

# Think:Act

Leading thoughts, shaping vision



Why **relentless growth**  
is not a business strategy,  
and what business  
should do in the new era



**Gary Hamel**

The business guru tells us  
why bureaucracy must die

**Barça's game changer**

How FC Barcelona's tech  
hub is driving innovation

Roland  
Berger





**"Being local and feeling global  
is not necessarily about being in  
the same place."**

**MARTA PLANA**  
FC Barcelona board member and  
director of Barça Innovation Hub

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**"While one might hope that more CEOs were bold pioneers, the fact is most of us wouldn't have sailed with Columbus – we'd have waited for the TripAdvisor review."**

**GARY HAMEL**  
Management guru and  
bureaucracy buster

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"The job of human beings is to be the cause of a new effect ... you have to imagine possibilities and then choose the one for which you can make the most compelling argument."

ROGER MARTIN  
Integrative thinking and  
design thinking pioneer

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## RETHINKING GROWTH



**"Distinctions must be kept in mind between quantity and quality of growth, between costs and returns and between the short and the long term. Goals for more growth should specify more growth of what and for what."**



→ When **Simon Kuznets** received the Nobel Prize in 1971 [pictured above, right], the man behind the idea of GDP was lauded for "new and deepened insight into the economic and social structure and process of development." In this issue, we explore how a new understanding of growth is changing the way we can meet the demands of our new era.

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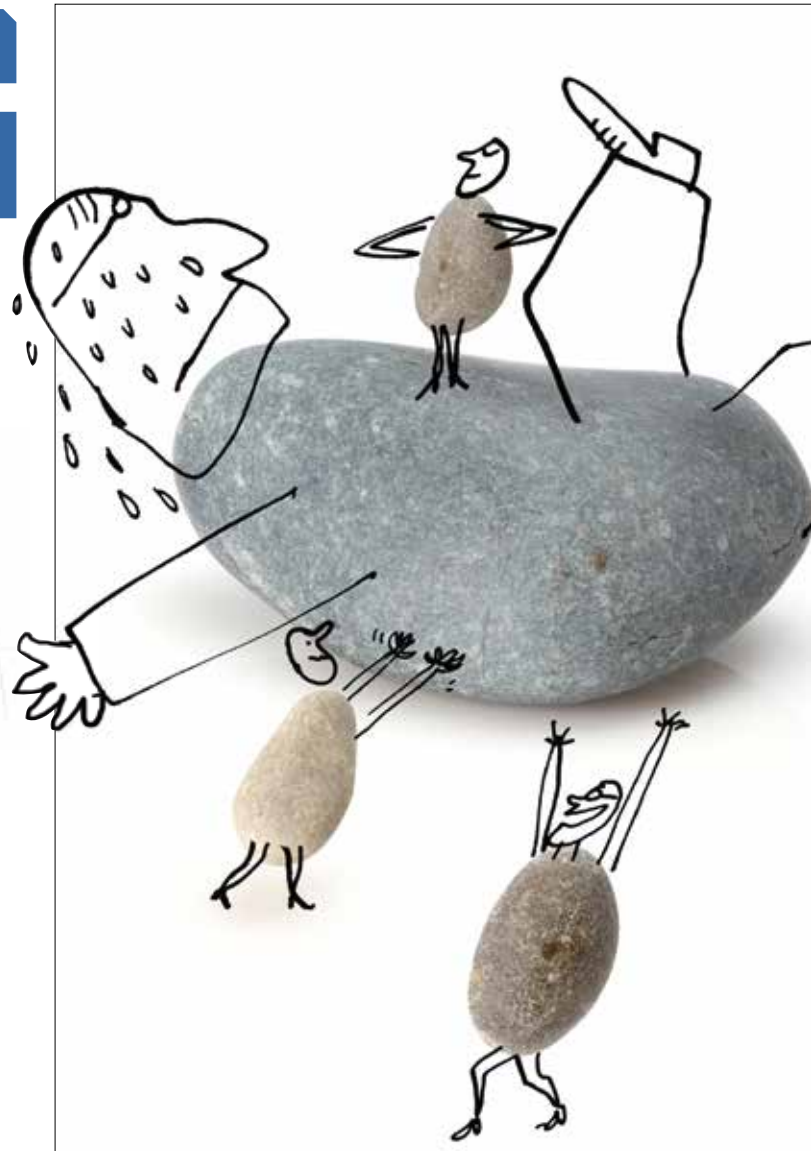
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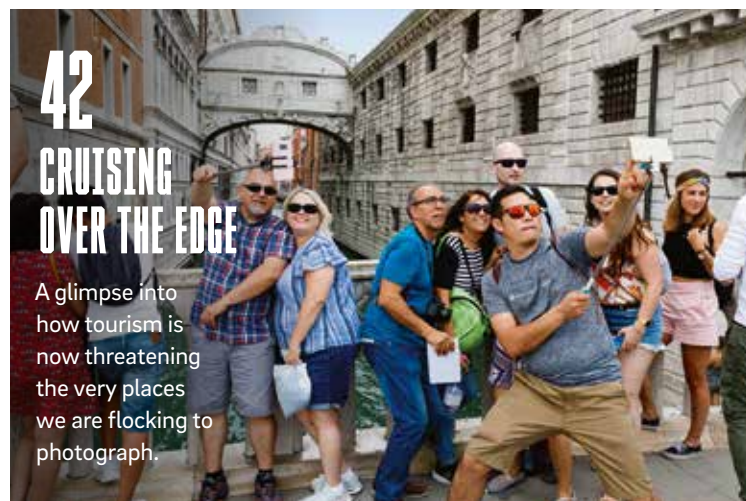
GDP may be losing its place as the gold standard by which we measure progress and success.

**"We have to find a balance that works."**



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We need a clear vision for the 2020s, an era that could turn established thinking on growth and progress on its head.



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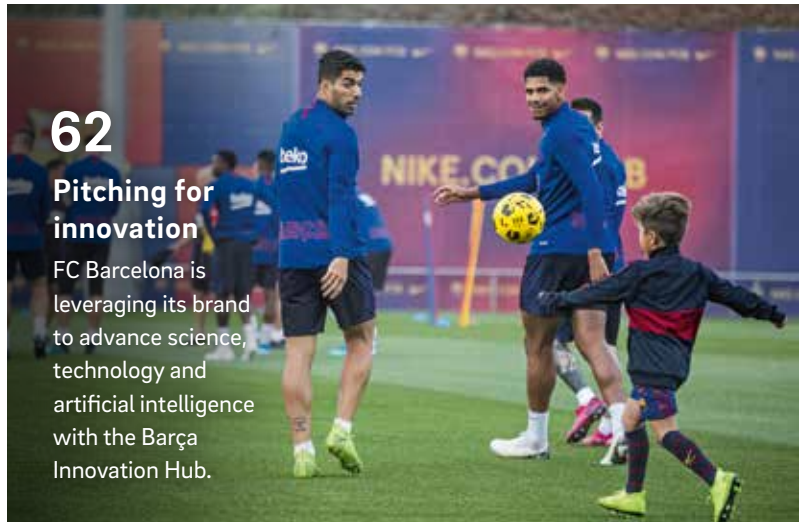
## BIG BLUE'S BLUES AND RHYTHM

The key to IBM's unparalleled resilience and growth was found at the brink of death.

COVER + BACK COVER PHOTO: RAGNAR SCHMUCK, ILLUSTRATION: SERGE BLOCH | PHOTOS: RAGNAR SCHMUCK, AGENTUR FOCUS/MAGNUM/MARTIN PARR, IBM CORPORATE ARCHIVES, EDU BAYER | ILLUSTRATION: DAVID DESPAU, SUPERTOTTO, SERGE BLOCH

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RETHINKING GROWTH

### Think:Act online

Conscious Capitalism Co-Founder Raj Sisodia talks about how organizations can be a source of healing. Please go to: <https://www.rolandberger.com/en/insights/Magazines.html>



## Think in numbers

PUTTING  
A FIGURE ON ...  
*electric vehicles*

# 4<sup>th</sup>

PLACE

The rank of transportation in leading causes of greenhouse gas emissions, according to the US Environmental Protection Agency.

# 45%

REDUCTION

The amount by which electric vehicles reduce carbon emissions over gas-fueled cars in the US.

# 100

DOLLARS

The cost per kWh that lithium-ion batteries will need to reach in order to achieve retail parity with gas-fueled cars without subsidies.

# 15

MINUTES

The time Tesla states it takes for its 2019 Tesla Model S to charge at a supercharger location for a 209-kilometer driving range.

# 595

KILOMETERS

The driving range per battery charge of the 2019 Tesla Model S Long Range, the highest currently on the market.

## Food for thought

### Can social health play a role in overcoming overload?

WITH *Julia Hobsbawm*

**MOST OF US NOW KNOW** that good physical and mental well-being hinges on three core components: nutrition, exercise and sleep. Back in 1948, the World Health Organization defined health as "a state of physical, mental and social well-being, not merely the absence of injury and disease." So what is modern "social well-being" in the digital, always-on age? I call it social health.



**JULIA HOBSBAWM** is visiting professor at London's Cass Business School and author of the forthcoming *The Simplicity Principle*.

Social health is everything to do with connected behavior in the digital era. In addition to looking to combat obesity, we need to take steps to avoid getting "infobesity," when we are so overwhelmed and overloaded that our mental focus suffers, our stress levels rise and we experience difficulty.

Paying attention to social health requires a similar vigilance and discipline to physical and mental health. So we need to notice how often we email, text, groupchat or blur the lines between work and personal life. But if you keep your information sources as fresh and diverse as your vegetables and if you build and nurture trusted sources of help and advice, combining that with treating your most precious resource – time – like your body then, well, you might be able to attain a good bill of social health.

# Thin

AT A GLANCE

Thoughts to  
live by

"Women  
belong in all  
places where  
decisions are  
being made.  
It shouldn't  
be that  
women are  
the exception."

— Ruth Bader Ginsburg

Associate justice, United States  
Supreme Court

Re-  
thinking  
buzzwords

*Get to grips with new  
industry lingo in a flash  
with our stripped-down  
explanations of the  
latest jargon.*



"Narrative  
violation"

If you're investing right now, what you might need is a little narrative violation. As groupthink takes over and leads you one way, you might stumble across that all-important exception that proves all the rules and the consensus wrong. What if you found a ride-hailing startup that's profitable? That's a violation that makes you challenge the strong market narratives. Don't be a sheep, but do consider this: It might be a fashionable phrase but there's a logic here worth embracing.

Think:Act

The  
redacted  
read



Chain  
Reaction

## The problem is this: Value is vexingly misunderstood

*Too busy to read the hot new books? We've got it covered for you. Here's Mariana Mazzucato's latest offer on the idea of value, cut down to the bare essentials.*

**IN THE LATE 19<sup>TH</sup>** century, most economists concluded that price-determined value. When the assumption that value is in the eye of the beholder goes unquestioned, some activities continue to be classified as value-creating instead of value-extracting simply because someone says they are.

Our current economic ideas are not the natural order. For example, gross domestic product (GDP) was shaped by World War II, when US economists were focused on production. GDP still misses important spots. Costs are not clearly distinguished from investment and other kinds of value are also overlooked: Natural resources destroyed by pollution may not be subtracted from GDP, but the economic activity in their cleanup is included.

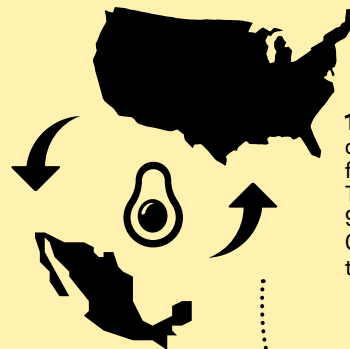
These structural limitations have also minimized the value of public investment, making it easier for tech and pharmaceutical companies to deny the tremendous amount they gained from government-funded research. Only through an open debate about the nature of value and the conditions that foster it can we steer our economies in a direction that will produce more innovation and less inequality.

→ *The Value of Everything: Making and Taking in the Global Economy*  
by Mariana Mazzucato. 384 pages.  
Allen Lane. \$28.

**FEEDING A GLOBAL OBSESSION:** While few question the health benefits of superfoods, a growing number are questioning the farming practices behind the latest trends to hit supermarket shelves. And from concerns about its carbon footprint to lining the pockets of drug cartels, perhaps none has seen as much controversy as the avocado. Here's how a trade agreement sparked a food craze that has the world talking about the impact of our voracious year-round hunger for a once exotic food.



**LOOKING AHEAD** The debate surrounding the environmental and social cost of "tourist" foods continues with advocacy groups urging consumers to be more conscious in the produce aisle. But as avocado farmers ramp up to meet existing global demand, another giant market is just opening up: China.

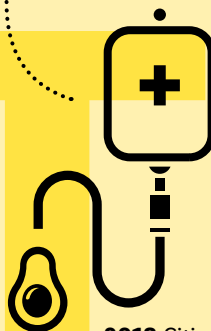


**1997** The US lifts an 83-year ban on avocado imports from Mexico following the North American Free Trade Agreement. Until this point, 90% sold in the US were grown in California and available from April to October.

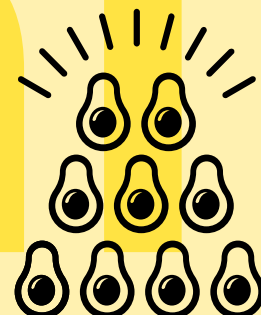
**2005** Sixty-seven percent of all avocados sold in the US are imported now. Marketing campaigns shape the fruit's reputation as a healthy fat and longer growing seasons in Mexico have brought year-round crops, helping to mainstream the avocado.



**2017** Toast and all things avocado have taken over social media and worldwide avocado production is up 50% from when Instagram launched in 2010. Reports of high CO<sub>2</sub> emissions, severe droughts in Chile's Potorca region, deforestation and violent drug cartel activities around the "green gold" in the Mexican state of Michoacán have become more frequent.



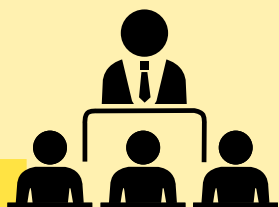
**2018** Citing ethical concerns, restaurants and chefs in the UK make headlines for removing "blood avocados" from their menus in favor of seasonal, locally sourced ingredients.



*Best  
practice*

## How to ... tell your business story

**YALE ECONOMIST** Robert Shiller's new book *Narrative Economics* suggests the stories people tell have an impact on the economy. After all, as Jean-Paul Sartre says (and Shiller quotes), "A man is always a teller of tales ... he sees everything that happens to him through them; and he tries to live his life as if he were recounting it." So perhaps it's time to start telling your company's story. Understand first and foremost that your story has a strategic purpose. You want people to listen to you – and take you seriously. So try these tips. First, set the stage. Who is telling your story and why are they telling it? Second, make it real. You can't fake authenticity – and it buys you trust. Third, connect with your listener. If you can make your story emotional or memorable then that builds a relationship with your audience and they will keep coming back to you.



*Economic  
impact*

## Stacking up farming's future

**THE WORLD'S POPULATION** has quadrupled since 1920 – making global agriculture a trillion-dollar industry. And while advanced practices are bringing growth in farming productivity ever closer to a sustainable annual rate of 1.73%, there's a catch: Most of our mushrooming population now lives in urban areas, adding long-distance transportation to the already long list of environmental damage associated with feeding 7.7 billion people, from water wastage and erosion to deforestation and pesticides. Enter vertical farming. First proposed in its modern iteration by Columbia University Professor Dickson Despommier in 1999, here's how it works: Take the concept of roof gardening, but then extend it floor to ceiling, using specialized LED grow lights in controlled conditions. With a crop yield 10 times higher than traditional farming and the ability to manipulate factors to maximize flavor, it's no wonder it's sprouting up in cities around the world with a CAGR of 24.8% and an expected market value of \$20 billion by 2026.

# Act

AT A GLANCE

## In focus



*In this issue  
we take a close look  
at how business can  
evolve and adapt in  
the digital era.*

# THAT



A new decade is swinging open its door – and behind it lie some difficult questions for business.

**Have we outgrown growth? Is it still good?**

And how can a company navigate an era that could turn established economic thinking on its head?

# SHRINKING FEELING

RETHINKING GROWTH



BY **Bennett Voyles**

ILLUSTRATIONS BY **Serge Bloch**

PHOTOS BY **Ragnar Schmuck**



**What we need is a clear vision for the 2020s.**

**There are good reasons to be pessimistic about growth – we have listed a few of them here – but knowing what could be in store could help business reinvent itself.**

## GLOBAL WARMING

A 2018 Intergovernmental Panel on Climate Change (IPCC) study had "high confidence" that there will be more heat waves, particularly in tropical areas and "medium confidence" that high-latitude regions, eastern Asia and eastern North America will see increased rain. Most authorities say we can expect more droughts, flooding and supply chain disruptions.

The Bank of England warned recently that up to \$20 trillion of assets could be wiped out by climate change. Mark Carney, the governor of the Bank of England, said that companies that don't adapt to a post-carbon world "will go bankrupt without question."

## SOVEREIGN DEBT CRISES

Although most other problems pale in significance to climate change, some could still interfere dramatically with the economy. One is the level of sovereign debt. The major economies now hold government debt that averages more than 70% of GDP, the highest peacetime level in history, Deutsche Bank Research reports. Many analysts describe this number as unsustainable.

## TRADE WARS

The growth in global trade that has kept that debt ratio from climbing even higher over the last 20 years is also under threat. In October 2019, the World Trade Organization lowered its forecast

for global merchandise growth that year from 2.6% to 1.2%, and "the balance of risk remains on the downside, with trade disputes, financial volatility and geopolitical tensions providing potential triggers for a steeper downturn."

Politically, the outlook for liberal trade rules isn't good: As professor Dani Rodrik of the Kennedy School of Government at Harvard put it in 2018, "the simple economics of globalization is not particularly auspicious with respect to its political sustainability."

## POPULISM

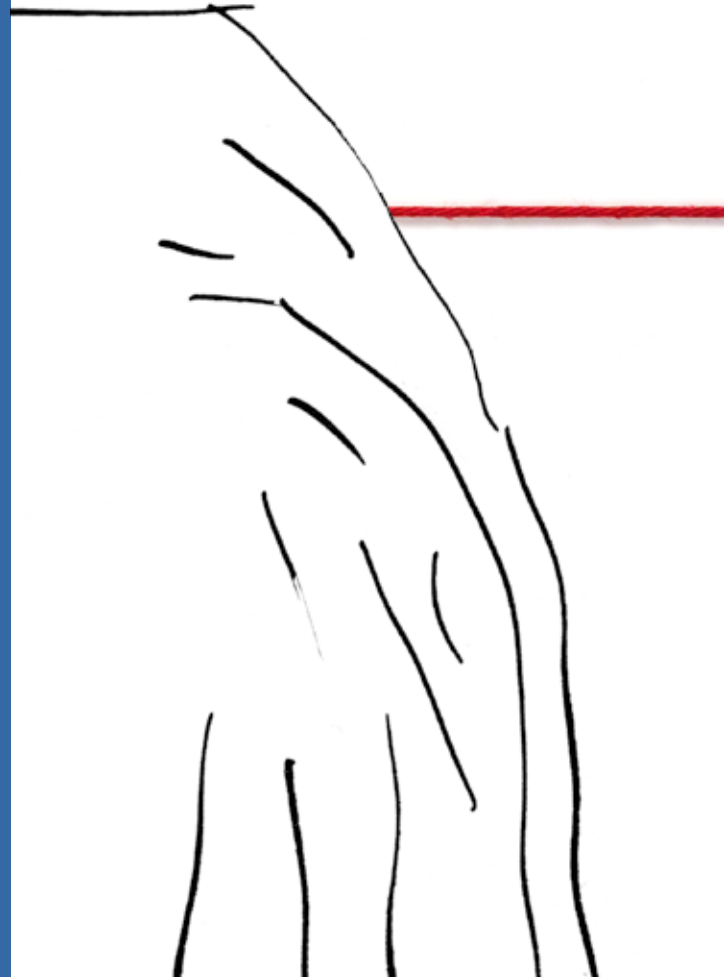
The number of countries with populist governments grew from four to 20 in the years between 1990 and 2018, according to a report by the Tony Blair Institute for Global Change, and many of those governments pursue policies with little regard for any collateral damage to business they may have.

## ONE-PERCENTERS

Concentration of wealth may hurt the economy too. In the US, for instance, the top 1% now hold 31.1% of the wealth, more than the bottom 90% combined, according to Brookings Institution figures. And that may well be a problem. "There are only so many yachts a person can use, so it goes into investment categories," explains Rita Gunther McGrath of Columbia Business School. "The dilemma is that too much venture capital money sloshing around the system means that real, value- →

**R**

**EADY OR NOT**, the twenties are here, and they're looking ugly. Global warming, trade wars, aging populations, wealth disparities, automation-induced unemployment, unmanageable sovereign debt and the challenge of building – and paying for – digital transformation could all stunt corporate growth. To make matters worse, analysts at the United Nations Conference on



Trade and Development warn that most governments are unprepared for any sort of macro-economic shock. "A spluttering North, a general slowdown in the South and rising levels of debt everywhere are hanging ominously over the global economy; these, combined with increased market volatility, a fractured multilateral system and mounting uncertainty, are framing the immediate policy challenge," they wrote in their annual report in October 2019.

Grim as all that may sound, some business thinkers argue that the next decade may also be a time of opportunity for at least a few companies. They say companies that learn to focus less on raw growth and more on keeping their customers happy, their employees engaged and creative and their processes sustainable may be resilient enough to survive any number of challenges and nimble enough to take advantage of any opportunities that do present themselves. "Recessions aren't always uniformly bad for all players – many of the world's most successful businesses were born in recessionary times," says innovation expert Rita Gunther McGrath, author of *Seeing Around Corners: How to Spot Inflection Points in Business Before They Happen* and management professor at Columbia Business School. "For companies that have husbanded their

## **RISING LEVELS OF DEBT POSE A SIGNIFICANT THREAT.**

resources, recessions can be a good time to selectively expand their capabilities," she adds. "Good people become more available. Lots of assets, such as desk chairs, get given away for pretty much nothing. Small firms that struggle to stay afloat or to raise additional funding become available for acquisition or 'aqui-hire.' Some overstretched firms will pull back from markets and leave them to the competition."

