive, it may seem that way. The future can usually be seen, or imagined, a long way off. With training and practice, anyone can learn to open their mind to new possibilities, yet few organizations

have helped their employees master these skills; few have invested in the creative capital of every team member. That's a giant fail, but not impossible to remedy. The starting point is to acknowledge that everyone, whatever their role or title, deserves the opportunity to cultivate their creative gifts.

Closed Strategy

It's not enough to have an organization awash in fresh thinking. Equally important is a process that forges all those insights into a coherent strategy. Some pundits would have you believe that in a world of accelerating change, strategy no longer matters. They're wrong.

In earlier chapters, we argued that organizations need to become less monolithic and more sprightly. This means dividing big units into smaller, self-contained businesses, and empowering those on the front lines to make smart and speedy decisions. But while being nimble is essential, it's equally important to know where you're going.

To have any chance of outcompeting a mob of startups, large companies must harness the advantages of scale and scope. This often requires concerted action across multiple operating units. It can be tough to crack a new market, but when teams collaborate, they have the chance to share insights and investment and thereby increase the odds of success. Nucor's multiplant campaign to grow its automotive business is an example. Similarly, by sharing skills and assets, operating units can reap cost advantages. This was the logic behind Haier's companywide initiative to develop COSMOPLat, its world-beating platform for the internet of things. The goal of these tentpole

strategies isn't to constrain frontline innovation, but to help internal entrepreneurs scale faster.

Likewise, there's still a need for directional stability—for goals that extend beyond the next planning period. It takes time to grow a new business or build a new competence. More than a decade ago, Apple committed itself to becoming a world-class chip designer. By developing proprietary computer chips, the company hoped to further differentiate its expanding product portfolio. Over the past dozen years, Apple has made a string of acquisitions aimed at bulking up its expertise in low-power chips. It has also poached dozens of top-flight designers and given them the resources they need to excel. This effort has paid big dividends. A recent Apple processor, the A12X Bionic, used in the iPad Pro, boasts more processing power than most laptops. Today, proprietary chips feature in all of Apple's hardware products and are critical to delivering customer benefits like facial sign-in and extended battery life. If Apple's chip design business were a stand-alone company, it would rank number four globally.[16] That's the power of persistence.

Consistency matters, but so, too, does creativity. The most important thing about a strategy is how it's different from every other strategy. The point is, if your organization doesn't have a *unique* point of view about the future, then it doesn't have a strategy.

We live in turbulent times, but we don't live in a post-strategy era. Any organization that hopes to stay relevant needs a point of view about the future that ensures consistency, spurs creativity, and inspires bravery. Of course, a strategy has to be robust enough to survive the unexpected, but without foresight, an organization is rudderless.

One of the most important questions any senior team can ask itself is this: "Over the next few years, how is our organization going to reinvent itself and the world around it?" As an exercise, each executive should write out his or her answer in the form of a few "from-to" statements. The top team should then ask itself:

Is there a consensus on key priorities? Do we have a shared point of view?

Would our agenda surprise competitors? Is it differentiated?

Does the strategy imply significant stretch? Are we being sufficiently ambitious?

We find the answer to these questions is often no. The putative strategy is muddled, unexceptional, and diffident.

In a 2018 survey by PwC, only 37 percent of the six thousand executives polled said their company had a well-defined strategy. Seventy-three percent doubted their company's strategy was innovative, and a scant 13 percent felt their organization had a road map for building future-focused capabilities.[17] None of this should be surprising. In most companies, the planning process is elitist, formulaic, and extrapolative. It's a top-down, budget-focused ritual that harnesses only a tiny fraction of the organization's collective imagination—in other words, pretty much the opposite of an exciting, participative quest to discover new opportunities. Until this changes, companies will keep whiffing the future.

Open Strategy

Ask a CEO, "Who's responsible for setting strategy?" and she'll likely tell you, "I am," or "the executive committee." That's a problem. As we argued in earlier chapters, senior executives are often reluctant to divest themselves of old certainties and poorly positioned to see the future. But even if the top team were all brilliant seers, the sum of their creativity would be insufficient for the job at hand.

Since game-changing business ideas are rare, the probability of coming up with a breakthrough strategy depends on an organization's capacity to generate a large number of strategic options. The problem with a top-down process is that there aren't enough brains at the top to do this. What's required is an approach that generates thousands, not tens, of novel ideas, and uses the wisdom of the crowd to distill them into a path-breaking strategy.

Companies rightly obsess over operational efficiency, but what about strategic efficiency? How would you know if your organization was achieving the highest possible return on its resources? How would you know if its assets and capabilities were deployed against the best possible opportunities? You wouldn't—not unless your organization had explored a vast range of potential options before deciding where to bet.

In strategy making, you have to diverge—a lot—before you converge. This requires a process that encourages radical thinking and includes new voices. Strategy making should be a companywide conversation that is open to employees, customers, and external partners.

The goal, though, isn't simply to generate a mountain of ideas. As we've argued, coherence is also important. When you look across all those options, you need to ask: "What are the themes? Where can we

capture the advantages of scale and scope? What are the meta opportunities that could reshape our very identity? What's the capstone aspiration that encapsulates our boldest dreams?

An open strategy process is messier and more time consuming than the top-down alternative, but the benefits are worth the effort. In our experience, these include:

MORE RADICAL AND AMBITIOUS IDEAS. The odds of conceiving a game-changing strategy go up when the strategy conversation encompasses a large and heterogeneous group of participants. You need new voices to discover new options.

HEIGHTENED COMMITMENT. INDIVIDUALS FEEL A MUCH GREATER COMMITMENT TO A STRATEGY IF THEY'VE HAD A HAND IN CREATING IT. A PARTICIPATIVE PROCESS YIELDS A STRATEGY THAT BELONGS TO EVERYONE, NOT JUST THE CEO OR THE BOARD.

GREATER CREDIBILITY. FOR MOST EMPLOYEES, STRATEGY MAKING IS A BLACK BOX. OCCASIONALLY IT SPITS OUT A NEW PRIORITY, BUT WHY *THIS* ONE? WHAT OTHER OPTIONS WERE CONSIDERED? WHAT CRITERIA DROVE THE FINAL DECISION? MOST EMPLOYEES HAVEN'T A CLUE, BUT IF YOU WANT PEOPLE TO TRUST A STRATEGY, THEY NEED TO KNOW HOW IT WAS BUILT.

MORE GRANULARITY. TOP-DOWN STRATEGIES ARE INHERENTLY ABSTRACT. WHEN A CEO SAYS, "WE HAVE A BIG OPPORTUNITY IN HEALTH CARE," WHAT DOES THAT MEAN? HOW IS IT ACTIONABLE? IN CONTRAST, WHEN AN OPEN STRATEGY PROCESS YIELDS FIFTY OR A HUNDRED IDEAS RELATED TO HEALTH CARE, YOU CAN BE SURE THE RESULTING STRATEGY WILL BE GRANULAR. READ BELOW THE

HEADLINE AND YOU'LL FIND SPECIFICS, NOT GENERALITIES.

FASTER IMPLEMENTATION. WHEN STRATEGY IS MADE IN SECRET, IT CAN TAKE MONTHS OR YEARS FOR EMPLOYEES TO FULLY GROK THE NEW GAME PLAN—ASSUMING THERE'S SOMETHING TO GROK. IN AN OPEN PROCESS, PEOPLE SEE THE STRATEGY TAKING SHAPE IN REAL TIME. BY THE TIME THE STRATEGY GELS, THEY'RE PRIMED AND READY TO ACT.

LESS INERTIA. AS A COMPANY GROWS AND BUREAUCRACY MULTIPLIES, LEADERS START PLAYING DEFENSE. THEIR MOTTO: DON'T SCREW WITH SUCCESS. THE RESULT IS INERTIA, AND THE ONLY WAY TO ESCAPE IT IS TO CREATE A CONSTITUENCY FOR THE FUTURE THAT IS LARGER AND MORE POWERFUL THAN THE CONSTITUENCY FOR THE STATUS QUO. AN OPEN STRATEGY PROCESS GIVES REBELS A SHARE OF VOICE AND CAN BE INSTRUMENTAL IN BREAKING FREE OF THE TIMIDITY TRAP.

Open Strategy in Practice

If you're not yet sold on the advantages of open strategy, consider the following short examples of open strategy in action.

3M: Open to Customers

There aren't many companies that have been around for more than 115 years, and even fewer that are still thriving. That makes 3M a standout. With a catalog that includes more than fifty thousand products, it is, perhaps, the world's most consistently innovative

company. Consumers know 3M for such staples as Scotch tape and Post-it Notes, but 85 percent of its $32 billion in annual revenue comes from industrial products such as flexible circuits, reflective sheeting, medical fabrics, and an endless number of films, adhesives, and abrasives.

In a typical year, nearly a third of 3M's sales is generated by products that didn't exist five years earlier. Many of the breakthroughs can be traced to the company's systematic approach to involving customers in the search for new opportunities. 3M thinks of itself less as a collection of businesses and more as a portfolio of competencies. Among the company's forty-six core technologies are microbial detection, vapor processing, microreplication, nanotechnology, and ceramics. Innovation at 3M means finding novel ways of applying these capabilities to customer problems.

Much of this alchemy takes place in one of 3M's ninety labs and technical centers. These facilities host more than a hundred thousand customer visits annually. A typical session starts with a presentation from the visiting company, followed by a slew of open-ended questions from 3M's industry and technology experts. The goal is to uncover the customer's deep needs. Next is a visit to the "World of Innovation" showroom, which highlights 3M's forty-six technology platforms. This is followed by focused brainstorming aimed at matching competencies and problems. One such session with Visteon, an automotive supplier, sparked the idea of using film to give plastic interior parts a custom look and feel. Another breakthrough involved the use of 3M's Thinsulate to provide lightweight acoustic insulation.

In thousands of open-ended conversations each year, 3M gives its customers the opportunity to co-create its strategy. The ever-recurring question is, "What should we do that we haven't thought of yet?"

Cisco: Open to Entrepreneurs

San Jose–based Cisco has long relied on the Bay Area's entrepreneurial ecosystem to sense and seize emerging opportunities. Over the years, it has acquired more than two hundred young companies, and its corporate venture capital arm is among the most active in Silicon Valley. More recently, Cisco has turned to open innovation as way of tapping entrepreneurial talent. Guido Jouret, a former executive who led Cisco's early open innovation efforts, explains the logic: "We believed that by opening ourselves to the wider world we could harvest ideas that had so far escaped our notice and in the process break free from company-centric ways of looking at technologies, markets, and ourselves."[18]

Unlike most other companies, Cisco's open innovation efforts aren't focused on solving narrow technical problems, but instead feed its corporate strategy process. Cisco launched its inaugural challenge, the I-Prize, in 2007 with the goal of unearthing the company's next billion-dollar business. The I-Prize generated 1,200 ideas from more than 2,500 innovators in 104 countries. The winning team received $250,000 for a proposal focused on smart electricity grids.

In 2016, Cisco launched its Innovation Grand Challenge, a contest aimed at exploring opportunities for the internet of things. The six-month tournament offered $250,000 in prize money and attracted 5,713 submissions from 170-plus countries. A jury of more than a hundred industry experts helped narrow the field, and a panel of

luminaries picked the three winners. The top-rated teams were invited to prototype their ideas in one of Cisco's Innovation Centers and make an investment pitch to Cisco's venture funding team.

Since 2017, Cisco has been running an annual Global Problem Solver Challenge that's focused on using digital technology to tackle stubborn social problems. In 2018, the top-rated idea was a portable fetal heart monitor. Proposed by a Mumbai startup, the inexpensive device is designed to be used in rural areas to detect high-risk pregnancies. The yearly contest contributes directly to one of Cisco's core strategies—harnessing the internet of things to positively impact 1 billion human beings by 2025.[19]

Through its various open innovation initiatives, Cisco continually tests and evolves its strategy. Says Jouret, "We [learn] how people around the world think about Cisco and the markets we ought to be pursuing. Like any other company, we tend to see the world in a certain way—we should be in this business, but not that one. Many of the entrants [have] a much more expansive view of what Cisco could do."[20]

Adidas North America: Open to Employees

With more than $23 billion in annual revenue, Adidas is one of the world's premier sports brands. While the company has long been a powerhouse in European football, it has often struggled in the United States. In 2014, determined to change that, the company appointed Mark King president of its North American division. King, who had led a successful turnaround at TaylorMade, the golf club maker, was charged with reinvigorating the brand and getting Adidas America back on track.

When he arrived in Portland, Oregon, the company's US base, King found a capable but dejected team. The business had recently lost its number-two position to Under Armour and was on track for a second consecutive year of declining sales. It was losing retail shelf space, and its margins lagged far behind Nike, its cross-town rival. Located nine time zones away from corporate headquarters, the US team knew it needed to do better at tapping into America's distinctive sports culture.

King's first challenge was to convince the board to pump up investment in North America. In return for a boost in funding, King pledged to make Adidas the fastest-growing sports brand in the United States—a promise that sounded outrageous to those accustomed to the unit's perennial underperformance. King got his investment, and in a move that was both practical and symbolic, Adidas relocated its global head of design to Portland.

As he made the rounds of the US operation, King discovered a lot of pent-up creativity. He reckoned that somewhere in the minds of the 3,500 salaried employees in North America, there was the raw material for a renaissance. The question was how to raise the quality of creative thinking, get new ideas to the surface, and build a growth strategy—and to do it in a matter of months, not years. The answer came in the form of the Adidas Innovation Academy, a ten-week initiative that taught employees how to think like game changers and invited them to help shape the company's strategy. At the kickoff event, streamed to employees across North America, King was blunt: without new ideas, it will be impossible to reignite growth. "This," said King, "is your chance to co-create the future of our business."

At the heart of the training was a four-week module that introduced employees to the game-changer habits we described earlier. Each week, participants were challenged to come up with fresh insights and post them on a shared platform. In all, employees generated more than ten thousand insights, some of which directly challenged the existing strategy. Was it really true, for example, that the only path to success was competing head-on with Nike and Under Armour? Other insights highlighted trends that weren't yet on the company's radar, like the rapid growth of e-sports, where teams compete at video games, sometimes in front of cheering spectators.

Over the next four weeks, employees were challenged to turn their insights into business ideas. One insight highlighted the difficulty retailers had in interacting with the company's siloed commercial teams. The proposed innovation: build a simpler and more consistent interface with offline and online retailers.

In the space of a month, participants ginned up nearly a thousand business ideas, each of which was peer-rated on its potential impact and doability. As with the insights, employees tagged their ideas to make them searchable and reduce duplication.

While the ideation process placed no constraints on the sort of ideas that could be submitted, most ended up clustering around a dozen or so strategic themes, such as winning with women and reinventing the relationship with retailers. Within these groupings, individual ideas were often complementary and, in aggregate, helped validate the broader opportunity.

In late 2015, all of those who had signed up for the academy were invited to help winnow the field of promising ideas. This process highlighted nine proposals that were subsequently pitched at an all-

hands "shark tank." Current North American president Zion Armstrong recalls the event: "Giving people the chance to pitch their ideas was very inspirational. I was at the back of the room with tears in my eyes. By opening up the conversation, we were saying, 'We will listen to you and invest in you. You can make a difference.' "[21] At the end of the event, several of the proposals were fast-tracked for development.

Mark King stepped down in July of 2018. During his four-year tenure, sales in North America grew by nearly 50 percent, and the operating margin tripled. King and Armstrong credit much of this performance to the newly unleashed creativity of their colleagues. While participation in the Innovation Academy was entirely voluntary, more than two thousand took part, and a thousand earned their game-changer certificates. The Innovation Academy not only opened up new horizons, it also opened up the culture. Looking back on the unprecedented effort, King remarked: "It really fostered a culture of curiosity and moved us more toward thinking and challenging. You can get compliance top-down, but you can't get commitment top-down."[22]

While these examples of open strategy are laudable, they don't go far enough. We believe every organization should open its strategy conversation to all comers. There's no shortage of original thinking in the world, but most companies aren't harnessing it. They haven't published an online catalog of skills and assets and asked the world, "What would *you* do with our capabilities?" They haven't built an always-on platform where anyone—customers, suppliers, partners, entrepreneurs, industry experts, amateur inventors—can post their ideas. They haven't devised clever solutions for safeguarding

intellectual property and rewarding contributors for their work. They haven't invited outside innovators to work alongside internal teams. They haven't thought about how to build a giant magnet that attracts the world's most radical thinkers and doers.

Does this sound fanciful to you—the idea of building a hub for an open, always-on, real-time conversation about strategy? If so, think about the extraordinary effort Apple has put into nurturing its vast community of developers. Anyone wanting to build an app has access to a dedicated development platform, dozens of training programs, a host of development tools, mentors, and global events. The payoff for Apple? More than 2 million apps running on iOS. The payoff for the innovators? More than $100 billion in compensation paid out by Apple. If an organization can build a global developer network, why not a global opportunity discovery network? Some companies, like Haier, with its Haier Open Ecosystem Platform, are moving in that direction, but no one has gone all in—that's the opportunity for *your* organization.

Getting Started

So how do you embrace the advantages of openness? How do you go from a few, disjointed, open innovation initiatives to an organization that is open where it matters most—in how it thinks and how it plots its future?

1. Tackle the climate of fear. In most organizations, there are penalties for disagreeing with your boss. The result is an echo chamber. You need to make it safe to dissent. That means taking every opportunity to ask, "Where is my thinking stuck?"

"What other options do you see?" "What would you do differently?"

2. Invest in building creative skills. Companies are often frustrated when they ask employees or customers for ideas. Much of what comes back is either small beer or undoable. To increase the signal-to-noise ratio, you have to train people to think differently, as Adidas did with the Innovation Academy.

3. Crack open the strategy process in simple, low-cost ways. If the idea of a high-profile strategy hackathon seems daunting, start small. Make sure every future-focused meeting includes a disproportionate number of young people, newcomers, and individuals who've worked in other industries. In one company we know, managers present their plans before hundreds of young employees who live-tweet criticisms and suggestions. The point is, there are lots of ways of getting new people into the strategy conversation.

4. Make it social. The power of open strategy isn't merely the number of ideas that get generated, but the combinational magic that happens when ideas collide and curious people interact. On an online strategy platform, this means making it easy for innovators to find colleagues who are working on similar ideas and then collaborate if they choose to.

5. Link ideas to action. Most organizations have some sort of online suggestion box, but submissions often disappear into the ether. Employees want to know, "Who is going to review my idea? When? Against what criteria? If it has merit, how will it

get resourced? Will I get time to work on it?" If the answers to these questions aren't clear, many contributors will opt out.

6. Make outsiders feel like insiders. Wherever your role, you can build an open discovery network of your own. Invite in customers, suppliers, and industry experts and host a conversation about the future. Consider it a live demo of what happens when you bring in new voices and ask new questions.

7. Stop looking to the CEO for strategy. This is a hard one. Senior executives need to surrender the conceit that they're uniquely prescient strategists, and everyone else needs to stop pretending that they are. Only then will an organization get serious about open strategy.

Every organization must become open by default. The thick, dark line between insiders and outsiders must fade away, and the belief that strategy starts at the top must be forever banished. Only then will the organization have the chance to become as resilient as a great city or celebrated university.

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The Power of Experimentation

You, dear reader, are the product of four billion years of experimentation. Over the eons, sexual reproduction, genetic mutation, and gene drift (population migration) have repeatedly revised the language of life, and natural selection—competition for resources and mates—has ensured that the best prose gets copied and shared with the next generation. Like every other human being, you're an evolutionary laboratory. Your genome contains about 150 mutations that weren't inherited from your parents.

Your life has also been a laboratory. As a child you experimented with different behaviors to see what got your parent's attention and later what got you liked at school. You experimented with hairstyles and clothes. Perhaps there was a time when you dated experimentally. In college, you may have experimented with different courses before deciding on a major. Later, you experimented with different jobs, hobbies, libations, friends, political views, and even religions. And

you're still trying new things—because to stop experimenting is to stop growing.

What's true for you is equally true for institutions. The pace at which any organization evolves is determined in large part by the number of experiments it runs. Despite this, most employers provide little encouragement to workers who are eager to "learn by doing."

The Bureaucratic Aversion to Experimentation

Typically, the ability to design and run trials is the province of a small band of specialists in R&D or product development. Even in those functions, anything more than a narrow A/B test usually requires management approval. In our survey of ten thousand *Harvard Business Review* readers, 61 percent of large-company respondents said it's "very difficult" for frontline employees to try something new. Corroborating this, Gallup's 2019 Great Jobs survey revealed that in the United States only 9 percent of nonmanagerial employees strongly agreed that they are free to take risks to improve products and services or solutions.[1] Managers also feel hemmed in. In the Boston Consulting Group's long-running annual poll of senior managers, a "risk averse culture" and "overly lengthy development times" consistently rank as the biggest barriers to innovation.[2]

Bureaucracies are set up to produce maximally reliable products, not barely working prototypes. In a bureaucracy, deviations from standard practice are to be eliminated, not celebrated. Ask a bureaucrat to run an experiment, and his palms begin to sweat. An experiment is a risky bet on the unknown, a banana skin likely to land

you on your ass. What reward is there in running something that is more likely to fail than succeed? Better collective paralysis than personal humiliation.

