

WINTER 2020

Stanford Business



INNOVATION

This Is A Fight Worth Fighting

One father's quest to
save his daughter.

A LETTER FROM DEAN JONATHAN LEVIN

Rethinking the Rules

Last fall, I sat in on Keith Hennessey's *Practical Policy and Politics* class. The topic that day was the purpose of corporations.

Hennessey, who ran the National Economic Council under President George W. Bush, had assigned two opposing texts: Milton Friedman's 1970 essay "The Social Responsibility of Business Is to Increase Its Profits" and Elizabeth Warren's 2018 Accountable Capitalism Act.

The discussion was a model of what one hopes for in higher education.

There were articulate arguments that the U.S. economic system is in need of fundamental reform. There were incisive defenses of shareholder value optimization. After two hours of spirited and respectful debate, there were no easy or simplistic answers.

This debate is, of course, playing out in the world more broadly.

Last August, the Business Roundtable revised its corporate principles, placing all stakeholders — customers, employees, suppliers, communities, and shareholders — on equal footing. For the first time in decades, the organization was moving away from the principle of shareholder primacy.

Certainly, it will be interesting to see how the Business Roundtable companies deliver on these principles. Under one interpretation, many are already on course; doing well by employees or customers is often in the best interest of shareholders, especially from a long-term perspective. On the other hand, serving all stakeholders requires making tradeoffs. If decisions are not made in the interest of owners, whose interest will they serve — and who will decide? These questions, raised by Friedman, still await compelling answers.

In a larger sense, the Business Roundtable announcement reflects an urgent conversation about the growing societal unease with capitalism and institutions. In stump speeches, op-eds, and investor letters, politicians, journalists, and business leaders are lamenting the failure of both the private and public sectors to effectively address the most challenging issues of our time — including climate change, inequality, migration, and rapid technological change.

This conversation has deep implications for our work at Stanford GSB.

Our mission is to educate the next generation of leaders, and that means preparing students for an increasingly global, complex, and politicized world. Our students need to think broadly and critically about the rules and structures that define business and society. We don't just want them to succeed under the current rules, but to understand how the rules are shaped — and become the leaders who help to shape them.

In this effort, we are building on a great tradition at Stanford GSB. We have a special strength in innovative approaches to societal problem solving, with students involved in creating social ventures and mission-oriented startups, running the GSB Impact Fund, and taking on global development challenges in courses like *Design for Extreme Affordability*.



Jonathan Levin is the dean of Stanford GSB and the Philip H. Knight Professor.

We are also bolstering the curriculum to challenge students to think about the relationship between business, leadership, and society. In addition to Keith Hennessey's classes, we are offering such courses as Anat Admati's *Power in Finance*, Amit Seru's *Corporations, Finance, and Governance in the Global Economy*, a class on political risk with former U.S. Secretary of State Condoleezza Rice and Amy Zegart, and the political economy class *Strategy Beyond Markets*.

And we are partnering across Stanford to address societal issues. As part of the university's long-range planning process, GSB faculty members recently led a working group to identify research and teaching opportunities focused on responsible investing. We also believe that Stanford can do more to prepare students for careers in civic and public leadership, and that the business school has an important role to play in this effort.

Stanford GSB is sharpening its focus on the intersection of business and society. Our students are arriving at the school at a time of great change — an era where long-settled questions are on the table again and the rules are being questioned. It's an era our students will be ready for. [GSB](#)

We don't just want students to succeed under the current rules, but to understand how the rules are shaped — and become the leaders who help to shape them.





“In the 20 years I’ve been at Stanford, there’s been a lot more interest among our students in solving the world’s problems... They’re not going to fix the problem, but they’re going to contribute toward solutions... And that means being more thoughtful in how they run their organizations.”

— Economics Professor Paul Oyer,
page 23

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A LETTER FROM THE DEAN ¹**EDITOR'S NOTE** ⁷**ON CAMPUS** ⁹**BRIEFINGS** ¹⁰

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VOICES ⁵⁶

Sophia Shramko MBA '19

Rodrigo Tostes SEP '18

Rukaiyah Adams MBA '08

Dave Lyons MBA '01

Danielle Wyss MS '15

Ashutosh Thakur PHD '20

WHAT MATTERS TO ME NOW AND WHY ¹³⁰

Doreen Oliver MBA '02

CLASS NOTES ⁶⁵**FEATURES****With Grace** ³⁰

In the quest to cure his daughter's ultra-rare disease, Matt Wilsey might also be changing the way drugs are made.

Steve Hawk

Game Changer ⁴⁰

A Stanford business professor infiltrates the ever-shifting world of high-stakes gaming to unearth lessons in corporate pliability.

Lee Simmons

Better If It's Man-Made? ⁴⁶

Gender bias can negatively affect what we think about products made by women, especially in male-oriented markets.

Áine Doris

Dream Team ⁵⁰

How Stanford GSB alumni helped a struggling nonprofit refocus and thrive.

Beth Jensen

ON THE COVER

Illustration by Ellen Weinstein



What's next



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EDITOR'S NOTE

Hitting Refresh

TALK TO US

Have some constructive criticism? Some praise? Some story ideas? We're eager for your input. Please email the editors at stanfordbusiness@stanford.edu.

Change. That's what Stanford GSB is about: change. Triply embedded in our motto (*Change Lives, Change Organizations, Change the World*), the promise of positive transformation permeates the institution — from its curriculum to its research to the physical space itself (see page 9).

You are holding in your hands yet another product of that promise. We have spent much of the past two years rethinking and recrafting *Stanford Business* magazine's editorial and digital strategies, based on interviews and conversations with you.

The most obvious alterations are physical: We revamped the nameplate, increased the trim size (the new magazine is taller and wider), replaced the typefaces, and adopted a design philosophy that encourages more visual storytelling.

But the most significant shift goes deeper than aesthetics. In our research, we learned that most of you remain lifelong students and continue to crave management insights from Stanford GSB's faculty and community of experts. At the same time, you also want to stay connected to the campus and each other.

To that end, we are seeking out more stories designed to transport you back to the Farm. Our hope is that thumbing through this magazine will feel like a stroll across campus, where you get to eavesdrop freely on — and occasionally join — the fascinating conversations that abound.

Also sprinkled throughout these pages are new opportunities for you to interact with us and with each other, and we hunger for your engagement. We want to hear your comments, answer your questions, read your essays, help you connect. Because in the end, as always, this magazine is yours. **GSB**

— The Editors

**Sign up for the latest research insights from
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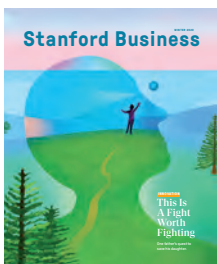
ON CAMPUS

The Art of Change



LINDA A. CICERO

This issue of *Stanford Business* magazine introduces a new recurring design element (see right, and pages 2 and 64), in which we ask artists to interpret aspects of the GSB campus. Here, Brooklyn-based illustrator Erin Robinson focuses on one of the school's best-known art installations, *Monument to Change as It Changes* (above), Peter Wegner's ever-shifting array of colored, computer-controlled "flip digits" that adorns Zambrano Hall. Robinson uses texture, layering, and pattern to evoke the movement of the piece and the diversity and vibrancy of the campus life around it.



ABOUT THE COVER

Illustrator Ellen Weinstein captures the journey and hopes of a father on a quest to cure his daughter's rare disease.

EDITORIAL

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Briefings



HARD LESSON

When Co-Investors Disagree

As a San Francisco-based entrepreneur, I've often spoken of creating the confidence to fail. In fact, I call my failures "noble experiments." Let me introduce you to one of my many follies as founder and CEO of the boutique hotel chain Joie de Vivre.

Soon after I graduated from Stanford GSB, at the ripe age of 26, I started Joie de Vivre just as the boutique hotel niche was getting off the ground in the U.S. Over the course of my two dozen years as CEO, we created 52 hotels and pioneered the boutique concept to motels, suburban properties, and second-tier cities. We even helped create a boutique Japanese communal bath and spa.

But our boldest leap came when we created a "boutique campground" six years before the word "glamping" had been coined. Costanoa is halfway between Half Moon Bay and Santa Cruz on California's fabled

Highway 1 and was a challenging project to get approved, given the sensitive ecological area. It launched well in 1999 and was quickly full on weekends. We were also pleasantly surprised that our weekdays filled up with dot-com companies looking to use nature as a teacher for their corporate strategy and leadership sessions. They appreciated the mountain biking, beach football, and plentiful hiking trails that Costanoa had to offer.