So how should you set your company up to thrive through the bumpy ride? While the fundamentals still apply – watch your margins, keep your working capital lean, stay close to your customers – some business thinkers suggest additional measures as well. →

RETHINKING GROWTH



—→ creating businesses can get swamped by those that use investment capital to support their business models – WeWork is but one egregious example," she explains.

## OLD FOLKS

In many countries, the average age is rising. For mature, consumer-led economies, that's not great news: In general, the elderly eat less, buy less and work less – but cost society more. As a 2019 European Central Bank study put it, in the eurozone alone, "the extent of the demographic changes is dramatic and will deeply affect future labor, financial and goods markets."

## DIGITAL DISTRACTIONS

Automation may also present a challenge: A recent Organisation for Economic Co-operation and Development study forecast that 14% of all jobs could disappear over the next 15-20 years and another 32% could change in radical ways.

Funding this new digital backbone will not be a trivial challenge: The IDC estimated in 2018 that annual investment in technology is expected to grow 16% per year through 2022, when it will reach \$1.97 trillion, and that 30% of the world's top 2,000 companies will be investing 10% or more of their capital budget in technology.

William Fischer, a professor of innovation management at IMD in Lausanne, argues that many of these risk factors are actually indicators that we are on the verge of a shift as great as the Industrial Revolution. Fischer shares Franklin Roosevelt's view during the Great Depression: "The only thing we have to fear is fear itself." He says: "We have leadership that is afraid ... The future is not about poor growth – [it's about] insufficient courage to be a catalyst for optimism and growth." ■

# MANY CEOs HAVE AN INCENTIVE TO TRY TO KEEP THEIR SHARE PRICE HIGH.



### STOP BUYING BACK STOCK.

**1** The first item on a lot of advice lists is to make sure your financial goals align with your stated goals. In August 2019, for example, the Business Roundtable, a group of nearly 200 CEOs of US corporations, agreed the purpose of the corporation included delivering value to customers, investing in employees, dealing fairly and ethically with suppliers and supporting their communities. Generating long-term value for shareholders was the fifth and last item on the list.

Although big business may have emotionally left the maximization of shareholder value era, structurally Milton Friedman's free-market capitalism is alive and well: Many CEOs still receive a lot of their compensation in stock, giving them an added incentive to try to keep their share price high, and they have a handy fan that helps to keep it aloft – the stock repurchase. It's been 10 years

# 56%

The percentage of S&P 500 profits invested into share buybacks between 2013 and 2017.

since Jack Welch, former CEO of GE, told a shocked *Financial Times* reporter that maximizing shareholder value was "the dumbest idea in the world," but share buybacks are now more popular as ever, with a total value that topped \$1 trillion in 2018.

Before the 1982 decision by the Securities and Exchange Commission to liberalize rules about share buybacks, companies invested a lot of their income in innovation and enhancing the skills of their employees. That changed dramatically in the three decades that followed: Between 2013 and 2017 alone, S&P 500 firms invested \$2.6 trillion – 56% of their profits – in share buybacks, according to a presentation by William Lazonick, a professor of economics at the University of Massachusetts Lowell. Buybacks might be seen as a victimless shift of cash from one pocket to another, but Lazonick has long argued that buyback programs enrich executives at the expense of their companies, sucking resources away from research and development and employee training.

McGrath agrees: "The irony is that the very policies that are supposed to be helpful to shareholders actually have the effect of harming the long-term performance of businesses whose leadership essentially uses the capabilities built up over years to make themselves unbelievably rich, among other things. Many companies today are very much out of balance between running today's business and investing for the future – the latest poster child would be GE, which issued massive buybacks during [Jeffrey] Immelt's era but didn't lean into renewable energy investments at the level they could have. But you could see the same story at many other firms – Kraft Heinz and Sears, for instance," she adds. Meanwhile William Fischer, a professor of innovation management at IMD in Lausanne, says that buybacks are always a sign of managers with insufficient imagination. "I think they're probably caught between some big changes that are difficult to understand ... and shareholders who are pushing for quick returns," he says.

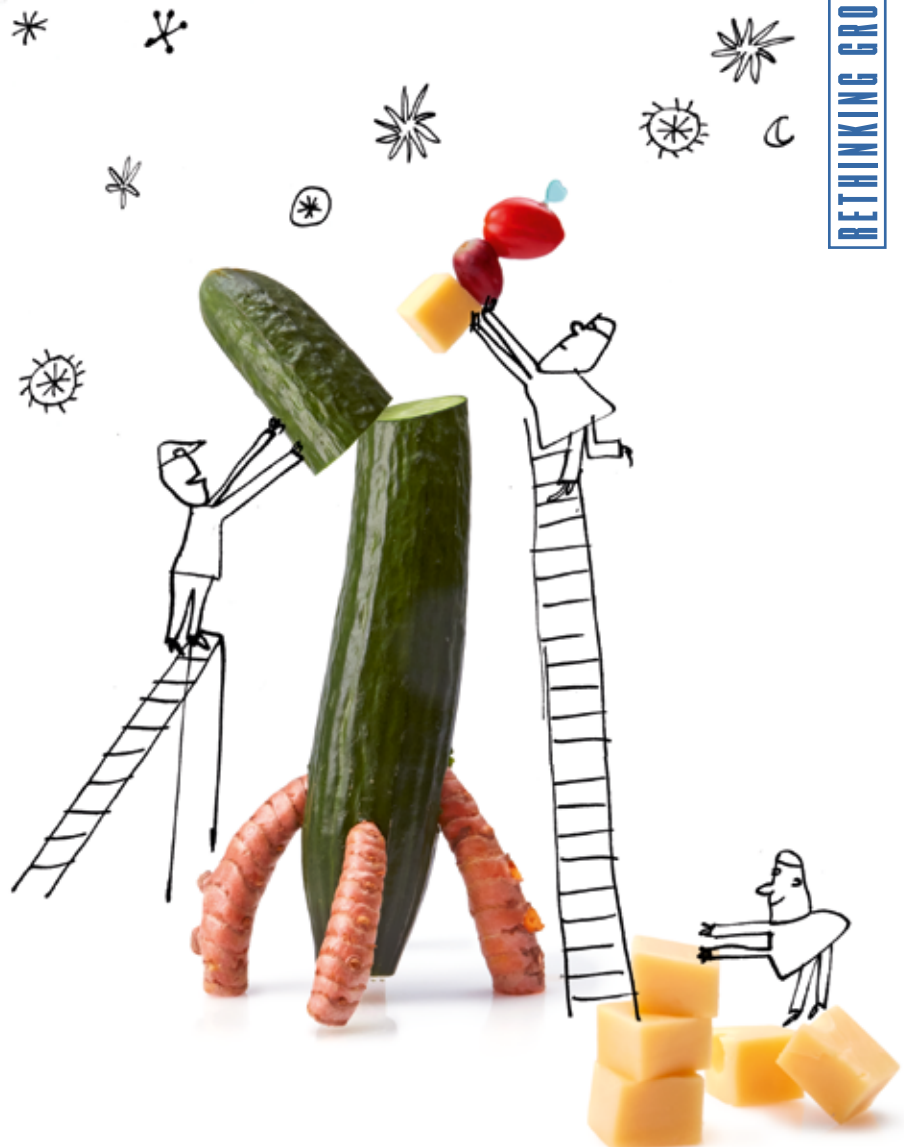
**\$1  
TRILLION**

The value stock repurchases surpassed in 2018, a record high in a single year.

through such initiatives as its Internet of Clothing project, according to Fischer, an advisor for the company. The Internet of Clothing consortium takes washing machines and driers as a starting point for a whole constellation of clothing-related initiatives, including even specialized detergent companies. Such collaboration can help serve the customer better while reducing the partners' risk of bringing a technology to market that customers don't want. "By creating ecosystems where you have a whole bunch of firms that have loose connections to one another, you increase the likelihood that at the end of the day, you'll go to market with not only an idea that's interesting, but also the supporting infrastructure to make the idea easily adoptable," he explains.

To make these ecosystems even more robust, Haier organizes them in a way that discourages squabbles by working out in advance not only the partners' relative contributions to the product or service, but also the relative share of revenue they will take out of it, according to Fischer. →

RETHINKING GROWTH



**2. BUILD AN INNOVATION ECOSYSTEM.** Another defensive strategy some experts suggest is to find partners who will work with you to serve your customer in ways that go beyond your traditional boundaries. Chinese appliance giant Haier, for example, is beginning to focus less on manufacturing individual products and more on working with a variety of partners to develop larger cross-company ecosystems that better serve customer needs,



Steve Blank, a Silicon Valley entrepreneur whose work paved the way for the lean startup movement, is also positive about the potential of companies to win by expanding their innovation ecosystem. "Startups, since they're so well funded, now have as much or more cash and R&D dollars than the companies they're dealing with, and that's a big idea. If you're inside a company and you can now concatenate the resources of 10-20-50 of these startups that are incredibly well funded, and those R&D dollars don't show up on your books, they're on the VC's books, but you can get the output of that for licensing, that's a source multiplier," he adds.

### 3. THINK SMALL – AND SIDEWAYS.

Fischer's advice is also to look beyond the company's traditional boundaries. He adds: "Traditionally, disruptive innovation almost always comes from outside, from the edge, not from within the cohort of successful market-leading incumbents, who are benchmarking against each other and doing pretty much the same thing in the same way," Fischer advocates expanding your horizons, perhaps paradoxically, by reorganizing into smaller units. Here Fischer also sees a model in Haier, which has reorganized much of the company into tiny teams of 10 or fewer people, all with semi-independent missions.

# 16

The number of major US retailers reported to have filed for bankruptcy or announced their liquidation in 2018, due in part to excessive store growth.

"They're sort of reversing the direction of the typical growth engine and trying to move away from being a large, inflexible firm into a smaller, more nimble set of firms, albeit with a big brand and access to resources that small firms don't have."

# 4.

#### GROW CAREFULLY

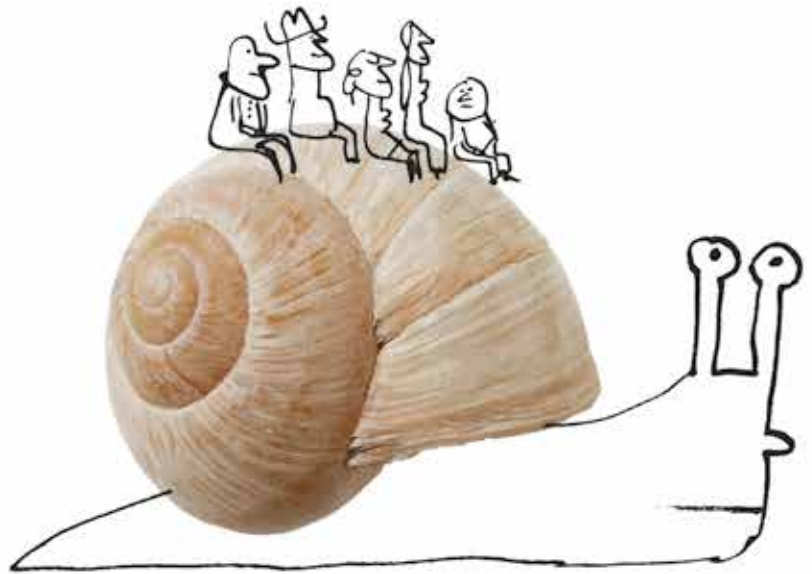
Professor of Business Administration and the first Batten Executive-in-Residence at the University of Virginia Darden School of Business Edward D. Hess argues that the only kind of growth worth pursuing is the kind that helps everyone affected by the business. "Smart growth creates positive value for all stakeholders including workers and society," explains Hess, who is also the author of *Smart Growth: Building an*

AS ATTRACTIVE AS FAST  
GROWTH MIGHT SEEM, IT  
OFTEN DOESN'T END WELL.

*Enduring Business by Managing the Risks of Growth.* Dangerous growth occurs "when the organization is making irrational investments or when the organization is diversifying into an area where it lacks competence and has no rational plan to manage the risk," or is too complacent, and "keeps doing what has worked before in spite of data that clearly shows the market has changed or new products or services are needed by customers."

**5. BE PATIENT** As attractive as fast growth might seem to be for investors and employees, it often doesn't end well. In a recent empirical analysis of 2,500 US manufacturers' long-term growth between 1959 and 2015, Gary Pisano, the Harry E. Figgie, Jr. professor of business administration at Harvard Business School, and his three co-authors found that few firms grow steadily for long, and those that do tend to belong to fast-growing industries.

As Pisano recently told *Harvard Business School Working Knowledge*, companies often have unrealistic expectations. "The data suggests that companies should be more realistic about their growth rates, not expecting rapid growth year after year," he says. Even those few that do grow well for a long time often fall apart suddenly in the end. Pisano points to the 1990s and the sudden decline

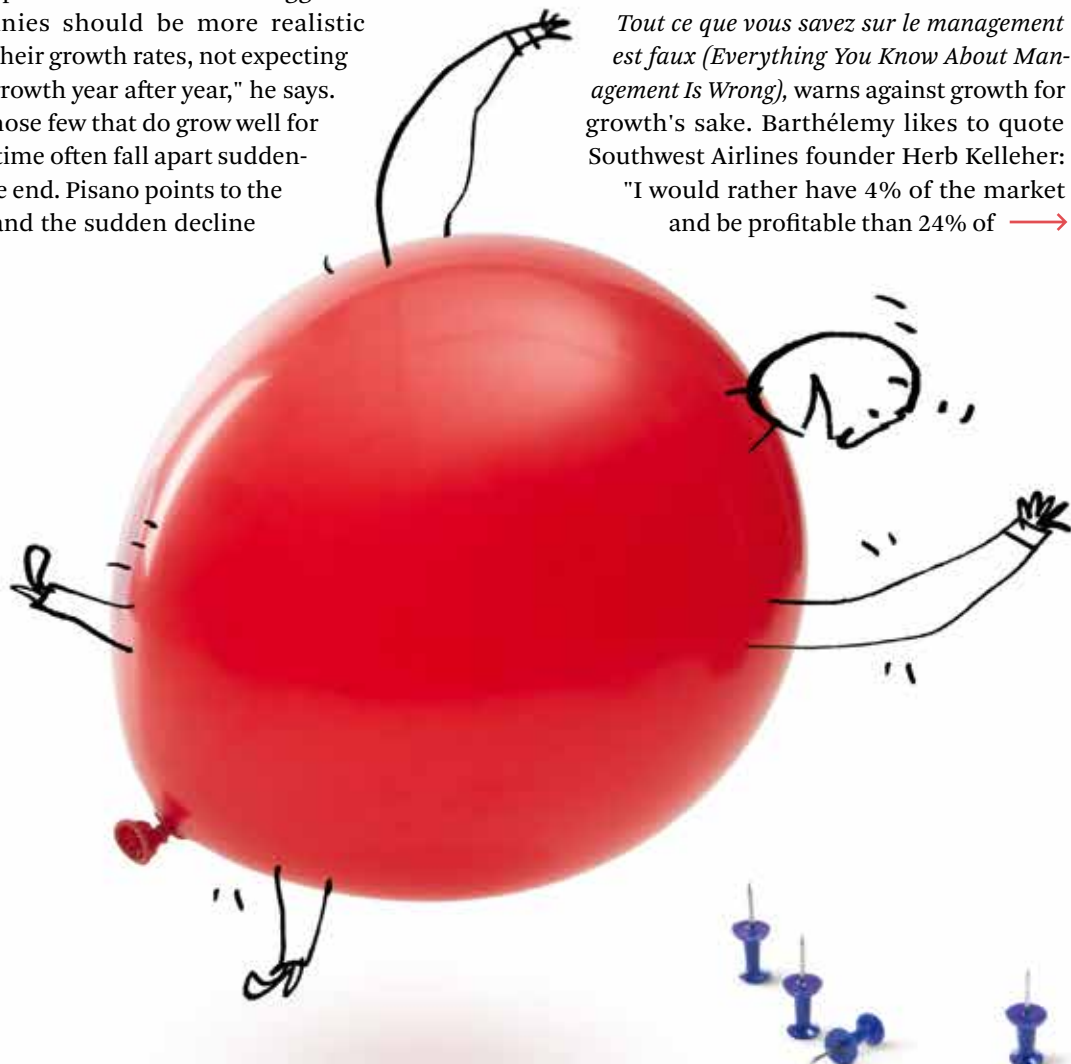


of Digital Equipment Corp. "Sometimes a controlled growth rate is healthier in the long run," Pisano notes. "Even though investors may want to see higher growth, it may be better to sacrifice some short-term growth to gain persistence."

Jérôme Barthélemy, professor of management at ESSEC Business School and author of

*Tout ce que vous savez sur le management est faux (Everything You Know About Management Is Wrong)*, warns against growth for growth's sake. Barthélemy likes to quote Southwest Airlines founder Herb Kelleher:

"I would rather have 4% of the market and be profitable than 24% of —→



**0.5%**

Goodyear's compound average annual growth rate between 2001 and 2017, which Gary Pisano points to as healthy growth in their industry.

**53%**

The compound average annual growth rate of Google between 2002 and 2017, which Pisano uses to illustrate that growth prospects will vary across different markets.

RETHINKING GROWTH



RETHINKING GROWTH

the market and lose money." Barthélemy says where companies go wrong is that "those who aim for growth often reverse cause and effect. While success leads to growth, growth does not necessarily lead to success."

Making a reference to British economist John Kay's 2010 book *Obliquity: Why Our Goals are Best Achieved Indirectly*, Barthélemy points out that the fastest-growing companies tend not to pursue that growth directly. Often, Barthélemy says, growth is like happiness – you can't really achieve it through direct pursuit. "Growth is something that comes out of a robust strategy and it will come naturally. If you focus on growth per se, then you can get into trouble," he says, noting that corporate crashes tend to be divided almost equally between companies that failed because they grew too slowly and companies that died because they grew too quickly.

**6.** "OWN IT." At Acceleration Partners, a young affiliate marketing company with more than 150 employees headquartered in Needham, Massachusetts, CEO Robert Glazer saw many peer companies taking outside risks to grow when he decided that if he made Acceleration Partners a great place to work, the company would attract great people, who would in turn raise the company's level of performance.

In order to support that strategy, he changed the stated corporate values in a way that also focused on commitment to work rather than the results. Instead of just asking for accountability, he

wanted employees to "own it," he said, by which he meant not only that individuals should be accountable for a project, but that they take complete charge of it. Instead of the passivity that can creep into traditional corporate work – I did my part; too bad the project failed – he wanted to see employees who were "owning it," who felt they had an entrepreneurial stake in the outcome.

Indeed, this proved to be a difficult shift at first. "It's harder for people to grab on to things that are more qualitative than 'we want to get to X million in revenue,'" Glazer said. But just two years later, Acceleration Partners has won a number of awards from Glassdoor and other company evaluation firms as a great employer. The company is still growing, but when Glazer and his team make decisions now "it's through a long-term lens ... it's not, 'how fast can we drive the bus for the next three months?' as a lot of our industry does. We want our mantra to be: The journey is the destination." ■

**14%**

According to a recent report, the amount of jobs that could disappear in the next 15 to 20 years as a result of digitalization.

**INDIVIDUALS SHOULD BE ACCOUNTABLE AND TAKE CHARGE OF A PROJECT.**

# IN PRAISE OF GROWTH



BY **Stephen Moore**

**L**iberals in the US seem to be almost openly contemptuous of growth and prosperity. They often ask: What is this infatuation with "growth mania?" The answer is that faster growth may not alone solve every socioeconomic ill, but it makes every economic problem easier to solve.

Now as we are preparing for the 2020 US presidential election, the field of candidates, led by Massachusetts Senator Elizabeth Warren and Vermont Senator Bernie Sanders, are running on a platform of wealth redistribution, not wealth creation. Warren has soared to the top tier of candidates by promising to sock it to the rich.

**LEADING DEMOCRATIC** intellectuals, like Larry Summers of Harvard, now say that America and many advanced economies have to prepare for a future of "secular stagnation," by which he means a GDP growth rate of 2% per year should be the goal. Western nations shouldn't shoot higher, they say. This is as good as it gets.

Then there is the new darling of the left, the teenage climate change activist Greta Thunberg, who told the UN that our obsession with growth is destroying the planet. The climate change lobby insists that we need *less* growth – and that's the only way to save civilization. Less people and output. Less capitalism. Lower living standards. That is evidently

the cure to what ails the planet. It's hard to see how this austerity mindset and the radical redistribution strategy of the new left will create prosperity, when many say they don't even want it.

**BACK IN 1960**, Democratic candidate John F. Kennedy ran for president and won by promising the American people in his speeches that the best was yet to come with his trademark Boston accent: "We can do *bet*tah." The economy had been growing slowly under President Eisenhower, but JFK wanted faster progress than the 2.5% growth of 1960. He wanted 5-6% growth. We got there, and we saw middle-class economic fortunes soar. But now many liberals hate growth and economic success because it makes the rich richer.

So why is faster growth so critical? Because it expands the economic pie rather than divides it. Take the national debt. Our debt could explode to 150% or even 200% of our annual economy in the next three decades. That can't happen or we will look like Greece or Detroit or Puerto Rico. But with growth above 3%, the debt not only stabilizes, it falls as a burden each year. We *can* and will grow our way out of the debt crisis.

We see in the US in recent years that higher growth rates are now leading to higher wages for middle class workers, very low unemployment, low interest rates for Americans who want to take

out a mortgage to buy a home. There is now more money for schools and health care coverage. The benefits of growth are widely distributed. High growth has corresponded with a 50% rise in the stock market, which also benefits not just the rich, but the tens of millions of American families with retirement accounts and stock ownership.