The allergy to risk is aggravated by investment screens that filter out high-risk projects—where high risk means anything that doesn't have a 90 percent probability of paying off. While that sort of prudence may make sense for a major capital project, it's idiotic for a scrappy experiment. The math is so simple as to be embarrassing. The downside risk of a $100 million project with a 10 percent chance of failure is $10 million. The risk of a $5,000 experiment with a 90 percent chance of failing is $4,500. Yet despite the trivial sums involved, we haven't come across many organizations where you could get funding for an experiment with a one-in-ten odds of success. It's crazy that in most organizations, a CEO has an easier time getting a multimillion-dollar project through the board than a frontline operator has in getting a few thousand bucks to run an experiment.

Perversely, the desire to avoid risk often magnifies it. Dumping money into big me-too projects with modest upside is a lot more perilous than seeding lots of early-stage ideas that are further out on the fringe. In the age of upheaval, incrementalism is the riskiest bet of all. What's needed is a radical shift in how we think about experimentation. The goal isn't simply to reduce the uncertainty around new products or get them to market faster, but to build an organization where everyone is working to extend the boundaries of what's possible. That's how an organization buys insurance against irrelevance.

An Evolutionary Advantage

In 1956, British-born cybernetics pioneer Ross Ashby formulated the "law of requisite variety," an axiom that would become one of the seminal ideas in systems theory. The law states that for a system to remain viable, it must be capable of generating a range of responses as diverse as the challenges posed by its environment. As Ashby put it, "Only variety can absorb variety." Restated in our terms, only a relentless pace of experimentation can protect an organization from a relentless pace of change.

Every autumn, an oak tree drops thousands of acorns, but only a handful ultimately germinate. In sexual reproduction, millions of sperm will fail to find the egg. Innovation is similarly a numbers game.

A venture capital firm will review thousands of business plans and interview hundreds of would-be entrepreneurs before investing in a handful of startups. Even then, most of the newbies will go bust. A study of 1,098 startups that got their first round of funding between 2008 and 2010 revealed that 70 percent had gone out of business or were barely self-sustaining by 2017. Only one business in twenty had been acquired or gone public with a valuation of $100 million or more, and just five businesses, or less than half of a percent, had achieved a valuation of more than a $1 billion.[3]

Venture capitalists understand that you have to kiss a lot of frogs to find your prince or princess. While most of their bets will return nothing, occasionally they'll stumble upon the next Square or Airbnb. Thus, while the modal return in a venture fund is likely to be zero, the average return can be hugely positive. Yet in our experience, few companies appreciate the distinction between project risk and

portfolio risk. Each potential experiment gets evaluated on its own merits and is expected to clear a high bar of feasibility. That pretty much ensures the company will never invest in the sort of crazy-ass idea that might actually deliver a thousand-fold return.

Learning to be OK with failure is a problem not just for bureaucrats, but for individual team members. It's dispiriting when an idea doesn't pan out, but here, too, you have to take a portfolio approach. Consider the experience of Matt Diffee, a cartoonist whose work often appears in the *New Yorker*. Each week, the magazine's cartoon editor receives around a thousand submissions from freelancers like Diffee, each of whom is allowed to submit up to ten sketches. To improve the odds of getting selected, Diffee typically generates 150 concepts before choosing a handful to submit. The secret to success, as any creative pro will tell you, is to be prolific.

The most important freedom an organization can grant its employees is the freedom to fail. You may remember our story of a frontline team member in Nucor's Blytheville plant who spent several years experimenting with new materials for a giant ladle and eventually achieved a 2X improvement in cost and durability. His experiments occasionally led to dead ends, yet thanks to a culture that honors the power of learning by experimenting, he persevered.

The Ethos of Experimentation

Few organizations have embraced experimentation as wholeheartedly as Amazon, arguably the world's most innovative company. Amazon's breakthroughs include Amazon Marketplace, the company's platform for third-party sellers; Kindle, the world's most popular e-reader; Amazon Web Services, the runaway leader in cloud

computing; Alexa, Amazon's voice assistant; and Amazon Go, an experimental grocery store free of checkout lines. Behind these headline-grabbing innovations are hundreds of less-noticed breakthroughs—like "frustration-free packaging," an initiative designed to reduce excess packaging that has thus far eliminated 215,000 tons of packaging and saved 360 million shipping boxes.

Amazon's relentless growth isn't the product of a few brilliantly conceived top-down initiatives, but of a culture that encourages relentless bottom-up experimentation. "Our success," says Jeff Bezos, "is a function of how many experiments we do per year, per month, per week, per day."[4] Bezos also frequently reminds his colleagues that if you know in advance something is going to work, it's not an experiment.

One of Amazon's most notable experiments was employee Greg Linden's early attempt at building an e-commerce recommendation engine. Not long after joining the company in 1997, Linden wondered whether it might be possible to entice customers into making the sort of impulse buys that supermarkets encourage when they locate candy and other small items near checkout counters. Linden reckoned Amazon could use its vast trove of data to offer every customer an assortment of items uniquely tailored to their preferences. Soon Linden had mocked up a page that included a cluster of customized recommendations. Linden's colleagues were generally enthusiastic about the idea, but an influential vice president objected. Worried that the proposed feature would complicate the checkout process, he ordered Linden to shelve the plan. Usually the story would end there, but Linden knew decision making at Amazon was more about data than opinions, so he pressed on. When the test

launched, the results were immediately positive. Customers loved the personalized suggestions, and the revenue bump was substantial. Today, roughly 35 percent of Amazon's retail sales are generated by site recommendations. Linden's breakthrough earned him the company's revered "Just Do It" award—a used Nike sneaker presented by Bezos.

The experience taught Linden a critical lesson. As he would later write, "Everyone must be able to experiment, learn, and iterate. Position, obedience, and tradition should hold no power. For innovation to flourish, measurement must rule."[5] Can you imagine your CEO endorsing this proposition? If not, there's little chance your organization will win the race to the future.

Experimentation requires patience, a virtue conspicuously absent in most bureaucracies. The culprit is often a lack of ambition. Absent a noble aspiration, projects teams may be tempted to give up when early experiments fail to produce a breakthrough. It took Apple four years and countless experiments to perfect the technology behind the iPhone's touch-sensitive screen. Apple's engineers persevered because they saw an opportunity to redefine the way human beings interact with technology. Similarly, Alphabet subsidiary Waymo has been sustained in its ten-year quest to develop autonomous vehicles by the promise of safer, more efficient transportation. The point: when you believe you're on an epic quest, failed experiments don't crush your spirit.

Intuit: Creating a Culture of Experimentation

Perhaps no company has worked harder to create a culture of experimentation than Intuit, the financial software provider that serves 50 million customers around the world. Launched in 1983, Intuit's first product was Quicken, a small business accounting program that was packaged on 5.25-inch floppy disks. Today, Intuit offers a suite of cloud-based products covering tax preparation (TurboTax and ProConnect), bookkeeping (QuickBooks), and mobile money management (via the Mint app). It also makes money by marketing third-party financial products to its ever-expanding user base. Over the last ten years, Intuit's sales doubled to $7 billion, and its share price grew nearly twice as fast as the S&P 500 software index.

Intuit's commitment to experimentation is a legacy of its founder, Scott Cook. Before starting Inuit, Cook had worked at Procter & Gamble. Frustrated by what he perceived to be a risk-phobic culture, Cook reckoned that starting his own company would be a liberating experience.

Yet as Intuit grew, Cook realized his company was equally vulnerable to bureaucratic torpor. Intuit had hired dozens of managers with razor-sharp analytic skills, but few were inclined to stick their necks out. Every management opinion was backed up by a fifty-page slide deck. In the midst of yet one more mind-numbing planning session, Cook snapped. There would be no more "decision by bureaucracy," he declared. "No more decision by PowerPoint, persuasion, position, [or] power." Henceforth it would be "decision by experiment."[6] Cook told his colleagues to get out in the field, unearth unmet needs, develop hypotheses about how to meet them, build prototypes, and then test them with real customers. By the way,

Cook added, from now on everyone in the company would be expected to operate this way.

THE BIRTH OF SNAPTAX. Most team members, like Carol Howe, a product manager at TurboTax, were energized by Intuit's newfound enthusiasm for experimentation. Having been impressed by the way the iPhone simplified a myriad of tasks, Howe wondered whether a smartphone could simplify tax preparation—an experience that's about as frictionless as rug burn. What if customers could use their smartphones to help prepare their tax forms? Soon Howe and a few colleagues were out talking to customers. What did they think of Intuit's current PC-based tools? How were they using their smartphones? Could they imagine doing their taxes on a mobile device? Young customers, in particular, were excited by the idea.

The next step was to put together a storyboard that diagrammed how the app would work. Armed with this low-fi prototype, Howe and her team fanned out to gather more feedback. Six weeks later, they had their first rough-built app. The next two months entailed weekly sprints of test, review, brainstorm, code, and test again. The original idea had been for customers to transfer data from their smartphone to a computer before submitting their tax forms online. Howe recalls that as the team "tested more and more, our eyes were opened. The customers were asking 'why do I have to go back to my computer?' "[7] In early 2010, less than six months after the project kicked off, Intuit launched SnapTax for taxpayers in California. A year later, the app was launched nationally. Within the first few weeks, SnapTax was downloaded over 350,000 times and surpassed Angry Birds as the number-one app in the iTunes store.[8]

SnapTax was a quick win for Intuit. In other cases, the experimental campaign took longer. For years, Intuit had dreamed about capturing a slice of the professional tax preparation business. In

April 2012, Brian Croft, a midlevel product manager, pitched the idea for an online platform that would connect Intuit customers with independent tax preparers. Having received a green light, Croft's small team created a short video to bring their idea to life. When the clip was shown to 250 prospective customers, a third expressed interest in the service. Confident they were on the right path, the team built a beta version, christened "PersonalPro," and set out to test it with a small group of tax preparers and customers. Results were promising, and a bigger trial, involving two hundred accountants and two thousand customers, was launched in early 2013.[9]

By early 2014, after several more rounds of development, the product concept was ready for a more serious test. The rollout, confined to the Dallas metro area, threw up two surprising results. First, nearly a third of the customers who signed up were small business owners; they were also the group most satisfied with the new service. Second, in a number of cases, consumers said they preferred to get real-time advice on their own filing rather than outsource the entire task to an accountant.[10] In response, Intuit split PersonalPro into two offerings. The first was positioned as a matchmaking platform for small businesses and accountants. The second, TurboTax Live, provided real-time advice for consumers preparing their own taxes. Both services feature prominently in Intuit's current offerings and support the company's broader strategy of creating an ecosystem that connects customers and partners.

Making Experimentation Mainstream

Like Iverson at Nucor and Zhang at Haier, Cook's ultimate goal was to infuse his company with entrepreneurial zeal. "Each and every

employee," he said, "is expected to think like an entrepreneur, and it's everyone's job to create, to invent, and to look for new and better ways to improve our customers' lives." Such exhortations, Cook knew, wouldn't change much. To back up the rhetoric, he challenged his colleagues to create a "series of systems and a culture" that would "make it easy and fast and cheap for [everyone] to run an experiment."[11] Cook argued that initiatives like SnapTax and TurboTax Live should be the norm, not the exception. The entire company needed to be a laboratory.

Cook's challenge inspired a multiyear effort to make experimentation a companywide capability. Today, Intuit nurtures experimentation in five key ways.

EXPERIMENTAL TEAMS. INTUIT ASSEMBLES SMALL "DISCOVERY TEAMS," LIKE THE ONES BEHIND SNAPTAX AND PERSONALPRO, AROUND PROMISING IDEAS. A TYPICAL TEAM INCLUDES INDIVIDUALS DRAWN FROM ENGINEERING, PRODUCT MANAGEMENT, AND DESIGN—WHAT COOK CALLS "A HACKER, A HUSTLER, AND A DREAMER."[12] ONCE CONSTITUTED, THESE TEAMS OPERATE OUTSIDE THE CHAIN OF COMMAND AND ENJOY A HIGH LEVEL OF AUTONOMY. TO ENSURE THEY DON'T GET BOGGED DOWN IN BUREAUCRACY, TEAMS ARE MATCHED UP WITH EXECUTIVE SPONSORS. THE SNAPTAX TEAM, FOR EXAMPLE, WAS MENTORED BY THE VP OF PRODUCT MANAGEMENT FOR TURBOTAX, INTUIT'S VP OF ENGINEERING, AND SCOTT COOK. SPONSORS MEET WITH TEAMS ONCE A WEEK TO PROVIDE COACHING, REMOVE BOTTLENECKS, AND HELP SECURE RESOURCES. FURTHER SUPPORT COMES FROM INTUIT'S INNOVATION CATALYSTS—A GROUP OF TWO HUNDRED EXPERIMENTATION "BLACK

BELTS" WHO DEDICATE 10 PERCENT OF THEIR TIME HELPING COLLEAGUES IDENTIFY CUSTOMER NEEDS, DESIGN EXPERIMENTS, AND BUILD PROTOTYPES.

INNOVATION TRAINING. DESIGNING EXPERIMENTS TAKES SKILL, AND AT INTUIT, EVERY EMPLOYEE GETS THE CHANCE TO BECOME A PRO. THE COMPANY'S INNOVATION CURRICULUM, DESIGN FOR DELIGHT (D4D), IS A WEEKLONG COURSE THAT BUILDS SKILLS IN THREE AREAS: CUSTOMER EMPATHY, IDEA DEVELOPMENT, AND RAPID PROTOTYPING. NEW HIRES ARE EXPECTED TO COMPLETE THE COURSE WITHIN THEIR FIRST THREE MONTHS. FURTHER TRAINING IS OFFERED VIA "LEAN STARTIN," A WEEKLONG WORKSHOP WHERE A TEAM USES THE D4D METHODOLOGY TO ADDRESS CUSTOMER PAIN POINTS. OVER THE COURSE OF FIVE DAYS, THE GROUP DEVELOPS THREE TO FOUR PROTOTYPES AND RUNS MULTIPLE TESTS.[13] MORE THAN TWO THOUSAND EMPLOYEES HAVE PARTICIPATED IN A LEAN STARTIN SINCE THE PROGRAM'S LAUNCH IN 2012.

TIME FOR EXPERIMENTATION. INTUIT ALSO SUPPORTS EXPERIMENTATION WITH "UNSTRUCTURED TIME." ALL ASSOCIATES ARE ENCOURAGED TO SPEND 10 PERCENT OF THEIR TIME WORKING ON A PASSION PROJECT. EMPLOYEES CAN CONSOLIDATE THIS TIME INTO BLOCKS AND ARE ENCOURAGED TO SYNC UP WITH COLLEAGUES TO TACKLE CHUNKY PROBLEMS. IN A TYPICAL EXAMPLE, THE TEAM RESPONSIBLE FOR QUICKBOOKS SAVED UP ITS UNSTRUCTURED TIME OVER SEVERAL MONTHS SO IT COULD DEVOTE A FULL WEEK TO BRAINSTORMING NEW PRODUCT FEATURES. DURING THE WEEK, THE TEAM CREATED A PROTOTYPE FOR A MOBILE VERSION OF ITS

SIGNATURE PRODUCT.[14] JEFF ZIAS, AN INNOVATION LEADER AT INTUIT, RECKONS THAT OVER THE LAST DECADE, UNSTRUCTURED TIME SPAWNED FIVE HUNDRED DISCRETE PROJECTS THAT EVENTUALLY SHIPPED PRODUCTS OR SERVICES TO INTERNAL AND EXTERNAL CUSTOMERS.

DEDICATED FUNDING. INNOVATORS AT INTUIT HAVE MULTIPLE SOURCES OF EXPERIMENTAL CAPITAL. EACH DEPARTMENT HAS AN EXPERIMENTATION BUDGET FOR UPGRADING CURRENT PRODUCTS. WOULD-BE EXPERIMENTERS CAN ALSO COMPETE FOR FUNDS IN PERIODIC INNOVATION CHALLENGES AND HACKATHONS. FINALLY, INNOVATORS CAN SEEK SUPPORT FROM THE CEO FUND, A DISCRETIONARY POOL COOK ESTABLISHED TO ENSURE THAT OUTLIER IDEAS DON'T GET STARVED OF RESOURCES. INVESTMENTS ARE TYPICALLY SMALL—TENS OF THOUSANDS OF DOLLARS OVER TWO TO THREE MONTHS—BUT CAN RANGE HIGHER WHEN AN IDEA NEEDS LONGER INCUBATION. PERSONALPRO, FOR EXAMPLE, RECEIVED SEVERAL MILLION DOLLARS OVER THREE YEARS.[15] EXISTING BUSINESSES ARE EXPECTED TO MATCH THE CEO FUND FOR IDEAS THAT WILL BENEFIT THEIR CUSTOMERS.

ENABLING FUNCTIONS. SUPPORT FUNCTIONS ARE RESPONSIBLE FOR ENABLING EXPERIMENTATION. IN 2012, INTUIT'S IT DEPARTMENT CUT THE TIME IT TOOK TO SET UP AN ONLINE TEST FROM TWO MONTHS TO TWO HOURS. THE FOLLOWING YEAR, THE LEGAL DEPARTMENT PUBLISHED GUIDELINES ON HOW TO RUN AN EXPERIMENT WITHOUT THE NEED FOR A LEGAL SIGN-OFF. STAFF FUNCTIONS ARE ALSO EXPECTED TO EXPERIMENT WITH THEIR OWN SERVICES. A FEW YEARS AGO, AN HR PROJECT

MANAGER PROTOTYPED A PROGRAM THAT PUT JOB APPLICANTS INTO A LIVE INTUIT PROJECT BEFORE THE FINAL HIRING DECISION. THE RESULTS WERE SO IMPRESSIVE THAT THIS IS NOW A KEY PART OF INTUIT'S RECRUITMENT PROCESS.[16]

Experimentation isn't just for e-commerce giants and software companies. Toyota's employees contribute more than a million improvement suggestions each year. Most of these suggestions are more than mere ideas; they're reports on experiments that have already produced results. We estimate the economic impact to be hundreds of millions of dollars a year in increased productivity.

Amazon, Intuit, and Toyota show what's possible when you view the entire organization as a lab. From top to bottom, the ethos is "show, don't tell." Build a Styrofoam model, sketch something on a napkin, lay out a storyboard, shoot a video. These companies know that the simple act of translating a concept into a thing often reveals hidden flaws and opportunities to make the idea better. In a humanocracy, everyone needs to be a maker, to roll up their sleeves, get their hands dirty, and build something.

While the sheer profligacy of experimentation—look at all those wasted acorns!—may irk the bureaucratic mind, it's the only way to get to the future first.

Getting Started

If you're ready to turn *your* organization into an exploratorium, here's an initial to-do list.

1. Build a shared commitment to increasing the number of experiments your organization runs each year by ten-fold or one-hundred-fold. Set provisional targets for the number of experiments that should be run by every team, department, and business unit. A goal of one experiment per employee per year is a good place to start.

2. Equip everyone with the skills they need to design and run their own experiments. There's plenty of courseware out there on design thinking and rapid prototyping that you can share with colleagues.

3. Encourage people to build experiments rather than craft elaborate plans, and make this a prerequisite for getting seed money. If someone doesn't care enough about an idea to build something, don't invest.

4. Remove barriers that make it hard for team members to fund and launch experiments. Starting with your own team, create a small budget for experimentation. Encourage those who work for you to set aside a few hours each a week for unstructured time.

5. Require all staff groups to report monthly on how they're supporting local experiments and what they're doing to make it easier for frontline teams to try new things.

6. De-risk the personal consequences of experiments gone wrong. Remind people that most experiments will fail. Make sure team members get credit for launching experiments, whatever the outcome.

7. Hold every leader at every level responsible for mentoring experiments. Ask employees to rate their managers on the extent to which they create a conducive environment for risk taking and experimentation.

Nature is eternally restless. It doesn't sit still, it doesn't wait for a catastrophe, it doesn't ask permission, it doesn't plan—it just tries stuff. The same needs to be true of your organization. That means letting people be as experimental at work as they are in the rest of their lives. In the words of the great management thinker, Elvis Presley, it's time for "a little less conversation and a little more action." So just go *try* something.

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The Power of Paradox

Wouldn't it be great if life were simple? If there were never any trade-offs? If you never had to choose? If you could have your cake and eat it too? Wouldn't that make everything easier? Perhaps, but it would also make life intolerably boring. Honestly, do you really want to be relieved from the need to exercise your mind? Sure, there are times when we wish the alternatives weren't so stark, or that we had more data, but most of us are probably not eager for a world in which every decision is so easily described and modeled that the work of choice making can be delegated to an algorithm. Conundrums are what make life interesting.

The Inescapability of Paradox

Some trade-offs are simple: Do I go out for a run and clear my head, or grit down and finish the task at hand? Many such trade-offs are the product of limited time. There's only so much you can do in a day.