But starting in 2001, the dot-com bust wiped out our weekday business, and, like many Bay Area hoteliers, we struggled during that four-year regional downturn. Unfortunately, on the Costanoa project we'd mistakenly partnered with

CHIP CONLEY,
MBA '84,
 currently serves
 as strategic
 advisor for
 hospitality and
 leadership at
 Airbnb. His most
 recent book is
*Wisdom at Work:
 The Making of a
 Modern Elder.*

LISTEN

In a *View From The Top* podcast, Diane von Furstenberg, founder of the DVF clothing line, explains how she got started — and what helped her rebuild her business when she "lost it all." You can hear her at stanford.io/DVFPodcast.

a hedge fund that had a short-term mentality about making money. While they were very gracious, we disagreed with them about the definition of success. This led me to realize there are three kinds of investors: transactional, relationship-oriented, and legacy. Transactional investors are focused on short-term ROI, while legacy investors focus on disrupting an industry or making some fundamental change in the world.

When you're creating a landmark project that's ahead of its time, you need to match it with the right kind of partner in the form of a legacy investor. Instead, we had a transactional investor, and we ended up selling Costanoa at the bottom of the dot-com bust for a big loss. (In the years since, the place has flourished.) Having poured so much heart and soul and time into the project, I found it to be a painful divorce. Ever since, I've interviewed potential investors in the same way that I would a potential senior executive, to make sure their investing philosophy matches the kind of boutique projects we're creating.

But there's a silver lining in this noble experiment. We leveraged our lessons from Costanoa and applied them to our successful launch of the upscale Hotel Vitale in San Francisco a couple of years later. One key lesson from our corporate groups at Costanoa was that they loved doing yoga together each morning. This gave us a hunch that business travelers, especially women, might appreciate a business-class hotel that offered free yoga within the property. Voilà, in 2005, the Vitale opened to rave reviews as the first financial district hotel in the world to create a penthouse studio with free yoga classes. Sometimes a hard lesson can sprout a new innovation. **GSB**

—Chip Conley

AGATA NOWICKA

PANELISTS

The Challenge of China

Voices from the Stanford China Economic Forum, held at Stanford GSB on September 16, 2019.



“In the tech sector, R&D is less about patents and trade secrets and more about know-how. . . . The copying of intellectual property is not the issue – it's much more about the flow of people. Silicon Valley had an advantage there for a bit because that's where a lot of the innovation was happening, but now we're seeing equal or larger R&D operations in China.” — **Susan Athey, the Economics of Technology Professor, Stanford GSB**



“My concern is that in our effort to constrain China and to protect the U.S. from technology theft, we are going to do things that hurt us. If we create an economic iron curtain that balkanizes the world and ultimately cuts us off from the global ecosystem [and] from other innovative economies and people, we will be the loser. We will no longer be an economic leader.” — **Hank Paulson, former secretary of the treasury**



“We need to be resolute in supporting the free flow of people and ideas between the two countries – first because it's part of our academic values, and second because it's actually in our national interest. If the engine of innovation is the key factor in the United States' success, then welcoming people from other countries to our universities and having that freedom of ideas and people is central to the strength of the country.” — **Jonathan Levin, Philip H. Knight Professor and Dean, Stanford GSB**



“[When Chinese students] have access to the uncensored internet, we find that most of them don't even use it. There's so much information domestically in China flooding everyone's cell phones . . . that they don't know what content is censored. So there's no explicit demand for that [uncensored] information. To me, that's the apex of government censorship.” — **Jennifer Pan, assistant professor of communication, Stanford University**

SEEN AND HEARD

“The reality now is that a motivated third party can infer virtually any of our intimate traits with very little effort and very little data.”

— Michal Kosinski, associate professor of organizational behavior, on the “Privacy Now” podcast with Mike Feibus, MBA '87 (stanford.io/PRIVACY)

RECOGNITION



JD Schramm, lecturer in organizational behavior, was awarded the Robert K. Jaedicke Faculty Award, presented annually to a member of the Stanford GSB faculty for service to the school's alumni.

George Foster, the Konosuke Matsushita Professor of Management, was named a member (AM) in the general division of the Order of Australia.

Edward Lazear, the Davies Family Professor of Economics, was one of five economists recognized by the American Economic Association with the Distinguished Fellow award in 2019.

Joseph Akerman, MBA '69, **Ted Kaye**, MBA '79, **Alison Graham**, MBA '79, **Emily Maddox Liggett**, MBA '84, **Alison Elliot**, MBA '84, and **Art May**, MBA '89, were honored with the John W. Gardner Volunteer Leadership Award, given to alumni volunteers who demonstrate a history of strong volunteer commitment.

The Stanford GSB 2020 Siebel Scholars are **Tim Brown**, **Phillipe Diego Rodriguez**, **Nathan Segal**, **Angela Sinisterra-Woods**, and **Ilana Walder-Biesanz**.

Susan Athey, the Economics of Technology Professor, is the 2019 recipient of the John von Neumann Award, an annual award given to an outstanding scholar in the exact social sciences.

Yonatan Gur, associate professor of operations, information and technology, was awarded a 2019 Frederick W. Lanchester Prize for his contribution to operations research and the management sciences.

For more, go to gsb.stanford.io/magazine.

BACK TO CLASS

The Industrialist's Dilemma

COURSE NAME

STRAMGT 520:

The Industrialist's Dilemma

INSTRUCTORS

Robert E. Siegel

Aaron Levie

Maxwell Wessel

This course explores how digital technology is triggering tectonic shifts among large, established companies, whether they have a digital foundation or not. It looks at how management principles, competitive strategies, partnerships, and core competencies are being challenged. Executives from Fortune 500 companies and new disruptors visit the class to discuss what it takes to thrive in a world that increasingly blends digital and physical solutions for customers.

Visitors have included the CEOs of Lyft, AT&T, Accenture, Kaiser Permanente, 23andMe, Best Buy, Charles Schwab, MGM Resorts, Johnson & Johnson, and DoorDash.

"It's to the point where we have CEOs reaching out to us: 'Hey, can we come to the Industrialist's Dilemma?'" says Robert E. Siegel, the Stanford GSB lecturer in management who co-teaches the class with Aaron Levie, CEO of Box, and Maxwell Wessel, chief innovation officer at SAP.

"For the students, it's history happening in real time."

Before the guest speaker talks, the instructors teach a case study about that guest's company. The visitor gets to spend about 10 minutes critiquing (or rebutting) the case discussion, then finally takes questions from students.

"We keep all of the classes off the record," Siegel says. "That allows the guests to be very open, and it creates an intimate experience with the students."

Students have two parts to their grade — a combination of classroom participation and attendance, plus an analysis of an existing industrial incumbent being disrupted by new digital entrants.

The students assemble into groups of five, and each team is required to produce a 10- to 15-page paper that analyzes the firm and that must include an opinion about whether the company is failing or succeeding in dealing with the disruption.



SERGIO MEMBRILLAS



BY THE NUMBERS

Stanford GSB Behavioral Lab

2001

Year the lab opened

955

Number of requests for support received by the Behavioral Lab in 2018 from faculty and doctoral students

7,500

Number of people who visited the lab in 2018 to participate in research experiments

325,000

Number of responses the lab received to its online experiments in 2018



CAMERAS OFF
Siegel insists that what happens in the classroom stays in the classroom.

“Our hope is that when the students leave the class, they’ll understand that these problems are infinitely more complex than what they read in the press,” Siegel says.

The skill sets and competencies that made companies great in the past — how they develop products, how they run their organizations, how they grow — are changing quickly, and firms that don’t adapt are in trouble. But it turns out that most are adapting.

“When we started the course, one of our theses was that the disruptors were going to completely upend the incumbents, but we’re finding that that thesis was wrong,” he says. “The notion of ‘incumbent dinosaurs’ — that’s a myth. The people who run these incumbent companies are smart and on top of these global shifts. They understand the implications of all this change. Whether or not they will succeed will depend on their strategy and their execution. But everyone’s awake.” **GSB**

— Steve Hawk

HOW TO

Five Common Communication Mistakes (And How to Fix Them)



There are few things worse in the business world than ineffective presentations and meetings. Here, Stanford GSB lecturer Matt Abrahams offers five straightforward fixes to help you engage your audience.

- 1 Starting** Never start a presentation with, “Hi. My name is... and today I am going to talk about...” Instead, kick it off with action. Tell a story, take a poll, show a video clip. It works for meetings, too: Open with a question, and you’ll engage everyone from the start.
- 2 Ending** Never say “Well, I guess we’re out of time.” Practice your ending. And be concise, because once you signal you’re wrapping up, listeners begin to focus on their next task. As you end, express gratitude and then quickly explain what you want the audience to know, feel, and do as a result of your content.
- 3 Transitioning** Whatever you do, don’t lose your audience between acts, such as when you transition to a Q&A or switch presenters. Practice robust transitions that go beyond “next” and “so.” Sometimes a simple question will do: “How can we best solve this problem?”
- 4 Hedging** Too many leaders diminish their credibility through mushy word choice: “I think we should kind of...” Hedging language softens your sense of assertiveness and makes you sound uncertain. Use strong, powerful words. Apps like Orai, LikeSo, Ummo, Ambit, and VoiceVibes provide personalized feedback on word choice, pacing, pauses, variation, and tone.
- 5 Memorizing** Don’t do it! Memorizing actually increases the likelihood that you’ll falter and makes it hard to adapt to your audience. Instead, create a comprehensive outline that will trigger your memory. Just know that your wording need not be exactly the same each time, and you’ll have more impact if you appear spontaneous.