**MOST SURPRISINGLY**, economic growth is highly correlated with environmental improvement. Wealthier countries are much healthier countries: Nations that are rich and economically free have life expectancies 25 to 30 years longer than poor nations with strict economic controls. Wealthy nations have cleaner air and cleaner water than poor nations.

The left has been too preoccupied with the gap between rich and poor rather than creating a rising tide that lifts all boats. The goal should be to make poor people richer, not rich people poorer. Sometimes political leaders get confused. Back in the 1960s, the Beatles sang that "money can't buy me love" – but it does buy a lot of human improvement and makes life on Earth for the poorest people better. History proves it time and again.

**Stephen Moore** is co-author of the book *Trumponomics* and contributed to *The Wall Street Journal*. He is now the Distinguished Visiting Fellow at The Heritage Foundation.

# WHY BUREA

RETHINKING GROWTH





# BUREAUCRACY MUST DIE

**Too many barriers, rules and red tape can do more than cause frustration – they can even cost an organization its ability to innovate.**


**Legendary management guru Gary Hamel has a plan to smash the system.**

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BY **Geoff Poulton**

PHOTOS BY **Büro Schramm für Gestaltung GmbH**

ILLUSTRATIONS BY **David Despau**



## "WE WANT THE BENEFITS OF BUREAUCRACY WITHOUT THE ATTENDANT COSTS."

### RETHINKING GROWTH

**G**ary Hamel is frustrated. The influential management thinker is on a mission to "bust bureaucracy," a multi-trillion dollar drag on global productivity and innovation as well as employee satisfaction. And he feels passionately about it – too passionate, some even say. One *Financial Times* article said academics find his rhetoric "overblown."

Does that seem harsh? Letting out a gentle sigh, he pauses momentarily before listing off a ream of statistics in response. "Here's the deal: We know that only 13% of employees around the world are emotionally engaged in their work. More than a third are actively disengaged. We know that nearly three-quarters of US jobs require little or no originality. The average first-level employee in a large company is buried under eight layers of management. Nearly 80% of respondents to one global survey said new ideas are met with skepticism or hostility at work. If people are comfortable with all those facts, then I suppose they could argue our rhetoric is overblown. I'm not comfortable with all of those facts."

The negative impact of excessive bureaucracy is such that Hamel believes it costs the US economy more than \$3 trillion in lost economic output a year. Among OECD countries that rises to \$9 trillion, he and Michele Zanini, co-founders at the open innovation project Management Innovation Exchange, wrote in 2016. It's a massive global issue. But how did we come to find ourselves in this position? "You have to look at what bureaucracy

was designed to achieve when it was introduced 150 years ago: unprecedented levels of control, coordination and consistency. All necessary things," says Hamel. Without bureaucracy, large-scale breakthroughs like the automobile would never have been possible. But the world has changed tremendously since then: Today's employees are more skilled, communication is instantaneous and change is lightning fast.

**BUREAUCRACY WAS AN INVENTION** of its time – now we need to move on. "It's like a combustion engine," Hamel says. "It's valuable and serves a lot of purposes, but it also produces plenty of bad side effects." Because bureaucracy gives control through narrowly constructed job roles and lots of rules and policies, it is typically kryptonite to agility and innovation. At a time when global economic growth is slow and the IMF calls the outlook "precarious," companies would be particularly well-served by attempting to reduce bureaucracy. →

## SIX STEPS TO HAPPINESS: HOW TO BUST BUREAUCRACY

1. Create small, autonomous teams that are empowered to make operational decisions.
2. Foster a culture of competition and collaboration between divisions.
3. Lose formal titles and job descriptions.
4. Build natural hierarchies based on competence.
5. Embed deeply shared norms and team values.
6. Simplify planning and processes.

8

The average number of management layers a typical first-level employee will find themselves under.

\$3  
TRILLION

The annual estimated cost of excessive bureaucracy to the US economy alone.

**BLINDED BY THE  
PAPER BLIZZARD**  
*Response time  
to opportunities  
will suffer when  
internal barriers  
multiply.*

But it remains hard to shift. In 1988, Peter Drucker assumed we were leaving the bureaucratic age. In 20 years, he wrote, the average organization would halve its layers of management and shrink managerial personnel by two-thirds. He was wrong. Since 1983, the number of bureaucratic jobs in the United States has more than doubled, while all other employment has gone up by less than 50%.

**BUREAUCRACY'S STAYING POWER** is partly because, to a degree, it works. It facilitates a certain level of efficiency at scale. It's also familiar. But it's self-perpetuating. "Bureaucracy is a natural incentive to build fiefdoms," says Hamel. "Many staff groups – HR, finance, planning – justify their existence by issuing policies and mandates, red tape and rules. Every time there's a new challenge, bureaucracy responds by creating more bureaucracy. Power goes to the center. And people don't usually give back power. The result," he says with disappointment, "is organizations that are less adaptable, creative and inspiring than we are."

In 30 years of working with leading companies across the globe, Hamel, who has been widely

# 17

The ratio of managers or administrators to workers, excluding support staff, in the US in 2014 based on Hamel's analysis of data from the Bureau of Labor Statistics.

hailed as one of the world's most innovative business minds, says he has never met a CEO who thinks bureaucracy is a good idea. "They're just not sure what to do about it." Simply cutting back on management won't do the trick. There are plenty of companies that tried that following the 2008 financial crisis. It didn't take long for managerial employment to quickly rise again.

Nor will ensconcing a company's creative talent in a corporate accelerator in Silicon Valley. "Most of these aren't incubators, they're orphanages. Hipster money pits. They don't get the support and love they need," Hamel says dismissively. Change has to come by altering the management model to unleash the problem-solving skills in every employee and make innovation something that happens because of – rather than in spite of – the system. "It's a very stubborn and challenging transition," Hamel offers as a warning. "If you rip bureaucracy out completely, you'll have chaos. We want the benefits of bureaucracy without the attendant costs. It's about revolutionary goals and evolutionary steps."

**THERE ARE SOME KEY STEPS** in this process, the first of which is challenging indifference. "Change only happens when people want it to. We cannot be indifferent to a system that impedes freedom to profit from our natural gifts." To convince people, they need evidence. Just as many companies now track and report environmental impact, the same should be true of their bureaucracy. How many management layers are there? How long does it take to review budget requests? How much time is spent on ensuring compliance versus supporting innovation and growth? "The true costs of bureaucracy are often invisible," says Hamel. "These things don't show up on the P&L."

Companies often try to cover that cost through consolidation, he continues. "Big companies are getting bigger. When incumbents are under pressure, their first instinct is not 'How do we build a leaner craft?,' it's to lash themselves to another wallowing supertanker. That brings greater political economy, an ability to influence regulation and throw up barriers to rivals, but it doesn't bring economies of scale." The next step is identifying role models. Leaders need credible examples of organizations that have learned how to achieve the goals of bureaucracy without the costs. The last step in the process is perhaps the hardest of all, Hamel says: "You cannot dismantle bureaucracy without redistributing power."

## SEVEN KEY "HAMELISMS"

### On the necessity of bureaucracy:

"It's like a combustion engine: it's valuable and serves a lot of purposes, but it also produces plenty of bad side effects."

### On bureaucracy's self-perpetuation:

"Every time there's a new strategic challenge, bureaucracy just responds by creating more bureaucracy."

### On corporate incubators:

"Ninety percent gimmick. Most of them aren't incubators, they're orphanages. Hipster money pits."

### On the importance of role models for progress:

"While one might hope that more CEOs were bold pioneers, the fact is most of us wouldn't have sailed with Columbus – we'd have waited for the TripAdvisor review."

### On the balance of power:

"In a post-bureaucratic organization, power trickles up, not down."

### On leadership:

"Imagine you have no title, no budget control, no sanction. What can you get done? If you're lost and the answer's 'nothing,' then you're probably a bureaucrat."

### On the biggest challenge leaders face:

"It's not digitalizing the business model, it's reinventing the management model so they can change as fast as the world around them."



# "YOU CANNOT DISMANTLE BUREAUCRACY WITHOUT REDISTRIBUTING POWER."

That's what Haier has attempted to do. Once a struggling, state-owned enterprise, the Chinese company has been transformed by long-standing CEO Zhang Ruimin and is now the world's largest appliance maker, with 80,000 employees. Over the last decade, Zhang has divided Haier into more than 4,000 'microenterprises' of 10-15 employees. Each one can set its own strategies, make hiring decisions and set pay and bonuses. They are free to buy services from each other or use external providers. "The result is a company with greater accountability and a more open ecosystem of partners and enthusiastic entrepreneurs," says Hamel. Over the past decade the gross profits of Haier's core appliance business have grown by 23% a year, while revenue has increased by 18% annually. The company has also created more than \$2 billion in market value from new ventures.

Haier's transformation, however, did not take place overnight. The company started out by testing the microenterprise concept with small sales and marketing teams. Some things worked, some didn't, but eventually it established a successful formula. "You're not going to create a management model for the future with a big top-down change



**Gary Hamel**

The most reprinted author in the history of the *Harvard Business Review*, Gary Hamel is widely recognized as one of the world's leading experts on business strategy and is regularly ranked in the Thinkers50. He serves as the director of the Management Innovation Exchange and teaches at the London Business School.

program," Hamel says. "It has to emerge through an iterative process of imagination, experimentation, and learning."

Companies like Haier, or W.L. Gore, which has a flat, lattice structure that values meritocracy and accountability [see p.32], are at what Hamel calls the "post-bureaucratic vanguard." But he stresses that they are far from perfect. "I don't think there's any company out there right now that I would point to as an example of a fully-fledged, post-bureaucratic organization. We're just feeling our way towards this future."

**CHANGE IS INEVITABLE** but may be long overdue, he believes. "The world is moving too fast. Leaders recognize that they are facing challenges outside the performance limits of the old management model. Technology is changing how we interact and it's shifting mindsets. It is also allowing us to manage large-scale collaboration without the bureaucratic overhead. And we're moving into the first ever generation whose primary social reference point is not a pyramid. They're not going to work in organizations where you're always managing up and battling politics."

Hamel likes to use several dramatic analogies of how "inhuman" social systems can change, such as aristocracy, slavery and patriarchy. At the heart of each case was not the argument that it didn't work, but that it was wrong. "Bureaucracy's waste of human potential is morally indefensible," he and Zanini write in *The \$3 Trillion Prize for Busting Bureaucracy*. There's no better time than the current low-growth environment for organizations to recognize this and begin to experiment in how to cut bureaucracy and boost innovation. Hamel believes the result will be a substantial advantage in productivity and performance, as well as the chance to finally build organizations "that are as amazing as the people who inhabit them." ■

**YOU***DUNBAR'S NUMBER***No****THE INNER  
CORE OF  
INTIMATE  
FRIENDS****15  
BEST  
FRIENDS****GENERAL  
FRIENDS****50  
GOOD  
FRIENDS**

# A NUMBERS GAME

British anthropologist **Robin Dunbar** has identified the optimal number of people for social groups. So before you think about growing your team or business, you would do well to consider how Dunbar's number might be able to help you achieve maximum efficiency in the very best network.



RETHINKING GROWTH

BY **Janet Anderson**

ILLUSTRATIONS BY **David Despau**

**T**he structure of our minds is such that we can't really handle very large numbers of relationships. We use tricks to create massive conurbations, nation states, global businesses, but in reality, our social world is very small-scale," says Robin Dunbar, emeritus professor of evolutionary psychology at the University of Oxford.

In the Northwest of England, close to the city of Liverpool, the rivers Mersey and Dee form a peninsula known as The Wirral. This is where Robin Dunbar is "hiding away" to work on his latest book about friendship and community. He has spent much of his career thinking about these questions. Indeed, his research is concerned with trying to understand the behavioral, cognitive and

neuroendocrinological mechanisms that underpin social bonding.

**HIS MOTIVATION WAS CLEAR.** "I set out to resolve a dispute in primate literature about grooming. Primates spend an inordinate amount of time on grooming. Conventionally this was seen as just a form of hygiene," says Dunbar. "I speculated that there was more →

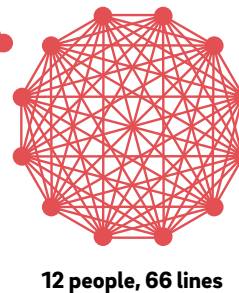
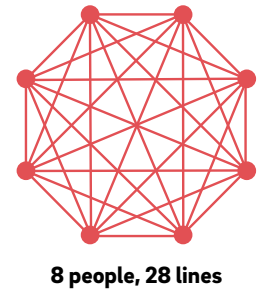
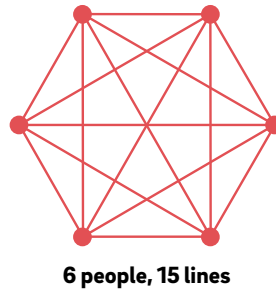
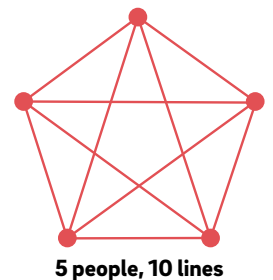
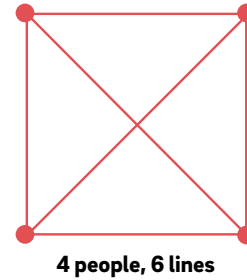
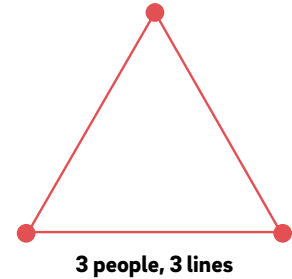
# COMMUNICATION COMPLEXITY

to it: Why do some species invest about 1% of their time and others 20% performing this task – even with the same amount of fur?" He proposed that the function of grooming had in fact been co-opted as a social bonding mechanism and looked at how this correlated to social group size. "The more individuals there are in a group, the more time is spent on bonding," he says. Following the social brain hypothesis, which assumes that primates have big brains because they live in complex social groups, there had to be a three-way correlation consisting of brain size, group size and time spent grooming.

**THIS WAS INDEED THE CASE** and these findings prompted Dunbar to see if they could be translated to human social groups – to predict what the human group size ought to be given the size of our brains. The number turned out to be 150. "It seemed small, so I set out to see if it exists," he says. He started by collecting data about hunter-gatherer societies – the kinds of societies we have lived in since our earliest evolutionary days – and arrived at the same number. Soon after, the number was turning up everywhere, in all areas of contemporary life: The smallest unit that can stand on its own in modern armies is the company, which has a range in size of about 120 to 180 around the world. It is also the size of a small village, tribe or clan. A hundred and fifty turns out to be the limit on the number of people we will naturally cooperate with.

Dunbar's number, first proposed in the 1990s, quickly became a magical figure. Dunbar, himself reluctant to join internet-based social platforms, was unexpectedly labeled the guru of social

**When a group jumps from three to four, there may only be one more person, but twice as many lines of communication are suddenly at work. Add a few more and you soon have an intricate network to manage.**



networking. "It took me by surprise how it got latched on in the internet world," he says. In an age of unprecedented connectivity, several important questions arise with this evidence that the structure of our minds can't handle very large numbers of relationships: How do human societies respond to our brain's

intrinsic limitations? Do human communities in the shape of clubs, businesses, associations or government departments structure themselves naturally? And if they don't, what kind of constraints does that impose on them?

"It is worth looking at how human relationships shape, how group sizes scale up and define characteristic behavior. Like ripples set in motion by a pebble thrown into a pond, social relationships form around you in a series of layers with distinct sizes and scaling ratios," Dunbar explains. At the center, tightly knit relationships of approximately five shape the intimate core. These are the people who would

**"THE SIZE OF THE BUSINESS  
UNIT CAN AFFECT SUCCESS."**

THE

7

## PILLARS OF FRIENDSHIP

1. Growing up in the same place, especially during the core teenage years.
2. Speaking the same language.
3. Having the same education.
4. Enjoying the same hobbies.
5. Sharing the same moral or political point of view.
6. Sharing the same sense of humor.
7. Sharing the same musical taste.

Dunbar's number is 150 – the ideal size of a group in which the members work well together. The relationships within such a group, however, are built on a number of pillars: The more of these pillars the members of the group share with each other, the more they will think and behave in the same way, which means the more they will trust each other and work together effectively.

In today's world, we have become very good at building communities that are far bigger than 150 – some examples of which include political movements, religions and large corporations. These larger groups tend to be built on a single pillar such as a common sense of purpose: "We exist to do x." However, if that one dimension drops away, the community will evaporate because there is nothing else holding the people in it together. For groups larger than 150, no matter how much you try to create a sense of belonging, it will always be fragile.

For business, it therefore makes a lot of sense to organize around smaller groups – those within which real bonds and friendships can thrive. Going beyond this will impose constraints on efficiency.

drop everything to come to your aid. The pattern continues: 15, 50, 150, 1,500. "The members of a football team, for example, know each other so well, they are in each other's minds," he says. Relationships are determined by the economies of time and emotion, investment and return. We put a lot of effort into our inner circle and are in turn rewarded with emotional support. We are more frugal when it comes to remoter layers and consequently the benefits received from these layers of relationships decrease proportionally.

**THE PRINCIPLE ALSO APPLIES** to more task-oriented contexts of the business world. Wherever people must cooperate and perform together, there are natural limits to the number of people we can do that with. Groups of around 150 originally formed to protect against raiders. Small-scale agricultural societies help each other during harvest without payment. They are very much based on close kinship, families and clans. Even without instant gratification there are long-term benefits resulting from such behavior. But no matter whether there are implicit or explicit agreements in place, beyond that number, people are less inclined to reciprocate and help.

"Moving to the outer spheres, that's where the people are that we see daily; colleagues, people we happily have a cup of tea with now and again but probably wouldn't invite to our big 50<sup>th</sup> birthday party," Dunbar says. "At around 500-strong, these people are acquaintances, and they tend to remain just that." At the level of 1,500 people, relationships change again. "This is the typical size of a tribe," says Dunbar. The distinguishing characteristic of these relationships is that they are strictly one-dimensional. The mechanisms used to bond these large groups in the past involved cultural characteristics like singing, dancing and storytelling. Today, we use other mechanisms.

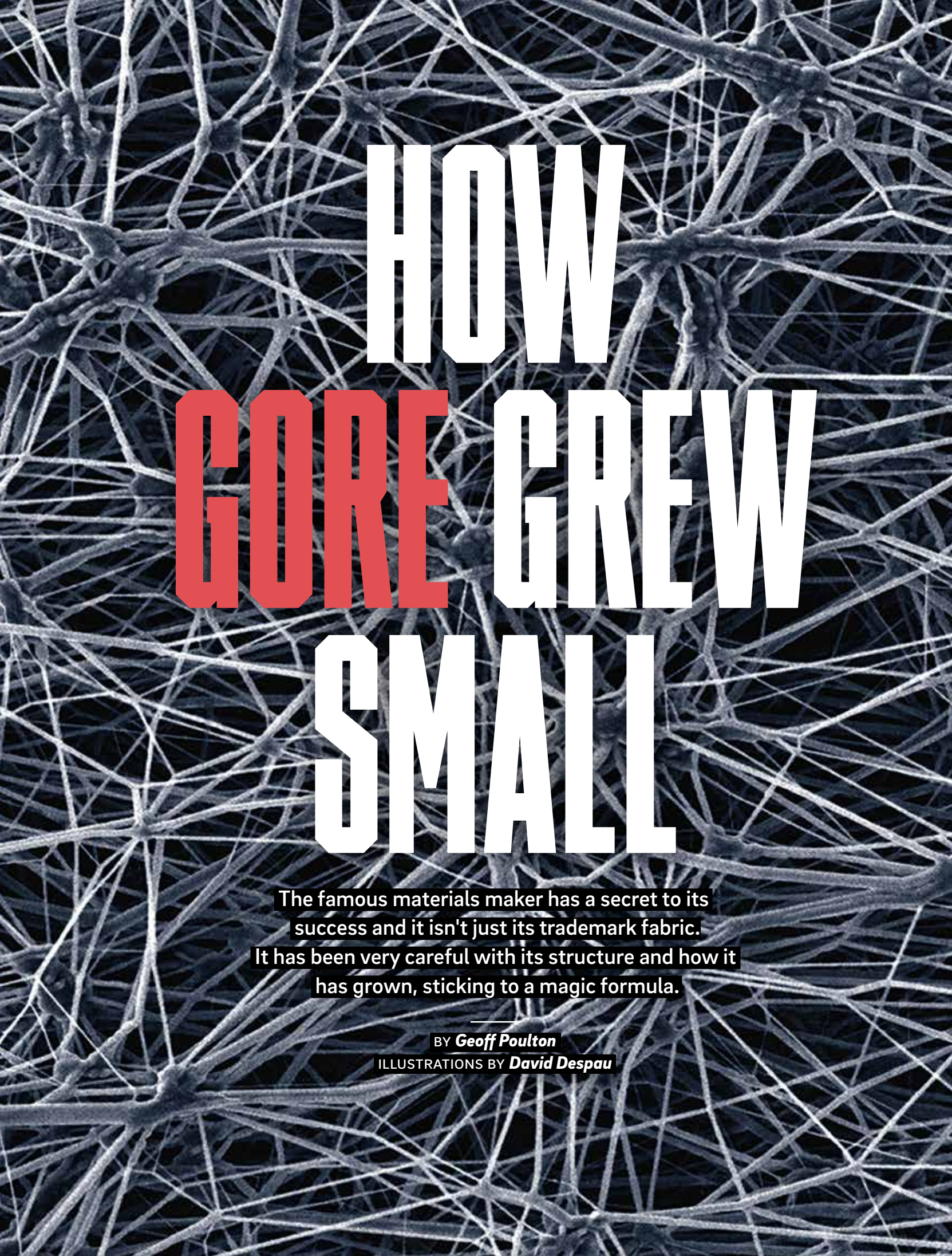
Indeed, in today's world humans have become very adept at exploiting one-dimensional relationships that

scale up extremely well – this is the fabric that holds larger communities together such as religious organizations, political movements and large companies. The binding force is often a common belief, value, interest or sense of purpose. However, these large groups collapse very quickly if that common element evaporates.