The toughest trade-offs involve goals that are, or seem to be, contradictory. Do I protect my teenager from a poor decision she's made (compassion), or do I let her suffer the consequences (accountability)? Do I invest conservatively to protect my nest egg (financial security), or do I take bigger risks in hopes of having a cushier retirement (financial gain)? Do I spend the weekend helping a friend move (loving others), or do I go to the mountains to recharge my emotional batteries (self-care)? These decisions, like most of the important ones we face, involve a paradox.

As human beings, thinking is what we do—it's our party trick—but nothing challenges us to think harder than a paradox. As we're using the word here, a paradox involves not merely a choice, but one where the alternatives are both mutually desirable and mutually exclusive. In some cases, the alternatives will reflect deep but apparently irreconcilable truths. Our brains get pulled and stretched when they're confronted with important choices that embody seemingly conflicting ideals. In a world without paradox, there'd be little hard thinking to do and scant opportunity to become more discerning. It wouldn't matter if we had free will or not, since the stakes would be so low. Søren Kierkegaard, the Danish philosopher, had it right when he argued that paradox is "the pathos of intellectual life." Lucky for us, paradox seems to be baked into the universe. Let's consider a few examples.

Certainty versus Uncertainty

Science is the search for regularities in nature. The laws of physics and chemistry allow us to make highly accurate predictions of physical phenomena. Until the early twentieth century, many

scientists believed that if it were possible to precisely specify the state of the universe at a point in time, you'd be able to predict all future states. Today, most physicists believe this to be untrue. While we can make predictions about certain things with a high degree of reliability —planetary orbits and the behavior of fluids when heated, for example—this predictability breaks down at the subatomic level.

Quantum particles, the smallest structures known to science, can exist in multiple states simultaneously—a phenomenon known as "superposition." A particle assumes a specific state only once observed. The problem is, it's impossible to know in advance what that state will be. That doesn't mean one can't predict a range of outcomes for a quantum particle, but it does mean there's an inherent limit to our capacity to predict the behavior of physical systems. The discovery of this apparent randomness was so unsettling that even Albert Einstein struggled with its implications. "God," he famously quipped, "doesn't play dice with the universe." Maybe not, but it's unarguable that our universe is both highly predictable, and not.

Left versus Right

There's a reason political parties tend to array themselves on a left-right spectrum. Left and right are shorthand for starkly different assumptions about the nature of human beings, the role of the state, and the merits of change. Conservatism, said British philosopher Roger Scruton, "is about conserving things: not everything of course, but the good things that we admire and cherish, and which, if we don't look after them, we might lose."[1] Conservatives are wary of abrupt change and its unintended consequences. Progressives, by contrast, believe social progress must be energetically pursued.

"Good enough" never is, so the grand project of bettering society must be pushed ever forward. Table 13-1 summarizes some of the key differences in how conservatives and progressives see the world.

TABLE 13-1

Left versus right

Progressive worldview	Conservative worldview
Traditions and institutions perpetuate existing power structures that are often barriers to social justice	Rejecting the hard-won knowledge that's embedded in our institutions and traditions opens the door to social chaos
The state is the ultimate guarantor of individual rights, and its power can be used to improve the human condition	The state is the greatest threat to human freedom, and its power must be tightly circumscribed
Whether individuals flourish or not is primarily a matter of the opportunities afforded them by society	Whether individuals flourish or not is primarily a matter of their character and their choices

Given the reality of prejudice, poverty, and other social ills, reformist policies can do much to reduce systemic inequality	Given innate differences in human abilities and preferences, no policy can be expected to produce equality of outcomes
The vast challenges we face in creating a more just society requires us to be bold in our approach to change	Human imperfections and the law of unintended consequences mean we should be wary of bold change programs

Both conservatives and progressives have their blind spots. A conservative is likely to claim that personal success is the product of hard work, while ignoring the role of gender, race, and class. By contrast, a progressive is likely to blame individual hardships on a rigged system, while downplaying the importance of self-discipline and tenacity. Each viewpoint, unalloyed, is dangerous. Conservatism without progressivism idolizes the past. Progressivism without conservatism vandalizes the past. Speaking of right and left, Ralph Waldo Emerson aptly said, "Each is a good half but an impossible whole."[2]

Mercy versus Justice

Many faith systems are paradoxical at their core. Read the Old Testament and you'll find wildly conflicting accounts of God's character. Psalm 7:11 states that "God is a righteous judge, a God

who expresses his wrath every day." Yikes! Luckily, the Almighty has a softer side. Further on, the psalmist declares that "[t]he Lord is plentiful and gracious, slow to anger and plenteous in his mercy" (Psalm 103:8). Whew! But wait, is God bipolar? Theologians will tell you no. God's character simply reflects the inherent paradox between mercy and justice.

When we transgress, we plead for mercy—"Sorry I was speeding, officer, but I'm late to pick up my daughter." When others commit an offense we demand justice—"Look at the way that idiot is driving. I wish a cop would pull him over." Though we want the scales tipped in our favor, we recognize that mercy and justice are both indispensable.

Most of us wouldn't want to live in a society where every infraction was immediately punished, where there was no forgiveness and no do-overs. That would be life under the Taliban. And if we're honest, we'd also be unhappy with an excess of grace. Imagine a world in which no one was held accountable for their actions, where there were no legal or moral boundaries and where malefactors could get away with just about anything. That's Las Vegas, and after about three days it just seems tacky.

Every toddler has firsthand experience with mercy and justice. "I know my mom loves me," thinks a four-year-old, "but when I throw my toys, she gets all mean and growly. Next thing you know, I'm sitting toyless in a hard-backed chair. She calls it a 'time-out'; I call it a waste of time. Strange thing, though, after ten minutes, she comes back and gives me a hug and everything's chill. Confusing as hell, if you ask me, but I guess that's the paradox of love and discipline." Indeed it is, munchkin. Charles Simeon, the nineteenth-century cleric

and fellow at King's College, Cambridge, put it well when he said of mercy and justice: "Truth is not in the middle and not in one extreme; it is in both extremes."[3] G. K. Chesterton, the English essayist, expressed a similar idea when he defined paradox as "two opposite cords of truth [that have] become entangled in an inextricable knot."[4]

A paradox is vexing. It's not easy to hold two opposing views in your head. But when we struggle with paradox, we are facing the world as it is, filled with complexity and ambiguity. Individuals who resist either/or thinking and deal constructively with paradox are at an advantage. Their responses are nuanced and sophisticated, and represent a better fit with the reality of the world around them.

Scientists who embrace the conflict between opposing theoretical frameworks have the chance to discover new and deeper truths. Jurists (and parents) that navigate adroitly between mercy and justice are more humane and effective. Political systems that resist ideological fractures are better at crafting effective policies. Mastering paradox is equally vital for our organizations.

Unsubtle

What are the competing priorities in your organization? Perhaps it's scale versus flexibility, discipline versus creativity, diligence versus speed, or prudence versus risk taking. Each of these trade-offs reflects a deeper paradox, the tension between *exploit* and *explore*. Decades ago, James March, the organizational theorist and Noble Prize winner, argued that the most basic problem for any organization was to "engage in sufficient exploitation to ensure its current viability and, at the same time, devote enough energy to exploration to ensure its future viability."[5]

The evidence suggests that few organizations get this right. As we noted in earlier chapters, incumbents seldom invent the future. As a rule, they're not the ones that create new business models or redefine customer expectations. They're not the first to exploit new technologies or harness emerging trends. Instead, they reap efficiencies by doing the same things over and over again.

Consider big pharma. In 2018, the world's ten largest drug companies spent more than $76 billion on R&D—42 percent of the global total.[6] Yet of the fifty-nine drugs that were approved that year, only 15 percent originated in the labs of the top-ten pharma giants.[7] Pint-sized innovators with less than $1 billion in sales accounted for 63 percent of all new drug approvals.

Pedro Cuatrecasas, an industry veteran who brought more than forty medicines to market, blames bureaucracy for big pharma's malaise:

> [Drug companies felt] confident that they could manage and mandate results with discipline, order, formality, and efficiency. Unfortunately, many of these qualities are ones that suffocate creativity and innovation. Freedom, spontaneity, flexibility, nimbleness, tolerance, compassion, humor, and diversity were replaced by bulky and inflexible organizational structures characterized by regimentation, control, conformity, and excessive bureaucracy.[8]

Innovation is the lifeblood of every organization, and nowhere is that more true than in the drug industry. Yet even here the defenders of innovation are often overrun by the massed forces of centralizing, compliance-obsessed administrators.
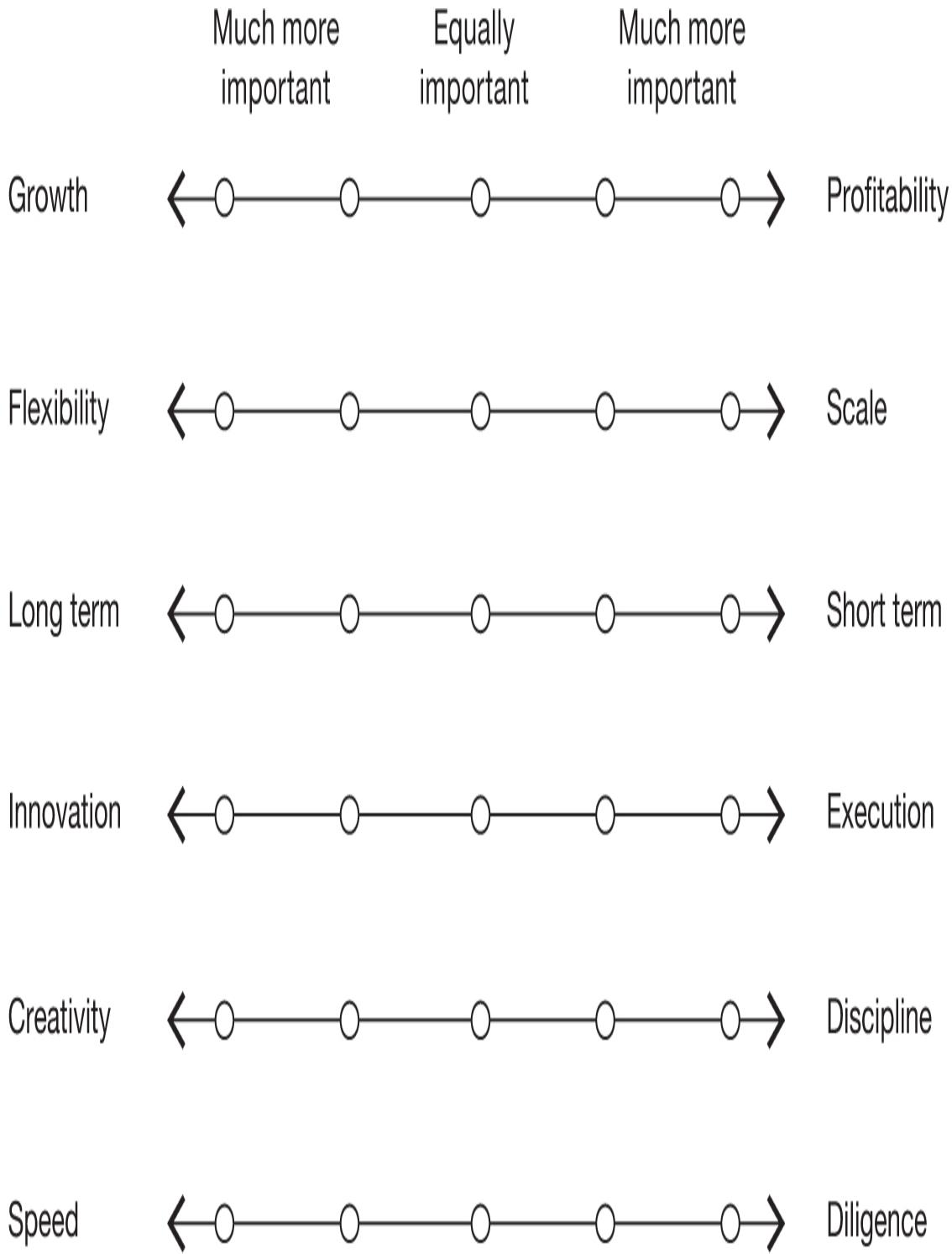
In most organizations, what should be an evenly matched contest between *exploit* and *explore* is a one-sided thrashing. Consider your own organization. Where does it come down on the trade-offs shown in figure 13-1? What do leaders regard as essential versus optional? What gets top management's attention and what gets ignored?
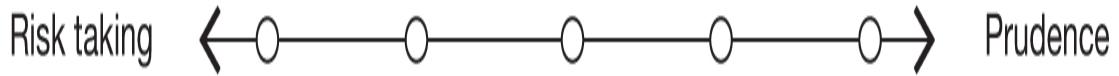
It's not that bureaucrats are oblivious to these trade-offs; it's just that they systematically favor those on the right. That's partly a matter of temperament. Large organizations are filled with accountants, lawyers, and professional managers. By inclination and training, they tend to value stability and security over dynamism and daring. This frame of mind is reinforced by heavyweight processes—goal setting, budgeting, project management, performance measurement, and promotion—that favor constancy over change.

FIGURE 13-1

Explore versus exploit

How would you rate the relative importance of these priorities in your organization?

	Much more important	Equally important	Much more important	
Growth				Profitability
Flexibility				Scale
Long term				Short term
Innovation				Execution
Creativity				Discipline
Speed				Diligence

Risk taking ⟵○————○————○————○————○⟶ Prudence

Information asymmetries further skew the trade-offs. Corporate information systems collect masses of data on operational efficiency, but typically fail to capture the cost of untapped creativity, squandered initiative, forgone opportunities, strategic inertia, and an exaggerated fear of failure. You can't be smart about a trade-off if your data gives you only half the picture.

There's a final threat to subtlety: bureaucrats abhor ambiguity. Their sense of order is offended by the idea that not every trade-off can be resolved once and for all. Uniformity is a virtue. Never mind that any universally applied policy will be wrong a significant percentage of the time—as when an across-the-board hiring freeze unfairly punishes a small but fast-growing unit, or a zealously enforced policy inconveniences a high-value customer. The alternative would be to grant those on the frontlines the freedom to optimize trade-offs locally, as circumstances dictate. To a bureaucrat, this is anathema, since it erodes "order." How can you manage a large organization if people on the ground are free to do their own damn thing? We need to know what's going on, and that's possible only when everyone's following the same script. This, as much as anything, explains why senior leaders favor uniform structures and uniformly applied policies—yes, they may be suboptimal, but they reduce the cognitive load on executive leaders. They make the world *seem* understandable to those at the top, and thereby help to preserve the illusion of control.

The bureaucratic aversion to ambiguity leads to black-and-white thinking—it's either centralization or decentralization, autonomy or compliance, size or agility. Admittedly, some trade-offs are zero-sum. A dollar used to buy back shares can't be spent on R&D. But not every trade-off is indissoluble. Fifty years ago, manufacturing executives believed cost and quality were mutually exclusive. You could buy a meticulously crafted Mercedes-Benz that would run for two hundred thousand miles, or a bucket of bolts—a Yugo, maybe— that would spend a good deal of its life in the shop. Then, in the 1970s, Japanese carmakers shocked their competitors by reimagining this trade-off. They reckoned that by taking a systematic approach to improving quality—through statistical process control, extensive training, process redesign, improved teamwork, and ambitious quality goals—they could produce cars that were inexpensive to build *and* reliable. By transcending what had long been regarded as an either/or trade-off, Japanese carmakers gained a competitive advantage that would last for a generation.

Ultimately, of course, one reaches a frontier. Quality improvements pay for themselves, but only up to a point. If you want car seats made of hand-matched hides, be prepared to pay a premium. Yet when it comes to *exploit* versus *explore*, many managers believe they've reached the frontier when it's still a continent away. They're at point A in figure 13-2 and assume it's impossible to get another unit of "explore" (moving up on the vertical axis) without giving up units of "exploit" (moving left on the horizontal axis). They can see how to get to point B, but can't imagine how to get to point C.

In many organizations, the search for higher-order trade-offs is frustrated by what is, in essence, religious zealotry. If you've grown

up in the church of "lean," you may reflexively discount the merits of other belief systems. You're convinced that rigor and regimentation are the surest routes to value creation. Conversely, if you've been sprinkled with water from the baptismal font of "design thinking," you believe that empathy and lateral thinking are the keys to success. These deeply held beliefs can turn debates about trade-offs into holy wars. The bean counters view the creative types as dangerously irrational, while the dreamers see the accountants as uninspired pedants. As long as each side is hunkered down in its ideological bunker, there's little opportunity to shift the frontier.

FIGURE 13-2

Reimagining the exploit/explore trade-off

Sooner or later, crude, one-sided trade-offs spark a counterreaction: "Oh my gosh, we haven't delivered any top-line growth in years. We need to rev up our innovation engine." Typically, a new CEO gets hired to reverse course, but then overshoots the target. The pendulum, long pegged at one extreme, gets pushed to the opposite pole.

Before moving on, let's recap:

- Bureaucracies are replication machines. They're designed for *exploit*, not *explore*.

- Bureaucracies tend to be monocultures. They're run by individuals temperamentally inclined to favor the status quo.

- Bureaucratic information systems fail to capture the hidden costs of one-sided trade-offs. As a result, many decisions are underinformed and, therefore, suboptimal.

- Bureaucracies tend to enforce uniform trade-offs across the entire organization. Though unsophisticated, this preserves the center's power and sense of order.

- The bureaucratic aversion to ambiguity leads to either/or thinking. Rather than maintaining a creative tension, organizations tend to whipsaw between counterposed priorities.

Fifty years ago, the penalties for clumsily managed trade-offs might have been tolerable, but no longer. Today, a business must be a paragon of penny-pinching efficiency on one hand and a champion of rule-busting innovation on the other. In a world of hypercompetition and hyperchange, the winners will be organizations that are capable of making subtle and perfectly timed trade-offs or, better yet, of radically redefining the frontier of *exploit* and *explore*.

How can you achieve this in practice? How do you avoid artless, top-down trade-offs? How do you escape the curse of either/or thinking?

Much of the answer can be found by digging into the experience of Svenska Handelsbanken—Europe's most consistently profitable bank.

Handelsbanken: Beyond Either/Or

For more than fifty years, Handelsbanken has handily outperformed its European peer group. It sailed through the 2008 financial crisis unscathed and, in the years since, has beat its rivals on virtually every performance metric. (See table 13-2.)

Over the decades, Handelsbanken has demonstrated an ability to master two of the most difficult trade-offs in banking. First, it has delivered strong growth without blowing up its balance sheet, and second, it's kept a tight lid on costs without depersonalizing customer service.

Growth in financial services has often come at the expense of prudence. In the run-up to the Great Recession, banks gorged themselves on subprime mortgages and made foolhardy bets on complex derivatives. Not Handelsbanken. A tortoise among hares, it avoided risky bets and still managed to outgrow its rivals. Though the epitome of prudence, the bank has handsomely rewarded its shareholders, delivering more than twice the returns of its peer group between 2009 and 2018.

TABLE 13-2

Handelsbanken financial performance versus European peers[a] (2009–2018)

	Cost-income ratio[b]	SG&A as percent of revenue	Annual revenue growth	Annual deposit growth	Nonperforming loans as a percent of total loans	Return on equity	Total return to shareholders
Svenska Handelsbanken	46.6	39.5	2.9	8.7	0.2	12.8	27.4

European peer group average[c]	63.3	67.8	−1.1	2.1	3.3	6.10	1.17
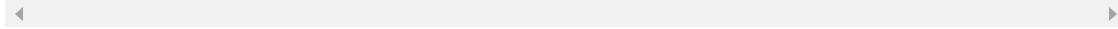
a. Includes major European banks with an emphasis on those competing in Svenska Handelsbanken's main markets (Scandinavia, UK, Netherlands): ABN Amro, BBVA, Barclays, Commerzbank, Danske Bank, Deutsche Bank, HSBC, ING, KBC, Lloyds, Nordea, SEB, Standard Chartered, Swedbank, Royal Bank of Scotland.

b. Operating expenses as a percentage of net interest revenues and noninterest revenues.

c. Simple, unweighted average.

Handelsbanken's customer service is equally stellar. In a survey of UK personal banking, Handelsbanken beat its peers on customer satisfaction by more than ten points (on a hundred-point scale).[9] If you're wondering whether this is the product of a gold-plated cost structure, it's not. Over the past decade, Handelsbanken's cost-income ratio (cost as a percentage of revenue) has averaged 46.6 percent, a whopping 17.7 points lower than the average of its European peers.

The key to Handelsbanken's unrivaled performance is its highly unorthodox organization model. In 1970, Jan Wallander, an economist working at a regional bank in northern Sweden, was appointed as Handelsbanken's CEO. At the time, the bank was losing money and was embroiled in a dispute with regulators. As Wallander analyzed the bank's underperformance, he became convinced that overcentralization was the culprit. The bank's bloated head office and rigid planning process made it unresponsive to shifts in economic conditions and customer needs. (At the time, loan approvals took two months to complete.) Moreover, senior bankers had made a spate of poor credit decisions that had imperiled the balance sheet.