Read more at stanford.io/fixes.

100
Percentage of lab experiments funded by the dean’s office

1.5
Estimated annual number of experiments that involve crafting structures out of marshmallows and uncooked spaghetti

13
Number of rooms available for experiments

2
Number of eye-tracking machines

2
Number of virtual-reality headsets

100
Percentage of participants who think they know what the study they’re involved in is about

20
Estimated percentage who actually know

11
Number of M&Ms stolen in a recent study on honesty and integrity

TOMI BIRD (PHOTO); SERGIO MEMBRILLAS

OFFICE ARTIFACT

Charles M.C. Lee's Fly-Fishing Shadow Box

Lee is the Moghadam Family Professor and Professor of Accounting at Stanford GSB.

THIS CAME FROM a class I taught at Cornell on hedge funds. The students gave it to me because they know how much I love to fish and because I always use fly-fishing as a metaphor in my classes. It's a shadow box with 24 fly-fishing flies, each with the name of one of the students below it. I was really charmed by it.

My family moved to Canada from Taiwan when I

was 9, and I immediately fell in love with fishing. I spent so much time on the rivers, I don't know how I graduated from high school.

Fishing is my escape. It's tactile, but it's also meditative. I always encourage my PhD students to find something contemplative like fly-fishing, something that enables them to walk away from their work now and then. Because creativity

comes from peripheral vision, not from what you're staring at. It comes when you see a connection that wasn't there before. And sometimes the jumps are just brewing in your subconscious. They're serendipitous.

I also talk about fly-fishing in my investment classes. The biggest problem with investing is that people become obsessed with results. Everything is about

performance. I tell students, "You have to spend time studying the river, and you have to ask questions. What kind of insects are the fish eating? Where's the wind?"

The best day on the river is the one in which you learn about the river. It's not the day when you land the most fish. It's when you learn the most. And the more you learn, the more you're likely to catch fish. [GSB](#)





PEER-TO-PEER

How Do I Hire Good Language Teachers?

In which a student with questions learns from an alumnus with answers.

Ana Leyva, MBA '20, founder and CEO of Lelu (lelu-usa.com) asks:

I recently launched a company called Lelu to change the way American families learn new languages. Our platform connects language learners with local “trek leaders,” whom we train (virtually) to lead engaging outdoor language classes. Our tech platform also provides online content for students to reinforce the lessons from their classes. Crucial to our success will be recruiting and screening a nationwide network of trek leaders who are not only fluent in an in-demand foreign language but also reliable and enthusiastic, with a passion for the outdoors and a passion for kids. It’s a gig job, like Uber, and I’m anticipating no shortage of applicants, so my questions have to do with the screening process. How do I ensure that I’m hiring applicants who are both capable of teaching a language and willing to be brand ambassadors? And when rejecting applicants, how do I do so in a manner that doesn’t turn them into a negative marketing force?

Bill Reichert, MBA '81, managing director of Garage Technology Ventures, answers:

Ana, no prescreening tool or process is foolproof. I’ve learned this after many

years as an entrepreneur and venture capital investor. The best you can do is have a multiple-gate process. The first gate should be the easiest criteria to assess objectively, which in your case is probably fluency in both languages and the ability to communicate effectively with children. You can screen for this with standard assessment tools and a video application. You can then use in-person interviews (or videoconferencing) to screen for other characteristics and to make sure they understand what the job entails.

But at some point you are going to have to invest resources into candidates, take them through the training, and let them do some treks. After training, you will probably be able to screen out some candidates. And by the end of their first trek, both of you will probably know who should stay and who should go.

Entrepreneurs often worry too much about making a good first impression. That leads to over-engineering products and delaying their beta launch. For you, every new trek leader is another beta test. The spirit of your company is all about adventure, so as long as you have good-hearted, well-intentioned, bilingual trek leaders, get them out in the field. Your customers will give you the benefit of the doubt. **GSB**



CAREER ADVICE

Mind the Gap

Carol Fishman Cohen, cofounder of iRelaunch, shares her insights on how to explain career gaps on your résumé.

1 Connect, but Don’t Over-Connect Get out of the house and check out university lectures, professional conferences, and social events. One-on-one career coaching is available through Stanford GSB’s Alumni Career Services. And then there’s LinkedIn. “Reach out and say, ‘Hi, Joe. I’ve been out of the workforce for the past eight years and am in information-gathering mode.’ This approach reassures your contact that you’re not asking for a job,” Cohen says.

2 Be Ready for the Modern Interview Be prepared to discuss career gaps on camera, because many employers will have their first impression of you via Skype.

3 How to Handle the Big Question “Say, ‘Yes, I took a career break, and now I can’t wait to get back to work. In fact, the reason I am so interested in this particular position is because of the work experience I had at X, where we faced very similar customer challenges.’” If the career break was due to a now-resolved personal reason, be straightforward, but emphasize its resolution. “I took a career break for a family issue, which has been resolved, and now I can’t wait to get back to work.”

Find other resources on career management and transition at Stanford GSB’s Alumni Career Services: stanford.io/career.



HOW CAN WE HELP?

If you have a business question you’d like answered in this column, email us at stanford.business@stanford.edu.

SEEN AND HEARD

“We’re a long way from becoming a cashless society. The U.S. is comfortably behind the rest of the world in this regard.”

— Ken Singleton, the Adams Distinguished Professor of Management, on CBC News (stanford.io/CASHLESS)

MAKER

Rickshaw Bagworks

Mark Dwight, MBA '89

“WE WELCOME ANYONE to come see our factory, take pictures and videos, and post them on the internet,” says Mark Dwight, BSME '82, MBA '89. “Manufacturing is theater, and this place – this theater – is essential to our brand. We make what we sell.” Dwight recalls that former Stanford GSB professor Lynn Phillips taught him how a physical product can have both actual and perceived value, and how storytelling can animate products and enhance that value. Rickshaw’s core brand story is that it designs and manufactures all of its products in a self-owned factory in San Francisco’s historic Dogpatch neighborhood – a story summarized in its tagline: “Fresh Bags Made Daily.”

Dwight started his first business – making stained glass windows – as a teenager, and his current business is poetically similar. “Then, my materials were glass and lead,” he says. “Today, they are fabric and thread.” He founded Rickshaw in 2007, after spending 20 years at various Silicon Valley tech companies and four at the helm of Timbuk2, another San Francisco bag maker. At Timbuk2, he oversaw sales growth from \$4 million a year to \$19 million, eventually selling the company to a private equity firm. With annual sales of \$1.5 million, Rickshaw is a much more modest enterprise, and Dwight’s ambitions for the business are less about growth and more about crafting his own destiny. “I’m the sole owner, and this is my passion project. I’m not driven to be the king of the bag industry. I love being hands-on, and I love everything about this business. I’m in the factory every day.” **GSB**

– Steve Hawk



Mark Dwight, founder and owner of Rickshaw Bagworks, also founded SFMade, a nonprofit that supports San Francisco’s manufacturing sector and maker movement. “Small manufacturers are an endangered species, especially in high-cost cities. We need all the help and recognition we can get.”

Photo by Timothy Archibald



LASER CUTTER

Rickshaw’s operation is designed for “the unit of one,” and every bag is made to order. That’s why Dwight installed this laser cutter instead of a standard hydraulic clicker press, which would have required separate cutting dies for each product design. “It’s a digital tool, so all of our designs fit on a thumb drive.”

CORDURA FABRIC

With more than 100 fabric color options, consumers can customize one-off bags online. A rotary heat press enables Rickshaw to transfer custom graphics to any fabric in small batches. Much of the firm's business comes from companies ordering co-branded bags for their employees.

EMPLOYEES

When Dwight sought to hire his first two workers a decade ago, he placed an ad in a local Chinese-language newspaper. More than 400 applicants showed up — a vestige of San Francisco's once-thriving apparel industry. Today, he employs eight expert sewers.

DESIGN DESK (NOT SHOWN)

Dwight does the design work himself: "Bag design is great because there's immediate gratification. You have an idea in the morning, a prototype by noon, and you carry a bag home with you that night."