"If we look at the business world, explicitly task-oriented relationships tend to be weak and of short duration. A recent analysis of friendships among banking professionals in Chicago found that close relationships lasted on average only for six months as opposed to typically three years for non-family friends. People simply moved on constantly. With the common goal disappearing there was simply not much reason to carry on," says Dunbar. Similar relationships are found within the world of online gaming. They are alliances that serve as purely functional, created for a specific task at a certain stage of the game, and they only last until the task is completed.

**IN THE BUSINESS WORLD**, these insights offer some valuable lessons for maximizing team interaction. "The sociology of business shows that the size of the business unit can affect success. In units smaller than 150, more friendships are formed. Above 150, the sense of common purpose weakens," says Dunbar. Large organizations run the risk of infighting. Rivalries build up between departments and employees are reluctant to keep management informed about problems.

The conclusion is that it is better to install smaller units that are semi-independent of each other. But that is not all. Success may also hinge on providing a sense of purpose beyond pure function. "There are businesses that work very hard to achieve a sense of community. And it really matters," says Dunbar. "We need a common sense of belonging – a totem pole in the middle of the village green where we can all hang our jackets." ■



# HOW GORE GREW SMALL

The famous materials maker has a secret to its success and it isn't just its trademark fabric. It has been very careful with its structure and how it has grown, sticking to a magic formula.

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BY **Geoff Poulton**

ILLUSTRATIONS BY **David Despau**

**INNOVATION  
UNDER THE  
MICROSCOPE** The  
unique structure  
of expanded  
PTFE opened  
the door for new  
applications for  
fluoropolymers.

One night in 1969, Bob Gore's frustration got the better of him. It was late in the lab of the company founded a decade earlier by his parents and he was looking to fulfill a large order for a less expensive PTFE tape – a polymer used to insulate cables. After his repeated attempts to stretch the substance had failed, Bob yanked on a length of tape, which suddenly expanded to 10 times its original size. Completely by accident, he had stumbled on a new material, "expanded PTFE" (ePTFE), which led W. L. Gore & Associates (Gore) into a world of new applications and innovations. Today, 50 years on, ePTFE can be found in hundreds of different products. It's best known for helping to make Gore-Tex, the lightweight, waterproof fabric used in clothes and shoes, but is also present in everything from lifesaving medical devices to industrial sealants to the data cables on the International Space Station.

This incredible material has played a huge role in the success of Gore. The company set up by Bill and Vieve Gore in their basement in 1958 is a world leader in materials science with \$3.7 billion in revenue and 10,500 employees spread across more

than 25 countries. Gore doesn't call its workers "employees," however. They're known as "associates" – one of many organizational distinctions that set the company apart from its peers.

A major factor in its success is the relationship between its associates, which it nurtures through a flat, "lattice" organizational structure. At Gore, everybody is accessible to everybody else when it comes to pursuing innovation. Associates are given time to build their networks, choose which projects they work on and who leads them. As best-selling management author Gary Hamel →

25

The number of countries in which Gore has offices, including manufacturing operations in the US, Germany, UK, China and Japan.

RETHINKING GROWTH



**BOB GORE BUILT ON THE  
FOUNDATION OF HIS PARENTS' COMPANY AND  
CAME UP WITH A NEW MATERIAL IN 1969.**

Robert W. "Bob" Gore, Engineer and inventor of Gore-Tex

5,500

The number of patents Gore has been issued worldwide in fields including electronics, medical devices and polymer processing.

wrote: "I've had the opportunity to peer inside a lot of organizations. In doing so, I've learned that most big companies are pretty much the same, at least when it comes to the way they're managed. One amazing exception is W. L. Gore & Associates."

**AN INTEGRAL PART** of this dynamic is the size of each company location. To maximize the benefits of the relationships between associates, Bill Gore decided to cap the population of any facility at around 150, the point at which he found "we decided" became "they decided." A similar theory was later put forward by anthropologist Robin Dunbar [see article p. 28]. He said that 150 is the maximum number of individuals with whom humans can have a genuinely social relationship. In his book *The Tipping Point: How Little Things Can Make a Big Difference*, Malcolm Gladwell says this approach means that at Gore, it is much easier for new ideas and information moving around the organization to "tip" – that is, "to go from one person or one part of the group to the entire group all at once."

To ensure these ideas and information bring value to the organization, Gore has a very distinct company culture. Inspired by Douglas McGregor's thoughts on the meaning of work and Abraham Maslow's hierarchy of needs, Bill Gore established an organization that largely eschews titles, bosses and excessive bureaucracy, instead promoting

trust, initiative and natural leadership to create products that have a meaningful impact on society. "It is through these lattice organizations that things get done," he said. "Most of us delight in going around the formal procedures and doing things the straightforward and easy way."

It is now more than 40 years since Bill Gore stepped down from the company, but his principles remain. Roles and responsibilities are defined, but there is no strict organizational chart. Self-managed teams form the basic building blocks of the company, each loosely assigned to one of four major divisions: fabrics, medical, industrial and electronics. Leaders (not bosses) are voted for rather than appointed from above and peer assessment plays an important role in salary levels and career progression. At Gore, if you call a meeting and people come, then you're a leader. If they don't, then you're probably at the wrong company.

**KEY TO GORE'S SUCCESS IS** an encouragement to experiment, innovate and pursue ideas. Ten percent of an associate's contracted hours are devoted to "dabble time," which is not part of any assigned projects. "At Gore, if you have an idea, you are able to recruit a team to explore it further. People won't join you unless they think that idea is a good one," explains Deborah Ancona, professor of organization studies and the founder of the MIT Leadership Center at the MIT Sloan School of Management. Because they are given the autonomy to choose their assignments, Gore workers are more invested in their success.

By giving its workers the time and freedom to innovate, Gore has maintained a reputation for quality products while continually expanding its focus, resulting in decades of organic growth. In 1996, Gore crossed \$1 billion in revenue. In 2007, it was \$2 billion, then \$3 billion in 2012 and now

"YES, THERE'S A FREEDOM TO INNOVATE, BUT THERE ARE ALSO GUARDRAILS."

Deborah Ancona, Founder of the MIT Leadership Center

RETHINKING GROWTH



# "WE AREN'T CONSTRAINED BY MARKETS OR FINANCE, JUST BY OUR OWN CULTURE."

**Terri Kelly**, Former CEO of W. L. Gore and Associates



\$3.7 billion. Bill Gore's rule of 150 plays a key part in this, believes Keith Sawyer, professor in educational innovations at the University of North Carolina at Chapel Hill and author of *Group Genius: The Creative Power of Collaboration*. "If you put 800 people together in one building, they're more likely to head in the same direction. Split them up and you get more chance that they'll explore different paths. It's definitely a company that builds on the collective intelligence of the people within it." And by removing reliance on a few centralized leaders, the company can also scale more comfortably with operating teams equipped and empowered to make the right decisions in the right moments.

**SUCH A SPECIFIC WORKING CULTURE** requires a long socialization period – typically around nine months. Each new hire is assigned a mentor, or "sponsor" in Gore's language, to help with their induction and connect them to other associates. "Employees at Gore tend to have a very strong understanding of the business goals for the company," says Ancona. "Yes, there's freedom to innovate, but there are also guardrails. Everyone is responsible for upholding the 'waterline' principle, for example, which means avoiding actions that risk holing the boat without first consulting others."

Adjusting to life at Gore can be difficult, especially for those used to being directed. "When I arrived at Gore, I didn't know who did what," said one associate who had transferred from the fashion industry. "I wondered how anything got done here." Confused, she kept asking who her boss was. "Stop using the B-word," her sponsor replied. Those who take to it, however, tend to enjoy long careers. They are given stock in the private company to further strengthen their connection to its long-term success. For years, Gore has ranked highly on international lists of the best

**45  
MILLION**

The number of Gore medical devices that have been implanted worldwide as of 2019.

**\$3.7  
BILLION**

The revenue reported by Gore for the fiscal year ending in 2019.

places to work. Such a clear, identifiable culture has helped the company scale effectively but can have its drawbacks. According to former CEO Terri Kelly, who stepped down in 2018, Gore has tripped up in the past by confusing the core values, which don't change, with the practices for getting things done, which do.

The company admits it's been slow to embrace digital advancements in the workplace, for example. "We aren't constrained by markets or finance, just by our own culture," Kelly said in 2008. But as Gore tipped over into corporate middle age, she recognized that parts of that culture had to change for the company to maintain its success. The markets for Gore's most successful products are now mature and competition for ePTFE, the patented wonder polymer that makes up so many of its products, is growing.

Kelly turned to Steve Blank, entrepreneurship guru and one of the "godfathers of Silicon Valley." His work focuses on teaching larger companies like Gore how to incorporate cultural aspects from startups – "a way for existing organizations to build and test new ideas at blinding speed," he writes. Now, Gore hopes that by combining the "lean innovation management" elements of Blank's philosophy with its existing organizational flexibility, its associates will lead the company into a bold new era of innovation. And who knows, the next revolutionary material could be just around the corner.

RETHINKING GROWTH

# BIG NEW GROWTH THINKERS

# 3

Three of today's leading economic minds are challenging us to reconsider the way we view growth. One common thread runs through them all: It's time to slow down.

BY **Fred Schulenburg**

ILLUSTRATIONS BY **Supertotto**

## The cost of growth

For decades, the economics profession held that progress could be measured through economic growth. But Raworth argues progress should balance resource usage with protection of the planet.



## The virtuous circle

The way the economy works right now is simple: We receive wages and dividends for our labor; in return, we spend our earnings on various goods and services.



## New definitions

Policymakers recognize the old models aren't working and are looking for a new way forward with terms like "sustainable," "smart" and "lasting." Raworth says we need to widen our concept of economic development beyond simple "growth."



## 1 KATE RAWORTH

After a period of disillusionment with economics, Kate Raworth worked in development and at the UN before returning to economics. She says that right now we are nowhere near her vision of a more harmonious economy.

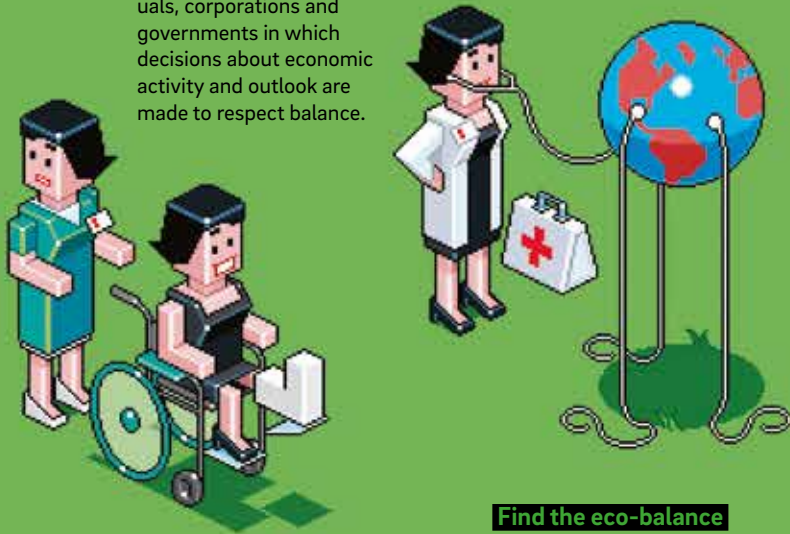


## Unpaid work, unfair pay

The current economic system ignores huge amounts of unpaid work, often carried out by women. Wages are increasingly unevenly distributed, leading to fundamental imbalances that are now spilling over into the political sphere.

**The human element**

The economy's focus should be on investing to sustain humanity. That means a reset by individuals, corporations and governments in which decisions about economic activity and outlook are made to respect balance.

**Find the eco-balance**

Not putting any demands on the planet won't work: We need to draw from the planet to survive as a species. If we push the planetary boundaries too far, we risk wrecking it. We have to find a balance that works.



# FINDING BALANCE WITH THE DOUGHNUT THEORY

A sugary pastry helps illustrate how we need to account for social needs, well-being and the environment.

**DOUGHNUTS ARE NOT NORMALLY** associated with a balanced, healthy approach to life. Yet for the economist Kate Raworth, the doughnut is a useful symbol. Raworth makes the doughnut akin to a compass. It can, perhaps, guide us toward a reworking of economics, a 21<sup>st</sup>-century overhaul. We need to find a better and more virtuous cycle of labor and reward that takes into account the currently ignored elements – the environment, social and domestic elements – which the doughnut's shape helps to represent.

**PEOPLE NEED TO BE PROTECTED** by new measures to help keep them in society's embrace – the sweet spot of the doughnut's "ring." In Raworth's model, there are resources we need for a good life, such as food, clean water, housing, energy, education, health care and democracy. The hole in the doughnut represents an area of deprivation of those needs. Beyond the doughnut are the Earth's environmental limits, such as climate change, water pollution and other problems with the natural world. So the area between those two positions is the ecologically safe and socially just space to inhabit, which in her example is the ring of the doughnut itself. You can see key elements of the problem, and solution, in the graphic to the left.

**THE HISTORY OF ECONOMICS**, Raworth argues, is one of "raising our sights." She looks back to classical Greece, where "economics" referred to household management and was later extended to the city-state of Athens. Adam Smith then extended it to the nation-state 2,000 years later. Were they here today, they would demand that we adapt our approach to the planetary age. This is the "most exciting task" for the new generation of economists. Investing in human, natural and social wealth will help sustain humanity. Perhaps her doughnut can help us find a balance and live in the sweet spot where everyone has enough and the planet can support it all.

**Rights need to be put right**

Hunger, deprivation and lack of access to items such as heating and water are an indictment of our current approach to growth. We need to deliver on basic human needs and rights. The UN is currently trying to play a role in this.



# A NEW WORLD WITH MAPS AND GAPS

Establishing key elements that have been missing or ignored in our economy will help to build a new one.

**A MAP ON WHICH SOME BITS** are quite clear and others quite faint – or perhaps even just blank: That's how Diane Coyle sees the current picture of economic growth and our attempts to define and measure it. And she has ideas about policies that need to be introduced to improve lives and reset our thinking.

Coyle thinks that businesses and nations are ignoring many of the critical items that contribute to growth today. The overall result, she argues, is a somewhat partial account of growth, which in turn results in an incomplete basis on which policy choices are being made. Her analysis has led her to the idea of a chart that needs filling in.

**CHANGING ALL OF THIS** will not be easy. Individual action, whether taken by people or by companies, will have limited effect. "Changes in [accounting] frameworks are driven by crises, often conflict," says Coyle. "We got the GDP we have because of World War II." Conflict – combined with a fundamental change in economics, such as through the emergence of new technologies – is what drives realignments in thinking as well as in methodology.

The question for her now is whether we are at such a tipping point. Does the current discontent with the limits of our understanding as to what constitutes growth crystallize into a movement for change? She is cautiously optimistic and says that she sees evidence of a real change in attitudes to growth – and that is proving especially true within the business world. Still, she argues, that change is only truly possible if collective efforts are made across multiple fronts. She suggests a "plural approach" – from professional bodies, at the industry level, through national accounting frameworks and up to international institutions such as the G7 group of the world's richest economies. This will boost awareness and also change the way in which we perceive growth going forward.

## Partial view of growth

We are ignoring many of the critical items that contribute to growth today. The overall result is a partial account of growth that is deceptive and lacking.

## Environment

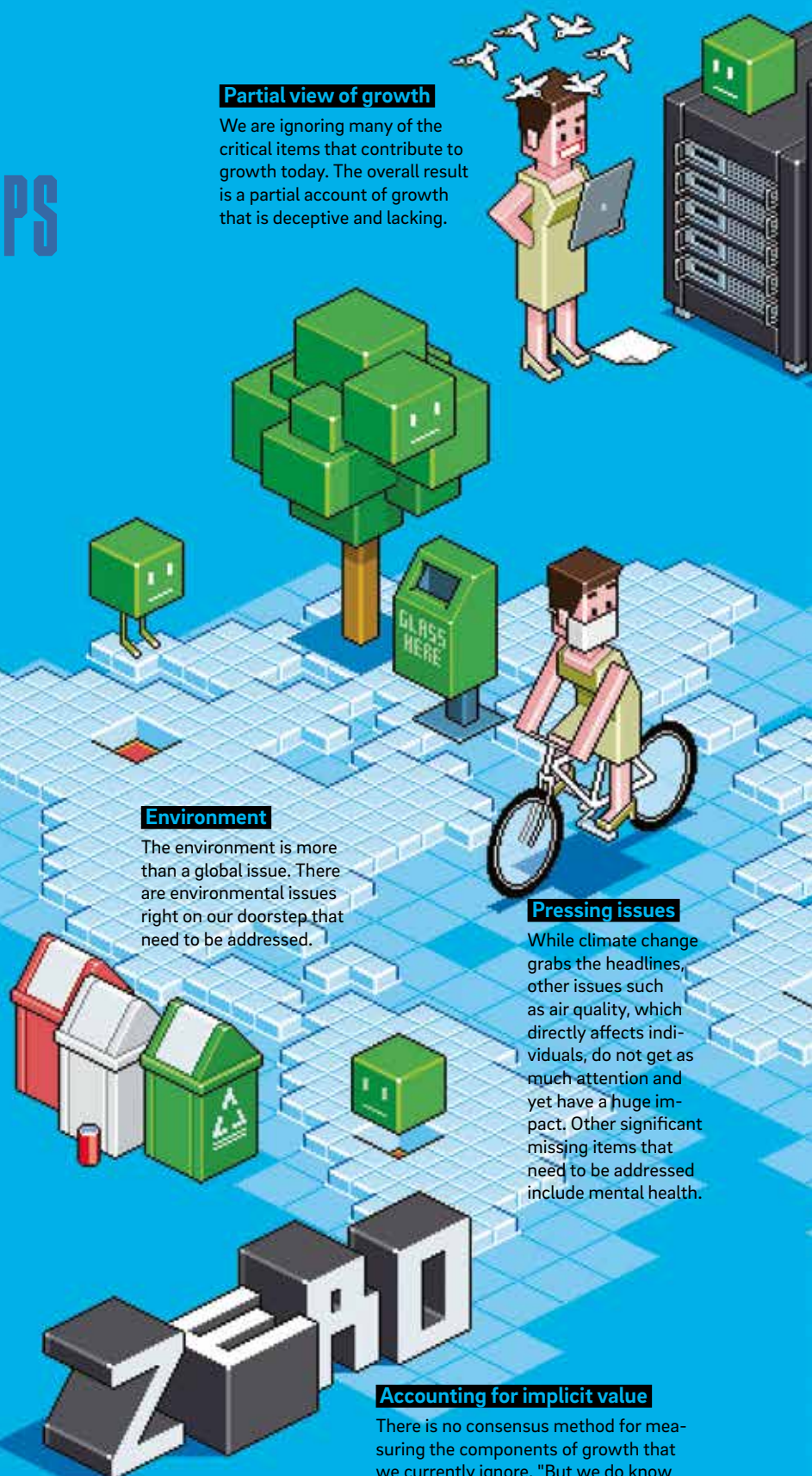
The environment is more than a global issue. There are environmental issues right on our doorstep that need to be addressed.

## Pressing issues

While climate change grabs the headlines, other issues such as air quality, which directly affects individuals, do not get as much attention and yet have a huge impact. Other significant missing items that need to be addressed include mental health.

## Accounting for implicit value

There is no consensus method for measuring the components of growth that we currently ignore. "But we do know that they are not zero," notes Coyle. The implication is that we need to put a value on and account for many things that are now set at zero, but which should not be, to change how we see the economy.



# 2

## DIANE COYLE

The Cambridge University professor and author of *GDP: A Brief but Affectionate History* aims at a more complete accounting for growth.



### Defining data's value

Data is a key component of the new economy but we need to measure its efficacy and harness it. "No one has any idea of the value of data and how they use it or how to use it properly," says Coyle.

### Working together

Change is possible if collective efforts are made that require input from professional and industry bodies through national accounting frameworks up to international institutions such as the G7 group and political and economic blocs such as the EU to boost awareness and change our perception of growth.