Wallander would later write, "All companies suffer from powerful forces that pull in a centralizing direction. It is like water that easily and irresistibly trickles in unless you take special care to keep it out."[10] Though difficult to quantify, Wallander pressed his colleagues to be honest about the costs of overcentralization. "It is easy," he argued, "to construct attractive-looking mathematical arguments showing the advantages of large-scale operations, but it is more difficult to illustrate the disadvantages. They are symbolized by words like rigidity, slowness, bureaucracy, lack of transparency and so on. Vague, yet just as real in their effects."[11]

Wallander believed that senior executives lacked the context to make smart decisions—they were too far away from customers and market trends. Not surprisingly, the bank's head-office staffers disagreed. Unmoved by their objections, one of Wallander's first moves was to freeze the work of more than a hundred head-office committees and establish a moratorium on "blue memos," the bank's top-down policy directives that were being generated at the rate of ten

per day. With no work to do, head-office functions started to contract. The corporate marketing department, for example, shrank from forty employees to a single staffer. The line organization was also stripped back to three levels: headquarters, regional offices, and local branches. Wallander described these moves as "stopping the train."

As the center shriveled, Wallander localized critical trade-offs by increasing the autonomy of local branches. Employees across the bank received training in credit underwriting and business development. New information systems were developed to feed essential data to frontline staff. Branches were given the authority to make most credit decisions, to price loans and deposits, and to set marketing priorities (eventually they were also put in charge of staffing decisions). In another departure from standard practice, branches were given the responsibility for serving corporate clients based in their catchment area. Local managers could call on head-office teams for support, but the client relationship remained with the branch.

Every branch got a dashboard that provided read-outs on cost-income ratio, customer defections, profit per employee, loan performance, and per-customer profitability. The goal was to turn every branch into something close to a stand-alone business, a goal expressed in Wallander's oft-repeated mantra that "the branch is the bank." Where other banks saw branches as mere stores, charged with selling products and handling transactions, Handelsbanken saw branches as full-fledged businesses charged with building long-term relationships.

Wallander believed that value gets created at the geographical "edges" of the organization. Since local employees have the best

information and are closest to customers, they are best placed to make the nuanced, real-time trade-offs that can help an organization reconcile the irreconcilable.

To see the power of the edge in action, consider the bank's approach to the trade-off between growth and risk. Between 2009 and 2018, Handelsbanken's loan portfolio grew faster than nearly all of its European rivals, yet this growth didn't come at the expense of lending standards. Handelsbanken's ratio of nonperforming loans is the lowest in the industry. (See figure 13-3.) How does Handelsbanken pull off this trick?

FIGURE 13-3

Loan growth and share of nonperforming loans for Svenska Handelsbanken and select European banks (2009–2018)

Source: CapitalIQ; authors' analysis.

The secret is localization. All lending at Handelsbanken—whether it's a $30,000 loan for a customer's Volvo XC40 or a $300 million revolving credit line for the Volvo Group—originates with branch employees, half of whom have the authority to make loans. Every loan applicant is interviewed before a decision is made. In the case of a large loan, or a new customer, there may be several face-to-face meetings. While credit-scoring algorithms inform these decisions, they aren't a substitute for judgment. For example, a mortgage applicant with an erratic employment history may look like an unattractive prospect until a bit of probing reveals that a wealthy uncle may be willing to cosign the loan. Another applicant may have a well-paying job, but be employed at a business that's struggling to

stay afloat. By capturing and integrating nonstandard information into the lending process, Handelsbanken makes smarter credit decisions than its more centralized competitors.

Localization also helps the bank anticipate defaults. Once a loan has been made, branch employees meet periodically with the borrower and will take action if there's a risk of a default. Handelsbanken chairman Pär Boman reckons that 70 percent of write-offs stem from "insufficient intervention after a borrower's creditworthiness had started to deteriorate."[12] Local monitoring increases the odds that potential defaults are spotted early and avoided or abated.

Finally, decentralization reduces systemic risk. In a typical bank, credit decisions are made by a comparatively small number of risk managers whose decisions are bound by lending rules based on credit scores, loan-to-value limits, and other factors. Centralized credit decisions also get skewed by corporate priorities, like gaining market share with small business borrowers or reducing exposure to a particular industry. This centralized, rule-driven approach tends to concentrate rather than diversify risk.

As *Black Swan* author Nassim Taleb and professor Gregory Treverton have observed: "Although centralization reduces deviations from the norm, making things appear to run more smoothly, it magnifies the consequences of those deviations that do occur. It concentrates turmoil in fewer but more severe episodes, which are disproportionately more harmful than cumulative small variations."[13] By decentralizing credit decisions and resisting the urge to set top-down priorities, Handelsbanken has inoculated itself against the risk of big, dumb mistakes.

Localization is also the key to building robust customer relationships. If you do business with a big bank, you know how impersonal the experience can be. Often you find yourself on hold with a call center halfway around the world. It's different at Handelsbanken. Every customer gets the name and number of the branch manager and is assigned to a personal representative who works within the branch. Internal handoffs are minimized because everyone is empowered to solve customer problems. Branches do their own marketing and tailor the bank's digital platforms to local needs. To a customer, Handelsbanken feels like a local business where the owner knows your name and is delighted to see you.

In one typical case, the branch manager in Portsmouth, England, drove to Heathrow Airport to meet a customer heading off on a last minute business trip who needed to complete a mortgage application.[14] It's that sort of service that has earned Handelsbanken its peerless customer rating.

How can Handelsbanken deliver Ritz-Carlton service and still be cost competitive with its rivals? Look again at table 13-2. You'll notice that the bank's SG&A expenses (selling, general, and administrative costs) average less than 40 percent of revenue, versus an average of 67 percent for its rivals. This massive efficiency advantage gives Handelsbanken the ability to resolve the high-touch/low-cost paradox. When compared to its competitors, Handelsbanken underinvests in bureaucrats and overinvests in customer service. In so doing, it rejects the black-and-white thinking that is typical of other big banks. (See figure 13-4 for a stylized rendering of Handelsbanken's cost advantage.)

Freedom *and* Control

The most fundamental trade-off for Handelsbanken and every other organization is between freedom and control. This tension lies at the very heart of the explore-exploit dilemma. To build an adaptable, innovative, and inspiring organization, people need freedom to take risks, ignore policy, go outside of channels, pursue passions, and occasionally fail. Conversely, to build an organization that delivers Six Sigma quality and consistent returns, you need lots of rigor, alignment, and discipline. How could any organization be good at both? It's like trying to find a human being who could win Olympic medals in weightlifting *and* rhythmic gymnastics. Try to imagine that body type!

As impossible as it seems, there may be a way to square the circle. In our experience, many managers regard freedom and control as mutually exclusive. Expressed mathematically, they believe that freedom multiplied by control equals a constant—freedom can only go up if control goes down. Given that, any plea to enlarge the decision rights of first-level employees is likely to provoke a barrage of objections: "People will slack off." "Standards will slip." "People will abuse their freedom." "We'll lose focus." "Employees don't have the big picture." "Everyone will be reinventing the wheel."

This anxiety is understandable. In any organization, a degree of control is essential, and in the bureaucratic model, this is achieved through narrow rules, close supervision, tight spending limits, and little self-directed time. These measures protect the organization from all manner of ills, but at the cost of resilience, innovation, and initiative. Is this trade-off inescapable? Are there ways of securing control that avoid the costs of "bureausclerosis"? Thankfully, the answer is yes.

Let's go back to Handelsbanken, where frontline employees have an unprecedented degree of autonomy. Why doesn't all that freedom lead to irresponsible behavior? How can the bank be radically decentralized *and* operationally disciplined? The trick is to distinguish between the "what" and "how"—to separate ends and means. Innovation is often a matter of delivering familiar benefits in new ways—with the goal of overcoming historic trade-offs. There was a time, before the Kindle, when book lovers on the move faced a trade-off: endure the hassle of lugging around a load of books or run the risk of not having a favorite volume to hand. Just as Amazon reinvented the *how* of reading, Handelsbanken has reinvented the *how* of control.

No Excuses

Every Handelsbanken branch has its own P&L. On the revenue side, branches are credited with the net interest they generate from loans and the fees that come from selling mutual funds and other investment products.[15] Once made, a loan remains on the balance sheet of the originating branch until it matures. If a mortgage is in arrears, the branch is on the hook to make sure it gets back on track.

If a loan gets written off, the loss is recorded as an expense on the branch's P&L. The branches are accountable for all their direct operating costs—they set staffing levels, sign leases, decide on compensation, approve marketing budgets, and more. Centralized services like IT and HR are charged to local branches based on actual usage, and rates are negotiated every year by a committee of branch managers who drive a hard bargain with staff functions.

In other banks, branches are accountable for a ragbag of key performance indicators (KPIs)—top-down targets for customer acquisition, cross-selling, staff costs, and other performance parameters. There's an assumption, manifestly wrong, that this jumble of goals will maximize branch performance. As much as bureaucrats might wish it were otherwise, there's simply no way to construct a set of proxy goals that can adequately capture all the factors that drive profitability. Centrally defined targets, no matter how numerous, can never substitute for the wisdom of well-trained decision makers who are on the ground. Contrary to what is often assumed, highly prescriptive policies and top-down targets erode rather than encourage accountability. When frontline employees are bound by excessively strict policies and forced to manage to a set of artificial KPIs, they're able to delegate failure upward. "After all," they'll say, "we were only doing what you asked us to do." By contrast, when they're responsible for a genuine P&L, and have control over the variables that drive profitability, there's no one to blame when performance falls short.

The idea that autonomy and accountability are mutually exclusive is a fiction, based on the dubious assumption that employees are looking for an excuse to be irresponsible. That's not the assumption,

or the reality, at Handelsbanken. Here's one branch manager's take on the bank's culture of accountability:

> We actually take pride in getting things cheaper. So if we book a ticket, we take great pride in the fact that we've bought a cheap ticket. If every employee in Handelsbanken thinks like that, no wonder we've got the lowest cost-income ratio than any other bank because you're kind of making everybody responsible for their own costs. It's part of human nature that loves achieving that sort of thing. We all like it at home, don't we? I've got a bargain! And we love doing it for the organization. I think it's a very subtle, clever way of incentivizing people.[16]

Being autonomous doesn't mean being free from performance pressure. Every Handelsbanken branch is expected to win new customers and achieve a cost-income ratio of 40 percent or lower. In cases of persistent underperformance, branch managers get replaced. No one at the bank is free to snooze; they are, though, free to succeed.

Transparency

The pressure to succeed can come from within, or above, but often the most effective incentives come from one's peers. At Handelsbanken, autonomy is balanced by transparency. Monthly reports rank every branch on metrics like cost-income ratio, loan quality, total profit, and profit per employee. Former president Arne Mårtensson notes that "Radical decentralization can only work with fast and open information systems," so that problems "are not hidden

within the nooks and crannies of management layers and allowed to fester."[17]

Transparency also spurs friendly competition. "There's no doubt that we compete with our nearest branch," explained a UK branch manager. "In the back of your mind you're thinking, 'Well, I've got to beat them because we know them.' "[18]

At Handelsbanken, there's no place for mediocrity to hide. As Wallander once explained:

> We just communicate [an] average ranking that shows which branches are above and which are below. Senior executives don't need to push people, they just advise. Managers know what is acceptable performance—you can't linger in the depths of the league table for long! Peer pressure plays an important part in this process.[19]

Skin in the Game

People who have a significant stake in the business tend to do the right thing. You'll recall from chapter 7 that every Handelsbanken employee participates in a generous profit-sharing plan. A team member can build a seven-figure nest egg over the course of a career. This tends to keep people focused on doing the right thing.

Beyond the Iron Cage

For years, management theorists have told us that big companies are crap at making trade-offs—and that there's little we can do about it. The standard advice is to take a cleaver and split the organization in two. In *The Ambidextrous Organization*, respected academics Charles

O'Reilly and Michael Tushman argued that companies can be big and agile only if "they separate their new exploratory units from their traditional, exploitative ones, allowing for different processes, structures, and cultures." In other words, put the future-focused, risk-taking, fast-moving folks in an incubator or accelerator, and then wall them off from everyone who's working in the cost-obsessed, rule-shackled core. With all respect, this is a cop-out. Imagine telling parents who are struggling to balance love and discipline in child-rearing that they should put one of their kids in a permanent time-out, while lavishing the other with uncritical acceptance. That would be ridiculous. Both kids would end up in therapy.

We can do better than this. As we've seen in this chapter, there are three positive strategies for coping with paradox. First, like Wallander, we must be honest about the hidden costs of perpetually one-sided trade-offs. We need the equivalent of an echocardiogram that reveals the build-up of bureaucratic plaque in our organizations.

Second, we need to train and equip frontline employees to make smart, real-time trade-offs. This is key to the performance advantage of all of the vanguard companies. They recognize that no amount of big data can capture the local, context-specific knowledge that can turn a mediocre decision into a savvy one.

Finally, we must reinvent the "how" of control. Human freedom will never be absolute, but we have a choice in how that control is achieved. In a bureaucracy, human beings are shackled by precedent, narrow role definitions, petty rules, and constant oversight. In a humanocracy, control comes from a shared commitment to excellence, from accountability to peers and customers, and from loyalty to an organization that treats you with dignity. In the first

case, you end up with Weber's "iron cage"; in the second, an energized workplace where high autonomy and high accountability are mutually reinforcing.

Getting Started

Recognize, localize, depolarize—these are the secrets to building an organization that can walk and chew gum at the same time.

So where do you start in helping *your* organization become a master of paradox? Here are some suggestions:

1. Be honest about the implicit biases in your organization that skew important trade-offs. Go out of your way to include individuals with countervailing views in important conversations.

2. Challenge yourself and others to get better data on the hidden costs of default trade-offs. Don't assume that no data equals no downside.

3. If you're a manager, resist the urge to standardize trade-offs across the organization. Be willing to sacrifice a bit of uniformity for more locally appropriate decisions.

4. Never accept an either/or. Think creatively about how you could achieve your goals without sacrificing other equally vital goals.

5. Work systematically to equip people with the information and skills they need to make smart trade-offs, and then push those trade-offs down.

6. Give frontline teams a genuine P&L, radically reduce the number of KPIs, and hold people accountable for results.

7. Even if you're not the CEO, search for ways to "stop the train." Question every click of the ratchet that moves power and decision making toward the center.

When you and everyone else in your organization learn to love paradox, work will become a lot more interesting and your organization a lot more capable.

In this section, we've laid out the principles of humanocracy: ownership, markets, meritocracy, community, openness, experimentation, and paradox. At the moment, there's no single organization that fully encompasses all these human-centric ideas. Yet when we look across the humanocracy vanguard—at Bridgewater Associates, Haier, Handelsbanken, Intuit, Morning Star, Nucor, Southwest Airlines, Vinci, W.L. Gore, and others of their ilk—we get a glimpse of the sort of organization that emerges when these principles are translated into policies and practices. (See table 13-3.)

TABLE 13-3

Bureaucracy versus humanocracy

Bureaucracy	Humanocracy
Power is vested in positions	Influence is earned from one's peers
Strategy is set at the top	Strategy is an open, firmwide conversation
Resources are allocated by fiat	Resources are allocated via market mechanisms
Innovation is a specialized activity	Innovation is everyone's job
Mandates and policy force coordination	Coordination is the product of collaboration
People are slotted into roles	Roles are built around individual skills
Managers assign tasks	Teams divide up work
Control comes from oversight and rules	Control comes from transparency and peers
Staff groups are monopoly service providers	Staff groups compete against external vendors

Individuals compete for promotion	Individuals compete to add value
Units are judged against top-down targets	Units are responsible for local P&Ls
Compensation correlates with rank	Compensation correlates with impact
Employees have little financial upside	Employees have significant financial upside
There are ranks of managers	Teams and individuals are self-managing
Critical trade-offs are made at the top	Critical trade-offs are optimized locally

While this framework isn't in any sense complete, it points us toward a model that can, at long last, help our organizations overcome their "core incompetencies"—inertia, incrementalism, and indifference. No longer must we resign ourselves to organizations that are less capable than the people within them.

Making progress, however, won't be easy. Your organization may not be led by someone as enlightened as Ken Iverson, Jan Wallander,

or Zhang Ruimin. Your senior colleagues may not be eager to pull down the edifice of bureaucracy. What hope is there, then, for building a resilient, radically empowered organization? What can *you* do, once you've calculated the costs of bureaucratic drag, learned from the vanguard, and gone back to first principles? What then? How do you get started when you're *not* the CEO? These are the questions we'll take up in the final three chapters.

The Path to Humanocracy

How Do We Get There?

— 14 —

Michelin

First Steps

How does one begin the journey toward humanocracy? How do you move from an organization model that emphasizes compliance to one that energizes contribution? As we argued in chapter 3, bureaucracy is not easily vanquished. It's familiar, systemic, well defended, and self-replicating. Occasionally, as at Nucor, Handelsbanken, and Haier, a brave and unorthodox CEO can overcome these obstacles, often with the help of an incipient crisis. But how do you get started if your CEO isn't a philosopher king, and your organization isn't teetering on the edge of a precipice?

Whatever approach you take, it must encourage radical thinking, redefine the interests of the powerful, be difficult to reverse, deliver superior business results, and maintain operational integrity. That's a tall order, but the recent experience of Michelin provides useful lessons in how to get started.

Anyone who's passionate about cars—or haute cuisine—has heard of Michelin, whose plump tire-man is one of the world's most

recognized corporate icons. Headquartered in Clermont-Ferrand, a university town in the heart of France, Michelin's seventy plants, sprinkled across the world, churn out nearly 200 million tires a year —from twenty-seven-inch bicycle tires to thirteen-foot giants used on mining machines. These facilities employ roughly half of Michelin's 117,000-strong workforce.

Over the decades, Michelin has scored many firsts. In 1895, it fitted cars competing in the Paris-Bordeaux road race with the first pneumatic tires. It pioneered run-flats in 1934 and radials in 1946. In recent years, Michelin has been innovating in a wholly different realm. Under the banner of *responsibilization*, the company has been working to dramatically increase the authority and accountability of those on the front lines, an initiative that in early 2020 was on course to deliver a half-billion dollars' worth of manufacturing improvements.[1] Jean Dominique Senard, CEO from 2012 to 2019, proclaimed the transformation to be one of Michelin's "proudest achievements."

Not withstanding the executive pride, and the backing the initiative received from Senard, responsibilization was more bottom-up than top-down. It wasn't overseen by a program management office, and there were no weekly or monthly milestones. Instead, it was an off-the-radar project that got started in 2013 when Bertrand Ballarin, a former plant manager who had moved into industrial relations, talked a gaggle of frontline supervisors into running a bold experiment in decentralization.

Confronting the Limits of Lean

The idea of responsibilization was born out of frustration. In the mid-2000s Michelin had launched the Michelin Manufacturing Way (MMW), a corporatewide program to improve productivity via standardized processes, tools, dashboards, and performance audits. As the new methods were rolled out, factory leaders became concerned that the project was crowding out local initiative and creativity. It also seemed at odds with a famous dictum of the company's cofounder Edouard Michelin: "One of our principles is to give responsibility to the person who carries out a given task because he knows a lot about it." Jean-Michel Guillon, then head of Michelin's personnel department, worried that the pendulum had swung too far toward centralization. "Are we," he mused to a colleague, "at risk of losing our soul?"[2] Other executives, including Senard, shared his concern.

By 2010, the efforts to standardize manufacturing practices were producing diminishing returns. At the same time, shorter product cycles, new competitors, and the growing importance of services were challenging Michelin to become more creative and flexible.

Architecting Autonomy

Looking for a way forward, Guillon and an executive from the corporate manufacturing department hosted a workshop in early 2012. While the twenty participants failed to come up with a new plan, they agreed that frontline teams needed greater autonomy to pursue their own goals and improve local operations.

One of the workshop's most vocal participants was Ballarin, who was nearing the end of his tour as manager of Michelin's Shanghai plant. In a company known for long tenures, Ballarin was an

exception—he had spent three decades as an officer in the French Army before joining Michelin in 2003. Nevertheless, he soon developed a reputation for rescuing underperforming factories. Before turning around the Shanghai plant, a joint venture with a Chinese state-owned enterprise that had been one of Michelin's worst-performing factories, he had averted the closure of a factory in central France by shifting its focus toward airplane tires. In each case, by focusing on the "social dimension," Ballarin had built a shared purpose, upgraded worker skills, and given production teams more freedom. Many of Ballarin's hard-nosed peers viewed his approach with skepticism. As Ballarin would later joke, they considered it "as useful as poetry."

A few weeks after the workshop, Guillon invited Ballarin to join the personnel department as head of industrial relations. Eager to "add collective intelligence and heart to our production system," Ballarin quickly accepted.