Insights

MARKETING

On Social Media, Sell Your Story, Not Your Stuff. Viral Cat Videos Optional.

A new marketing study of Facebook users shows that hard-sell tactics stifle engagement, and engagement is gold.

BY LEE SIMMONS

In 2018, off the coast of New Zealand, a kayaker was drifting along quietly when a seal burst from the water and slapped him in the face with a large octopus. As it happened, the trip was funded by GoPro as part of a product launch, and that sucker punch was caught on video by one of the company's cameras. When GoPro posted the clip to Facebook, it exploded, yielding a publicity bonanza.

It's a marketer's dream: What could be better than having viewers voluntarily send your branded content to friends (and "friends"), saying, "You gotta see this!" Chasing that dream, companies today are moving more and more of their media spend to social channels. It's a natural evolution — business goes where the buyers are, and nowadays that's on the platforms.

But what kind of content works best on social media? Opinions abound; evidence, not so much. "There's been very

little real-world research on this," says Harikesh S. Nair, a professor of marketing at Stanford GSB. The problem is data: Facebook could do it, but each commercial user on Facebook sees only its own metrics; there hasn't been a way to draw general insights.

So Nair, along with Dokyun Lee of Carnegie Mellon and Kartik Hosanagar of the Wharton School, hooked up with an analytics firm that gathers daily performance figures for some 800 business users of Facebook. After pooling the data for more than 100,000 posts — and using novel machine-learning techniques to characterize their content — the researchers published a paper offering real answers that companies can use to optimize their social media strategies.

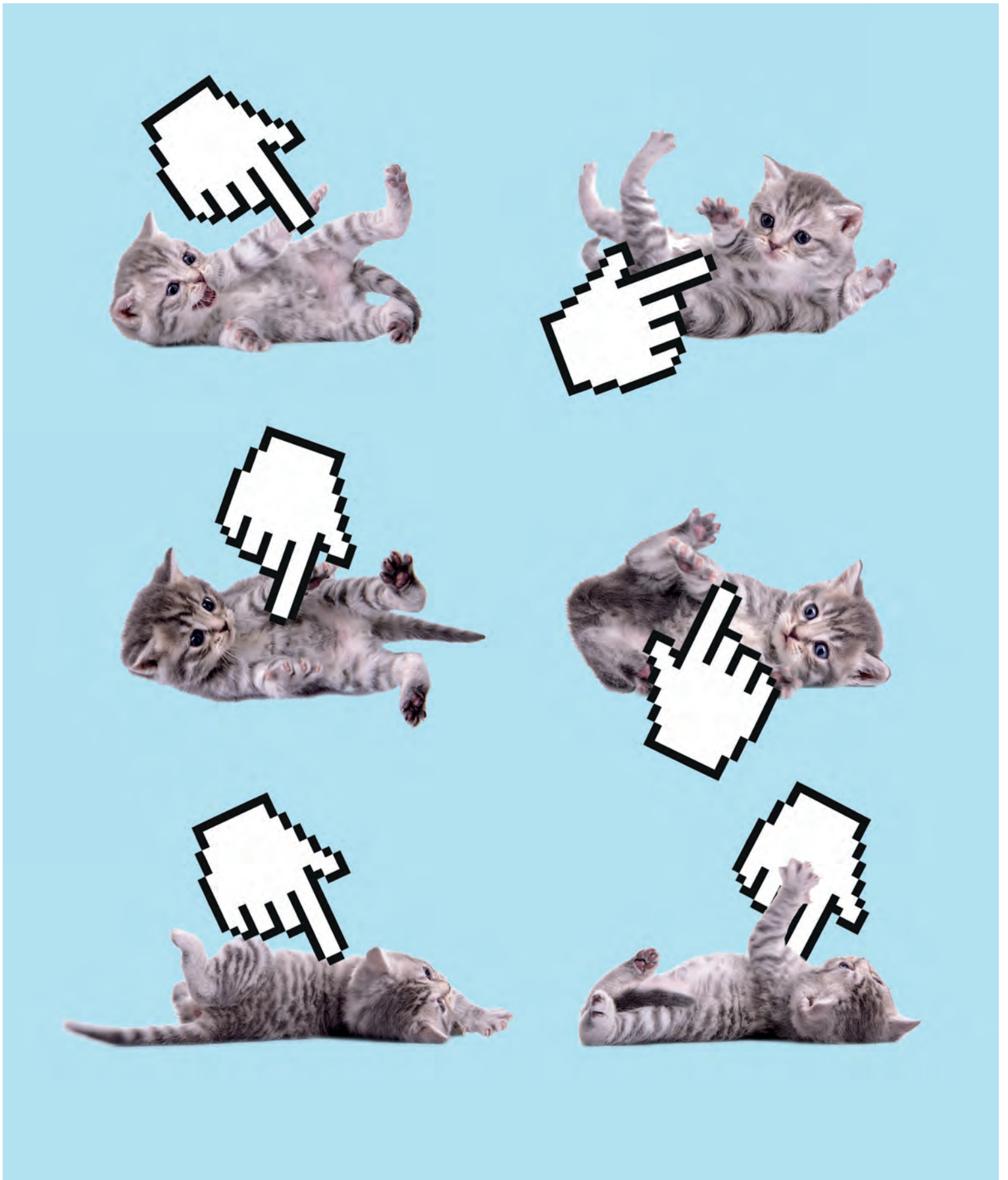
Content Matters

When firms first tiptoed into social media, Nair says, they brought to it a



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Illustrations by Alvaro Dominguez

mind-set from old media, where the goal was to maximize “reach,” which is simply the number of people exposed to a brand message. The corollary online, it seemed, was to maximize one’s follower count — and companies employed a variety of inducements like coupons and free swag, not to mention sponsored posts, to amass followers.

But eyeballs didn’t equal engagement. “Early audits showed that awareness wasn’t enough,” Nair says. “Followers weren’t interacting with the content in any way.” Which isn’t surprising: Commercials have always been an annoyance, the price of watching TV shows for free. Why would anyone “like” a corporation, comment on its self-serving ads, or share them with friends?

“The focus,” Nair says, “then became not just getting exposure but figuring out what to put in the message so users will want to engage with it. This generated a whole new industry called ‘content marketing.’ The question became, What kind of content do I need to reach what kind of user, to generate what kind of engagement — and toward what goal?”

Be Someone

The goal might seem obvious, but there are two distinct streams of social media marketing, Nair says, with different objectives. One, known as “performance marketing,” aims to generate immediate sales, or “conversion.” The other is “brand building,” where the goal is to connect with consumers in a more personal way, in hopes of earning their long-term loyalty.

Interestingly, the data showed that most firms used one or the other exclusively. Only a few did both at once. “I don’t know why that is,” Nair says, “but it could be an organizational thing — where the teams responsible for social media in different companies are more aligned with the sales or marketing departments.”

To characterize each post, the researchers first hired workers on

Amazon Mechanical Turk to evaluate a subset of about 5,000 posts and label content based upon soft attributes like humor and emotion or upon hard information like price deals. Then they used that labeled set to train a computer, with natural language processing and machine-learning algorithms, to power through the rest.

When they finally combined the content attributes with the engagement figures — the actual likes, shares, and comments for each post — they found stark differences in performance: “When a company says, ‘Hey, here’s a coupon for 20% off,’ it gets very little engagement,” Nair says. “When it uses what we call ‘brand-personality content’ — essentially, when it talks to users in ways that simulate a human being — it gets lots of engagement.”

Mix It Up

On one level, of course, we know we’re being played — the bantering, irreverent personality on the other end is a construct, a brand profile, an avatar — but our brains can’t resist. Marketers hack our basic urge to connect with others who are like us, to sort ourselves into tribes. “There’s a lot of research showing that efforts at persuasion are more credible when they seem to come from an individual person, a friend,” Nair says, “instead of, say, a corporation in Cincinnati.”

However, performance marketing still has a place. Nair thinks users might be reluctant to share such posts because they don’t want to appear to be shilling for a company or seem unduly excited

about saving money. “People are hyper-aware of the optics on social media,” he says. “They think about how their actions will look to others.” But that doesn’t mean they won’t click through for the coupon.

There’s also no reason a company can’t do both, he adds, and that may be where most of them fall short today: “A possible content strategy would be to combine them, to use informative posts to generate immediate leads and personality-driven posts to build long-term brand capital. A portfolio approach.”