### Human capital

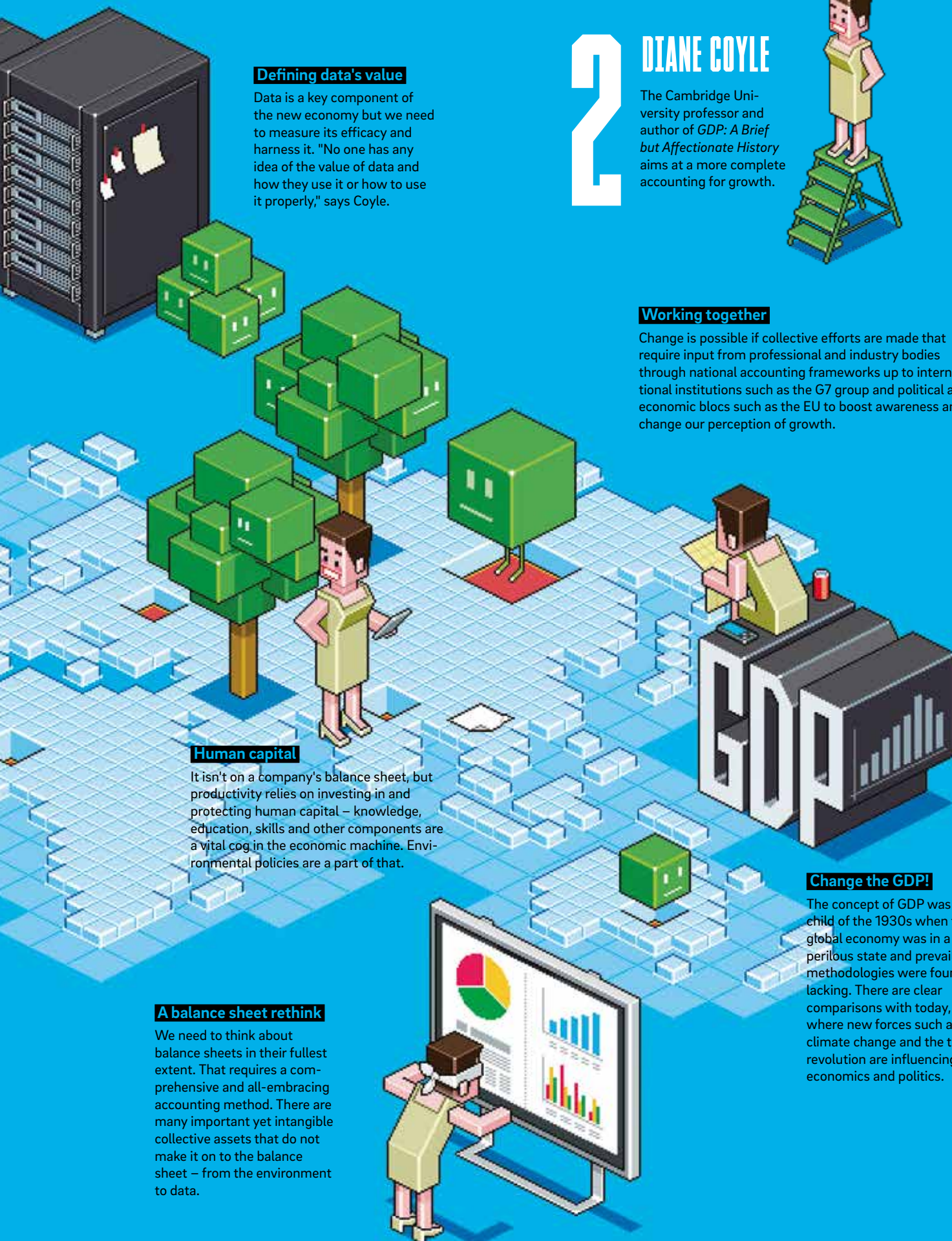
It isn't on a company's balance sheet, but productivity relies on investing in and protecting human capital – knowledge, education, skills and other components are a vital cog in the economic machine. Environmental policies are a part of that.

### A balance sheet rethink

We need to think about balance sheets in their fullest extent. That requires a comprehensive and all-embracing accounting method. There are many important yet intangible collective assets that do not make it on to the balance sheet – from the environment to data.

### Change the GDP!

The concept of GDP was a child of the 1930s when the global economy was in a perilous state and prevailing methodologies were found lacking. There are clear comparisons with today, where new forces such as climate change and the tech revolution are influencing economics and politics.



### The madness of wanting more (and more)

Humankind is at the "pinnacle of irrational stupidity," says Smil. We live in ever-larger houses, we drive ever-bigger cars and produce ever more food, a significant chunk of which is wasted. "A half-rational society would address this."

### From microorganisms to megacities

From microbes to flora and fauna, empires and babies: Only when we see the bigger "growth" picture – and its limits – do we realize just how misplaced and narrow our conventional perceptions of measuring the progress of economic activity are.

### Quantity growth has its limits

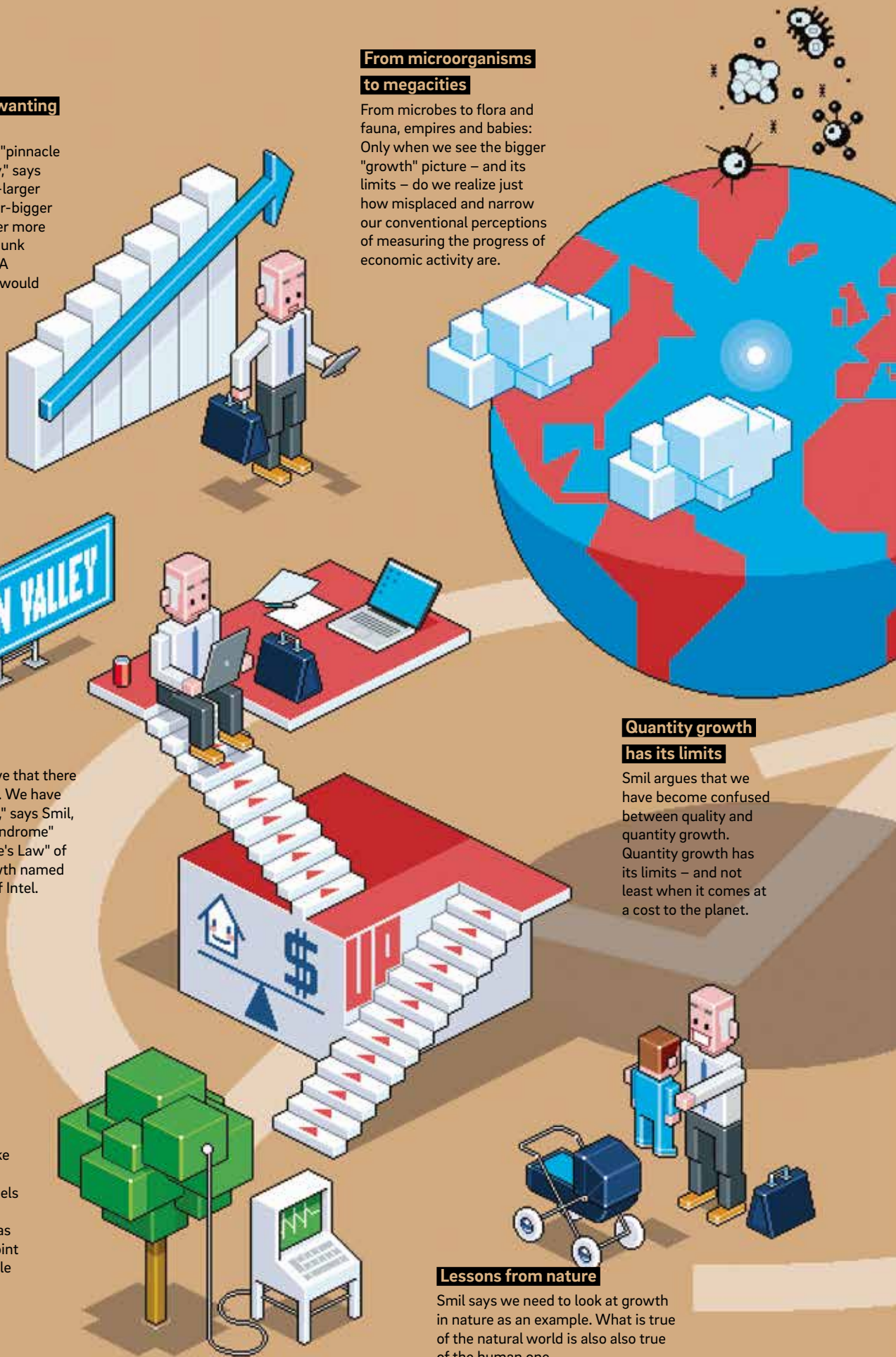
Smil argues that we have become confused between quality and quantity growth. Quantity growth has its limits – and not least when it comes at a cost to the planet.

### Environmental cost

There are challenges to environmental issues. Take Germany's move away from nuclear and fossil fuels as an example of how a well-intentioned policy has increased prices to the point that some citizens struggle to meet them.

### Lessons from nature

Smil says we need to look at growth in nature as an example. What is true of the natural world is also true of the human one.



3

## VACLAV SMIL

Professor emeritus at the University of Manitoba, Canada, Smil's ideas are referenced by economists and revered by leaders such as Bill Gates, who has said he looks forward to a new Smil book the way other people do the next *Star Wars* movie.

**Quality growth**

Quality growth can, and should, continue to deliver better outcomes in areas such as health care, education or environmentally beneficial cars.

# THE CASE FOR CREATING QUALITY GROWTH

It is vital that we look at the kind of growth we are creating and not just growth for growth's sake.

"**THERE ARE LIMITS EVERYWHERE,**" says Vaclav Smil. "Of course growth has to come to an end. No trees grow to heaven." The environmental scientist has spelled out his thoughts in his recently published book *Growth: From Microorganisms to Megacities*. He claims that as a resident of "flyover country" – the central expanse of North America that most only see from the air – he is a voice on the margins of the economics debate.

Smil argues that we have become confused between quality and quantity growth – and that humankind has reached the "pinnacle of irrational stupidity" in how we consume. Things have to stop. The challenge is how to do so. "Single, simple solutions" – like the blanket application of a fee to offset the environmental costs of various goods, services or activities – are not the answer, he says. While putting a price on behavior might work in an egalitarian society, in inequalitarian ones, which increasingly applies to the US, implementing such a charge will hit the poorer members of society the hardest.

**A MORE NUANCED APPROACH** at various levels, Smil argues, would be a better way to address the problem. "Voluntary abnegation" – individual decisions to scale back and eliminate waste – is one starting point. Another is to establish greater transparency about the "real" price of the goods that we buy. "We pay no fair price for anything. There are subsidies everywhere," says Smil. "We don't know the real price for bread, cheese or gasoline." He adds: "We need to get to those numbers and start acting on them."

The response needs to be graduated, given the unintended consequences of simply relying on price as a tool for changing behavior. The critical step is establishing awareness of the facts. Above all, a key step toward addressing the current challenges needs to be changing our own conception of growth and realizing that "ever onwards and upwards" is not a rational approach.

RETHINKING GROWTH

# CRUISING OVER

## OVERFLOODED

→ THE NEW VIEW OF VENICE

Venice is one of the world's most popular destinations – its 25 million annual tourists may be disappointed, however, if they expect the intimate gondola rides and clear views across the Grand Canal that populate online platforms. The city is now taking measures to limit the overcrowding and environmental impact caused by the giant cruise ships that pour in daily – but not before British artist Banksy was able to comment on the situation with an unofficial installation during the 2019 Venice Biennale, pictured here.



# THE EDGE

RETHINKING GROWTH

Has the internet changed the way we see the world and how we travel through it? With influencers and tourist boards using data to fine-tune their social media and awaken our FOMO – "fear of missing out" – others are asking how we can protect the environment and quality of life in the places we now flock to photograph.



## MEETING THE MACABRE

### → THE RISE OF DARK TOURISM

The 9/11 Memorial, Auschwitz and Chernobyl: Sites of unspeakable tragedies are now also popular destinations. So-called "dark tourism" may have a brighter lining, however, as the local tourist board is quick to point out that China's Wenchuan Special Tourism Zone (pictured above), site of the 2008 earthquake that killed 69,000, has helped create more jobs for survivors and promote local culture.

## INSTA-TROPES

### → THE CULTURE OF SHARING

From social connection to the desire to emulate our peers, Instagram plays with our primal instincts. And with over 1 billion active users, those seeking influencer status on the platform – popular users who can make sponsorship deals with brands – have to stick out. Influencers and their marketing agencies have developed their own algorithms to determine the colors, posting times, hashtags and types of images that will drive the highest levels of interaction. That can mean more influence on the market, but it also means you may see some themes repeating as you scroll through your feed.

RETHINKING GROWTH

## PARIS, WHERE?

### → SIMULATED CITIES

In 2018, Chinese residents took 1,326% more overseas trips than they did in 2000 – a trend that overlapped with a boom in Chinese town planning developments that carefully mirrored foreign cities. Construction on Tianducheng, China's Paris (pictured top and bottom right), began in 2007 and the city boasts a one-third scale replica of the Eiffel Tower. But this suburb of Hangzhou isn't alone: China's own versions of London and Jackson Hole, Wyoming are now destinations for tourists, even if they never became the thriving communities planners once imagined.





RETHINKING GROWTH

## VOLUNTOURISM

### → SELFLESS OR SELFISH?

With packages that promise the opportunity to travel while making a difference, "voluntourism" boomed in the 2010s. Yet these arranged trips have come under increasing criticism: The length of an average stay is often too short to help establish continuity in the visited communities with some volunteers appearing to place more importance on perfecting their social media than affecting social change.

## IN THE FRAME

→ A CONSTRUCTED REALITY

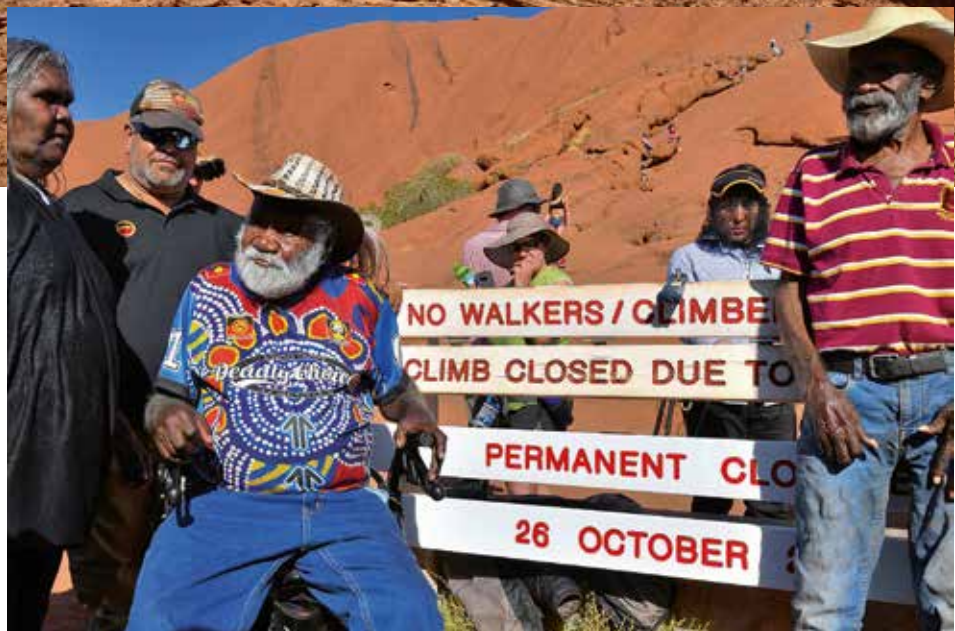
Even after waiting in line for a shot that creates the fantasy of being alone at crowded sites like Cambodia's Ta Prohm and Angkor Wat temples, professional Instagrammers will remove any signs of other people using software while manipulating other elements to maximize engagement with their posts. The process makes for beautiful images – but also for unrealistic expectations.



## TAKING BACK SPACE

→ CALLS FOR THE END OF THE GEOTAG

Digital popularity is physically changing the landscape. They call it the "Instagram effect" – users "geotag" their image, giving their location to the closest meter and creating a wave of tourists that all want their own selfie at some of the most magical places on Earth. But while "responsible" geotagging – giving the country rather than a specific location, for example – is gaining popularity, others have demanded faster solutions to overtourism's damage: As of October 2019, Australia's Uluru, or Ayers Rock, is now closed to tourists. It is a sacred space to the Aboriginal people.



# HARDWIRED FOR ECONOMIC GROWTH?

*Can evolution explain the human desire for more? A leading economic psychologist examines why we might need to use reason to resist basic instinct.*



BY **Stephen Lea**

**F**or over a quarter of a century, academics have been turning to evolutionary theory to try to answer some puzzling questions about economic behavior and phenomena. Why do people behave in ways that are, according to standard economic analysis, irrational? Why are people so motivated by money? Why do people want to own things, irrespective of whether they make use of them? Why are people motivated by others' well-being as well as their own? I want to turn this evolutionary spotlight onto a phenomenon that is of all-pervading importance: economic growth. Are there human tendencies, written into our genes or our culture, or both, which mean that we will always strive after growth in the economies in which we live?

Until fairly recently, economic growth was seen as an unambiguously good thing. So, in asking whether there are evolutionary factors at play in the search for

economic growth, we would have been asking whether those factors might be holding growth back. Now, however, some recognize that limitless growth is impossible and even moderate growth is unsustainable: The limited resources of our planet set limits on how large our economy can be. So now what we are looking for in an evolutionary account are the reasons why people continue to strive for growth in spite of the knowledge that it could bring catastrophe.

**BUT TO FIND AN ANSWER** to either of these questions, we need to look in the right place. I argue that few people, if any, are motivated by a desire for economic growth as such. Rather, we are motivated by much more local, personal desires which lead to behaviors that just happen to result in economic growth, or not, as the case may be. We need to ask what desires might end up resulting in the public effect of sustained – or

unsustainable – growth. Most people would like a little bit more: more money, more leisure, more comfort, more possessions, more interesting experiences. The evidence is that they don't want to be millionaires, since they don't do anything realistic about becoming one. But they will do things to secure a little bit more, from seeking out bargains in the supermarket to going on strike for a pay increase.

This tendency is what makes the microeconomists' axiom of greed so plausible, and it's likely that it has deep evolutionary roots. In animal experiments, a larger reward will almost invariably be chosen over a smaller one if the costs are the same – and there is every reason to believe this tendency is innate. And if everyone wants a little more, there are only two possible outcomes at the societal level: a zero-sum game of theft and expropriation, or economic growth.

Though not everyone wants to be a millionaire, a few people do become one; and one way of doing so is to become an entrepreneur. Many theorists of economic growth have argued that it is the proportion of entrepreneurial types in a society and the degree of encouragement and support their society gives them that determine the level of economic growth that society will experience. Can we find evolutionary roots for entrepreneurship? There is some evidence we can.

**THE CORE NECESSITY FOR EVOLUTION** is the existence of heritable variation. It's important to stress that we are not necessarily talking about genetic variation or inheritance here: If modern economic behavior is the result of any kind of evolutionary process, it must surely involve genetic and cultural co-evolution. So, when we find that entrepreneurial parents tend to have entrepreneurial children, we should not leap to a solely genetic interpretation. But, even at the purely genetic level, there does seem to be some heritable variation in tendency to entrepreneurship.

At the cultural level, the idea that particular cultures encourage entrepreneurship goes back at least to the sociologist Max Weber and his analysis of the Protestant ethic that prevailed in northern Europe in the 18<sup>th</sup> and 19<sup>th</sup> centuries, but as the psychologist David McClelland pointed out in the 1960s, similar ideas can be found in many other cultures, with or without religious inspiration. And all that is needed for evolution to get to work is for there to be competition between societies – for goods or for power – so that those with more entrepreneurs, and hence more tendency towards growth, will increasingly dominate.

Why might some people have an innate tendency to act entrepreneurially, or a latent tendency that an entrepreneurial culture would encourage? Perhaps a

root for such a tendency is the genetic advantages that accrue to "alpha males" among animal species where the social system is polygynous (one male bonded to many females, with some males unable to breed at all). Based on the factors that determine social systems in other primate species, one might expect humans to be modestly polygynous, with corresponding genetic and cultural advantage to the man who can attract more than his share of wives. In modern societies, the mechanisms this advantage has implanted (ambition,

## EVOLUTION IS NOT DESTINY: WE CAN WORK AGAINST THOSE INHERITED TENDENCIES.

rivalry, desire for dominance) might well show themselves in the search for an above-average share of economic rewards as much as sexual ones.

Not only that, but in so far as economic growth is seen to benefit everyone, we can expect people at large to applaud and support it, even if they are not themselves entrepreneurial types and even though it is clear that unrestrained growth can only lead to long-term catastrophe. Although humans are not as myopic as other species, we do share with every animal species that has been investigated a tendency to prefer short-term gains over greater long-term advantage – a tendency that goes beyond anything that is rational and that resists modification by reasoned argument.

To sum up, it looks as though evolution has implanted in all of us a tendency to want more; in some of us, a tendency to want a lot more; and in all of us, a restricted ability to take into account the long-term effects of those desires. Evolution is not destiny: We can work against those inherited tendencies. Knowing what they are might help us to do so. ■



### Stephen Lea

Stephen Lea is an emeritus professor of psychology at the University of Exeter in the UK. His research on economic behavior, behavioral ecology and animal cognition has appeared in numerous international academic journals.

# CHANGING THE MEASURE

RETHINKING GROWTH



**Growth is the gold standard for measuring economies and businesses. But in a world where equality, health and the environment arguably hold just as much importance, is it time to revisit the ways in which we define progress?**

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BY **Dan Matthews**

# WAY WE

# GROWTH

RETHINKING GROWTH

**A**sk anyone to name the definitive measure of an economy and you can bet your bottom dollar they will quote gross domestic product. GDP is so often cited as the standard for telling whether a country is going forward or backward it has become the definitive gauge. But GDP fails to do its job properly. It doesn't measure the best economy – only the biggest – and it leaves out a large number of values that, in today's world, should be included in any assessment of value. Is it time to decouple the concept of growth from that of "best"?

Simon Kuznets, the US economist credited with defining modern GDP, thought so. Having seen his formula adopted globally he urged caution: "Distinctions must be kept in mind between quantity and quality of growth, between costs and returns and between the short and long run. Goals

for more growth should specify more growth of what and for what." The fact that we didn't heed this instruction means governments can crow about economies that are polluting, unequal, unhealthy, invest in undesirable outcomes and also lack universal standards of living for large numbers of people.

**A GROWING NUMBER** of economists are calling for a rethink. One of those advocating to think in terms of "better" rather than "bigger" is Tim Jackson, professor of sustainable development at the University of Surrey and author of the book *Prosperity Without Growth*. "GDP is basically a measure of the busyness of the economy and the amount of goods and services that are bought and sold. It fails to account for a lot of things that are really quite important, including the →

**DEFINING VALUE**  
*Bhutan's "gross national happiness" index reflects the beliefs of Mahayana Buddhism, the state religion.*

environmental and social costs of growth, poverty, equality and quality of life. It is a clever construct that gives you the financial accounts of your country, so governments know how much they can spend, for example, but it's very bad at measuring real prosperity or social progress. Yet in the last 70 years it has become the principal object of government policy."