Once in the new role, Ballarin immersed himself in social science research, delving into the sources of human motivation and engagement. Particularly inspiring was the work of twentieth-century philosopher Simone Weil, who had written eloquently about the importance of agency and empathy. He also read Michel Crozier's classic, *The Bureaucratic Phenomenon,* which vividly accounts the dysfunctions of large organizations, including the limits of what Crozier called "changing by decree." These and other works crystallized Ballarin's thinking: "We had been organizing work with an exceedingly narrow view of human beings. We assumed that people would exert effort only if closely supervised or motivated by pay. As a result, people in our factories were using only a fraction of

their capacities." Behind this was an even deeper conviction: if people were inherently creative and inclined to be passionate about their work, they should take the lead in designing their own work environments. Ballarin believed that employees, not corporate staffers, should take the lead in "defining what autonomy and accountability mean for them."

By summer 2012, Ballarin had sketched the outlines of a bottom-up initiative labeled MAPP—a French acronym for "autonomous management of performance and progress." Seven tenets were key:

1. **PARTICIPATION WOULD BE VOLUNTARY.** Supervisors and their teams would be asked to volunteer as MAPP "demonstrators." There would be no compulsion.

2. **FRONTLINE TEAMS WOULD TAKE THE LEAD IN DISCOVERING NEW WAYS OF OPERATING AUTONOMOUSLY.** They would design local experiments to address two questions: "What decisions can we make without the intervention of supervisors?" and "What problems can we solve without the involvement of support staff like maintenance, quality, or industrial engineering?"

3. **THE DEMONSTRATOR TEAMS WOULD BE AVERAGE PERFORMERS DRAWN FROM DIFFERENT GEOGRAPHIES AND PRODUCT GROUPS.** This would ensure that the experimental results were as generalizable as possible.

4. **TEAMS WOULD BE ENCOURAGED TO FOCUS THEIR EFFORTS.** Rather than taking on the full gamut of decision making, demonstrators would zero in on one or two key areas where they could expand their autonomy. Teams would have

eleven areas to choose from. (See table 14-1.) By focusing, they'd get a faster start.

5. **TEAMS WOULD BE GIVEN A FULL YEAR TO RUN THEIR EXPERIMENTS.** Given the novelty of the challenge, demonstrators would need time and space to figure how to increase local autonomy. The goal wasn't to quickly land on a few best practices, but to see how far the teams could push the boundaries of empowerment. The time frame also coincided with Michelin's annual performance management cycle, making it easier to measure the performance impact of responsibilization.

6. **DEMONSTRATORS WOULD BE EXPECTED TO DELIVER ON THEIR OPERATIONAL COMMITMENTS EVEN AS THEY TESTED NEW APPROACHES.** The goal, said Ballarin, was "to maintain the same performance pressure on the demonstrators so that the results are more credible."

7. **THERE'D BE NO MANAGEMENT INTERFERENCE.** Plant managers and support staff would offer support only if asked by the teams. "This is the team members' process," Ballarin cautioned his colleagues, "and shouldn't be contaminated by managers."

TABLE 14-1

Mapping production teams to issue areas for experimentation

	PLANT 1			PLANT 2		...	PLANT 17
Area	Team 1 (Mixing)	Team 2 (Prepping)	Team 3 (Assembly)	Team 4 (Curing)	Team 5 (Inspection)	...	Team 38 (Assembly)
Performance management	X						
Relationships with other line teams		X					
Team cohesion				X			
Role of team leader		X					

Onboarding new team members				
Recruitment				
Autonomous problem solving		X		
Staffing and attendance				X
Managing standards and protocols	X			
Managing skills and competencies				X
Job enrichment			X	

Ballarin's experimental approach ran counter to Michelin's top-down engineering culture but appealed to Guillon, who later told us:

"I was familiar with other companies with autonomous workforces, like W.L. Gore—but the applicability of these case studies was limited by either their small size or the fact that they were born that way. It was clear to me we'd have to blaze our own trail." Less enthusiastic executives were placated by the fact that the demonstrator teams would still be expected to "make plan."

Discovering the Power of Responsibilization

Having sidestepped potential doubters, Ballarin reached out to plant managers for help in finding volunteers. Among the first to sign on was the assembly crew in Michelin's Le Puy tractor tire plant. Olivier Duplain, a team leader, explained his enthusiasm for MAPP: "When I started at the company in 2011 I quickly noticed that a lot of expertise on the shop floor was being wasted. I was convinced we could get much, much more from our people. I viewed the demonstrator project as a very interesting opportunity and when I suggested this to the team, everyone was interested." By the end of September, Ballarin had recruited thirty-eight teams from seventeen plants. Together, they encompassed fifteen hundred people, or a little more than 1 percent of Michelin's total head count.

The next few months were hectic. Ballarin journeyed to each plant for kickoff meetings. He reminded plant managers that "the whole point of the exercise is for teams to discover the solution. The only help they need is for you to encourage them to be bolder and more creative."

Ballarin walked each demonstrator team through a short document explaining the mission of responsibilization. The focus was on the *what*, not the *how*. Supervisors were encouraged to "let go" and shift their role from "deciding" to "enabling." Each team was asked to document its progress via notes and videos that would be shared at the end of the yearlong journey. While some team members were skeptical about the sudden enthusiasm for empowerment, most welcomed the chance to be part of Ballarin's "laboratory."

The demonstrators kicked off in January 2013, and by March, the flow of ideas and experiments was ramping up. The tipping point, says Ballarin, came when the teams figured out that no one was going to stop them. The experience of two demonstrators, in Le Puy and Homburg, are typical of how the process played out.

Le Puy

Standing in front of his forty-person team, Duplain introduced the idea of responsibilization with a question: "What do I do today that you can imagine taking over tomorrow?" As he recounts,

> I got a very interesting and surprising answer: "We can't answer your question, Olivier, because we're not quite sure what you do. We see you in the morning for a few hours as we go through equipment checks and review individual tasks. But by midmorning you leave us and go somewhere else. Perhaps you spend a lot of time in the cafe?"

Duplain realized the disconnect went both ways. Just as the team members were unsure about what he did, he was unfamiliar with their work. So they struck a deal: Duplain would work a few shifts side by

side with the team, and then three of his subordinates, one from each shift, would shadow him for a week. They would identify areas where they could expand their responsibilities.

The first bid for more authority involved scheduling shifts. Duplain gave the team a few basic constraints, such as ensuring that every shift included operators with the requisite mix of skills, and then stepped out of the process. One of the team's early decisions was to reassign long-serving colleagues from night duty to daytime shifts. Another move was designed to give colleagues more flexibility in switching shifts. After getting an initial taste of autonomy, the team set out to take over production planning. Having been informed of the plant's weekly production goals, the team laid out daily targets and assigned operators to specific tasks and machines during each shift. Within a matter of a few weeks, the team was fully autonomous and effective in this task—much to the surprise of Le Puy's planning staff.

Homburg

The demonstrator team at Michelin's tire-producing plant in Homburg, located seven hundred kilometers north of Le Puy in the Saar region of Germany, was responsible for producing tire components such as steel cord and bead wire. Having struggled with workflow issues, the team chose to focus on improving internal coordination.

Historically, the team's daily production targets had been set by the plant's engineering group. Recently, though, the introduction of a new and finicky assembly machine had complicated the team's efforts to meet the needs of its internal customers. Sometimes the

team produced too much material, and sometimes too little. Planning engineers had been working for months to iron things out, with little success.

The demonstrator team spent several weeks studying the problem and ultimately solved it by setting up a direct communication channel with the downstream assembly team. At the beginning and end of each shift, representatives of the two teams would meet for fifteen minutes to discuss equipment issues and coordinate production timing. This simple mechanism immediately smoothed out the production flow. Downtime went from two hours a day to nil. According to Ballarin, the Homburg experience provided a powerful lesson about the limits to central planning: "The engineering team can't anticipate every issue. If you allow people to self-regulate, and build the competence for them to do this successfully, you solve problems much more efficiently."

Like their colleagues in Le Puy, the Homburg team members looked for other areas where they could be self-managing. Gradually they took on the responsibility for managing attendance and set up a WhatsApp group to facilitate real-time staffing adjustments.

Converging on a Shared View

During the first half of 2013, the demonstrator teams worked independently of one another. With the arrival of summer, Ballarin began making lateral connections with the help of Olivier Marsal, an enterprising manager in Michelin's manufacturing function. The pair began hosting monthly phone conferences with demonstrator teams and set up an online space, MAPPEDIA, where demonstrators could share findings and address common problems.

As the year wound down, Ballarin focused on getting the teams to converge on a set of proven practices. A series of three-day workshops brought together representatives from each demonstrator, including the supervisor and three to five operators. For many of the participants, the meetings were their first business trip, and the first time they'd been asked for their opinions on management issues.

During the first day of the workshop, demonstrator teams shared video summaries of their experiments. As each video played, team members interjected live commentary and occasionally paused the playback for a deep-dive discussion. Over the next two days, the participants worked to define the signature practices of an autonomous team. To help this along, each team filled out a card with four questions about its experience with responsibilization:

1. What specifically changed?

2. How did this compare with existing practices?

3. Why was this change important?

4. What were the critical enablers (e.g., new skills or information)?

In all, participants produced 120 cards. These clustered into six categories: developing a shared mission and objectives, organizing work, developing competencies, driving innovation, coordinating with others, and managing performance (see figures 14-1 and 14-2 for a summary of the twenty-two practices in the "managing performance" cluster). In the following months, this framework would become an essential resource for other teams eager to explore responsibilization. Critically, it wasn't a theoretical construct

produced by HR staffers or consultants, but a detailed menu of what actually worked on the ground.

The workshops were also used to assess the impact of responsibilization on productivity and engagement. The results on both counts were remarkable. By the end of the year, the demonstrator at Homburg had seen defects on some of its most popular tires decline from 7 percent of units produced to 1.5 percent. In tandem, the team's productivity increased by 10 percent, while absenteeism dropped from 5 percent to virtually zero. These changes, in a single unit, helped Homburg raise its output from 88 percent to 92 percent of rated capacity. Demonstrator projects in other plants reported similar gains. The Michelin plant in Olstzyn, Poland, saw its defect rate decline by 50 percent, and in Zalau, Romania, the demonstrator team cut the time for new operators to reach their productivity targets from five days to three. Engagement also soared. A common sentiment among team members was that for the first time in their careers, they felt as if they were managing their own business. The change was perhaps best captured in a poster prepared by one of the demonstrator teams, which depicted two trains. The first train, pre-MAPP, was portrayed as a sputtering steam engine. The supervisor, sitting in the locomotive, was shouting orders at employees who were lounging in different wagons at the back. The second train, post-MAPP, resembled France's high-speed TGV and had everyone sitting in the same carriage.

Going Big

With the demonstrator teams delivering auspicious results, Ballarin and Marsal were ready to aim higher. With Guillon's help, they wiggled their way onto the agenda of a December 2013 senior leadership meeting. After playing a selection of the demonstrator videos, Ballarin summarized the performance gains and noted the rising engagement scores. Then came the big ask: he wanted to test responsibilization at the plant level. This would challenge plant leaders and support functions to redefine their responsibilities in light of greater team autonomy. Even more contentiously, the decision rights of the plant would need to expand relative to those of corporate staff groups.

Mindful that he was challenging a century of bureaucratic orthodoxy, Ballarin urged his audience to think big. "Why," he asked, "couldn't Michelin be the Toyota of the twenty-first century—a company that brought the world a new management model by enlarging the freedom and accountability of every employee?"

Though scheduled late in the day, at the end of a weeklong marathon of meetings, Ballarin's session ran well beyond its scheduled time. Executives were eager to learn more about the demonstrators and keen to share their personal reflections. Florent Ménégaux, who would succeed Senard as CEO in 2019, exclaimed enthusiastically that "we have a chance to be the company we've always aspired to be." Hoping for permission to test responsibilization in two plants, Ballarin left the meeting with permission to scale up in six factories. Guillon and Terry Gettys, Michelin's head of R&D, volunteered to become advisers and advocates for the next stage of experimentation.

As he walked back to his office, Ballarin thought about how to proceed. He wanted to stick with the tenets of volunteerism and experimentation, but knew the greater complexity of a plant-level test would require a longer timeline. He judged that the plants, some of which had more than a thousand employees, would need a five-year runway with a midpoint review to assess progress.

Once again, Ballarin set off in search of recruits. This time, eighteen plant leaders raised their hands. From this group, six factories were chosen to maximize geographic and business diversity —in Ireland, Canada, the United States, Germany, Poland, and France.

In the spring of 2014, representatives from each factory, including plant managers and function leads, came to Clermont-Ferrand for a three-day kickoff. They were briefed on the work of the demonstrators and reviewed the catalog of practices that had been captured in MAPPEDIA. As before, the road map Ballarin presented was more a compass heading than turn-by-turn instructions. Plants

would adopt whatever solutions worked in their context. Unlike other corporate initiatives, there'd be no top-down guidelines and no monthly reviews. The plants would, however, be able to draw support from a newly formed MAPP team comprising former plant leaders and specialists who had worked to codify the learning from the demonstrators.

Progress in the Test Plants

During summer and autumn of 2014, the test plants fleshed out their plans. As a first step, Le Puy invited employees to a daylong brainstorming session on how to turn the factory into a model of empowerment. The event generated over nine hundred ideas that were subsequently grouped into thirteen priority areas like cross-team coordination, multiskilling, collegial decision making, and taking initiative on quality and safety. Each priority area was championed by a small team of frontline operators, managers, and support staff who were charged with converting the most promising ideas into practical experiments. Many of the ideas chosen for development were ones that had been first tested by the demonstrator teams.

The Polish plant, in Olsztyn, invited two hundred team members to its opening event. Over two days, the group identified a set of responsibilization priorities, such as delegating daily production planning decisions, involving workers in recruitment, changing compensation criteria, and turning everyone into a business owner. As in Le Puy, cross-functional teams formed around each area to develop and test specific ideas.

In a significant twist, the launch team at Olsztyn identified "trust" as the keyword for its experiments. As plant manager Jaroslaw

Michalak explained:

> We used to operate with the implicit assumption that operators weren't trustworthy, and that trust must be earned. We now start by completely trusting everyone, and it's up to the individual to lose trust based on his or her actions. It sounds like a trivial shift in perspective, but it's had a big impact. When we consider changes to our practices now, the burden of proof is on the side of those who want to keep control.

Scaling Team Autonomy

In the test plants, team members began playing more significant roles in areas like safety, quality, and scheduling. In Olsztyn, a frontline team member was nominated to take charge of daily production planning—to make decisions about which products to produce on each shift and which machines to take out of service for maintenance.

In several plants, operators started participating in top-level planning meetings. For the first time, they were able to weigh in on decisions about plant design, capital programs, staffing levels, and yearly targets.

As their responsibilities expanded, frontline operators asked for more information. Michalak noted, "We can't expect operators to make the right decisions, to have good business judgment, without the proper information. Previously frontline workers had no idea where the tires they were producing were going, and how much it cost to get them out the door. Now they have as much information as we do."

Another important enabler of autonomy was skill building. In Homburg, support functions in maintenance, quality, and engineering created training programs for operators. The maintenance department, for example, set up a training room with equipment and spare parts so operators could practice repairing their own machines. Other plants, like Olsztyn and Greenville, South Carolina, launched courses designed to build business acumen.

Redefining the Work of Managers

As production teams laid claim to greater autonomy, managers within the test plants worked to redefine their roles. Each factory developed training programs on topics like emotional intelligence and how to "lead from behind." In Greenville and Le Puy, managers met every few weeks to solve problems and share learning. What had they tried? What worked and what didn't? This sort of peer support proved highly effective in helping individuals navigate the transition from manager to mentor.

Inspired by the results of frontline empowerment, a few plant leaders followed suit. The production manager at Olsztyn delegated decisions on clearing products for shipment to a team leader. At Le Puy, plant manager Laurent Carpentier turned over authority for budgeting, production planning, equipment selection, and customer relations to his direct reports: "I have hands-on responsibility for safety and major personnel issues," said Carpentier, "but for everything else, it's up to the teams to propose and drive solutions." "Everyone," added team leader Duplain, "leveled up."

In a win-win, newly empowered teams gave managers the freedom to focus on higher-value-added work, such as building team skills and

resource planning. A team leader summarized how responsibilization had changed his role: "It went from me solving their problems, and probably not solving them in the best way, to the experts solving the problems right there and then."

Renegotiating Relationship with HQ

Unlike Nucor's factories, Michelin's plants traditionally depended on central functions to set standards, define processes, and hand out production quotas. It was clear to Ballarin that unless factories gained more autonomy in these areas, responsibilization would stall out. Wresting authority from central functions was a challenge, yet several plants made progress—none more than Olsztyn. The key, local managers realized, was to win permission for a targeted experiment and then use the results to gain further autonomy.

The first such experiment concerned monthly production targets. Olsztyn invited representatives from the planning function in Clermont-Ferrand to attend a daylong workshop to explore the issue. During the session, the local team members argued they were better positioned to make these kinds of decisions—they had real-time relationships with customers and would be the first to know about shifts in demand. The central staffers conceded the point and agreed to a monthlong test. The experiment was a clear success, and in time, Clermont-Ferrand would delegate scheduling authority to all plants. Through similar experiments, the Olsztyn plant gradually gained discretion over quality audits and decisions on major capital purchases such as tire molds. For the first time in decades, the ratchet of central control was moving in reverse.

Embedding Responsibilization

At the end of 2016, Ballarin, together with the head of manufacturing and members of the MAPP team, visited each lab plant to gauge progress after two years of experimentation. While the pace of change was uneven, everyone committed to pressing on. Engagement in the six plants was exceeding historical standards, and responsibilization was improving the bottom line. Christian Thierolf, a MAPP coordinator, estimated that responsibilization had boosted productivity by 10 percent in the Homburg plant. By delegating more responsibility to frontline workers, Homburg had been able to expand its workforce by a third without hiring additional managers or professional staff. Plants like Le Puy and Olsztyn reported similar improvements.

The results gave responsibilization more momentum, and soon twelve additional plants were lobbying to join the trailblazers. The ripples of MAPP have now spread beyond manufacturing. A major reorganization in 2018, designed by seventy cross-unit teams with little executive input, multiplied the number of operating units and further decentralized decision making. In a sign that responsibilization was here to stay, CEO Ménégaux declared empowerment to be a new company hallmark. "We're too big and too global," he argued, "to not rely on the skills of everyone across the company. Everybody must be given a chance to exercise their skills responsibly."[3]

Despite these impressive advances, Ballarin and his co-conspirators are humble about what they've accomplished. In hindsight, they believe the test plants would have made faster progress had they received more encouragement from executives in

Clermont-Ferrand. The results have also been less radical than some might have hoped for. While the work of managers is changing rapidly at Michelin, the formal hierarchy is still intact. Nonetheless, most insiders believe the move toward empowerment is now irreversible.

Unlike most top-down initiatives, the initial objectives of responsibilization were broad, and the means purposefully vague. The goal was to build commitment rather than force the adoption of detailed protocols. Ballarin understood that real change happens through persuasion and persistence, not via mandates and metrics. As Michelin's apostle of autonomy, Ballarin traveled from plant to plant looking for believers and converts. He knew it was their support, more than anything else, that would ultimately determine whether his mission flourished or floundered.

Critically, Ballarin and his team realized they didn't have the on-the-ground experience to envisage all the things they would need to change in the work of frontline operators. Rather, they relied on the demonstrator teams to discover, solve, and map the many dimensions of the responsibilization journey. At every point, Ballarin and the MAPP team acted with humility rather than arrogance.

By building a coalition of the willing, Ballarin avoided doing battle with leaders who weren't yet ready to share power. Rather than fighting head-on battles with his intransigent foes, he outflanked them. He built an army of advocates that could vouch for the benefits of empowerment from firsthand experience. His diffused, bottom-up approach, and the fact that responsibilization was never touted as a major corporate initiative, minimized blowback. As a former army

officer, Ballarin knew it's hard to fight a guerrilla force that's both dedicated and dispersed.

By working with a cross-section of frontline teams that remained accountable for their business targets, Ballarin also sidestepped the risk of an operational meltdown. Experiments sometimes failed, but since they were small, the setbacks never posed a financial risk.

In every respect, Ballarin's approach to responsibilization met the critical tests that face any attempt to upend the bureaucratic status quo:

1. It was anchored in timeless human values

2. It provided ample space for improvisation

3. It routed around points of resistance

4. It invited, rather than demanded, leaders to reimagine their roles

5. It minimized risk and disruption

For all these reasons, responsibilization gained enough runway to reach takeoff speed.

Like Michelin, every company must chart its own path to humanocracy. Nonetheless, it's reassuring to know that you don't need a legion of consultants, or a massive corporate change program, to get started. In fact, as we'll see, those may be the last things you need.

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Start Here

Most of us quietly bear the burden of bureaucracy. We are resigned to the ponderous structures and convoluted processes that put a brake on speed, a headlock on initiative, and lead boots on creativity. Our collective quiescence is the product of a misconception. Whether new team members or veteran managers, we assume we have neither the capacity nor the warrant to reinvent how our organizations work.