Engagement Is King

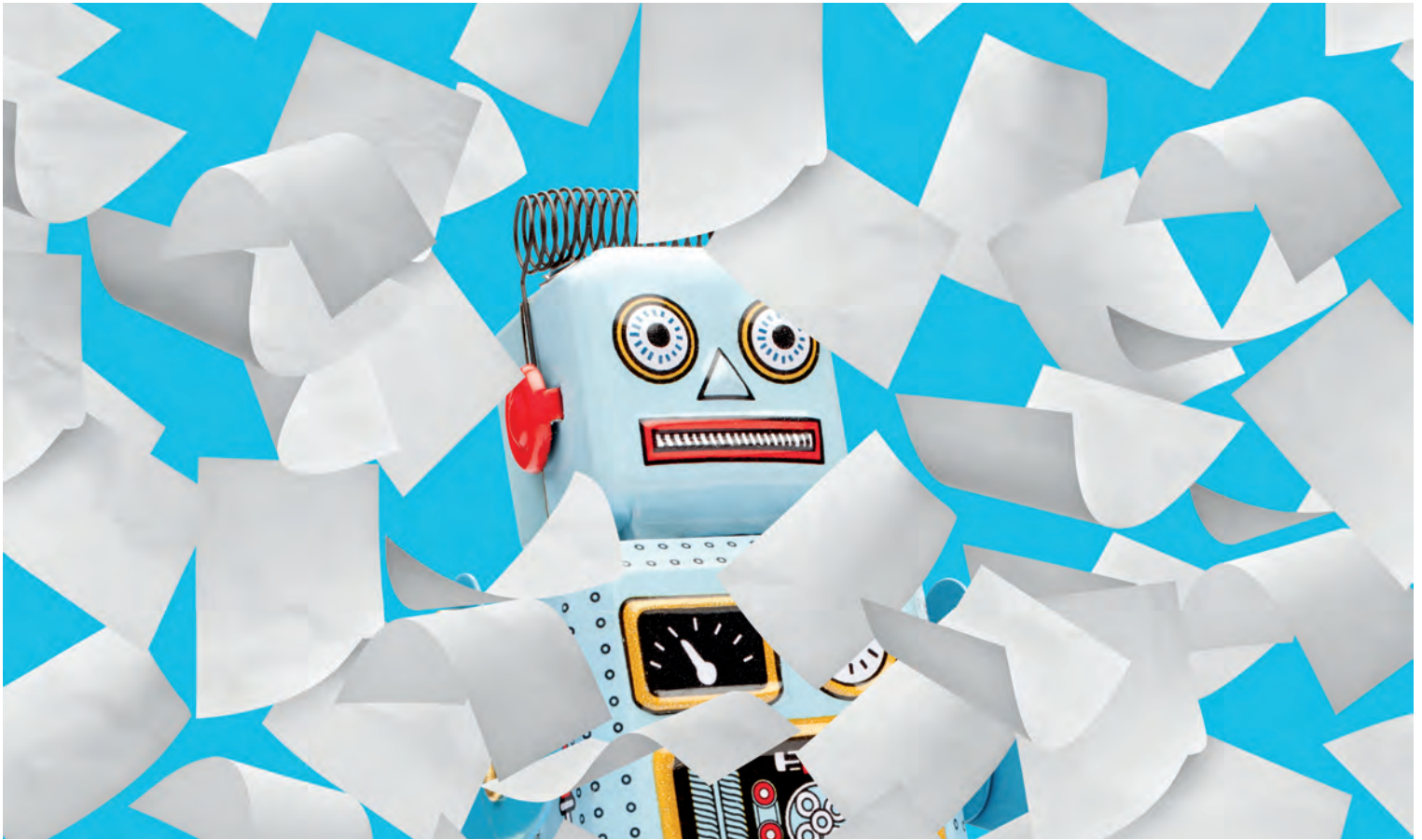
Still, they’re not equally important; the study shows that the crucial element in any social marketing campaign is the brand-personality content. And the reason for that, Nair says, gets at the key difference between traditional broadcast media and new media: In this new world, user engagement is noticed by the algorithms that drive reach.

“Facebook’s News Feed algorithm gives priority to content with good engagement. If you’re sending out posts that aren’t getting any visible traction, the algorithm will say, ‘Aha, users don’t like this company’s posts very much.’ Then you get buried farther and farther down in News Feed, so you have little chance of ever showing up in front of users.”

In this way, Nair says, maximizing engagement — those precious likes, shares, and comments — on social apps is today’s equivalent to search engine optimization, or SEO, on the web. In both cases, the goal is to reverse-engineer the ranking criteria used by systems that essentially equate popularity with value.

“It sounds paradoxical, but you can’t get engagement without engagement,” Nair says. “So even if you’re mainly interested in performance marketing and driving sales, it’s really essential to add some good brand-personality content — if only to remain visible in this crowded marketplace.” **GSB**

Maximizing engagement — those precious likes, shares, and comments — on social apps is today’s equivalent to SEO on the web.



MANAGEMENT

Don't Let Artificial Intelligence Pick Your Employees

Algorithms aren't sophisticated enough to make these strategic decisions... yet.

BY DYLAN WALSH

In 2014, Amazon launched a new recruitment algorithm to help it find the best job candidates. A year into the experiment, the company saw that the tool was biased against women and quietly shut the program down. When Reuters broke the story last October, John Jersin, the product leader for LinkedIn Talent Solutions, offered his thoughts on the landscape of algorithmic hiring: "I certainly would not trust any AI system today to make a hiring decision on its own. The technology is just not ready yet."

Implicit in his comment is the notion that someday these systems *will* be ready. But work by Adina Sterling, an associate professor of organizational behavior at Stanford GSB, questions this optimism, linking it to a deep — and deeply problematic — misconception of hiring's strategic role.

In a paper coauthored with Daniel W. Elfenbein of Washington University in St. Louis and published in *Strategy Science*, Sterling articulates how smart hiring is inextricable from long-term corporate strategy; she also explains why delegating the responsibility of hiring to machines, at least in the near future, is likely to undermine its strategic potential.

"With technology increasingly stepping into this role, we're at a moment in which these questions of higher-level strategy ought to be of great importance," she says.

From Monster.com to Algorithmic Hiring

The use of machines in hiring became widespread roughly a quarter-century back, when career platforms like Monster.com emerged on the web. These websites allowed companies to speed



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up the pace and expand the scale of recruitment. Job posts that once might have fielded 20 applicants were suddenly flooded with 200 in a matter of minutes. “The vast majority of the work since then has been focused on this sourcing side,” Sterling says. “It’s been about filling up the pool with applicants that you think you need and separating them from the ones you don’t.”

Today, between 65% and 70% of all job applications are touched first by a machine. After an initial culling, the best-fit candidates are then, in most cases, handed off to a human. And while computers are getting better at understanding information, and while the availability of information is exploding from our online footprints, the relatively strict filtration offered by most sourcing algorithms creates a problem.

“It’s becoming much harder to find unusual talent, given that these candidates don’t fit squarely into one category,” Sterling says. Consider somebody with a background in improv comedy applying for a sales job: A hiring manager might recognize potential; a computer likely wouldn’t.

At the same time, the use of algorithms and artificial intelligence is slowly expanding its purview from sourcing into actual selection. While not widespread, the development of this practice at-scale is on the horizon. “And yet handing sourcing and selection off to machines is a fundamental problem if we start to understand hiring as truly strategic,” Sterling says. “There is still a lot that human beings do that has to do with strategy, and scholars need to think through what strategic managers should be doing in the context of hiring.”

Hiring as Strategy

To claim hiring as “strategic,” Sterling and Elfenbein first define what they mean by this term. A decision is strategic, they say, when it meets four criteria:

1. Irreversibility: Irreversibility means that once a decision is made, the stakeholders are committed to each other, choices available to competitors are irrevocably changed, and some options are necessarily foreclosed while others are opened.

2. Interdependency: This implies that the benefit of one decision is contingent on relative alignment or complementarity with other decisions made elsewhere in the company. In this regard, interdependency places a premium on knowledge sharing and coordination among decision makers.

3. Competition: Competition means that competitors’ responses influence the value of different alternatives. Decision makers must thus put themselves in the shoes of these competitors and forecast how they might react to each alternative across many imagined futures.

4. Learning under uncertainty: Companies account for the uncertainty inherent in hiring; they hire not just to execute a new job, but also with an eye to learning new knowledge and getting connected to new people, communities, customers, and suppliers.

After conducting a series of interviews with hiring managers, AI and machine-learning experts, and personnel-technology startup executives, Sterling and Elfenbein argue that each of these conditions applies to hiring, and so it ought to be considered strategic. “And things that you can program or automate — in other words, what machines are already doing in hiring — are not the strategic aspects of hiring. The strategic aspects encompass attending to those four elements,” Sterling says.

Hiring strategically thus means thinking not just about any one applicant’s skills — the “best athlete” approach — but about how to holistically and consistently source talent and integrate it into the organization. It also means sticking with this human capital strategy over the long term, since these are commitments that cannot be reversed without cost.