But can we improve on it? Jackson admits there is no easy system that covers all bases while mimicking GDP's "one-number" appeal. Rachel Granger, professor of urban economies at De Montfort University, thinks it's time to delve deeper. "It doesn't tell you about the value that is added to something, only the final price. It's much better to think about processes, interactions and networks than solely the final product. We should look beyond how many people are employed and are they earning enough to maintain a good standard of living."

**CHANGING MINDSETS ISN'T EASY** – whatever the solution. In business, growth is tightly linked to success, a fact which puts pressure on CEOs to expand in monetary terms even when a better option might be to consolidate or invest in longer-term outcomes. But there are signs that, even in the cutthroat world of business, faith in reckless growth is beginning to wane. A string of startups, social enterprises and not-for-profits are gaining traction in the market by eschewing archaic capitalist norms.

The concept of purpose before profit has a toehold and, perhaps ironically, companies are growing precisely because they don't prioritize growth. One example is Karma, an app business which seeks to reduce food waste by providing a secondary market for produce that would otherwise head to a landfill. Karma's CEO Hjalmar Ståhlberg Nordegren explains: "Restaurants and grocery stores sell surplus food to consumers at a lower price. As a result, consumers eat good food while saving money and businesses get a new revenue stream and reach new customers – all while saving the environment. It's a win-win-win."

Karma is no weak flash in the pan. It says its 820,000 users have so far diverted 600 tons of food from landfill and saved the planet 900 tons of CO<sub>2</sub> in the process. Its social goals have not alienated the moneymen either: It pocketed \$12 million in a recent Series A fundraiser. Nordegren believes there is a place for growth in business, but it



**Tim Jackson**

*Prosperity Without Growth*, Tim Jackson's book, was first published as a report to the UK government in 2009 while serving on the Sustainable Development Commission. It is now available in 17 languages.

should be balanced with other priorities like health and happiness. A new business can't get traction without scale, so startups should aim for the bigger picture. "Growth shouldn't come at the expense of those things, but there are periods where you have to make sacrifices to get to a growth stage and then reinvest in those areas. Building something as entrepreneurs means we sacrificed everything to get this to as many people as possible."

**GROWTH ISN'T A DIRTY WORD PER SE**, but growth at any cost or growth for growth's sake is undesirable. Given the shifting sensibilities of voters and consumers, governments and businesses would do well to incorporate this into their plans. Bhutan, a former autocracy with a checkered human rights record, is perhaps a controversial bellwether for change. But it was the first country to reject GDP as growth's sole measure and adopt a "gross national happiness" index (GNH). The index includes nine factors: psychological well-being, health, education, leisure time, cultural diversity and resilience, good governance, community vitality, ecological diversity, resilience and living standards.

The index is flawed: Many factors are hard to measure. And then whose happiness are we talking about? What is "good" for one group might not be

# "[GDP] FAILS TO ACCOUNT FOR A LOT OF THINGS THAT ARE REALLY QUITE IMPORTANT."

Tim Jackson, Professor at the University of Surrey

for another. But as a rough template for change, it's a conversation-starter. Dominic Houlder, adjunct professor in strategic and entrepreneurial management at London Business School and co-author of *What Philosophy Can Teach You About Being a Better Leader*, says the pluses and minuses of GNH transfer into business structures too. Perhaps it's better to hang on to growth, but pay more attention to other factors. "In practice we may be left with GDP as a measure that we can hold in common, while clearly acknowledging its deficiencies. Correcting those deficiencies through policy will be the result of strong voices, like Greta Thunberg's, so that voters and policymakers become more aware of the trade-offs between GDP and social good."

Growth, whether it's measured in GDP or in company profits, has its place, but other measures of common good are gaining import. In practical terms, this can be seen in sanctions against the worst regimes and fines slapped on companies that damage the environment; or, on the other

hand, in the success of free societies and honors lavished on companies that achieve more than just money.

But we still have a long way to go according to José R. Hernandez, CEO of Ortus Strategies and the author of *Broken Business: Seven Steps to Reform Good Companies Gone Bad*. He argues that the way we calculate success is blindsiding us to "some of the gravest threats the world has ever seen." He continues: "Businesses have started to report non-financial metrics,

but the benefits of their success still mostly accrue to shareholders and top managers. That is where the problem lies. Businesses should aim to better measure the cost and impact of their activities, extending current financial reporting towards Environmental, Social and Governance (ESG) standards. Not only should these metrics be used for external reporting, but investors and managers should be incentivized to meet targets that truly reflect the externalities of their products, services and operations."

**GDP IS A FAIRLY MODERN CONSTRUCT** and it was essentially agreed upon as a system of national accounts, Tim Jackson points out. If the global community did it once, it can do it again with a better – if perhaps more complex – reading. And where national economies lead, business will follow – and especially if they are cheered on by clued-up consumers who fear for the welfare of the poor, the disenfranchised and of future generations. "We could certainly do it again. We could approach the task systematically between nations and negotiate a better measure than we have right now," says Jackson. "There have been attempts in the past in Europe, so there's no reason to think one won't be successful in future."

As a measure of prosperity, growth has had its day, especially within the world's most advanced economies. Evidence is in shifting public priorities, fears for the future and more direct action by groups that see its faults. Momentum is shifting toward doing good, not just doing well – and on spreading the fruits of labor to parts of the economy currently missing out. By identifying growth as a small component of success and not the whole thing, we could create a world that is fairer, healthier and happier. ■

**WANT NOT, WASTE NOT** The Karma app is an example of a "purpose over profit" success.

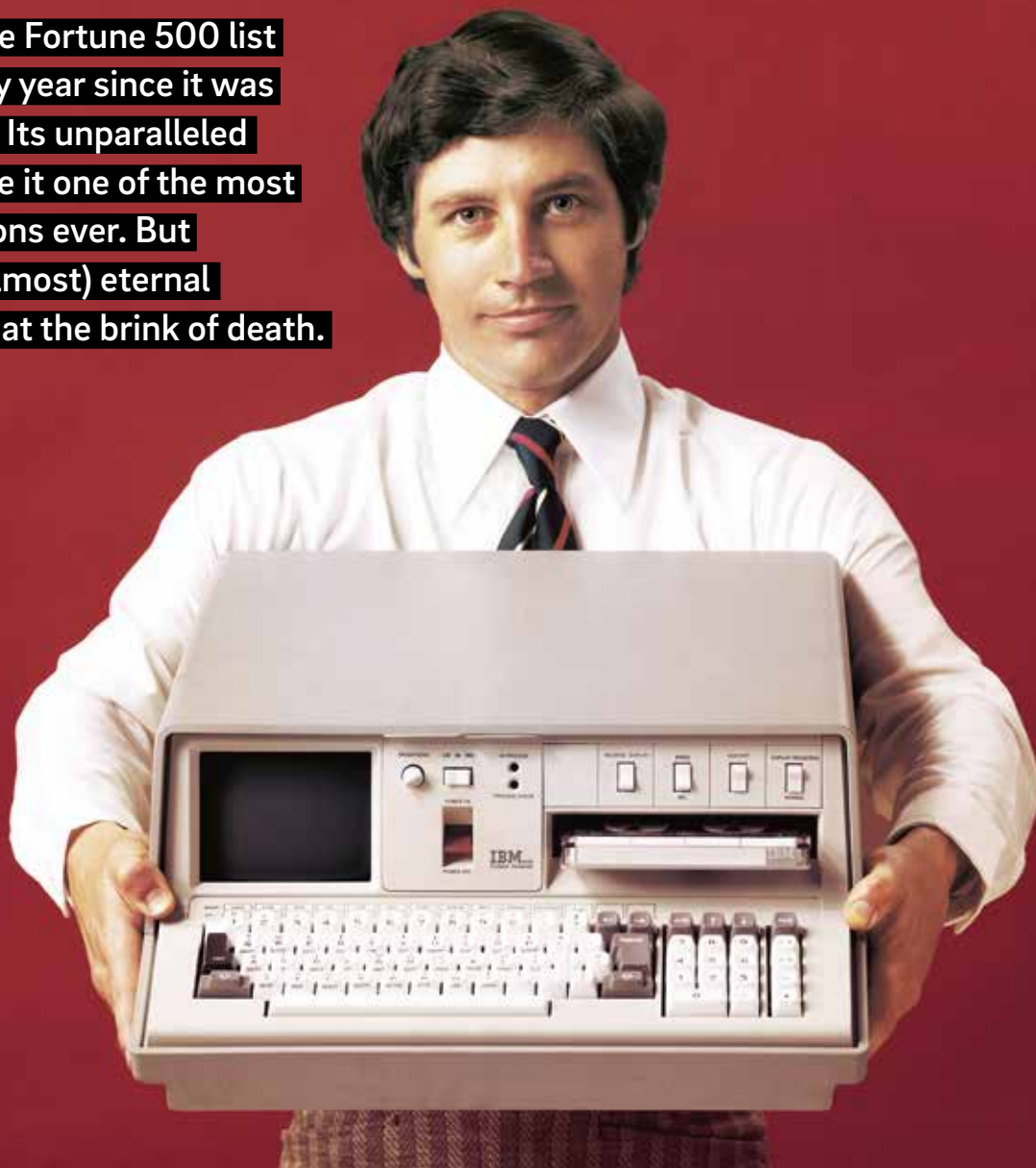


# BIG BLUE'S BLUES AND RHYTHM

**IBM** has been in the Fortune 500 list of companies every year since it was first listed in 1955. Its unparalleled resilience has made it one of the most admired corporations ever. But the key to IBM's (almost) eternal growth was found at the brink of death.

BY **Detlef Görtler**

**POWERED BY  
CORPORATE  
CULTURE**  
*The IBM PC  
5100 looks  
clunky now,  
but the vision  
behind it at the  
time was as  
revolutionary  
as the quantum  
computer today.*





**T**here's never a good age to die. But for humans, 82 years is close to the end of the life cycle. For IBM, it was quite the same. In 1993, 82 years after it was born as CTR (Computing-Tabulating-Recording Company), IBM heard the death knell: The revenue of its main product had dropped by 50% in just three years and 1993 ended with a loss of \$8 billion – at that time the biggest yearly loss in American corporate history.

But the patient recovered. Today, over 100 years old and in its fifth decade as one of the 30 blue chips of the Dow Jones Index, IBM's revenue is 25% higher than in the early 1990s and its net income is higher almost every year than the 1993 loss. So there seems to be a secret sauce for long-term sustainable growth – and the near-death experience is one of its ingredients. The main

ingredient, however, is culture. "I always viewed culture as one of those things you talked about, like marketing and advertising," said Lou Gerstner, who became CEO at the height of the crisis of 1993, after he left the company in 2002. "The thing I have learned at IBM is that culture is everything." In a highly competitive environment, where every technology and every business strategy can – and will – be copied by everyone else, culture can – and will – make a decisive difference.

**THIS DECISIVE DIFFERENCE** was in favor of IBM for decades: Big Blue had always been the best in class, a leader with one of the biggest industrial research budgets and patent portfolios in the world. The company invented the mainframe computer and the ATM, the hard drive and the bar code. In the world of computing, IBM had always been →

*THE NEW STATE  
OF COMPUTING  
Introduced in  
January 2019, the  
IBM Q System One  
was the world's  
first commercial  
quantum computer.*

the global benchmark. "No one ever was fired because he ordered IBM," is a saying among IT directors. So what could possibly go wrong?

The market could. IBM had always been on the forefront of the digitalization of the economy, but they were late to realize the two tectonic shifts that disrupted their core business: the shift from hardware to software and from product to service. "The sales force was selling hardware when customers wanted solutions," recalls Susan Bivins, one of the managers of IBM's transformation process at that time. And as IT got more and more important for every company, the decision-making process migrated from the IT directors (an IBM stronghold) to the board of directors – a move that strengthened competitors like Sun Microsystems.

A growth guarantee for decades, IBM's strong corporate culture suddenly became an existential threat. As long as you really are the best in class, the leader in technology, in revenues and profits, your behavior will be seen as self-confident. But as soon as your performance gets shaky, the same behavior will cause indignation and alienation – inside and outside the company. And then things start to fall apart.

**THE SHOCK WAVES OF THE 1993 DISASTER** were even felt in the remotest place of the whole company: the IBM research lab in Rüschlikon near Zurich. The Swiss facility, founded in 1956 as IBM's first research lab outside of the US, was designed (and behaved) as a satellite of pure, basic research in Big Blue's business universe. The lab had just become a global celebrity, earning two physics Nobel Prizes – for the scanning tunneling microscope (STM) in 1986 and for research in superconductivity in 1987. But you don't get a Nobel Prize for product development. To the contrary: The Rüschlikon researchers were even proud of being far away from potential products. Something had to change.

In the case of Rüschlikon, the main element of change was looking at the market. "The scientists became more proactive in working on actual

customer problems – a completely unheard-of concept at the time," says Chris Sciacca, the communications manager for IBM's global labs. "The idea was to interact with clients, gain insight into their challenges and find solutions. It turned out to be a great success." A success that the scientists were, let's say, nudged into during the transformation. Nudged financially, because now a third of their budget had to be earned via customers. And nudged culturally, when in 1996 Paul Horn, then newly appointed head of IBM Research, changed its motto from "famous for its science and technology and vital for IBM" to "vital for IBM's future success." So fewer Nobel prizes, and more bottom line.

**THE CHANGE PROCESS** had to cover some more dimensions for the company as a whole. Sure, the near-death experience of 1993 was heavy enough to hammer home the insight that there is such a thing as the need for change – for Lou Gerstner a necessary ingredient: "Transformation of an enterprise begins with a sense of crisis or urgency. No institution will go through fundamental change unless it believes it is in deep trouble and needs to do something different to survive." But how do you change a company with a corporate culture as strong and proud as Big Blue? Change for IBM had always meant new technologies; now it meant a new mindset. IBM had always been proud of

**\$8  
BILLION**

IBM's annual loss in 1993, at the time the largest in American corporate history.

**5**

The number of IBM employees who have won the Nobel Prize.

*A HOME FOR  
INNOVATION IBM's  
Thomas J. Watson  
Research Center  
houses the quantum  
computers accessed by  
IBM Q Network clients.*





**AI-POWERED  
COMPANIONSHIP**  
*IBM's Cimon  
(Crew Interactive  
MOBile Compan-  
ionN) is designed  
to test human-  
machine inter-  
action in space.*



**THINKING AHEAD**  
*The first women  
were hired at IBM  
in 1935, 25 college  
seniors recruited  
to be part of their  
first women's sys-  
tems service class.*

production and hardware; now it had to become proud of service and software. IBM was always the one who decided what was good for its clients – and they bought it. Now it had to start developing products and solutions together with its clients – otherwise they simply wouldn't buy them.

Lou Gerstner was the first outsider ever to be appointed as IBM CEO. But for the transformation process, he chose to rely mainly on the insiders. "People at IBM were very smart," he said. "I didn't have to look outside; I had to find the people already there." People like Susan Bivins. When Gerstner arrived in April 1993, she had just finished a transformation project at IBM's Southern California Trading Area. The target was "to shift the business focus from hardware and maintenance toward software and especially toward services." And it had to be planned "down to the individual customer and the individual employee." Bivins' transition project was implemented in January 1993 – and the transformation process for the whole company in the following year looked very similar to the Southern California blueprint.

**THE HARDWARE-TO-SERVICES SHIFT** is still ongoing at IBM. Hardware production is sold, like the personal computer business to Lenovo in 2005, or outsourced, like the chip manufacturing to GlobalFoundries in 2015. Service units were built, like the Watson Group in 2014, or bought, like PricewaterhouseCoopers Consulting in 2002. IBM's shift towards customer orientation is in line with what it recommends to its own customers to improve innovative performance. As Saul Berman, chief strategist of the company's global →

**"TRANSFORMATION OF AN  
ENTERPRISE BEGINS WITH A  
SENSE OF CRISIS OR URGENCY."**

**Lou Gerstner**, Former CEO of IBM (1993-2002)



# "THE IDEA WAS TO INTERACT WITH CLIENTS, GAIN INSIGHT INTO THEIR CHALLENGES."

**Chris Sciacca**, Communications manager for IBM's global labs

business services, put it: "Engaging with customers at every point where value is created is what differentiates a customer-centered business from one that simply targets customers well. Customer interaction in these areas often leads to open collaboration that accelerates innovation." A bit like a pill your doctor has tested on himself already.

The Rüşchlikon Research Lab now not only has a department called "Industry Solutions," but works on different topics that require a close relationship with potential and existing customers. Its blockchain research, for example, is focused on identifying potential use cases – together with companies that will potentially be implementing them. But the toughest part of maintaining long-term growth in strong cultures is not markets or business units. It's people. Lou Gerstner knew that before he even started – in his pre-IBM business life, he had learned about the IBM salespeople as a customer. "IBM's extraordinary success in the

# 26

The number of consecutive years IBM has received more patents than any other US company, as announced in 2018.

1960s and 1970s was built on one of the most dynamic sales cultures in the world," Gerstner said. "They were very good, very relentless, very focused. And very individualistic." Gerstner was convinced that for IBM to survive, the employees had to learn and accept that they all were in this together: "We needed to integrate as a team inside the company so that we could integrate for the customers on their premises. It flew in the face of what everybody did in their careers before I arrived there."

**THE TOOL FOR THIS CHANGE** was already rooted in IBM's culture when Gerstner arrived, however, and became more powerful every year: online collaboration, or "jamming" as it's called at IBM. Research showed that IBMers trusted and relied heavily on their intranet developed during the 1990s. Seeking to develop that trust, the company introduced a first WorldJam in 2001: mass communication within the global intranet, with all employees exchanging on the same topics at the same time.

In 2003, a 72-hour ValuesJam defined a set of core values for the company. One of those values, "innovation that matters," led to the InnovationJam that attracted more than 150,000 participants from 104 countries and 67 different companies over the course of two 72-hour sessions in 2006. "You just can't impose command-and-control mechanisms on a large, highly professional workforce," said Sam Palmisano, at that time IBM's CEO. For him, open, unfiltered communication like during those jams offers the chance "to drive even more change in the company."

Openness for change seems to be a beautiful recipe for a long and thriving company life – as long as your culture acts as a immune system to tell the healthy changes from the unhealthy ones. But this strength can become life-threatening if a once healthy behavior turns dangerous. For that kind of autoimmune disease there is no magic remedy: The company can recover – or it can't. But once the chip is turned, the turnaround's main obstacle, a strong corporate culture, can once again become a main success factor. Once the spirit is refocused, every other shift becomes possible. ■



**GROUP-POWERED GROWTH** UC San Diego and IBM have partnered to study microbiomes' impact on human health.

CLOSING THOUGHTS ON ...

## RETHINKING GROWTH

"IT DOES NOT REQUIRE MORE  
THAN A SIMPLE ACT OF  
INSIGHT TO REALIZE THAT  
**INFINITE  
GROWTH**  
OF MATERIAL CONSUMPTION  
IN A FINITE WORLD IS AN  
**IMPOSSIBILITY."**

**E. F. SCHUMACHER**

Economist and author of *Small is Beautiful*

## Wide angle



*Read on for  
diverse insights  
into the wider  
world of business  
and ideas.*

# Pitching for innovation

*ON THE BALL*  
*Barça Innovation*  
*Hub Director*  
*Marta Plana takes*  
*a seat in the club's*  
*legendary Camp*  
*Nou stadium.*

*FC Barcelona's success on the pitch gives the club global reach. Now, the Barça Innovation Hub is leveraging that brand to develop technologies with impact beyond sports.*

BY **Benjamin Cunningham**

PHOTOS BY **Edu Bayer**

**L**OOKING OUT FROM the presidential box of Europe's largest stadium, it's clear FC Barcelona has some big boasts. The cavernous Camp Nou stadium is the home turf of Lionel Messi, some would say the greatest footballer of all time. The verdant pitch below offers fertile ground for the club's signature tiki-taka playing style, among the most graceful interpretations of the beautiful game. And that skill on the playing field has proven to be a draw even outside of game time. Millions of people visit the club museum each year, second only to Madrid's Prado in Spain. Equally beloved by its local Catalan fan base as by admirers in Asia, and valued at more than \$4 billion, Barça can →

## The BIH is not so much an incubator or business accelerator but more like a networked ecosystem.

afford pretty much anything – anything, that is, but a lack of vision.

When FC Barcelona takes to the pitch every three days or so during the nine-month season, sporting success feels like a short-term proposition: Progress is measured by the day's result and outlook only extends as far as the next match. But guiding a 120-year-old institution and global brand demands big-picture thinking and planning that projects months and years ahead – even decades.

**TO BRIDGE THE GAP** and look beyond the pitch into science, technology and artificial intelligence, the club launched the Barça Innovation Hub (BIH) in 2017. Drawing together startups, researchers, universities and corporate partners to boost performance on and off the pitch, the BIH is not so much an incubator or business accelerator but more like a networked ecosystem. It is spurring developments in some decidedly non-football arenas from biometrics and GPS devices to construction management and nutrition. "For Barça it is very important to win, but it's more about performing our very best," says Marta Plana, one-time lawyer, startup founder and now FC Barcelona board member tasked with overseeing BIH.

While it's Barça's footballers that typically garner the most headlines, the club itself – with more than 144,000 members and the motto "*Més que un club*" or "More than a Club" – comprises five professional and nine amateur teams, a youth academy and more. The BIH is symbolic of FC Barcelona's broader ambitions and turns its wide-ranging operation into fertile ground for experimentation. "Everybody knows Messi. We want to make sure that we are involved in meaningful projects," says Plana.

With more than 70 active research projects, including eight new startup partners, seven

### AWAKENING CHANGE

*Oscar Sans of AdSalutem, a BIH partner, hopes people will soon take their sleep as seriously as they take their diet.*



### A smart way of building

FC Barcelona's home ground, Camp Nou, is in the midst of a \$675 million renovation. Already Europe's largest stadium, capacity will grow to 105,000 with a new 47,000-square-meter roof.

Slated for completion by 2024, so-called building information modeling (BIM) helps the work to go on

without disrupting match day.