We've bought into the fiction that the management structures and systems that confound and constrain us can be amended only by those at the top of the pyramid, or by their appointees in HR, planning, finance, and legal. The problem is, waiting for bureaucrats to dismantle bureaucracy is like waiting for politicians to put country ahead of party, for social media companies to defend our privacy, or for teenagers to clean their rooms. It may happen, but it's not the way to bet. If you want to build an organization that's as capable as the people inside it, you're going to have to take the lead.

The question is, how do you change the system when you don't own it, when you're not a senior vice president, or even a manager?

As you might suspect, the first step is to change what's inside of you. To change your organization, you must first change yourself. All of us must own *our* part in perpetuating bureaucracy and take corrective action. This means actively committing ourselves to the ideals of human agency, dignity, and growth. This is more than a philosophical orientation; it's a heartfelt conviction that inspires personal transformation. To varying degrees, bureaucracy makes assholes of us all. Getting woke means more than bashing "the system"; it means doing soul repair in the areas where bureaucracy has eaten away at our humanity.

Detox for Bureaucrats

As we noted earlier, three-quarters of those who work in large organizations believe bureaucratic cunning is the secret to getting ahead. Does this belief represent reality? Is bureaucratic guile really more important than competence? Or is this is just an excuse that incompetent people use when they miss out on a promotion? Either way, what's problematic is that people *believe* this to be true and, presumably, act accordingly. If you're convinced that only skilled infighters get ahead, you're likely to emulate their tactics—like the athlete who reluctantly concludes that doping is the only way to claim a medal.

Bureaucracy, as we've noted, is a game. It pits contestants against one another in a battle for positional power and the rewards that come with it. We have no problem with competition—unless winning comes at the cost of one's humanity. Bureaucracy will start to crumble when talented and principled people walk off the playing field; when big-hearted heretics decide to forgo bureaucratic wins for

the sake of their own integrity, and for the sake of those who've been diminished by bureaucracy. As Harvard professor Marshall Ganz notes, the goal of people who change the world is "not winning the game, but changing the rules."[1]

To learn a new game, you have to unlearn the old one. If you're a bureaucratic black belt, how do you change reflexive habits? What does detox for bureaucrats look like? Not surprisingly, it looks a lot like other recovery programs. A good place to start is by borrowing an ordinance from Alcoholics Anonymous.

AA's fourth step calls for a "searching and fearless" moral inventory, for honest, personal stocktaking. In that spirit, anyone who works in an organization needs to ask, "Where have I forfeited my principles for bureaucratic wins? How has bureaucracy made me less human?"

Here's a simple exercise you can do. Reflect on your actions across the last week or month and ask:

1. **DID I SUBTLY UNDERMINE A RIVAL?** In a bureaucracy, power is zero-sum. When a slot opens up, only one person gets promoted. In the battle to move ahead, it's tempting to discount the contributions of others, or sow doubts about their integrity or competence.

2. **DID I HOLD ON TO POWER WHEN I SHOULD HAVE SHARED IT?** In a formal hierarchy, it's the people who make the big decisions who get paid the big bucks. To justify their superior status, managers must be *seen* to be making the tough calls. This creates a disincentive to share authority.

3. **DID I PAD A BUDGET REQUEST OR EXAGGERATE A BUSINESS CASE?** Resource allocation in a bureaucracy is inflexible and conservative. Budgets often get set a year in advance, and anything that looks risky gets down-rated. Given this, it's tempting to bid for more resources than you need or overstate the merits of your case.

4. **DID I FAKE ENTHUSIASM FOR ONE OF MY BOSS'S IDEAS?** In a bureaucracy, disagreeing with your boss can be a career-limiting move. Hence, individuals often swallow their reservations rather than risk being seen as disloyal.

5. **DID I DISREGARD THE HUMAN COSTS OF A DECISION?** If your organization treats people as mere resources, you may be pushed to make decisions that sacrifice trust and relational capital for short-term business gains.

6. **DID I PLAY IT SAFE WHEN I SHOULD HAVE BEEN BOLD?** In a bureaucracy, the penalties for screwing up are often bigger than the penalties for sitting on your hands. Given that, it's tempting to defend timidity as prudence.

7. **DID I FAIL TO CHALLENGE A COUNTERPRODUCTIVE POLICY?** It's easier to whine about a stupid rule than to challenge a senior policy maker. Civil disobedience is never the safest choice, but systems don't change until people take a stand.

8. **DID I DO LESS THAN I COULD TO FOSTER THE GROWTH OF THOSE WHO WORK FOR ME?** As we noted earlier, there's often an assumption that "commodity jobs" are filled with "commodity people." As a result, it's easy to overlook opportunities to nurture the growth of employees doing mundane jobs.

9. **DID I FAIL TO CREATE TIME AND SPACE FOR INNOVATION, OR MISS AN OPPORTUNITY TO BACK A PROMISING IDEA?** There's not much glory in being an innovation mentor. It takes time and often ends in failure. It's easier to keep your head down than to champion a new idea, but the result is inertia and incrementalism.

10. **DID I FAVOR MY TEAM AT THE EXPENSE OF THE BUSINESS OVERALL?** Bureaucracies offer few rewards for sharing scarce resources with other units. Behaving parochially often produces the best personal outcomes, even when it's suboptimal for the organization at large.

11. **DID I UNFAIRLY DEFLECT BLAME OR CLAIM CREDIT?** In a bureaucracy, performance assessments are typically focused on individuals rather than teams. The goal is to be Teflon when the shit hits the fan and Velcro when plaudits are being handed out. This behavior distorts reputations and misallocates rewards, but it's the way to win in an individualistic organization.

12. **DID I SACRIFICE MY VALUES FOR EXPEDIENCY?** Bureaucracies value results above all else. If you exceed your targets, no one's likely to ask what shortcuts you took. Over time, the bias for outcomes over ethics desensitizes an organization to the moral consequences of its actions.

Set aside some time and work through these questions. Get a journal or create a spreadsheet. Can you recall times when you behaved more like a bureaucrat rather than a human being? What was the trigger? How might you reduce the chances of being triggered in the future? In our experience, there's value in making this a weekly

exercise. If you approach this task seriously, your colleagues will soon notice the change. You will become more generous, considerate, and approachable, and in consequence, more effective.

Transformation is never a solo endeavor. You're going to need accountability partners. Reach out to three or four trusted peers and talk to them about your desire to become a post-bureaucratic leader. Share your personal inventory with them and invite them to do the same. Brainstorm ways of living bureaucracy-free and arrange regular check-ins to share progress.

When you're ready, circulate the detox questions to the people who work for you. Ask them, "When have you seen me acting like a bureaucrat rather than a mentor or an advocate? What should I have done differently?" Ask people to write down their feedback and bring it to a staff meeting. Pass the comments around and have each person share a piece of feedback contributed by one of their colleagues. This will keep the process anonymous and give everyone the chance to be heard. Make this a monthly or quarterly exercise. Over time, team members will gain the courage to call you out when they see you slipping back into bureaucratic habits.

As you become more comfortable in your post-bureaucratic skin, you and your support group can start to share your experiences more broadly. Invite more of your peers to join the discussion, write a blog, talk about what you've learned. Most of your colleagues will applaud you for your integrity and authenticity—"I'm Karl, and I'm a recovering bureaucrat." By taking accountability for your share of the problem, you encourage others to do the same. Moral courage is contagious.

There's an adage, variously attributed to Winston Churchill, Marshall McLuhan, and Father John Culkin, that "We shape our tools and thereafter our tools shape us." This is true of every human invention—from cuneiform tablets to smartphones, from the wheel to self-driving vehicles, and from algebra to machine learning. A century and a half ago, human beings hammered out the basic structures of industrial-scale bureaucracy, and ever since, bureaucracy has been hammering the humanity out of us. But we're not helpless. We can push back when we feel our souls are being beaten into shapes that make us less than fully human. That's the first step on the journey to humanocracy.

Giving Power Away

The pursuit of humanocracy is inherently sacrificial. Mary Parker Follett, the early twentieth-century management guru, argued that "leadership is not defined by the exercise of power but by the capacity to increase the sense of power among those led." As a rebuke to bureaucratic power mongers, this is nearly as radical as Christ's proclamation that the first shall be last. It's here we find the beating heart of humanocracy—in the selfless desire to help others accomplish more than they would have thought possible.

This is the ethos behind Zhang's vision of Haier as a squadron of dragons. It's why Southwest Airlines celebrates a "servant's heart." It's what prompts a Nucor plant manager to proclaim that "We value every single job, every single position, every single person, but being a manager is the least noble job."

If you're a manager of any sort, you can't empower others without surrendering some of your own positional authority. You have to

trade in the old currency of power—perks, decision rights, and sanctions—for new coinage—wisdom, generosity, and mentorship.

A good first step is to ask those who work for you, "What am I doing that feels like interference, or adds no value?" Fearing repercussions, they may at first be hesitant to give direct feedback. If so, be patient. It may take several tries before they trust you enough to unload. Next, ask, "What am I doing that you could do better?" If they're unclear about what it is you do, have team members shadow you for a few days, like Olivier Duplain in Michelin's Le Puy factory (see chapter 14).

There are many ways you can begin syndicating the work of managing to your team. Here are a few.

Setting Direction

1. Ask your team to define its shared mission. Give them time to brainstorm answers to questions like, "What's our value proposition?" "How should we measure the success of our team?" and "What are the most important things we could do to increase our impact?"

2. Hold a monthly half-day session to discuss business unit or corporate-level strategy. Ask your colleagues to identify what they could do to support the overall mission.

3. If your company has a formal planning process, ask your team to take the lead in defining priorities, setting milestones, and developing budgets.

Building Skills

1. Ask team members to identify areas where they would like to build new skills—in creative problem solving, financial analysis, design thinking, or interpersonal relationships.

2. Challenge team members to develop personal development plans and then back these with a small budget.

3. Support team members throughout the year in acquiring new skills. This could mean giving people time to take online classes, setting up job rotations, or working to become a better mentor.

Coordinating with Other Teams and Functions

1. Send team members to senior-level meetings in your place. Be sure they have the proper context and the authority to speak on the team's behalf.

2. Give team members the time and opportunity to liaise with other units and with functions such as quality, HR, finance, and IT. Delegate the responsibility for managing cross-unit coordination.

3. Facilitate job rotations so employees can better understand the critical linkages that need to be managed.

Organizing Work

1. Give your team the authority to reassign work roles with the goal of increasing engagement and effectiveness.

2. Invite team members to craft their ideal job descriptions. Set aside time to review and iterate these as a team.

3. Ask the team to take the lead in setting daily or weekly goals and assessing progress.

Driving Team Results

1. Have the team organize and host weekly or monthly conversations about unit performance. Let team members create the agenda, assemble the relevant information, identify areas for improvement, and develop action plans.

2. Challenge team members to develop and test improvement ideas, and ensure they have the time and budget to do so.

3. Host monthly innovation jams—daylong sessions where your team gets the chance to tackle bigger, more strategic problems.

Managing Performance

1. Ask team members whether they believe they have the right performance targets. If not, ask them to suggest alternatives.

2. Facilitate peer-to-peer feedback. Hold a session in which every team member is given constructive feedback by their colleagues.

3. Invite team members to develop a monthly survey for monitoring the health of the team. The questionnaire could probe engagement, effectiveness, collaboration, and value added.

Sharing Information

1. Host a quarterly discussion that gives team members the chance to interact directly with internal and external customers they

otherwise wouldn't meet. Focus the session on identifying and solving unmet needs.

2. Ask the team if there's additional financial or operational information that would be useful to them and do your best to provide it.

3. Help frontline team members better understand the strategic measures and screens that business unit or corporate leaders use to judge organizational effectiveness.

All of this will take time, so don't be impatient. You'll recall that Bertrand Ballarin gave his thirty-eight demonstrator teams a year to grow into their new roles.

As you begin the work of distributing authority, invite a few peers to follow suit. Bring your teams together periodically to share learning. Never believe you have to fight bureaucracy single-handedly.

Hacking Management

You can't demolish bureaucracy with a giant wrecking ball or a stick of dynamite. Instead, it must be dismantled, brick by brick. Detox and delegation are the first steps, but then what? Obviously it's not enough to change yourself and your team. Ultimately, you have to change the core processes by which your company is run—planning, resource allocation, project management, product development, performance assessment, promotion, compensation, hiring, training, and all the rest. Each of these processes must be rebuilt atop the principles of humanocracy.

Complex systems, like a human organism or a vibrant city, aren't built top-down. They have to be assembled bottom-up through trial and error. No small group of senior staffers or consultants has the imagination or wisdom to design a fully functioning post-bureaucratic Arcadia. This might be different if dozens of companies had already made the shift to humanocracy, but that's not the case. There's no step-by-step manual for building a humanocracy. It's not like moving an IT system into the cloud, rolling out a self-serve HR portal, or rebranding project managers as "scrum masters."

By definition, humanocracy is a radical departure from the status quo. Yet in building it, we have to be careful not to throw a giant wrench into the clanking machinery of bureaucracy. What's required is an approach that is both revolutionary and evolutionary; that's radical in its aspirations yet pragmatic in its approach. In practice, this means running lots of experiments—this is how human beings test whacky ideas without blowing things up. Before sending an astronaut into space, we launch a monkey or two. Before putting a new drug on the market, we test it on rats. Luckily, in the case of humanocracy, no animal testing is required—unless, of course, you count us.

Solving a complex and novel challenge—like carbon capture or autonomous vehicles—requires *lots* of experimentation. Building human-centric organizations is no different. It's no accident that Ballarin launched dozens of experiments at Michelin, not one or two.

If you're a team leader, middle manager, or even a VP, it's easy to believe that someone else should take the lead in busting bureaucracy. But what if they don't? The good news is that anyone can be a management renegade, and every team can be a laboratory.

The secret is to think like a hacker—not the ones who steal your credit card data, but the ones who post brilliant bits of code on GitHub. Hackers don't wait to be asked. They don't think, "That's someone else's problem." Instead, they take the initiative. They act as if they have permission, whether they do or not. The term "hacker" first came to prominence in the 1990s as a label for renegade coders who were committed to undermining the hegemony of Microsoft and other software giants by producing free, community-authored software. Linus Torvalds, the world's most famous hacker, released the first version of Linux in 1991 and invited other hackers to make it better. Today, Linux encompasses more than 26 million lines of code, assembled by more than sixteen thousand contributors.

Could rebel hackers have the same dramatic impact on management they've had on software? Yep—but only if they sign up to the hacker ethos. Eric Raymond, author of *The Cathedral and the Bazaar*, the classic treatise on open source software, identifies five beliefs that define a hacker:[2]

1. The world is full of fascinating problems to be solved.

   To be a hacker you have to get a basic thrill from solving problems, sharpening your skills, and exercising your intelligence. You also have to develop a kind of faith in your own learning capacity—a belief that even though you may not know all of what you need to solve a problem, if you tackle just a piece of it and learn from that, you'll learn enough to solve the next piece—and so on, until you're done.

2. No problem should ever have to be solved twice.

To behave like a hacker, you have to believe that the thinking time of other hackers is precious—so much so that it's almost a moral duty for you to share information, solve problems, and then give the solutions away just so other hackers can solve new problems instead of having to perpetually re-address old ones.

3. Boredom and drudgery [and bureaucracy] are evil.

    Hackers (and creative people in general) should never be bored or have to drudge at stupid repetitive work, because when this happens it means they aren't doing what only they can do—solve new problems. This wastefulness hurts everybody. Therefore boredom and drudgery are not just unpleasant but actually evil.

4. Freedom is good.

    Hackers are naturally anti-authoritarian. Anyone who can give you orders can stop you from solving whatever problem you're being fascinated by—and, given the way authoritarian minds work, will generally find some appallingly stupid reason to do so. So the authoritarian attitude has to be fought wherever you find it, lest it smother you and other hackers.

5. Attitude is no substitute for competence.

    To be a hacker, you have to develop some of these attitudes. But copping an attitude alone won't make you a hacker, any more than it will make you a champion athlete or a rock star. Becoming a hacker will take intelligence,

> practice, dedication, and hard work. Therefore, you have to
> learn to distrust attitude and respect competence of every
> kind.

If this is *your* creed, congratulations—you're a hacker. But what, exactly, are you going to hack, and how? What does a management hack *look* like? Let's take a few examples.

The Hawthorne Experiments

The most famous management hack was conducted in the 1920s at the Hawthorne Works plant of Western Electric, at the time the manufacturing arm of AT&T. The study was organized by the National Research Council with the support of the Illuminating Engineering Society, a body set up to encourage companies to invest in artificial lighting. The initial experiment, designed to test the hypothesis that better task lighting would raise output, was conducted in two test rooms. In the first room, the illumination level was gradually increased, while in the second, it was decreased. Surprisingly, output in both test rooms increased relative to other areas of the plant. It seemed that the simple act of paying attention to people improved their performance. This unexpected result brought a team of Harvard researchers to the plant, led by Elton Mayo. Over the next several years, they conducted additional experiments to better understand workplace motivation. This research laid the foundation for the human relations movement and the first halting efforts to humanize work.

Here are a couple of more recent hacks.

Crowdfunding on the Cheap

In one of our clients, a young e-commerce team inspired by the promise of market-based decision making built an experiment to test the feasibility of internal crowdfunding. Team members believed that promising ideas often failed to get a hearing when they didn't fit with existing priorities, or were put forward by junior colleagues. Having studied sites like Kickstarter and Indiegogo, the team wondered what would happen if every employee was given $1,000 a year to invest in peer-sourced projects. While the hypothesis was simple—crowdfunding will help advance ideas that otherwise wouldn't get resourced—the question of how to test the concept was problematic. Giving every employee $1,000 would cost millions of dollars, and building an online marketplace would require the support of IT, finance, and HR.

The easier path, the team concluded, would be to run a small local experiment. After a bit of lobbying, the company's head of e-commerce agreed to a short trial. Everyone in the unit—about sixty individuals—was given $150 each to invest and invited to post one-page proposals on an extra-large whiteboard—a scrappy alternative to a slick website. Once an idea went up, employees could append comments and investment commitments using sticky notes. Each idea had a funding progress bar, which was updated daily. Ten ideas were proffered during the two-week test, and six met their funding targets. Most of the winning ideas were productivity boosters like projectors for meeting rooms and repositories of commonly used PowerPoint templates.

This quick and dirty experiment validated the team's hypothesis and pushed the company into building a robust online funding

platform—a move that might not have happened had the young team not given itself permission to hack the resource allocation process.

Empowering Corporate Travelers

How would you test the hypothesis that transparency is a more effective means of control than top-down rules? That's the question a group of midlevel managers in a global pharma company asked themselves during a workshop led by one of our colleagues.

The first step was to look for a Byzantine policy that was widely regarded as a pain in the ass. As you might suspect, they had plenty of candidates, but the company's irksome travel policies seemed a particularly juicy target. In an attempt to rein in a corporate travel budget of roughly $500 million per year, the finance function had developed a maze of niggling rules. There were strict guidelines on who could travel, for what purposes, on which airlines, and in which class of service. Hotel and rental-car choices were similarly constrained. There were also tight limits on food and beverage spending. As one manager groused, "I'm responsible for $70 million in sales, but when I'm traveling I have to check to see whether I'll get reimbursed for a $3 cup of coffee."

The experiment, modeled on the company's methodology for drug trials, involved two pairs of treatment and control groups—one pair at head office and the other in an operating unit. The experiment was designed to test the hypothesis that increased autonomy and transparency would (1) simplify travel planning, (2) reduce frustration, and (3) not raise costs. Fifty people were recruited for each group, for a sample of two hundred individuals. The treatment groups were told that for the next ninety days, they'd be able to make

their own travel arrangements with no pre-trip authorizations or post-trip audits. The catch: all their travel expenses would be posted online for everyone to see.

At the end of the trial, the team analyzed the results. A large majority of those in the two treatment groups—74 percent and 87 percent—reported that the new process was less time consuming than the old one. What was more surprising was that 45 percent of the participants said the simple rule change had increased their overall job satisfaction. The researchers had expected travel costs to edge up slightly, and were prepared to argue this was a price worth paying for a more time-efficient process, but in the end, travel costs fell for the treatment groups while remaining essentially unchanged for the control groups.[3]

This simple experiment offers a lesson in how to challenge a bone-headed policy: instead of bitching about it, hack it and collect some data.

Building Your Hack

To come up with your own hack, invite your team to a daylong "management jam." If possible, have colleagues fill out the ten-question bureaucratic mass index survey in advance (go to www .humanocracy.com/BMI, or see appendix A). The results will provide a useful context.

Once together, ask your team to identify the bureaucratic ailments that are the most costly to your organization—the policies or systems that do most to undermine resilience, innovation, and engagement. Specifically, ask them to work through the following three questions:

Question 1: Problems

Where do you feel we may be suffering from "bureausclerosis"—waste, friction, insularity, autocracy, conformity, timidity, politicking, or other related ailments? Pick one malady and be prepared to illustrate how it impairs effectiveness. (Be as concrete as possible.)