In short, hiring is not a one-off search for the most suitable candidate for a specific job, but rather it’s a process akin to filling a roster. Hiring demands a global view of the company and its direction within a shifting market. Computers do not possess such a view.

The Role of AI

This is not to say that hiring algorithms should be discarded. But their role within any HR department, says Sterling, needs to be squared with the strategic centrality of deciding whom a company employs. This means two things.

First, hiring managers need to take a careful look at what’s under the hood of the algorithms they have in place. “There are a lot of filters that any given applicant pool has gone through that managers may have no idea about,” she says. “And while algorithms are efficient, they often lose nuance that may have been present 10 years ago when AI was not as prevalent.” Consider, again, the sales candidate who excels at improv.

Second, after determining whether these filters need to be adjusted, managers should think about the concrete value of their hiring algorithm. Yes, it sorts résumés quickly. But what else does it do? And what does it not do? They should then fit these insights into broader consideration of the company and its strategic trajectory. How might a blind algorithm support or hinder this movement?

“I would love managers to have the sense that they’re held accountable for what algorithms are doing,” Sterling says. “They should, at the very least, understand that this is a responsibility of theirs.” **GSB**



HUMANIZING THE MACHINE

Learn how researchers at the Stanford Institute for Human-Centered Artificial Intelligence are leveraging AI’s impact for the common good at hai.stanford.edu.

ECONOMICS

Rising U.S. Inequality – How We Got Here and Where We’re Going

An economist and a business advisor discuss what might happen if the gap between rich and poor continues to grow.

BY SHANA LYNCH

The U.S. economy hit a historic high in 2019, and today unemployment is at its lowest rate in five decades. Yet wage growth for the vast majority of Americans has stalled, and more people are struggling to afford housing, health care, education, and other basics.

“Times are good if you are college educated and working in the right industries in the right locations,” says economist Paul Oyer. “But the last 50 years have been terrible for people with lower skills. Adjusted for inflation, the average earnings of a man who didn’t go to college is lower now than it was 50 years ago. That’s unheard of.”

Oyer, a professor of economics at Stanford GSB, teaches a course to MBAs focused on causes and complications of U.S. inequality. The course is co-taught by Lenny Mendonca, MBA ’87, who serves as California Governor Gavin Newsom’s chief economic and business advisor and oversees the state’s Office of Economic Development.

Here, they discuss what is driving inequality, vet proposed solutions, and speculate what will happen if the trend continues.

This is the first generation of Americans that is expected to fare worse than the prior. What’s driving this trend?

OYER A number of factors. Globalization, for one. A really good substitute for a manual laborer in the U.S. is a manual laborer in China or Costa Rica. Another factor is technology. Apple is the canonical example. The company is designing their products here, so the people who work in engineering are more and more valuable, and making more and more money, but the people who, in the old days, might have made computers here — that’s now done in China.



MENDONCA We’ve also had a combination of tax and regulatory policy that has encouraged capital formation and increasing returns to capital, so labor’s share of returns has decreased. The last round of tax policy out of Washington made this worse.

Is this level of inequality historically unprecedented?

OYER You had the same thing with the Industrial Revolution that concentrated more and more wealth into the hands of capital. Henry Ford, the Rockefellers, Leland Stanford...

MENDONCA ... J.P. Morgan.

OYER But the Great Depression took the wind out of the sails of that. Inequality was substantially reduced during the ’30s, ’40s, and ’50s.

MENDONCA A large portion of what reduced inequality was the destruction of wealth during World War II and the fact that the U.S. benefited afterward from being the last standing industrial economy. We had a global environment that was based on American exports. Today, we’re in the midst of a transition to a very different economy. This time, it’s much more global, particularly in labor markets.

OYER But as the U.S.’s inequality has grown since the ’70s, inequality has reduced dramatically around the world.

Why is inequality dramatically better globally?

OYER Because the low-wage jobs that left here are considered really good jobs in China. We’ve lifted a billion, two billion people out of poverty over the past 30 years.

MENDONCA We’ve lifted more people out of abject poverty in the last 20 years than in the history of the world.

Headlines announced Google has more contract workers than full-timers. Amazon paid zero taxes this year. Multinationals are so good at tax avoidance, some Stanford researchers suggest we may underestimate tax evasion by 50%. Are companies to blame for growing inequality?

OYER I don’t know that it’s their fault. They’re following the rules — mostly. Inequality varies widely between different companies and between different cities. There are companies and cities that have done well in the last 50 years and companies and cities that have done poorly. Apple’s done great. Google’s done great. General Motors has done

“The low-wage jobs that left here are considered really good jobs in China. We’ve lifted a billion, two billion people out of poverty over the past 30 years.”

lousy, from the C-suite down to the factory workers.

MENDONCA I don't think most business leaders are worker-exploiting, uncaring, community-destroying, environment-polluting extreme capitalists. They're just doing their jobs. So we have to create an environment where doing their jobs includes thinking about all those things in a way that's not in conflict with their business interests.

OYER As a company, I'm not going to individually fix inequality by overpaying my workers, because then someone else is going to come in and undercut me and pay less to their workers. We need policy interventions. We need to give companies the incentive to do the right thing.

So are policy interventions the primary solution?

OYER We're not going to solve all these problems just through policy. Too many people have incentives to obstruct the policies that should go through. As an economist, I'm favorable toward certain types of immigration and toward free trade. Those are good policies, if you ask me. They're potentially what we call — I'm throwing out a jargon term — Pareto-optimal, meaning if you did it right, you could make everyone better off. If you suddenly make trade free and that hurts some people, you can transfer money to make them better off.

Well, everybody always forgets to do that part — where they transfer money. That's what's led to a lot of inequality. There are a lot of good policies that we've implemented over the years, like free trade and immigration, that have been efficient and grown the economy but have contributed to inequality. Automation, while not a policy, is another example where we say we can have robots and then take care of

the people who lose their jobs. We always forget to go back and take care of the people who lose their jobs.

A much steeper income tax has gotten attention — some pitching even 70%. Is that possible?

OYER I can't imagine a 70% tax rate. And I don't think we'll see a universal basic income for a long time. These are hugely expensive ideas.

What about a higher minimum wage?

OYER The neoclassical theory on minimum wage is that if you raise it, some low-wage workers have more money, but others will lose their jobs and be worse off. How true is that? The answer is, for small enough changes when the economy's strong, it's not that big of a deal. It definitely improves the welfare and buying power of people at the low end of the spectrum. But it's really just keeping people out of poverty. It's not creating middle-class families.

What would help create middle-class families?

OYER The big payoffs are early interventions. Getting kids into preschool, having them not fall behind. There's a lot of evidence that by third grade, some kids are far behind and never catch up. For a lot of children, when they're eight years old, it's too late. If your parents aren't engaged in the education system, in 10 years you'll be competing in the labor market against people whose parents sent them to violin lessons and summer programs in the Dominican Republic. There's inequality of opportunity.

What happens if inequality continues to grow?

OYER Well, I thought the answer was going to be someone like Bernie Sanders would be elected president, but instead it took this very strange turn with Donald Trump. Instead of people saying, "Let's steal the rich guys' money," they said, "Let's blow up the whole system."

MENDONCA The consequences of dramatic inequality lead to people turning either to authoritarian leaders who promise a return to the past, or to alternative economic constructs like socialism, neither of which are very good for capitalism.

Uber driver strikes garnered headlines before the company's IPO. Should we anticipate more strikes like these?

OYER The labor movement has been defanged in the process of inequality. There's cause-and-effect questions there, so I don't know. You would think so, but there's not a lot of labor unrest out there. Like Walmart and Amazon — why aren't they striking or forming unions?

What do you hope your students take away from this course?

OYER In the 20 years I've been at Stanford, there's been a lot more interest among our students in solving the world's problems. There's a certain arrogance in that, but also a hopefulness. They're not going to fix the problem, but they're going to contribute toward solutions. They're going to do their part, I hope. And that means being more thoughtful in how they run their organizations and influence policy.

MENDONCA I hope that some of them, as prior students have, decide to focus their career on directly addressing economic mobility. As important, I hope they come away understanding that all business leaders have a fundamental role in addressing the issue as individual leaders, as members of their community, and as public voices. **GSB**



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ACCOUNTING

Good News and Bad News on Tax Evasion

A tough new law made it much harder for American tax cheats to hide their money offshore. But a new study shows they haven't given up.

BY EDMUND L. ANDREWS

Tax evasion may be America's biggest game of hide-and-seek, especially when it comes to people who park their money in offshore tax havens.

In 2010, President Barack Obama signed one of the toughest laws ever on the issue. The Foreign Account Tax Compliance Act, or FATCA, required all foreign financial institutions to automatically provide the Internal Revenue Service with information on any accounts held by U.S. citizens.