Technology is used to anticipate problems and communicate any changes in real time. "There are always lots of players in construction," says Håvard Bell of Catenda, who provides BIM services on the project. "This way, any mistakes are made virtually."



**THE PULSE OF TECHNOLOGY**  
*AdSalutem tracks a subject's vital signs during sleep in controlled conditions.*

master's programs with universities, 10,000 online students from more than 100 countries and a regular slate of international conferences, the BIH prioritizes cooperation with startups that serve some of the club's own needs, but insists partners have wider market viability, says Plana.

**29**

The number of educational courses offered by the Barça Innovation Hub by the end of 2019.

**\$225**

The starting tuition cost of the BIH's online courses.

**CO-DEVELOPMENT IS KEY** for the BIH and, in one typical example of how the hub brings together collaborators, German insurance giant Allianz, Montreal-based Hexoskin and Barcelona's own AdSalutem Institute have teamed up to study the impact of sleep on health and productivity. "If you eat fast food every day, you know you are not following a healthy diet, but most people are not conscious that sleeping five or six hours per night causes health problems," says Oscar Sans, medical director of AdSalutem. "Sleep deserves the same attention as diet."

AdSalutem is now tracking 600 young athletes, aged 6 to 23, in FC Barcelona programs. They collect data through questionnaires and Hexoskin biometric smart shirts, measuring quantity and quality of sleep and then correlating those results with performance. As these young people also complete academic studies through the club and there is a team of psychologists on staff, the data is particularly robust, accounting for behavior in the classroom and changes in mood as well. After one year, the study has already found that less sleep or low sleep quality correlates with ill temper, poor academic performance, flawed decision-making and weakened aerobic capacity. "As a society we are sleeping two hours less per night as compared with people in the 19<sup>th</sup> century," —→

**LEARN FROM THE BEST** Lionel Messi trains wearing a Wimbu tracking device.



says Sans. "You have an impression that sleeping is kind of a waste of time. But this is changing."

**IT'S A WIN-WIN SITUATION.** The partnership means Allianz is more informed when setting insurance rates. AdSalutem gains access to a study sample from a controlled environment. Meanwhile, FC Barcelona gets improved performance from its athletes and Hexoskin uses the study to improve its product. In a final twist, AdSalutem shares results with medical students and researchers at the Universitat Internacional de Catalunya (UIC), meaning future doctors and nurses can carry this information on to the wider public. "Technology is about improving people's lives," says Plana.

Plana came on team in 2018 to oversee its work from the board level. Typical of Barça's loyal following, she has long-standing ties to FC Barcelona. Her regular midfield seat on match day is familiar as Plana's mother was one of the club's first female board members in the 1990s. "I have always been coming to the games," she says. Plana trained as a lawyer, worked for Microsoft and now maintains close ties to Silicon Valley. She founded the fintech company Pagantis and is now a vice president and global head of the ride-hailing service Cabify.

While the BIH declined to provide specific budget figures, their education platform offering professional training and qualifications that range

80%

The extent to which the BIH is said to be funded by its education platform, making the project self-sufficient.

\$31 billion

The forecasted value of the global sports tech market by the year 2024.

from certificates to master's degrees in fields of sports science, health and management is said to account for upwards of 80% of the hub's revenue – making the project self-sufficient. The BIH scouts for new partners and invites applications. Staff review the product closely and probe the company's business plan. A committee of seven people, each specializing in a different area of knowledge – team sports, sports performance, analysis and technology, health and wellness, fan engagement and big data, smart facilities and social impact – decides which companies make the grade. From there, partners agree on a product development road map. In the final phase, that product is showcased publicly. BIH does not make cash investments or operate on a centralized campus, but startups get consultancy services, a potentially lucrative future client and a branding boost. Some companies agree to pay FC Barcelona royalties on future sales. Others let the club use the finished product for free for a limited time.

**INNOVATIVE AS THE BIH IS,** it's part of a much wider boom in sports tech. One recent study valued the global sports tech market at \$8.9 billion, and forecast it to grow to more than \$31 billion by 2024. Just up the road in Madrid, Microsoft launched its own Global Sports Innovation Center (GSIC) in 2015. Born of an initial partnership that saw Microsoft consulting Barça's bitter rival Real Madrid on monetizing social media followers, they went on to "figure out there was a whole field that was being underserved," says Iris Córdoba, GSIC's general manager.

GSIC now has 240 members in 37 countries, from small startups to multinational corporations like Panasonic and LG. Their model differs from the BIH in that members pay annual membership dues proportional to company size, but the focus is similar. Among their partners, Solos, an Australian company produces smart labels that combats counterfeit merchandise, and Madrid's own iAltitude makes equipment that simulates high-altitude training. Both firms are now expanding their customer base beyond sports into luxury goods and general health, respectively. "The value for members is our network," says Córdoba.

According to the non-profit European Startup Initiative, Barcelona trails only London and Berlin as an attractive spot for startups in Europe. In 2018, around \$1 billion was invested in new ventures and more than half the founders of new companies came from abroad. While this fits with FC Barcelona's claim to be creating a "Silicon Valley of



## Birth of the Barça brand

Founded in 1899, through a magazine ad recruiting international players, FC Barcelona won its first trophy three years later and never looked back.

During Spain's years of the Francoist dictatorship, the team emerged as a powerful symbol of Catalonia's independent spirit and resistance to fascism.

As football morphed into big business in the 20<sup>th</sup> century, legends like Johan Cruyff, Diego Maradona and Gary Lineker generated Barça fans in their respective countries. Cruyff would

return for an innovative stint as manager and develop the club's signature passing game.

Satellite television and digital communication spread that beautiful style around the world. As new stars like Lionel Messi emerged, FC Barcelona developed a truly global following.

Now, with offices in New York and Hong Kong, and partners like Rakuten, a Japanese e-commerce giant, and Nike, the business magazine *Forbes* values the brand at more than \$4 billion.



**"I don't think there is a limit: We need to be adjusting to innovation and technology all the time."**

**Marta Plana**, Director of Barça Innovation Hub



Sports," BIH collaborations span the globe and need not physically center on the city itself. "Being local and feeling global means it is not necessarily about being in the same place," Plana says. "We were born as a global network: It's not like you are starting it from zero here. Because of the FC Barcelona brand, you are actually everywhere all the time from day one."

**THE ADDED VALUE OF THE BIH** to its members is indeed a mix of this "glocal" vision. Håvard Bell is the CEO of Catenda, a Norwegian firm that builds software that plans and manages construction projects (so-called building information modeling, or BIM). With users in 70 countries, their programs are deployed on more than 3,000 projects – including the ongoing renovation of FC Barcelona's 99,354-seat Camp Nou stadium. "It's the complexity of the project that drew us, it's fun to resolve these challenges," Bell says of the experience. In addition to FC Barcelona's wider business contacts, and the chance to continually tweak their product,

**CERTIFIED  
PERFORMANCE**  
*Camp Nou is a  
testing lab for  
FIFA's optically  
based tracking  
systems.*

partnership with BIH offers prestige and practical benefits like office access in New York or Hong Kong for meeting clients, he says.

Closer to home, RealTrack Systems, based in Almería, Spain, makes the Wimbu Pro – a wearable tracking device that collects more than 250 data points across categories like exercise duration, distance, acceleration and heart rate. Trainers gain a detailed picture of player fitness to customize workout regimens and boost match performance. "They had a project that is working, they showed it to us, we liked it and started testing," Plana says. Like Catenda, RealTrack CEO Isabel Perez says her company uses FC Barcelona to push innovation on its own product, noting a "continuous upgrade of the system to meet their incoming needs." The BIH partnership helped bring new customers, she adds. In early October 2019, Cirque du Soleil debuted a new show called Messi10 and Wimbu tracking devices were a key part of the development process. Realtrack also partners with Madrid's GSIC.

With just 15 people on staff, the two-year-old BIH can resemble an early-stage startup itself. Plana says they are looking to forge new partnerships with venture capital firms, and future projects include a focus on AI. One looks to harness FC Barcelona's already hefty collection of player tracking data and cross-reference it with past injuries in hopes of forecasting injuries before they happen. A separate AI project looks to convert tactical expertise from coaches into algorithms that recognize those tactics on video, potentially saving analysts dozens of hours. Neither of those projects are likely to help the football club win a match this week, but both could point the way toward changes in the decade ahead. As Plana puts it: "I don't think there is a limit: We need to be adjusting to innovation and technology all the time." ■

*"IF I LET GO OF THIS PEN, IT FALLS" The implications of cause and effect expressed in Aristotelian thinking need to be understood, says Martin.*



## Roger Martin

Consistently ranked in the top 10 of the Thinkers50 – No. 1 in 2017 – Roger Martin is a pioneering proponent of integrative thinking and design thinking and the author of books like *The Opposable Mind* and *Creating Great Choices*. His contributions to both theories have solidified his reputation as one of the leading minds in business strategy.





# Either/or? No more.

*Integrative thinking pioneer **ROGER MARTIN** says leaders shouldn't force themselves to choose between two options, but find instead a new third way.*

BY **Neelima Mahajan**

ILLUSTRATIONS BY **Jeanne Detallante**

**D**ECISION-MAKING is hard – add in a ticking clock and some sub-optimal either/or choices and it can be even harder. Roger Martin, one of the sharpest minds in strategy, believes that most of the best practices in decision-making today are actually more like worst practices. "We get very quickly to seeing decisions as either/or and the task of executives as making tough choices," he says.

He believes that when faced with a tough decision, rather than saying, "my job is to choose," your job is to create a better choice instead. Here, the suave consultant-turned-academician talks

about the art of creating better choices, the relevance of Aristotle, the trouble with data and what made the Bilbao Guggenheim what it is.

**In one of your talks, you referred to Aristotle saying that there are two parts of the world; in one, things cannot be other than they are, and in the other, they can. What implications does this idea have for modern-day leaders?**

The world and the business world are running off in a direction that's very unhelpful. Aristotle was the first philosopher and scholar to talk rigorously about cause and effect. He came up with the rudiments of the scientific →



method: You observe what's going on rigorously enough to say, "If I let go of this pen, it always falls. I can say there's a universal force that pushes that down."

To a certain degree, Aristotelian thinking became the ruling structure in our modern world. We teach every MBA to make data-based decisions. What we don't teach them is if you analyze the past to determine what to do, you will not ever determine something new and different to do, because there is no data yet to demonstrate that that new and different thing will be a good idea.

People ignored Aristotle's warning about his method. What he said is: That works for the part of the world where things *cannot be other than they are*. If the universal force called gravity is going to push down as part of the world where things cannot be other than they are, analyzing the past is an awesome predictor of the future. If you're in a part of the world where things *can* be other than they are, if you analyze the past, it will convince you that the future will be similar to the past. That's the blind spot that the entire modern business world has. So in 1998, there was no such thing as a smartphone. In 1999 BlackBerry created the first smartphone. Now, you can't live without this.

Aristotle said in that world: "Do not use the method that I laid out." He said in that part of the world, rigor is not analyzing the data and drawing a conclusion as to what are the causes of the given effect. In that part of the world, rigor means imagining possibilities and choosing the one for which the most compelling argument can be made. He also said the job of human beings in the part of the world where things *cannot* be other than they are is to understand the causes of the effects we see so that we can do our best in that situation. In the part of the world where things *can* be other than they are, the job of human beings is to be the *cause of a new effect*. To do that, you have to imagine possibilities and then choose the one for which you can make the most compelling argument.



**"If you *analyze the past*, it will convince you the future will be similar ... That's the blind spot."**

**The business world emphasizes data analytics strongly right now. Does that frustrate you?**

Not really. I'm old enough to be philosophical about these things. I believe that the business world is heading off a huge cliff. It's going wake up in the next 10, 20 years, to say that the vast majority of what we've been doing in data analytics, big data, is horribly misplaced. I [tell] my MBA students that every time you are on the verge of saying, "I will do X because the data demonstrated X is the right thing to do," you just have to step back and ask yourself, "Am I willing to make the assumption that this is part of the world where things cannot be other than they are?"

If you are, do it. But if upon second thought you'd say, "The data shows that consumers prefer pink to blue. Is that an immutable part of nature? Maybe they prefer pink because the pink

products are better than the blue ones. What if we made a high-quality blue product?" Just check on the appropriateness and relevance of your decision to accept the analysis as conclusive.

**But when actually faced with a problem, it seems that it would be hard to decide whether it needs to be handled analytically via data or another way?**

I don't think so, honestly. Just do both. Come up with a possibility that is based on analytical crunching of data and at least one possibility that is not based on data analysis. The methodology I use to make decisions is reverse engineering: What would have to be true for this to be a good idea? Ask yourself, of all the things that would have to be true, in which possibility do you feel most confident that the things that would have to be true either are true or can be made true? And choose that one.

### How do integrative thinkers differ from everyone else? And is there a common approach they all share?

I interviewed successful leaders, asking them the same question, "Across your entire business career, think back to five times when you had a really tough choice to make." What came out of that was this incredible clarity: Each one of these highly successful leaders talked about facing an either/or choice. Rather than making the choice, they invented a new answer that was a different model than either of the answers.

Four Seasons founder Issy Sharp said: "The first Four Seasons was the Four Seasons Motor Inn selling rooms for 15 bucks. About 75-85 rooms on the side of a road. And then I opened a 1,600-room city center hotel. I didn't like either one of those, but those were the two models in existence at the time." Instead of choosing which of those two models he liked better, to build the rest of the chain, he said, "I'm going to create a new model that has elements of each, but is superior to both," which ended up being what all these highly successful leaders did – or at least the only common element among them.

### Would it be right to say that integrative thinkers actively work at creating disagreements – and then towards resolving them?

Some do. [GM's] Alfred Sloan said, "Gentlemen, I see we've come to agreement. I suggest we end the meeting now and only restart it when we've developed a decent sense of disagreement." [P&G's] A.G. Lafley said the only thing that made him nervous in management meetings was coming quickly to a decision because he'd always worry that there's another model out there being ignored. It was interesting that they are more worried about quickly coming to consensus than they are worried about having a fractious meeting where there are many conflicting models on the table. They're not afraid of disagreement, they're afraid of agreement.

## How to practice integrative thinking

1

**Become a seeker:**  
Be on the lookout for everything, but don't seek to simplify a problem. Find alternative views and contradictory data.

2

**Embrace complexity:**  
Causality is often far more complex in real life than simple, one-way dynamics. Accept the idea of multi-directionality.

3

**Take a wide view:**  
Forget sequential focus. Keep the whole in mind as well as the pieces.



## Cultivate an opposable mind

Get a firm grasp on all the available solutions by training your mind to lean into the tension created by opposing ideas. The superior option is likely neither A or B, but something you'll find in between.

### How does making a decision under time pressure work in practical terms?

[People] make it sound like when it's a tough decision under severe time pressure, somehow you can make that decision instantly, with no downside. All I ask is that you use whatever time you have in the most productive way. You think you don't have time because you don't think correctly about time. The Bilbao Guggenheim is one of the most famous buildings in the world. It's clad in titanium that's over the years burnished into this wonderful color so that at sunset and sunrise, it's like heaven on earth. That would have been aluminum had Frank Gehry not messed with the time dimension.

The Bilbao government put him under incredibly strict rules [on cost, specs and time]. He gets to the point where he realizes that he wants to clad it in titanium. Titanium puts them over budget and aluminum would put them in budget. So he submits the entire spec of the museum on the day he's supposed to, except the cladding. The project people go apoplectic. He says, "Chill, guys. You're gonna build this for at least two to three years as [per] your timeframe until such time as you actually need the cladding, and I will spec cladding that keeps us within budget because here's the amount that's left for cladding." And they say, "This wasn't exactly what we wanted, but okay."

The price he was given for titanium is fully dependent on the price on the London Mercantile Exchange. If you looked at the history of titanium prices, they swung very widely over time. He bought an option. Titanium prices dipped, and at some point in the two years, he phones up Bilbao and says, "I've made a decision. It's titanium and I suggest you buy it today." So rather than doing the either/or – over budget [or be stuck with] yucky aluminum – Gehry came up with a creative resolution, which says, "I'm gonna buy myself two years of fluctuation and we'll get the answer we want," which is titanium within budget. ■



# A pattern of success

*Bringing a decades-old brand up to speed with today's markets takes strong leadership. Tiina Alahuhta-Kasko, CEO of Finnish label Marimekko, speaks to Think:Act about driving new growth while staying true to the values and vision that made the company iconic.*

BY **Richard Milne**

**M**ARIMEKKO IS ALMOST a byword for bold prints. And while you might not know the brand by name, you will likely recognize the iconic – and ubiquitous – design of oversized red and pink poppies that has served as one of its most famous patterns for more than 50 years. The Finnish company shot to fame in the 1960s when Jackie Kennedy wore one of its dresses on the cover of *Sports Illustrated*, its colorful print symbolizing the optimism of the age. But with consumers increasingly shopping online and many traditional brands' physical stores struggling, Marimekko made a bold move of its own when looking for a new leader: It appointed Tiina Alahuhta-Kasko. Relatively young to become president at the age of 33, she became CEO a year later with a brief to modernize the brand.

Alahuhta-Kasko is a rare find in Finland, and not just for being a female chief executive: She is also a young business leader. She developed a taste for fashion at a young age, nagging her parents to let her subscribe to *Marie Claire* in French and *Vogue* in English, supposedly to help her learn the foreign languages. Now 38, she has updated the Finnish fashion and lifestyle brand by adding

**150**

Marimekko retail stores now operate in 15 countries across three key markets: northern Europe, North America and the Asia-Pacific region.

**\$132 million**

Marimekko's reported net sales for 2018, the company's highest to date.

contemporary twists such as hooded tops and other streetwear to its more traditional prints, the most popular of which is its famous and ubiquitous poppy design: Unikko.

Alahuhta-Kasko wrote her master's thesis at business school on Marimekko – founded in 1951 by designer Armi Ratia and meaning "Mari's dress" in Finnish – and was a summer intern at the company in 2004. She formally joined the company a year later and has stayed ever since, starting first in various PR roles before becoming acting creative designer – a role she admits was intimidating for her – and then CEO. In 2018, Marimekko reported record sales of \$132 million with an operating profit of \$20.9 million. Headquartered in the Helsinki suburbs in a building that contains Marimekko's own printing factory, the company still makes more than half of its sales in its homeland but is expanding into Asia and North America with its bold patterned dresses and home furnishings.

**Marimekko is a niche player in the fashion world compared with the big luxury houses. How do you make sure you stand out?**

It all starts from our purpose. Our mission ever since the beginning of our company in 1951 →



has been to empower people to be happy as they are and bring joy to their everyday lives through bold prints and colors. Marimekko's philosophy is against the prevalent seriousness and superficiality in the fashion world. Together with our unique design language, that forms the recipe for us. This empowering purpose and inclusive approach has been there ever since the beginning. We are a brand with long roots and heritage, which is a hugely beautiful thing.

**You've spent a lot of effort modernizing the brand. Why did you do that?**

A brand with a deep heritage is a big advantage. We can see that consumers are going back more to the roots in this uncertain economy and world. They are looking for true stories that resonate today. The key is to do that in a way that is true to the original brand values and DNA. We did a lot of work and research to really understand what are the core values and foundation and mission of Marimekko.

**What did you do exactly?**

Some years ago we began taking bold steps in international expansion. At the same time, we recognized that we needed to be more competitive when it comes to our collection relevance. Understanding deep down our key customers and [what their everyday lives look like]. We have brought variety into materials, new attention to finishing, and also enabled customers to mix and match more. One of our key ambitions was to create clearly cohesive Marimekko ready-to-wear collections that were razor sharp in terms of what is the Marimekko style. One of the keys to be successful is to be super sharp on where and what you [want] to be the best of the world in.

**You're a young CEO. How do you ensure when you're doing this in a very traditional company that older staff don't think you're just shaking things up for the sake of it?**

The key there is to take everyone on board on this journey. It's never been about me telling people what to do. It's about having a very open dialogue with everyone – about where we are, where we're strong, where we need to develop, and then together [setting the vision of what] we want to do and what is needed to get there in a way that is true to the brand values. Then trickling that down to the individual level so that every single individual in our company knows how they can contribute to the bigger change and objectives. That makes



**Tiina Alahuhta-Kasko**

After writing her master's thesis on the company, Tiina Alahuhta-Kasko joined Marimekko in 2005. A member of the company's executive board since 2011, she served as COO for a year before being appointed president and CEO in 2015. Her leadership strategy has emphasized inclusion and equality while pushing for modernization, growth and access to new markets.

everyone engaged. The key is engaging with everyone and taking everyone on this journey.

**How do you make sure Marimekko is a brand that resonates globally but stays rooted in Finland?**

When I look at our brand, our values and our overall lifestyle philosophy are very connected to our Finnish side. At the same time, our design language is inspired by nature because nature is very dear to us Finnish people. We are true to our Finnish roots by the way we translate that into collection building. But we always need to keep in mind our target consumers to ensure a relevant translation of our roots.

**More than half of your sales come from Finland. What parts of the world are you looking to grow?**

The Asia-Pacific region, North America and northern Europe. Some of these markets are ones where we have already had a longer presence such as America where we became well known already in the 1960s with the help of Jacqueline Kennedy who bought nine Marimekko dresses and wore one of them on the cover of *Sports Illustrated*. The second option are newer markets to Marimekko where we have identified long-term growth potential for our brand – for instance, in the Asia-Pacific region. The key drivers of growth for Marimekko are online commerce, partner-led retail in Asia and overall increasing the productivity of Marimekko stores around the world.

**Looking at your new markets, are there ways in which Asian and Chinese shoppers differ?**

Asia means a lot of different markets. From the cultural point of view, there will be differences in preferences on colors and certain types of silhouettes. But in today's digitalized and globalized world, companies need to offer a consistent global yet locally relevant product. Consumers expect to experience the same brand regardless of the market, while the product offering needs to be curated to be locally relevant.