Give individuals fifteen minutes to reflect privately on this question before asking them to share their thoughts with the rest of the group. Record everyone's answer on a whiteboard or capture them digitally and project them on a screen. Spend forty minutes exploring the thinking behind these views. Then, in the last five minutes of the hour, ask the team to pick one ailment to tackle.

Next, ask your team to think about the processes and policies that contribute to that infirmity.

Question 2: Processes and Policies

What management policies or processes—including planning, goal setting, budgeting, staffing, job design, product development, performance management, hiring, promotion, training, development, and compensation—are most to blame for this problem? Pick one process and be prepared to describe how it contributes to the malady.

Again, give individuals fifteen minutes to form their own answer; then spend forty minutes sharing perspectives. Take the last few minutes to agree on a process or policy to hack.

Now move on to the third question.

Question 3: Principles

Which post-bureaucratic principle—ownership, markets, meritocracy, community, openness, experimentation, or paradox—would be the most helpful in overcoming this disorder? Pick one principle and describe how it could be applied in a way that would help counter the negative effects of bureaucracy.

Again, give individuals time to cogitate privately before going around the table. Once everyone's weighed in, try to converge on one or two principles that would be useful in redressing the bureaucratic shortcoming.

You can also tackle the questions in reverse order. Start by asking, "Which principle of humanocracy could be catalytic in helping us become a more resilient, creative, and empowering organization?" Then ask, "If we were serious about this principle, what processes or policies would we change?" And finally, "What would be the payoff—how, exactly, would this help reduce bureaucratic drag?"

Whatever route you take, the goal is to zero in on a problem, a process, and a principle. For a team of eight to twelve individuals, this is a half-day's work. After lunch, move on to brainstorming solutions. By this point, most of your colleagues will have a potential hack in mind. Give them forty minutes to flesh out their individual ideas. How, exactly, would they operationalize the chosen principle?

When the team reconvenes, give everyone a few minutes to describe their hack and take questions from the group. Look for overlapping hacks, or hacks that might be pieces of a bigger solution. Once all the hacks are on the table, give everyone a short break. When they reconvene, ask them to select two to three hacks for further development and to then self-organize around their preferred

hack. Once in groups, they should spend the next couple of hours working up an experimental design.

Important questions at this stage will include:

1. What's our proposed solution, in a single sentence?

2. What are the key components of our hack?

3. What hypotheses do we need to test?

4. Who will participate in the experiment?

5. What data will we collect?

6. How do we ensure we get meaningful results?

7. How much time will we need to run the experiment and what resources will be required?

Answers should be captured on a simple, shareable template like the one in table 15-1, which summarizes the travel experiment we described earlier.

Remember, the goal is to test your proposed solutions as efficiently as possible, not build something that's bomb-proof. Nevertheless, you'll want to be thoughtful about minimizing risks. A few tips:

1. Keep it simple. Test one or two hypotheses at a time, starting with the most critical.

2. Use volunteers. Don't compel anyone to take part in your experiment.

3. Make it fun. Think of ways to gamify the experience.

4. Start in your own backyard. That will minimize the number of permissions you need and the risk that someone tells you to stop.

5. Run the new in parallel with the old. Don't blow up the existing process until you've validated the new one.

6. Refine and retest. Create an expectation that this will be the first of many experiments.

7. Stay loyal to the problem. Don't fall in love with your solution. If it doesn't pan out, search for other testable hacks.

With no more than a day's work, your team ought to be able to generate one or two promising hacks. You don't have to get a top-level sign-off, anticipate every pitfall, work out the entire solution in advance, or convince thousands of individuals to change the way they work. Remember the hacker ethos—start where you are, change what you can, rinse, repeat. (For more help building your hack, visit www .humanocracy.com/hack.) The point is, each of us has agency. Ralph Waldo Emerson once said, "There are always two parties, the party of the past and the party of the future, the establishment and the movement." Everyone gets to choose. You can complain about all the bureaucratic bullshit, or pick up a shovel.

TABLE 15-1

Experimental design template—self-managed travel approvals

Elevator pitch

We spend over $500 million in travel costs each year, but that doesn't count the time required to obtain approvals for trips and expense reimbursement. The process is burdensome and undercuts our aspiration to treat each employee as a business owner. We envision a new process for managing expenses that relies on personal responsibility and peer control.

Proposed solution

The primary components of our solution are:

• Autonomy: Give employees the ability to "self-authorize" business travel and decide on appropriate expense levels.

• Transparency: Share all travel expense data on an internal website ("sunshine is the best disinfectant").

Target groups

Hypotheses

H1: Most employees will regard self-authorizing travel as simpler and more in line with our values.	A select group of employees from two locations (approximately 100 people per location).
H2: Some employees will find the increased personal discretion and trust to be motivating.	
H3: Aggregate travel expenses won't substantially increase.	

Test type	Measurement strategy
In each location, we will evenly divide the group into a control group and treatment group: • The control group will see no change in travel policy. • The treatment group will be asked to participate in a low-key test of a new expense management process.	• We will conduct a survey with the treatment groups at the beginning and end of the experiment. The questions will be focused on hypotheses 1 and 2. • For hypothesis 3, we will track individual and overall expenses for the treatment and control groups throughout the test.

Resources required	

Duration	
Three months—August to October.	• Support from department managers willing to host the experiment.
	• Access to expense data from the finance function.
	• Support from IT in setting up an intranet page for sharing granular expense data.

Still, the idea that you and your team can hack the system may seem dubious: "Sure, we can run a local experiment, but what's really going to change? Will anyone notice? This seems like battling a five-alarm fire with a garden hose." We understand your skepticism, but hang with us. In the final chapter we're going to show you how to scale up.

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Scale It Up

De-bureaucratizing yourself, giving away power, running local experiments—these are good places to start, but they're not enough. Ultimately, you need to mobilize your entire organization around the challenge of building a humanocracy. To do that, you're going to need to think like an activist.

It's activists, not bureaucrats, who change the world—individuals like Malala Yousafzai, the Nobel Prize–winning Pakistani teenager who, after surviving an assassination attempt by the Taliban, launched a global campaign to expand education opportunities for girls; or Greta Thunberg, another teenager, whose protest outside the Swedish Parliament inspired more than a million kids from 125 countries to skip a day of school and lobby their leaders for faster action on climate change.

If Malala and Greta can mobilize thousands, why not you? There's nothing more powerful than a just cause—whether it's gender equality, protecting the planet, or freeing the human spirit at work.

Still, you may be wondering, how do you go from local action to systemwide change? How do you push the organization to a tipping point? Great questions. Here are five "impact multipliers" that will help you punch above your weight:

CREDIBILITY. In most organizations, there's a yawning gap between rhetoric and reality around corporate values. People are justifiably skeptical of high-minded speechifying. So act before you exhort. Work on your own bureaucratic recovery, launch a few local experiments, and *then* work to enroll others.

COURAGE. In the book *A Game of Thrones*, Brandon Stark asks his father, "Can a man still be brave if he's afraid?" The answer: "That's the only time a man can be brave." It takes guts to stand up to bureaucracy, but remember that in life, our accomplishments are in proportion to our courage.

CONTRARIAN THINKING. If a problem's been around for a while, it probably can't be cracked with conventional thinking. Seek out the positive deviants, like Nucor and Haier. Borrow ideas from other domains, like biology, startups, and crowdsourcing. Rigorously challenge your deepest assumptions. Do all this, and you'll increase the odds of finding a novel solution.

COMPASSION. People aren't merely skeptical; they're cynical—and with good reason. Everyone's fighting their own corner and looking out for their own interests. When asked to help, most people will ask, "What's in it for me?" To jump this hurdle, you have to put others first. When colleagues see you working to understand *their* needs, when you help them craft *their* experiments, and ensure *they* get the credit, they'll start to trust

you. When your compassion shines through, people will take risks with you and pick you up when you fall.

CONNECTIONS. Building a community is the most important thing an activist can do. This is the ultimate multiplier of individual effort. Employees eager to try something new often make the mistake of asking their boss for permission. Usually they get shot down, or win only grudging support. This isn't entirely the manager's fault. A priori, it's hard to know whether an underdeveloped idea is brilliant or batty. Since great ideas are rare, the default setting for most managers is to say no. So don't go up, go out. Talk to your peers. Find a few colleagues who will help you build and run an experiment. It's easy for a manager to say no to a lone supplicant, but much harder to turn aside a small band of partisans who are passionate about making things better and have already made a start.

Building a Community of Passion

We like the word "hacktivist." It's a clumsy mash-up, but it works. A hacker builds things. An activist marshals a coalition. A hacktivist does both—she mobilizes lots of people to try new things. Michelin's Bertrand Ballarin is an accomplished hacktivist. Now it's time to meet another.

Yorkshire-born Helen Bevan is a health-care veteran who sparked an astonishingly successful movement for better patient care across Britain's National Health Service. With 1.7 million people on its payroll, the NHS is the world's third-largest employer and every bit

as bureaucratic as you'd expect—which makes Bevan's story all the more remarkable.

In 2012, Bevan was working for an internal NHS consultancy, the Institute for Innovation and Improvement. One autumn evening, she found herself talking to a group of trainee doctors. They were frustrated that bureaucratic box ticking often seemed to take precedence over patient care. Everyone at the NHS felt overburdened with top-down mandates and targets, but frontline caregivers were particularly stretched—pulled as they were between the needs of their patients and the demands of an imperious and inescapable bureaucracy. What could be done, the physicians asked Helen, to put the patient experience front and center?

The group brainstormed options and ultimately converged on the idea of inviting everyone across the NHS to identify a specific action they could take to improve patient care. Whatever the action, they would pledge to follow through. Recalls Damian Roland, a pediatrician, "We thought we'd go for 65,000 pledges, 1,000 for each year since the founding of the NHS. That was crazy, but we thought unless we do something very ambitious, we'll never make a real impact."[1]

The campaigners committed themselves to an early 2013 launch and agreed to volunteer their time, even if it meant dipping into vacation days. Critically, no one thought to ask permission of senior leaders.

The "Change Day" website went live in January 2013. It featured a welcome video, a form where individuals or teams could record their pledge, and an exhortation to share the link with others. Each pledge was meant to be something an individual or team could do

without the need for further approval. You could make your own pledge or sign on to someone else's. Individuals were encouraged to print out their pledges and post them in their workspace.

To drum up interest, the team sent out emails, co-opted internal communication channels, harnessed Twitter and Facebook, and encouraged internal influencers to activate their networks. During the first few weeks, the pledges trickled in, but the team kept priming the pump. By February 14, the website had garnered 5,000 pledges. A week later, the number was 43,000. When Change Day concluded, in mid-March, more than 189,000 pledges had been made, with 50,000 pouring in the last day.

More than a hundred physicians joined a pledge to personally taste any oral medication before prescribing it to children, and to work with the hospital pharmacy to improve the flavor of particularly foul-tasting medicines. A team of student nurses pledged to mock up a ward where they could experience what it was like to be on the receiving end of patient care. In another pledge, procurement teams promised to remove redundant supplies from hospitals and clinics to free up more workspace for clinicians.

Change Day's success encouraged the team to run a second edition in 2014. This time, a staggering eight hundred thousand pledges flooded the website. The following year, rather than solicit pledges, Change Day asked employees to share ideas and practices around specific challenges, such as providing better support for dementia patients or enhancing the maternity experience. A voluntary network of sixty practitioners packaged the highest-rated contributions into protocols, training programs, and other tools.

Despite being an unsanctioned effort, Change Day turned out to be the largest, most successful change initiative in NHS history. It impacted hundreds of thousands of people and reestablished patient care as the paramount goal of every NHS employee. Equally important, in Bevan's view, was the credence it gave to the idea of bottom-up change. No longer would NHSers assume they were helpless to make a difference. As one participating nurse put it, "Change Day made me realize that I have the power. [It] gave me my passion that I lost before, because I thought that I could not change anything."[2]

Ultimately, the impact of Change Day would ripple far beyond Great Britain. The program spawned similar efforts in nineteen other countries including Australia, Canada, Jordan, South Africa, and Sweden.

Whether your goal is delivering better care or humanizing work, Change Day has much to teach. Specifically:

- People are willing to change for things that are worth changing for

- Getting change started doesn't have to be complicated or costly

- An invitation is more compelling than a mandate

- Activists don't wait to ask permission

- Technology can be a powerful accelerator

- There's no limit to the impact you can have

- You have a choice: moan or mobilize

To activate a pro-human movement in your organization, start by recruiting a few colleagues who will help you design a campaign. They don't have to be senior leaders, or even managers, but they should represent a cross-section of your business or the organization at large.

At the beginning, the goal is to create awareness and positive energy. Like Bevan, you can post a simple question or challenge online, and then get the word out through social media.

Options for conversation starters include:

BASELINING. Post a link to the BMI survey (go to www .humanocracy.com/BMI, or see appendix A) and ask people to help you document how bureaucracy has disabled your organization. Share the results once you have a good sample size.

DIAGNOSIS. Put up an online discussion board and ask colleagues to identify the bureaucratic bottlenecks—policies and processes— that prevent your organization from being more adaptable, innovative, and inspiring. Invite them to provide short, one-paragraph illustrations of how these impediments have sabotaged change, innovation, and initiative.

HABITS. Put up the list of bureaucratic behaviors we listed in chapter 15. Ask people to pick a behavior and describe the bureaucratic systems or processes that elicit and reward that behavior. Ask people to make a specific pledge to live "bureaucracy-free."

QUICK WINS. Invite people to nominate a "stupid rule" or needless bureaucratic impediment that makes their everyday job harder than it needs to be. Ask them to suggest a remedy.

MINI-HACKS. Post one of the humanocracy principles along with a short description. Invite people to offer a Tweetable idea for putting that principle into practice. Run this for a week and then move on to another principle. Ask people to "like" their favorite mini-hacks and then challenge them to turn them into experiments.

It's shouldn't be hard to get your colleagues energized. Most people have had a bellyful of bureaucracy, but haven't had a platform where they can vent, much less offer a solution. A physician friend of ours, who works for a large health-care group, told us that when she called IT for help in hooking up an unused printer, she was advised that installing an additional printer would put her clinic in violation of a policy that stipulated a maximum of one printer per eight physicians. Her only recourse, she was told, was to petition the printer committee for a policy exception. Given the chance, you can bet she would have been happy to challenge such idiocy online.

Stories like this are legion, but seldom lead to action. Employees assume they're powerless to change things, so they chafe silently under the yoke of bureaucracy. There's no forum where they can speak up and no way of aggregating their collective frustration. As a result, leaders assume bureaucracy is far less pervasive and destructive than it actually is. You can change that. You can get a conversation going about the idiocy and inhumanity of bureaucracy, and what to do about it. The energy you unleash will help your organization to rediscover its heart.

Hosting a Hackathon

Once you've roused people, then what? How do you harness the frustration? How do you gin up dozens, if not hundreds, of hacks? How do you move forward on multiple dimensions simultaneously? While Ballarin's slow-and-steady approach at Michelin has much to recommend it, we believe it's possible to move faster. When you bring people together online and give them the right tools, you can dramatically increase the pace and scope of management innovation. To see how, we'll share a brief case study of a multibillion-dollar consumer goods company that invited more than four thousand employees to reimagine the company's organization model.

The company had spent several years trying to reverse revenue and margin declines, with little success. In an initial conversation with the executive team, we asked whether the roots of the problem might lie with the company's conservative, top-down management practices. Those around the table admitted there was little in the organization that supported continuous, rule-shredding innovation, and much that worked against it. What could be done, they asked, to build a pro-innovation environment? How can we redesign our management processes to be innovation friendly rather than innovation toxic? There were few companies, we admitted, that had systematically reengineered their organizations for innovation. The magnitude and complexity of the challenge was daunting, and there were no ready-made solutions to roll out. On the other hand, we argued, they had thousands of employees who were eager to help them crack the code, and if asked, would swarm the problem. As they say in open source software development, "Given enough eye balls, all bugs are shallow."

The ensuing six-month hackathon, hosted on a purpose-built platform, sought answers to a deceptively simple question: "How do we wire pro-innovation principles into every management system and process?"

The first task was to identify the obstacles that stymied creativity. A short survey generated eye-opening results. Team members blamed a lack of time, resources, and staff support. Many were also frustrated by what they saw as an obsession with short-term results and an overabundance of bureaucratic rules and restrictions.

These findings sparked robust conversations on the platform's discussion board. Many participants, for example, voiced frustration about the lack of executive accountability for innovation. Others shared painful examples of how specific processes had choked off initiative and original thinking.

Having prioritized the biggest obstacles, the hackathon shifted to brainstorming potential solutions. Over the next several months, team members took part in seven problem-solving "sprints." Each was built around a specific humanocracy principle. After being introduced to a principle with a short video lecture, participants were asked to brainstorm how they could operationalize it in the company's management systems, including planning, resource allocation, talent management, compensation, and job design.

Hacks contributed during the "Markets" sprint included ideas such as establishing VC-like investment pools in each business, creating an internal stock market that would allow employees to invest in nascent ideas, creating an internal "gig economy" for short-term design and marketing tasks, and incorporating market-based metrics

such as product profitability or Net Promoter Scores in all performance reviews.

Initially, most of the hacks were scarcely more than tweets. At this stage, the goal was to generate as many promising ideas as possible. Evaluation and elaboration would come later. By the end of the seven sprints, the community had generated over five thousand mini-hacks and contributed thousands of comments and likes.

The three-person team supporting the initiative, which included a business development manager, an innovation specialist, and a social media expert, was instrumental in fueling community engagement both on and off the platform. Volunteer "ambassadors" were enlisted in every location to help with local activation. A typical gambit was to host hackathon meet-ups on Friday afternoons, with pizza and beer supplied by department managers.

Everyone on the platform had a "hacker score" that incorporated metrics on the number of hacks and comments they had posted, and the number of followers and likes they had earned. Hacker leader boards were closely watched and spurred friendly competition among a group of super-contributors.

Having worked through the principles, the community's next task was to identify the most promising mini-hacks. Each team member was given a week to review their own mini-hacks and select one to go forward. After this winnowing, eight hundred hacks remained. Next was peer review. Over the next two weeks, every hacker was given a handful of randomly chosen mini-hacks to score. For each hack, they were asked:

1. Is it deep? Does it address one or more of the barriers? Does it significantly advance our capacity to innovate?

2. Is it doable? Is the idea practical? Can you imagine how it might be tested?

The peer review process generated ten thousand evaluations, or about twelve reviews per mini-hack. The authors of the one hundred highest-rated mini-hacks were given a couple of additional weeks to expand their proposals into full-fledged hacks, using a template similar to the one shown in table 15-1 in the previous chapter. Given the considerable amount of work required to flesh out their hacks, participants were encouraged to reach out to colleagues who had submitted similar ideas and team up when it made sense.

At the end of the two weeks, the broader hackathon community once again helped narrow the field. Each participant was given five votes to allocate to their favorite hacks. The goal was to converge on a manageable number that would be fast-tracked for experimentation. In the end, sixteen hacks bubbled to the top, including:

Leadership Promoter System (LPS)

PRINCIPLE: meritocracy

HACK: Introduce a new metric, the LPS, to gauge managerial value added. Generated via a quarterly survey of a manager's direct reports and colleagues, the LPS was meant to be a simple index that would measure desired leadership behaviors, such as encouraging innovation within one's team.

Field Entrepreneurship

PRINCIPLE: ownership

HACK: Grant frontline sales teams much greater discretion over pricing, marketing spending, and the development of customer engagement strategies. This would be supported with team-level P&Ls.

U-Fund-It

PRINCIPLE: markets

HACK: Create a platform where employees could crowdfund peer-generated ideas.

Following the voting, the sixteen winning teams assembled for a two-day in-person "Hack Lab." After reviewing the principles of experimental design, the teams set to work developing detailed tests. At the conclusion of the lab, each team was paired with an executive sponsor and given a budget of up to $30,000 to cover the costs of running their experiment. Every team member was also given one day a week over the next three months to push their idea forward.

The broader hackathon community remained involved as the experiments progressed. Each experiment had its own page on the platform where test teams could post updates and solicit help. The LPS crew, for example, tapped its network of followers for advice on the leadership behaviors that should get built into the assessment tool. Many of the teams made swift progress. The U-Fund-It team, whose crowdfunding test was described in chapter 15, designed and executed their experiment within the space of a month. Other teams moved equally quickly to set up trials.

As of this writing, several of the experiments have scaled up, some are still being iterated, and a few have been abandoned. Collectively,

their impact on results and culture has been remarkable. Innovation is no longer an isolated activity that happens despite the system. Revenue and margin growth are above industry trends, and engagement scores are up. As the CEO noted, the hackathon signaled to everyone that they "could think, challenge, and experiment with how the company was run."

As this example suggests, building a humanocracy requires a radical shift change in how we think about two management constructs: "leadership" and "change." We believe both need to be rebuilt in ways that are consistent with the principles of humanocracy.