The new law made it much harder for rich Americans to avoid U.S. taxes by hiding their money, and the investment income it generates, in foreign banks and opaque shell corporations.

Did the tough new rules actually work? Or did tax evaders find alternative ways to keep their money out of sight?

There's good news and bad news on that, according to a study by Lisa De Simone and Rebecca Lester at Stanford GSB and Kevin S. Markle at the University of Iowa.

The accounting professors found strong evidence that the new law did indeed reduce one of the main channels for offshore tax evasion. Unfortunately,



“It’s always a cat-and-mouse game. Any time you shut down one evasion tactic, you open up another.”

they also found that the law spurred a shift to alternative strategies, such as investing in real estate or art and antiquities. It also provoked a big jump in the number of Americans who renounced their citizenship.

“It’s always a cat-and-mouse game,” says De Simone. “Any time you shut down one evasion tactic, you open up another.” Adds Lester, “As long as these individuals have alternative channels to evade taxes, it’s going to happen.”

Investment Dip

The researchers began by examining a key indicator of offshore tax evasion: “round-trip investing,” in which U.S. citizens move money out of the country but invest it back in the United States and don’t report their profits to the IRS.

In a round-trip, people begin by transferring money to a foreign financial institution, often one that’s in a tax haven such as Panama, Luxembourg, or Switzerland. But because most Americans don’t want to stop investing in the United States, the next step is to use a foreign investment company that will invest in U.S. stocks and bonds on their behalf. Unless the IRS has information about the foreign bank activity of U.S. citizens, it’s hard to track down the income they might be earning from those investments.

To figure out if FATCA has been effective, De Simone, Lester, and Markle looked at whether the amount of money flowing from foreign tax havens into U.S. securities declined after the new law took full effect. The good news was

yes: From 2012 to 2015, those investment flows dropped by 21%, or \$15.3 billion.

On top of that, the total volume of portfolio investments from tax havens to all other countries also declined by about 21%, a reduction of at least \$56 billion. The researchers say that suggests that FATCA diminished the global investing as well as U.S. investing by people who keep money in tax havens.

New Tricks

The bad news, according to the authors, is that the new law also appears to have spurred more creative efforts to hide overseas income and assets.

The first thing the researchers spotted was a dramatic jump in the number of people who renounced their U.S. citizenship — from less than 1,000 in 2009 to more than 4,000 in 2015. Americans who give up their citizenship generally aren’t subject to U.S. taxes on any future foreign income. It’s not clear how many of those additional people had taxes on their minds, but De Simone and Lester say it’s likely that FATCA compliance was the main reason for many of them.

The second thing they found was strong evidence that people began

shifting more of their money into the comparatively opaque market for real estate, where transactions don’t fall under FATCA reporting requirements. The researchers compared price changes for residential real estate in countries that have no restrictions on foreign purchases with price changes in countries that do have restrictions and found prices after 2012 were about 4.2% higher in countries without restrictions.

The researchers also found evidence that Americans were putting more money into art and antiquities, where the offshore profits are even harder for tax authorities to spot.

One way to discreetly invest in art is to buy it and then warehouse it in a “freeport,” where “in transit” goods are exempt from customs duties and can be traded without anyone reporting the transactions to the IRS. By some estimates, the Geneva Freeport alone contains 1.2 million pieces of art worth \$10 billion.

To see if FATCA had an effect on the art market, the researchers focused on the Geneva Freeport and examined Swiss customs records to track the volume of art and antiquities (by weight) stored there. Not only did the volumes in Geneva increase after 2012; they increased faster than in other Swiss cantons that had comparable amounts of imports — but no freeports.

Even if tax authorities close the loopholes in real estate and art, De Simone and Lester caution that people won’t stop hunting for new ways to conceal their wealth.

“There’s no question FATCA and efforts by the IRS have made some dent in the amount of income and assets held offshore,” says Lester. “However, no amount of regulation will be able to eliminate all tax evasion, particularly given the inherently secretive nature of this activity.” **GSB**



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ORGANIZATIONAL BEHAVIOR

The Cersei Effect – How Businesses Turn Colleagues Into Backstabbers

New research shows that people with shared goals can get lured into “pseudo competitions” that hurt all involved.

BY PATRICK J. KIGER

When HBO’s *Game of Thrones* approached the end of its eight-season run last year, viewers were eager to find out if one of the show’s more ruthless characters would emerge victorious.

But while devious maneuvering and betrayal are effective on the fantasy continent of Westeros, they don’t work quite as well in the real world. Instead, research by Szu-chi Huang, an associate professor of marketing at Stanford GSB, suggests that cutthroat competitors who resort to sabotaging perceived rivals instead may end up undermining their own chance of achieving important goals.

Within companies, competition “is something that needs to be carefully structured and managed,” Huang explains. “It does increase engagement, which is good.”

But it can also have destructive effects, especially if workers transform attainment of individual goals into a quest to prove that they’re better than the man or woman at the next desk, she says. Additionally, according to Huang, our fixation upon winning can spawn faulty beliefs that lead to inaccurate predictions of outcomes.

Those revelations are contained in two papers written by Huang and collaborators and published last year in the *Journal of Personality and Social Psychology*. Huang says the new research was inspired by an earlier paper that she and colleagues published in the *Journal of Consumer Research* in 2015.

That study found that Weight Watchers participants tended to start out working together and encouraging one another. But as they got closer to their goals, they began to distance themselves from their peers and even stopped coming to meetings. While one possible explanation was that as subjects lost weight, they felt that they didn’t need the social support to continue, Huang was intrigued by an alternative possibility.

Losing Sight of the Original Goal

“We wondered if it was because they started to feel the pressure of competition,” she explains. “People may start to think, ‘I know I can lose weight, but it’s really about me losing more weight than the others or looking better or being healthier than them.’”

To test the behavioral effect of such imagined “pseudo competition,” Huang



teamed up with Stephanie C. Lin, who received her PhD from Stanford GSB in 2017 and is now an assistant professor at Singapore Management University, and Ying Zhang, a professor at Peking University. They devised experiments in which subjects took verbal creativity tests and played various games, with a goal of earning Amazon gift cards.

A key element of the experiment was that participants were told that everyone who achieved a certain score would receive a gift card. The subjects also were paired with partners and given a chance to make moves that would affect their partners' scores.

The Twisted Logic Behind Sabotaging “Partners”

What the researchers found was startling. As subjects got closer to achieving their individual goals, they had a greater tendency to do things to sabotage their partner — and to slack off when they thought they had the upper hand.

Additionally, they tended to pick games in which they expected to do better than the partner, even if those choices resulted in a lower score for themselves, too.

“As people get closer to a goal, they may shift their focus,” Huang explains. “They end up focusing on the distance between them and their partners rather than their own distance to the goal.”

According to Huang, that sort of approach makes sense in a real competition, “where what determines winning is your relative position against another person. You can both suck, but if you get one point better than the other person, you still win.”

In contrast, people who create pseudo competitions are acting illogically, because

there's no real prize in coming in first, and the imaginary zero-sum game only distracts them from achieving individual goals that are valuable and beneficial.

A Focus on Winning Biases Predictions

In a second paper, subjects who were asked to predict the outcomes of various contests tended to assume that their competitors' intent to win would come true. That paper was written by Huang, Daniella Kupor, who received her PhD from Stanford GSB in 2016 and is now an assistant professor at Boston University, and Melanie Brucks, who received her PhD from Stanford GSB in 2019 and is now an assistant professor at Columbia Business School.

“When observers predict another individual's outcome in a competition, they systematically overestimate the probability that the person will win,” Kupor explains. “This misprediction stems from a previously undocumented lay belief — the belief that other people generally achieve their intentions — which biases the observer's forecast.”

Huang says that we tend to believe that competitors will be victorious because our expectations are rooted in perceptions shaped by cultural mythmaking that focuses upon winners.

“When we watch contests, we frequently watch someone win,” she says. “The coverage of an Olympic event focuses on the winner, not the 99% who tried but lost. The media tends to feature success stories — the people who want to win and

then do actually end up winning. That's one potential reason why we have this belief that's inaccurate. In reality, there are more people who intend to win but don't succeed.”

Design Better In-House Contests

The two papers show the potential risks that internal competitions pose for companies, Huang says. An organization that relies upon individual goals or performance benchmarks to evaluate employees, for example, needs to be careful to design competitions and structure comparisons that thwart the efforts of some workers to sabotage their colleagues. Otherwise, saboteurs may bring down everyone's numbers — including their own.

“A company could try to restructure the comparison by matching employees who are at different phases of their careers instead of the same phase, for instance through a mentorship system,” Huang says. “Or they could highlight the differences and uniqueness in each employee's background, task, and project, and thus make the comparison less meaningful. All these things can help to reduce unnecessary competitive behaviors and the desire to sabotage.”