**Is there such a thing as a global product that retains its relevancy across markets?**

When you look at our key markets, you have a lot of different cultures. But something that is very interesting is that the Marimekko target consumer is not defined by general demographics but is very much defined by attitude. There are quite a lot of similarities across the markets. Take our most iconic prints – they are iconic everywhere.



**"Our whole Marimekko philosophy is about equality. We are big believers in diversity."**

non-hierarchical culture. I want to foster a culture where anyone can challenge me.

**Marimekko still has its own printing factory next to the head office. Why have you chosen to keep this setup?**

The Marimekko art of printmaking is what makes us different and unique. That is the vehicle that allows us to bring joy and empowerment to customers around the world. What's important is that it is not just a production facility but it also acts as an innovation hub for the core differentiator of Marimekko. This is where creatives and designers work hand in hand with the printing specialists. This is the area where the magic happens, where future ideas are generated. It has been very important strategically for us to have a factory here.

**Ninety percent – and even more – of your staff are female, as are you. Does it have an impact on how the company is run?**

The whole story of Marimekko was created by this visionary, strong woman Armi Ratia in the 1950s. [Having a female founder] was extremely special at that time. Many of the foundational designers in the early years of the company were strong women. Our whole Marimekko philosophy is about empowerment and equality. At the same time, we are big believers in diversity in its widest meaning and when it comes to our leadership culture we really want to focus on the individuals, whether [they] be women or men. ■

**You have your own physical stores but in today's retail industry shoppers are increasingly online. How do you deal with that?**

Digitalization is a great opportunity for us. E-commerce is one of the key drivers of growth for us. At the same time, we can see that consumers are looking for that human interaction. The key there is to utilize digital tools as a way to enrich the physical experience and personalize it and make it more meaningful. The physical stores represent the ultimate brand adventures where you can feel and have an emotional experience with the brand. It's about creating an omnichannel experience.

**You've spent your whole career at Marimekko. How do you make sure as a leader that you get enough of an outside perspective?**

What I do is surround myself with people both from inside and outside of the company who bring new perspectives and different views. It's extremely important for me that Marimekko has a very

**57%**

of Marimekko's 2018 net sales occurred in its home market of Finland, with the Asia-Pacific region coming in second at 19%.

**\$20.9 million**

Marimekko's 2018 comparable operating profit, a 200% increase over 2016 figures.



**Mind  
the  
gender gap**



*Data is the basis on which decisions are made, resources allocated and results measured. But what if it fails to represent large segments of the population, like ... women? Leading thinkers are drawing attention to the hidden bias in the data we use to create our world.*

BY **Janet Anderson**

**W**E LIKE TO THINK of data as being objective, but the answers we get are often shaped by the questions we ask. When those questions are biased, the data is too": That's how Bill and Melinda Gates decided to express and assess data bias in their 2019 annual letter. How much income did women in developing countries earn last year? How much property do they own? We do not know the answers to these questions because no one has thought to gather this data. Instead, the data gathered about women in developing countries is focused mainly on their reproductive health, reflecting the way society sees their primary role: as a wife or a mother.

We live in an increasingly data-driven world. It influences personal, business and policy-making decisions. But what if the data we have is failing to provide an accurate picture of the lives of half the population? In many countries we have come a long way since the first women's movements drew attention to the inequalities in society. Can it really be the case that we are still blind to so much unmet need?

In her book *Invisible Women*, published in 2019, British writer and feminist Caroline Criado Perez takes us on a journey through the modern world, highlighting where data gaps and bias exist in both developing and developed countries and revealing how these lead to detrimental outcomes for women. As Perez proves, bias is there even in places where people think it not possible. It may not be malicious or even deliberate, but often what we take for "normal" or "standard" in fact fails to recognize the needs of women, because often when we say "human," we mean "man."

**IS EVERYTHING GENDERED?** Perez opens her book with an example from Sweden, a country renowned around the world for its progressive attitudes on women's rights. In 2011 an initiative was introduced requiring officials to evaluate policies for gender bias. As they began the task, one official remarked, surely something as "straightforward" as snow clearing could not have a gender bias? But answering this question reveals the depth of the problem. Criado Perez shows how the way a public body decides to clear snow has a very →



### Five ways to remove data bias

**1** The first step is to accept there is a problem. The next step is to collect gendered data. Then you can start to design evidence-based solutions around it.

**2** In design, do not prioritize technical parameters over the needs of the user. To find out what women need, consult them and listen to them.

**3** Women are usually in the minority in any decision-making body, so move away from majority-based toward unanimous decision-making.

**4** Accept that men interrupt more than women do and women are penalized if they behave in a similar way. Allocate time limits for each person to speak.

**5** It is not good enough to encourage women to be more like men. Why should we accept that the way men do things is the correct way?



## A day in the life of a female scientist

# Mind the data gap

*Most of our data is based on a norm that is male-centric. But a woman's day-to-day experience differs from a man's in many areas of life.*

### Just as Caroline Criado Perez says:

"In order to design interventions that actually help women, first we need the data."

### Getting the kids to school

Transport networks are designed to serve "compulsory travel" for economic activity – not care, which is what most women travel for. The networks tend to be radial, great to get in and out of town, but not for traveling locally to drop off kids at school. Women do "trip-chaining" – if there is no hopper fare this means buying several tickets.

### Arrival at work

The standard office temperature is based on the metabolic resting rate of the average 40-year-old, 70 kg man – offices are, on average, 5°C too cold for women. Personal protection equipment (PPE) like lab coats and overalls are designed around the male body – 10% of women working in the energy sector wear PPE designed for women. The average smartphone is 5.5" – too big for the average woman to use one-handed.



### Paycheck

Women earn between 31% and 75% less than men over their lifetimes. They are more likely to be in part-time work, which is generally paid less well. But we need the unpaid care work. "None of us, including business, could do without the invisible, unpaid work carers do," says Criado Perez. Pensions are increasingly directly based on past contributions, so women are penalized even further for the unpaid care work they do.

### At the theater

Why is public restroom space allocated on a basis of 50/50? Women take 2.3 times longer and go more often and often have children with them. In the developing world, the lack of public toilets means more than inconvenience – it causes health problems and puts women in danger. The UN says one in three women lack access to safe toilets. A typical Mumbai slum has six bathrooms for 8,000 women.

### An evening out

Automobile safety features are designed for the average male. As a result, a woman is 47% more likely to be seriously injured than a man in a car crash. Crash test dummies are based on the "average male" – 1.77 meters tall and weighing 76 kg.

### After-work work

Home again via school and shops, followed by unpaid work in the evening. Globally, women do three times the amount of unpaid care work men do. The failure to measure unpaid household services is the greatest gender data gap of all – it could account for up to 50% of GDP in high-income countries. Cuts in social care budgets simply shift the cost from the public sector to women, because the work still needs to be done. Of the cuts made in the UK following the 2008 financial crash, 86% fell on women.

different impact on men and women. In order to understand this, start by looking at how women and men generally use transportation. It is still the case today that men are more likely to travel to work in the morning by car or train to an urban center using major transportation routes that have been designed specifically for the purpose of supporting activity that is seen as economically worthwhile. That's why those routes get cleared of snow first.

Meanwhile, women are more likely to take children to nursery and school first, encumbered with pushchairs and schoolbags, often using local buses, before traveling to their place of work. What use is it to them if the major thoroughfares have been cleared of snow when the footpaths and side roads are still icy? If this sounds like little more than an inconvenience, consider the costs. Criado Perez says that data gathered in Sweden shows that women make up 69% of pedestrian injuries during the winter months, often with fractures and dislocations. That's a cost for the whole of society, not just for those women.

From the way buildings and products are designed to drug development and testing, from how we assess merit and performance to the health and safety measures we implement, by drilling down to the granular details of everyday life, Criado Perez reveals the deep bias in the way we build and organize our societies [See infographic p. 78] "Surely this isn't gendered?" is a question that is asked on the assumption that we have an ungendered standard or norm around which we design our institutions. But look more closely at that norm and compare it with the reality of women's lives and it is clear that there is a divergence.

**A HUGE AMOUNT OF UNMET NEED** is the result – unmet need found in approximately half the population with implications both for the public and private sector. And unmet need can be an opportunity for business – but discovering what those needs are and working out how to meet them requires a new approach. According to Gayna Williams, the former director of user experience at Microsoft and founder of the organization If She Can I Can, it requires a proactive effort to remove "gender blindness." In her 2014 blog piece "Are you sure your software is gender-neutral?" she recommends that design teams trying to remove gender bias should start by using "she" as the default pronoun, that a female customer should be represented in demos and that feedback from women

## If data containing inherent bias is used in self-learning systems, the bias will be magnified.



### Caroline Criado Perez

British journalist and author of *Invisible Women* Caroline Criado Perez published her first book, *Do It Like a Woman*, in 2015. A feminist campaigner and founder of the Women's Room project for better representation of female experts in the media, her efforts led to the installation of the statue of suffragist leader Millicent Fawcett in Parliament Square, London, in 2018.

should be explicitly sought. As Williams says, "men should not assume they know the experiences, motivation and behaviors of their spouses, daughters or mothers; they should ask for their perspectives." Like Criado Perez, she also recommends that data should be broken down by gender. Gender-neutral products do not happen by chance, she says.

**AS ALGORITHMS TAKE OVER** more and more of the decision-making processes, it matters more than ever which assumptions we build our models on. If data containing inherent bias is used in self-learning systems, the bias will be magnified. This could affect areas of life ranging from job applications and health care to insurance premiums and credit ratings. "Much of the information used to train algorithms is gendered," says Safiya Noble, associate professor and co-director of the UCLA Center for Critical Internet Inquiry. "We see gendered data collection in almost all of the mainstream platforms that are dependent upon collecting information about us to aggregate us into consumer segments for marketers and advertisers: Facebook, Instagram, Google Search and YouTube. These platforms make data profiles about us that deeply influence what we see in terms of search results, news, and products or services."

Noble believes that if we do not find a way to regulate algorithmically driven systems soon, we will see the normalization of a whole host of gendered and racially discriminatory systems that will then be difficult for us to intervene upon or change. And it goes far beyond snow clearing. "I think we should keep a very close watch on the credit, loan, investment and financial services industries where opaque algorithms decide who is credit-worthy, education-worthy, housing-worthy and ultimately, who is opportunity-worthy," she says. ■

## Deep dives

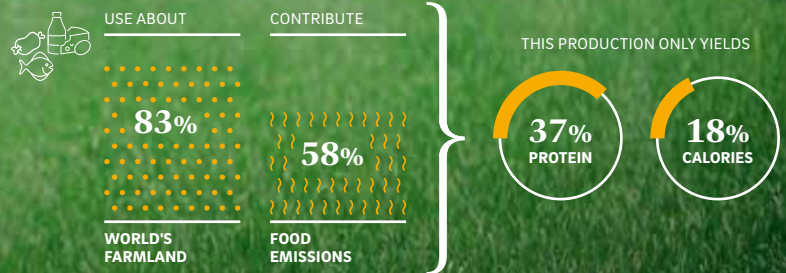


Take a deep dive and find out more in related articles and studies.

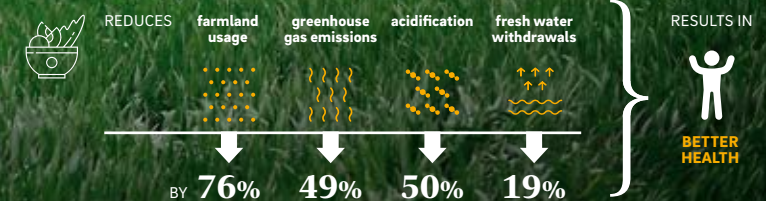


### A case for a vegetarian diet

Meat, aquaculture, eggs, dairy ...



Vegetarian diet/farming ...



SUSTAINABLE FUTURE

# Agricultural revolution 2.0

**FARMING IS FACING** unprecedented challenges: larger populations to feed, questions of sustainability and of course, climate change. One course of action is to think about encouraging more plant-based consumption, which could influence agriculture too. But the sector is rising to face the coming decades and the buzzword of the moment is 'precision farming.' "Precision farming is the future," says David Benell, manager of food, land and water at the World Business Council for Sustainable Development. "There is no chance

to put this genie back in the bottle." Technology is the cornerstone of this vision for precision: drones and data, prescriptive seeding, spraying row guidance systems and vertical farming are all in the new hi-tech mix. But the four most significant areas of development are imagery and sensors, robotics and automation, digitalization and big data and biologicals. With an increase in computing power there will be an uptick in machine learning and artificial intelligence applications and a wider use of these innova-

tions. James Miller, group CTO of TAFE Ltd, notes that in India, "the young generation is jumping on solutions for farmers across the country looking at drones and imagery, pickers, pluckers, cutters, etc." Bearing all this in mind it isn't too bold a claim to say that the building blocks for a new agricultural – or agribusiness – revolution are in place.

→ **CULTIVATE AN ADVANTAGE**

Read how the latest tech is creating a new landscape for the agriculture industry: <https://rb.digital/2PzAB18>

## THE MOBILITY REVOLUTION

## Auto industry in the headlights

The automotive industry has had to absorb a few shocks in recent years, but now a fist of threats – including the advent of self-driving cars, electric vehicles and new mobility solutions – is having an impact on the business. There has been a 5% drop in sales in 2019 compared with the same period in the previous year. Which of the current market trends will prevail over the next 15 years is almost impossible to foresee. The scale and speed of developments is unprecedented too. All of which points to a new car industry ecosystem in the making, with new business models required for those supplying or manufacturing for the industry.

## → MASTER THE TRANSFORMATION

Keep up to speed with the innovations that are changing the course of automotive manufacturing: <https://rb.digital/35uMnIV>



## CAPTIVE FINANCE

## Go from third-party to one-stop

In the past suppliers and manufacturers of large capital assets had to build some creative partnerships to get their products to the right people. Engaging the help of third-party financial help used to be simply the best way forward, but now there is a new space opening up where suppliers and manufacturers can look at how to take that financing under their own wings. "Captive finance" is an elegant solution for some of those manufacturing and supply companies. It can help them offer their customers a one-stop shop that will help boost their sales and appeal. But there are pitfalls and some good rules of thumb to consider before a company embraces this strategic tool. The scale and speed of developments is unprecedented too. All of which points to a new car industry ecosystem in the making, with new business models required for the industry.

## → STREAMLINE YOUR STRATEGY

Boost your understanding of the new multipurpose financial tool for manufacturers: <http://rb.digital/2Eu50fN>



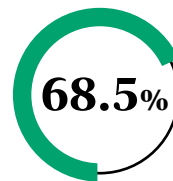
## ARTIFICIAL INTELLIGENCE

## A new diagnosis for the future of health care services



5

The factor by which global data volume in health care will increase between now and 2025.



The compound annual growth rate for AI-driven health care IT applications.



of total health care spending will go on digital products and services

**DATA IS DRIVING** change everywhere, but health care has much to gain and contribute – if it can harness and access the big data. Artificial intelligence (AI) could be hugely transformative in this sector. Medical experts see AI as offering the greatest potential in monitoring, prevention and diagnosis. While genomic science could be a game changer in helping to identify rare conditions, AI also has a role to play in diagnosing common conditions and illnesses. So, AI's place in the medical practitioner's toolkit looks bright. One interesting technique this new technology offers is the use of "digital twins" whereby a virtual model of a patient is produced on the basis of the patient's DNA. Doctors can then let the computer run tests on this model, which then simulates how a human body reacts to a certain medicine or therapy.

## → CHART YOUR NEXT MOVE

Get on the pulse of the latest health developments: <http://rb.digital/38JSmSW>

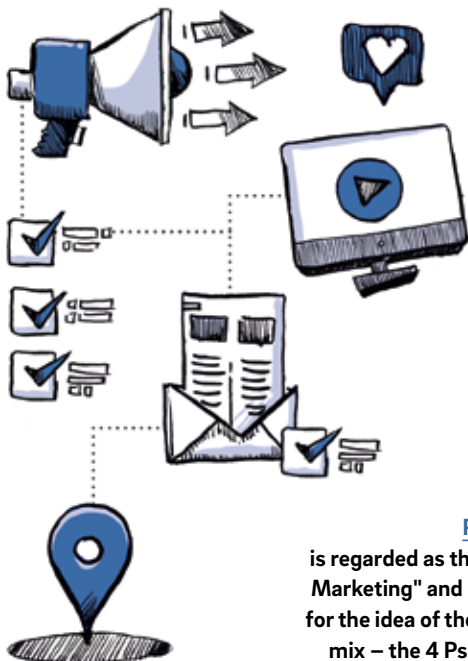
# NAVIGATING THE NETWORK OF WANT AND NEED

Marketing guru **PHILIP KOTLER** helped set industry standards while never losing sight of the link between the consumers' wants and their well-being. Here he answers three questions on **reaching your audience**.

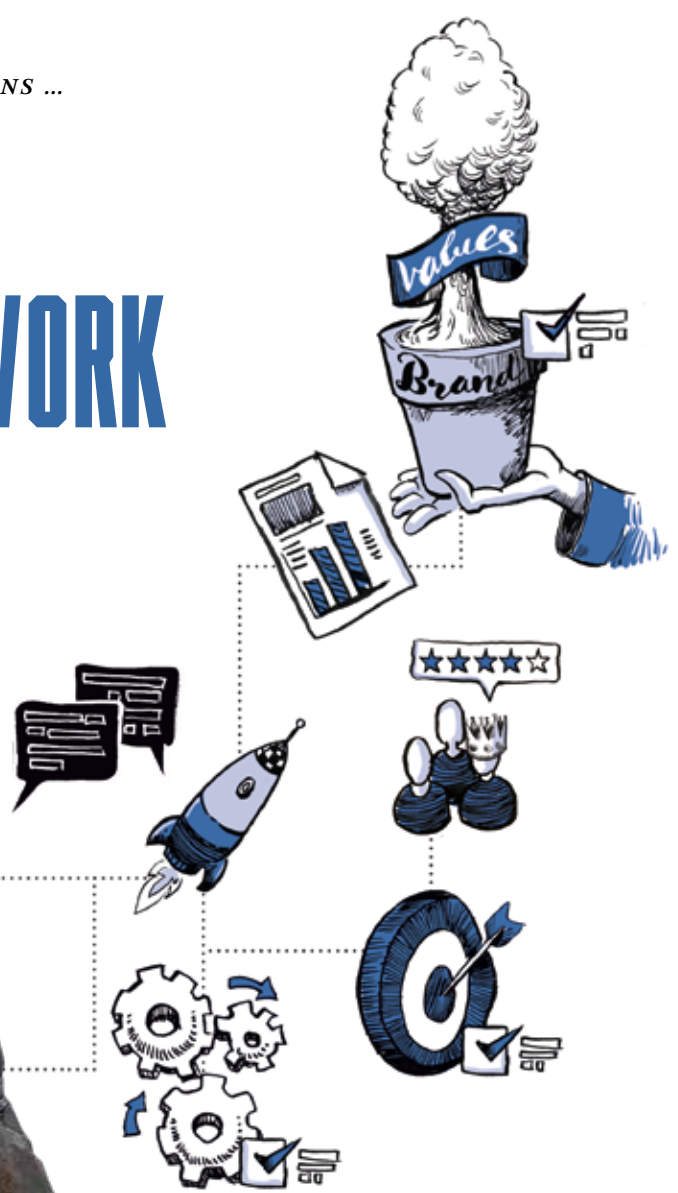
## 1

**Who comes first: the customer or the employee?**

Both. I'm very much a person who takes a stakeholder view, not a shareholder view. My argument to shareholders who complain is: Would you prefer more money to be made by the company or less? "Oh, I want more money. I'm a shareholder." Well, we'll make more by orchestrating a group with a team that will so satisfy the customers that we will establish a monopoly and we will be No. 1. So we should convince shareholders that stakeholder orientation is good for them.



**Philip Kotler** is regarded as the "Father of Marketing" and best known for the idea of the marketing mix – the 4 Ps framework.



## 2

**Do you think values have a place in marketing?**

It sounds like an extra thing, but it helps differentiation. [One way to differentiate is with] what I call brand activism, and we're excited about a brand that is active, that has a character [close to] what our values are. I love companies like that.

## 3

**What about new technology and AI-based marketing tools. How do you see them changing marketing?**

Marketers are going to spend a lot of time ... trying to see patterns, get at some types of people and then cluster those who are that type and blast out the message. The marketer will justify this happening by saying he's not trying to cheat you or abuse you. [But] I don't think the public accepts our view, as marketers, that we're really trying to be as helpful as we can.

### A few of our contributors



#### **SUPERTOTTO**

is a one-man pixel art design studio based in Naples and Berlin. He collaborates with several magazines, international advertising agencies, production houses, publishing houses and new media agencies.

→ **PAGE 36**



#### **BENJAMIN CUNNINGHAM**

writes for *The Economist*, the *Los Angeles Review of Books*, *Le Monde diplomatique* and *The American Interest*. He is an opinion columnist for the Slovak daily *SME* and a PhD candidate at the University of Barcelona.

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#### **SERGE BLOCH**

is a French illustrator whose work has been awarded several international prizes and gold medals. He has worked with prestigious brands such as Hermès, Coca-Cola, Samsung and Petit Bateau.

→ **PAGE 12**

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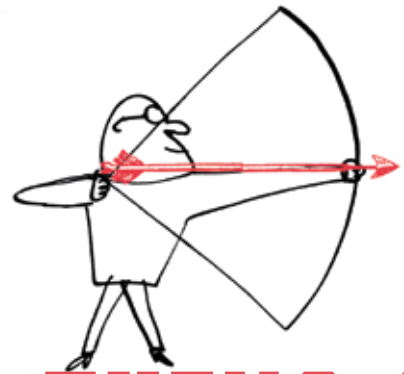
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**"IF WE MEASURE THE  
WRONG THING,  
WE WILL DO  
THE WRONG THING."**



**Joseph E. Stiglitz**, Nobel laureate in economics  
and professor at Columbia University