Rethinking Leadership

If the definition of a leader is someone who catalyzes positive change, then every organization needs all the leaders it can get. Unfortunately, the idea of leadership that predominates in most organizations has been hopelessly compromised by bureaucratic thinking. To understand how this happened, we need to review a bit of history.

In the early decades of industrialization, administrative competence was in short supply. Between 1890 and 1920, US manufacturing employment more than doubled, from 5 to 11 million workers, and then expanded by another 50 percent before the outbreak of the Second World War. Who was going to wrangle this fast-growing herd of employees if not a cadre of newly minted managers? Recognizing a need, America's universities jumped in to help. The Wharton School at the University of Pennsylvania was founded in 1881, Harvard Business School in 1908, and Stanford's Graduate School of Business in 1925.

At the time, management was regarded as a uniquely complex and demanding discipline—much the way genetic engineering and data science is viewed today. There was little in the way of codified management wisdom and even less research and theory. Bit by bit, though, a corpus of management knowledge began to emerge. By midcentury, companies were starting to invest in management training. In 1956, General Electric opened its famed management academy in Crotonville, New York. The goal, said then-chairman Philip D. Reed, was to make GE the world's "best-managed" company. This was an ambitious and worthy goal. It was management magic, after all, that turned labor and steel into locomotives, turbine generators, and washing machines.

By 1977, when Harvard historian Alfred Chandler published his anthem to "managerialism," *The Visible Hand*, management was no longer a mysterious or exceptional activity. Thanks to the work of Peter Drucker and others, the principles and practices of administrative competence had been thoroughly codified and broadly disseminated.

By the 1980s, management had become passé. Consultants and business schools needed something new to sell—a product upgrade, if you will. They landed on "leadership." Why, they asked their clients, would you want to remain a mere manager when, with the right training, you could become a valiant leader? Give us a week or two of your time, and a few thousand dollars, and we'll turn you into a fusion of Abraham Lincoln, Alfred Sloan, and Winston Churchill.

Today, more business books are written about leadership than any other topic, so it's easy to forget the relative novelty of our obsession with leadership. In his 1966 classic, *The Effective Executive*, Drucker

used the word "manager" and its variants 209 times, while deploying the words "leader" or "leading" a scant 15 times. Today, that count would be reversed. Yet despite the ubiquity of the topic—if you Google "leadership model," you'll get more than a billion hits—there's little evidence we know how to grow leaders, or that most of those who claim to be leaders deserve the title.

Scholars like Stanford's Jeffrey Pfeffer and Harvard's Barbara Kellerman believe that traditional leadership training produces little value for the organizations that invest in it or those who endure it.[3] Though discomforting to many, this conclusion is hardly surprising. How could it be otherwise, when most leadership training takes place entirely within the bureaucratic frame? Typically, the goal isn't to help individuals become catalysts for change, but to prepare them for bigger managerial roles.

To be fair, leadership training is seldom focused solely on administrative skills. In a multiweek program at a leading B-school, there will be modules on AI, blockchain, neuroscience, the internet of things, and the Gen Z workforce. Contemporary leadership training also emphasizes "soft skills," affirming the value of "authenticity," "empathy," and "mindfulness." Sadly, these things are of little use in a bureaucratic cage match. Once back on the job, graduates quickly discover there is little in their organization that reinforces honesty, humility, and introspection, and little they can do to change that fact.

Elitism is yet another factor that limits the impact of leadership development. Leadership training tends to be stratified. At the executive level, the focus is on "managing the organization"; at midlevels, on "leading the business"; and at lower levels, on "leading your team." This hierarchical approach is based on the absurd

proposition that lower-level employees are unable to think beyond their own role or unit.

We have a long way to go in disentangling leadership from hierarchy. A case in point: when people in your organization talk about "the leadership team," do they mean "everyone in the organization who can make amazing things happen" or the dozen or so EVPs who sit atop the pyramid? The reality, of course, is that many of those on the leadership team aren't leaders at all—not in the Bertrand Ballarin or Helen Bevan sense of the word. Neither are they a "team," if by that you mean a group of selfless souls united around a shared cause.

Competence in the leadership tasks that *really* matter—spotting opportunities, energizing colleagues, challenging vested interests, reimagining business models, and nurturing others—doesn't correlate with hierarchy and receives little or no attention in most leadership programs.

The absurdity of the bureaucratic leadership model is apparent to anyone who grew up on the social web, where leadership is about attracting followers rather than ascending a ladder. If you're a digital native, you view positional power as inherently authoritarian and are deeply suspicious of anyone who seeks "power over." To you, leadership isn't about assuming command and giving orders, it's about activating a community and pitching in. For you, being an activist isn't a set of tactics, it's your everyday posture; it's how you make a difference, whatever the task at hand. Credibility, courage, contrarian thinking, compassion, connection—that's how you roll. You understand that the fastest way to erode your *real* leadership capital is to bludgeon others with your positional authority.

Given all this, it's time for a radical rethink of leadership and leadership development. As much energy as your organization spends teaching up-and-comers to be better administrators, it needs to invest even more in identifying and equipping those who are naturally inclined to be hacktivists. This is common sense. All CEOs know their organizations need to change faster. And as any social historian will tell you, deep change usually comes from the fringe—from people who haven't been seduced by power and care enough to put themselves in the firing line. When we finally abandon the myth that a big title makes you a leader, and when the HR function stops playing to the top of the house, then our approach to leadership will finally catch up to the realities of the twenty-first century.

Rethinking Change

As we've argued throughout this book, the shift to humanocracy requires radical change—in individuals, teams, and the core processes by which our organizations are run. In the face of this challenge, the traditional change model is wholly inadequate. The typical change program is slow, incremental, clumsy, and needlessly antagonizing—all artifacts of a bureaucratic model that assigns the responsibility for deep change to a small core of senior managers and their advisers. Yet as we noted in chapter 2, by the time a problem or opportunity gets big enough to trigger a top-down change initiative, the organization's already playing catch-up. In our survey with the *Harvard Business Review*, only 10 percent of more than ten thousand respondents said their organization's recent change programs were "always" or "mostly" about breaking new ground. When senior

executives are the choke point on change, an organization is going to spend a lot of time eating dust.

The complexity of top-down change creates further drag. Organizational structures and processes are convoluted and intertwined. It's hard to change one thing without changing everything. This complexity means the typical company can manage a major reorg only once every three to four years. Most change programs still conform to Kurt Lewin's seventy-year-old, three-stage change model: unfreeze—change—refreeze. In Lewin's conception, change was episodic and programmatic, rather than continuous and emergent. That view might have made sense in the 1940s, but it's ill-suited to a world that's all punctuation and no equilibrium.

In a bureaucracy, change isn't merely slow, it's also fainthearted. When the imperative to change finally becomes inescapable, the executive committee will ask, "Who's already done this?" Wary of creating operational chaos—a real risk when you force through system-level change from the top—they'll look for a well-trodden path. Thanks to this timidity, corporate change programs seldom change anything that's truly worth changing. They don't redistribute power, shrink corporate functions, collapse organizational layers, or uproot pointless rules.

Here's another problem: centrally driven change lacks nuance. By definition, top-down change is a blunt instrument—not just because the prescriptions tend to be uniformly applied, but because they're often crafted with little input from those on the front lines. In a large European survey, roughly half of nonsupervisory employees said their organization had recently gone through a major reorganization, but barely a quarter of the respondents said they had been asked for

their opinion in advance of the rollout.[4] In most change programs, the hapless underlings charged with making things work on the ground are left scratching their heads and wondering, "What were those idiots thinking?"

A final shortcoming of top-down change is that it inevitably produces blowback. According to research by McKinsey & Company, resistance to change is the top reason large-scale change programs stall out. This is not, as is often claimed, because people are change-phobic. What irks employees are royal edicts—change that is imposed, change that doesn't improve their jobs, change that works better for generals than the grunts.

A few years back we were talking to the head of sales for a well-known tech giant. With the aid of some consultants, he had recently overhauled the sales compensation model. "How did that go?" we asked. "Frankly," he admitted, "it was a bit of a cluster****. We didn't expect so much resistance. Some of our best performers jumped ship." "Did you blog about the proposed changes before rolling them out?" we asked. "Did you invite feedback?" "No," he replied, "that would have taken too long." At the risk of being impertinent, we reminded him that what matters is not time to rollout, but time to success.

Simply put, the bureaucratic change model, like the bureaucratic leadership model, is no longer fit for the purpose. According to independent studies by McKinsey, Boston Consulting Group, and Bain & Company, 75 percent of all change programs fail to meet their objectives. This is hardly surprising. Today, organizations are challenged more rapidly and profoundly than ever before. Yet "change management," like "Scottish cuisine" and "man bun," is an

oxymoron. There's no way radical and systemic change can be designed and deployed top-down—not if it's going to be proactive, fine-grained, and eagerly embraced. Even when an organization is led by a pioneering CEO like Jan Wallander or Zhang Ruimin, crafting a new management model is more about "discover and test" than "engineer and impose."

To eliminate the bureaucratic lags between sense and respond, the responsibility for change must be broadly syndicated. Everyone, like Helen Bevan and her compatriots, must view themselves as a potential change leader. In the face of new challenges, everyone must step up and act, rather than wait for executive priorities to catch up with reality.

Senior managers must embrace the complexity of systemic change while resisting the urge to fabricate exhaustive and highly prescriptive change programs. The problem of rewiring the organizational genome needs to be disaggregated, and small teams empowered to work on individual components. Tellingly, this is how Amazon organizes its software development teams.

Nearly two decades ago, growing anxiety about the company's ability to outrun its rivals prompted Amazon to break its IT organization into hundreds of microservice teams. Before the move, the software that ran the company's sprawling e-commerce business resided in a single, monolithic codebase. Hundreds of senior engineers were needed to integrate the code being produced by the company's expansive development teams. As you might expect, conflicts were rife, delays frequent, and every major update a Herculean task. Realizing this approach wouldn't scale, Amazon distributed development work to scores of small teams, each of which

had responsibility for a single website element, like the "buy" button. Henceforth, software components would be integrated through standardized interconnects known as application programming interfaces, or APIs. These moves freed teams to work at their own pace and dramatically reduced the need for managerial coordination. Today, Amazon's home page is put together by hundreds of individual teams. The success of this model has prompted scores of companies to follow Amazon's lead, including web stalwarts Netflix and Uber (the latter of which is reported to have thirteen hundred microservice teams).[5]

Our experience suggests that a distributed, cellular approach to building humanocracy is similarly sensible. One can easily imagine a large organization supporting dozens of parallel management experiments, like those outlined in the previous chapter. That's the way to bring down bureaucracy—not with a giant reorg, but with a swarm of hacks.

Distributing the responsibility for change is also the secret to winning genuine commitment. Senior executives often talk about the need to get employee buy-in. This is usually seen as a communication exercise. As a Boston Consulting Group report on change put it, "All participants, at every level, need to understand clearly the program's rationale and design, its role in driving the organization's strategy, and their own roles and responsibilities within the program."[6] Good enough—but knowledge isn't the same thing as commitment. Genuine buy-in, as distinguished from compliance, is the product of involvement, not exhortation. To embrace change, employees need a hand in creating it.

It can be scary for a leader to turn over a major change initiative to the "crowd," but it's often the only way to face down the defenders of bureaucracy. A lone CEO doesn't have enough hours in the day to single-handedly cajole dozens or hundreds of high-powered bureaucrats into surrendering their privileges—just ask Pope Francis.

In a September 2013 interview, six months after becoming pope, Francis denounced what he saw as the church's arrogant and insular bearing: "Heads of the church have often been narcissists, flattered and thrilled by their courtiers. The court is the leprosy of the Papacy. This Vatican-centric vision neglects the world around it and I will do everything I can to change it." He accused the church of being "obsessed" with "small-minded rules," and warned it must change or "fall like a house of cards." He called on the church's senior clerics to help build an "organization that is not just top-down, but horizontal."[7] Since then, progress—in addressing sexual abuse, enforcing fiscal responsibility, and simplifying central structures—has been slow to nonexistent. Changing the church, Pope Francis remarked in 2018, is like "cleaning the sphinx with a toothbrush."[8] Even infallibility, it seems, bows before bureaucracy.

While changing a two-thousand-year-old organization presents a particularly vexing challenge, we've met dozens of CEOs who share the pontiff's frustration. Eager for root and branch transformation, they watch helplessly as their intended reforms are swallowed by the quicksand of bureaucracy. Skilled bureaucrats have a hundred ways of postponing, neutering, or sabotaging discomforting initiatives—while feigning support. What a reformist CEO needs is a lot more people with toothbrushes.

That's the power of an open platform—it can activate a pro-change coalition that is big enough and broad enough to counter the foot dragging of those threatened by a redistribution of power. When reforms have been publicly crafted, and endorsed by hundreds or thousands of individuals, it's not easy for a few senior staffers to pick them apart.

Not every problem requires this sort of change process. If your organization is lagging in integrating its online and offline distribution systems, you don't need a companywide hackathon—there are plenty of well-tested recipes for getting everything joined up. But when you're trying to break new ground, when you're trying to change something that is complex and systemic, when you're going for DNA-level change, or when you're challenging deeply entrenched interests, you need a process that is …

Open to everyone

Informed by new principles

Avowedly radical

Highly generative

Peer regulated

Experimental

Inescapable

In the years ahead, the most effective change efforts will be socially constructed. They will roll up, not out, and the word "cascade" will have been banished from the corporate lexicon. To escape the curse of bureaucracy, we must change the way we change.

A Final Word

Let's return for a moment to our starting premise. Across the world, organizations are disabled by bureaucracy—they are inertial, incremental, and inhuman. This is a problem not just for CEOs, but for all of us.

Ponderous, inflexible institutions misuse society's resources and reduce productivity. They squander imagination, suppress initiative, and bungle the future.

Executives, desperate to offset the stultifying effects of bureaucracy, resort to desperate means. They slash investment to juice short-term earnings, buy back stock to inflate the share price, and acquire competitors to boost market power and political clout. None of this is good for investors, for customers, or for citizens. But it's employees, in their millions, who pay the biggest price. The bureaucratic caste system deprives them of the chance to acquire new skills, exercise their ingenuity, and enlarge their impact. Stripped of agency and upside, they have little opportunity to raise the emotional and financial returns on their work.

We can do better than this, and we must. By embracing the principles and practices of humanocracy, we can build organizations that are as resilient, creative, and passion-filled as the people who work within them. Doing so will allow us to wring the bureaucratic inefficiencies out of our economies. It will unleash a flood of dammed-up innovation. It will give every organization the ability to outrun change and succeed in a world that looks nothing like the one that gave birth to bureaucracy. Most importantly, it will turn every job into a good job. It will give every human being at work the opportunity to flourish.

Freeing the human spirit—that's the promise of humanocracy, and with grit and determination, you can claim that promise for yourself, for your team, and for your organization. Like every epic quest, the journey will be arduous, but ultimately fulfilling. It will test you, but also feed your soul. So if you're longing to work for an organization that nurtures, elicits, and honors the best of every human being, it's time to put this book down and put your boots on.

The Bureaucratic Mass Index Survey

1. How many layers are there in your organization (from frontline employees up to the CEO, president, or managing director)?

   - Three or fewer layers: 0 points

   - Four layers: 2.5 points

   - Five layers: 5 points

   - Six layers: 7.5 points

   - Seven layers or more: 10 points

2. How much time do you spend on "bureaucratic chores" (e.g., preparing reports, attending meetings, complying with requests, securing sign-offs, or interacting with staff functions such as HR)?

   - Virtually none: 0 points

- Less than 10%: 2.5 points

- 10%–20%: 5 points

- 20%–30%: 7.5 points

- More than 30%: 10 points

3. How much does bureaucracy slow decision making and action in your organization?

- Hardly at all: 0 points

- Moderately: 2.5 points

- Significantly: 7.5 points

- Substantially: 10 points

4. To what extent are your interactions with your manager and other leaders focused on internal issues (e.g., resolving disputes, securing resources, getting approvals)?

- Less than 10% of time focused on internal issues: 0 points

- 10%–30%: 2.5 points

- 30%–50%: 5 points

- 50%–70%: 7.5 points

- More than 70%: 10 points

5. Within your work environment, how much autonomy do you or your team have to set targets and priorities?

- Complete autonomy: 0 points

- Substantial autonomy: 2.5 points

- Moderate autonomy: 5 points

- Little autonomy: 7.5 points

- No autonomy: 10 points

6. How often are frontline team members involved in the design and development of change initiatives?

   - Always involved: 0 points

   - Frequently involved: 2.5 points

   - Occasionally involved: 7.5 points

   - Never involved: 10 points

7. How do people in your organization react to unconventional ideas?

   - With enthusiasm: 0 points

   - Interest: 2.5 points

   - Indifference: 5 points

   - Skepticism: 7.5 points

   - Resistance: 10 points

8. In general, how easy is it for a frontline employee in your organization to launch a new project that requires a small team and a bit of seed funding?

   - Easy. We have a well-honed approach that is open to all (e.g., an internal Kickstarter). (0 points)

   - Not easy. You can make it happen, but you need the right connections and plenty of courage. (5 points)

- Very difficult. It takes a lot of effort and a lot of sign-offs. (10 points)

9. How prevalent are political behaviors in your organization?

   - Never observed: 0 points

   - Occasionally observed: 5 points

   - Often observed: 10 points

10. How often do political skills, as opposed to demonstrated competence, influence who gets ahead in your organization?

    - Never: 0 points

    - Rarely: 2.5 points

    - Occasionally: 5 points

    - Often: 7.5 points

    - Almost always: 10 points

Appendix B

Sizing Up the Bureaucratic Class

Estimates for the Labor Force and Occupational Mix

The Bureau of Labor Statistics (BLS) collects detailed occupational employment data through two surveys—the Current Population Survey (CPS) and the Occupational Employment Survey (OES). The CPS is the most widely used survey in economic analyses—it forms the basis for official statistics such as the rate of unemployment and underpins most studies of workforce trends. CPS data is self-reported and collected through monthly surveys. OES data is gathered in an annual survey of establishments and excludes unincorporated self-employed workers, agricultural workers, and house workers.

We based the overall US employment estimate of 146 million on 2018 CPS data excluding the self-employed (totaling 16 million workers). The number of managers and administrators was estimated

by drawing on both CPS and OES data. Specifically, we first computed the share of total employment for relevant occupational categories in both the CPS and OES, took an average of the shares for each occupation across the two surveys, and then applied the blended share to the overall workforce of 146 million.

Our logic for a using blended approach was twofold. First, the occupational mixes in the two surveys for managers and administrators differ significantly—in the CPS data, managers and administrators make up 22 percent of the workforce, while in the OES data, this share is at 15 percent. Second, there is no consensus among labor economists about which survey is more suitable for analyzing labor force composition (if anything, the CPS is more widely used), so we were disinclined to treat either data source preferentially.

The CPS data likely suffers from management "grade inflation" since it is based on self-reported data. However, it is difficult to estimate the degree to which this factor biases the numbers.

Conversely, there are reasons to consider the OES estimates of managers and administrators as inherently conservative. Senior managers charged with providing occupational data may be inclined to report a less top-heavy structure (for example, not considering "team leaders" as part of the managerial ranks). We saw some evidence of this drift in our BMI survey, where executives tended to report fewer management layers in their organization compared to less senior respondents (this held up when controlling for size of the respondent's organization). The results of the OES also differ from another BLS survey of private-sector establishments called the Current Employment Statistics, or CES. The CES polls a

representative sample of establishments every month, asking each to indicate how many employees have management or supervision as the primary responsibility, along with total employment. The latest CES estimates of managers and supervisors as a proportion of all employees are close to those of the CPS.

Estimates of Administrative Occupations

Here, our goal was to quantify how many nonmanagerial employees are part of administrative support functions. Our estimates are based on our review of the occupational category the BLS describes as "Business and Financial Occupations." Some of the large occupational groups in this category include accountants and auditors, compliance officers, human resource workers, management analysts, purchasing agents, and training and development specialists. We excluded from our estimates a number of occupations we deemed unlikely to be primarily administrative, such as claims adjusters, insurance underwriters, and personal financial advisers. We also did not include occupations related to IT support, since it is impossible to differentiate between IT professionals who are in line positions and those who play support roles. Given the exclusion of IT-related occupations, our estimates are therefore likely to undercount the total number of administrators.

Estimates of Manager and Administrator Compensation

We estimated compensation by multiplying average annual wages (obtained through the OES survey) for each occupational group (managers, supervisors, administrators, other employees) by the number of people in each group. This yielded $7.9 trillion for an estimated labor force of 146 million employees, and is consistent with the latest BLS estimate of $8.4 trillion for overall employee wages (according to the 2018 Quarterly Census of Employment and Wages). To estimate total compensation, we increased wage compensation by 33 percent, reflecting estimates from the BLS statistics (from the National Compensation Survey). This yields a total of $10.6 trillion, which is in line with the Bureau of Economic Analysis estimates of $10.9 trillion in total employee compensation. We suspect that our estimates for total compensation are lower because the underlying wage data does not include particularly lucrative forms of executive compensation, such as profit sharing and subsidized stock options.

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