Similarly, she says, the tendency to equate intent with future victory can lead people to make poor choices in everything from investments to elections. When we assume a political candidate will win, we may reduce our support. Overestimating a person's chance to win can also lead to erroneous investment and betting decisions. Huang stressed that more research is needed to find ways to mitigate such errant beliefs. **GSB**



SZU-CHI HUANG

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With Grace

In his quest to cure his daughter's ultra-rare disease, Matt Wilsey might also be changing the way drugs are made.

BY STEVE HAWK
PHOTOGRAPHS BY TOM HOOD



Matt Wilsey has watched his daughter, Grace, endure countless medical tests in the nine years since she was born. But on this crisp Northern California morning, a day that would beckon most children outside, the doctors at the Stanford Clinical and Translational Research Unit are touching and prodding Grace in new and exhausting ways.

Kindly and gently, the researchers measure the length of her hands and feet, the width of her eyes and nostrils, the circumference of her head. They carefully bend her clenched legs. They strap her into orthopedic shoes and record video of her walking.

Grace would ask for it all to stop, but she lacks the ability to speak.

If Wilsey's parental pain in watching this scene seems tempered by clinical curiosity, it's because the tests are part of a larger study that he himself set in motion months before, and because he knows they'll be needed if his global team of experts is ever going to find a cure for his daughter's disease.

During breaks, Dr. Jennifer O'Malley, who specializes in movement disorders, peppers Matt and his wife, Kristen, with questions.

"How about feeding herself?" O'Malley asks.

"She can feed herself with a pre-loaded fork," Kristen says. "Like chicken. Solid things. Spoons are pretty much impossible."

Grace happily fidgets in her mother's lap, waving her arms and kicking her legs.

ESTABLISHING A BASELINE

As part of a study documenting the symptoms of NGLY1 deficiency, doctors at the Stanford Clinical and Translational Research Unit record video of Grace Wilsey as she walks in braces.

That's the first thing you notice about Grace: She flails nonstop, and she's relentlessly happy — two signature symptoms of NGLY1 deficiency, the genetic disorder that has afflicted her since birth and that went undiscovered until seven years ago. Only 54 people in the world are known to have it.

Grace's flailing, technically known as chorea, is likely the result of a genetic mutation that prevents the nerve cells that control her muscles from properly recycling discarded proteins.

Where the happiness comes from, no one can say — not even her father, who, at this point, knows as much about NGLY1 deficiency as any person on the planet. Such expertise is an unexpected distinction for Wilsey, a 2008 Stanford Graduate School of Business MBA whose first success was helping to launch a custom poster and T-shirt company called Zazzle.

A Sixth Sense That Something Was Wrong

The day Grace was born, the Wilseys knew their lives would never be the same — but not in the transcendent way that most parents know. It had been a scary delivery: abnormal heart rate, emergency C-section, doctors and nurses swirling around "like banshees." After mother and daughter were stabilized, Kristen got wheeled to the recovery room while still sedated, and Matt went to the nursery with Grace.



“Everyone was saying, ‘Grace is fine, she’s fine, she’s fine,’” Matt recalls. “And anatomically, she looked fine. Perfect. But I had a sixth sense something was wrong.”

The couple had met at Stanford in 2000, when Matt was a senior and Kristen a freshman. He was studying political science, and she wanted to be a psychologist. They waited until 2007 to get married — after Kristen earned her master’s in counseling psychology and became a licensed therapist.

Matt had spent part of his undergraduate years at Stanford’s Washington, D.C., campus, working for President Bill Clinton. After graduation, he went to work on George W. Bush’s 2000 presidential campaign. When Bush won, Wilsey did a short stint at the Pentagon working for Defense Secretary Donald Rumsfeld before moving back to Northern California to help some fellow Stanford alumni launch Zazzle, the online marketplace through which customers can create customized products such as shirts, posters, and coffee mugs using images of their own choosing.

At Zazzle, Wilsey displayed the same audacious goal-setting that he would later bring to bear in his pursuit to help his daughter: “At first, I was doing hand-to-hand trench negotiations with small artists. I would go to the street fair in Menlo Park and hand out flyers and say, ‘You should put your art on our website.’ And

we got some great artists and museums. But they were so nitpicky. ‘The blue on your poster is not as blue as the blue on my original.’”

Sales came in one or two at a time. It was no way to get a business to scale, Wilsey knew. What they needed was one huge client with an archive of visual assets that the public craved. “So I said, ‘You know what? We’re going to go for the biggest, baddest licensor in the world. Land the big dog and everyone else will follow.’”

His target: Disney.

“I just basically cold-emailed them, and eventually we got their entire library,” he says. Once Disney was on board, it didn’t take much effort to cut similar deals with Warner Bros., Marvel, Universal, Fox, MGM, and the Library of Congress.

By the time he left, in 2006, Zazzle was doing about \$10 million a year in sales and growing steadily. By 2015, revenues were up to \$250 million.

After Zazzle, Matt enrolled at Stanford GSB to get training in finance and accounting, thinking he would need those skills if he ever wanted to be a CEO. The class that made the biggest impression, and that he draws upon still, was Managing Growing Enterprises, taught by H. Irving Grousbeck. “Professor Grousbeck taught me to tackle problems head-on,” Wilsey says. “If you’re having trouble with an employee, don’t let it fester. Address it right away.”

With MBA in hand, Wilsey decided to move into private equity. He landed a job at KKR in New York, but he lasted there less than two years. “I quickly realized that I am not an investor. I am not a finance guy. I am not a banker,” he says. “I like building things.”

The couple moved back to Menlo Park to be near Matt’s family. A month later, their daughter was born.

Grace’s disorder began to manifest quickly and in mysterious ways. Within days of her birth, she showed a frightening spike in a protein that’s used as a marker to measure infection. The doctors put her on antibiotic and antiviral meds, and the marker dropped. Everyone figured they’d solved the problem, even though doctors never determined if there had actually been an infection.

When a different marker that indicates liver disease also spiked, then dropped, then spiked again, doctors began to suspect that the problem was genetic, and the Wilseys embarked on a journey that would soon consume their lives. Kristen set aside her career, and Matt essentially took on a new one.

“We traveled all over the place,” Matt remembers, “just hoping to find one doctor who had seen this phenotype.”



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THE RAREST OF THE ULTRA-RARE

Only 54 people worldwide have been diagnosed with the genetic disorder NGLY1 deficiency.

They flew to New York and Philadelphia three times each to see specialists. They traveled to Houston twice, Baltimore once. They did a one-day round-trip to Colorado to see a doctor there. Grace was with them the whole time. No one could figure out what was wrong.

Exasperated, Matt told their geneticist that he wanted to do whole genome sequencing on all three of them — father, mother, child. It was a nearly preposterous idea that required much cajoling.

Genetic sequencing comes in two forms: genome and exome. In genome sequencing, the entire genetic makeup of a human is mapped, which equates to about 3 billion base pairs of DNA. In exome sequencing, only the genes that create protein codes — and thus are most likely to be the cause of genetic diseases — are sequenced, and they account for only 1.5% of the base pairs.

This was back in 2012, when almost no one was doing whole exome sequencing, let alone whole genome. For one thing, it was too expensive (more than \$10,000 per person). For another, it would result in a deluge of data that no one would be able to interpret.

The Wilseys decided to do it anyway. Twice. At separate facilities. Simultaneously.

“I took the tech-entrepreneur approach,” Matt recalls. “I said, ‘I want all the data now. We might not be able to interpret it today, but we’ll be able to interpret it a month

from now or a year from now or 10 years from now. Let’s just get that data.’”

The results initially pointed to another unknown genetic abnormality as the likely culprit. But that turned out to be a red herring, and by early 2013 Kristen was ready to put the search aside and begin planning for Grace’s lifelong care. Matt wanted to press on. He told her, “We’re going to find the answer. And then we’re going to find the cure. We just need to keep chipping away.”

Matt talked Kristen into making one last trip to Houston for a series of meetings, the most fateful of which was with Richard Gibbs, chair of the Human Genome Sequencing Center at Baylor College of Medicine. Baylor (along with Stanford) had already done whole genome sequences for the Wilsey family, but Matt persuaded Gibbs’ team to analyze Grace’s genome yet again, even though such sequencing was nascent at the time and there were relatively few other genomes to compare it with. Matt’s theory was that genome sequencing was analogous to Google’s search engine: The more you use it, the more it improves. The more genomes you have to compare, he knew, the higher the probability that a genetic disease’s root cause could be found.

When the Wilseys’ genomes were originally sequenced, they’d limited their search for the culprit gene in the normal fashion: by searching for other



A DAY IN THE PARK
(From left) The Wilsey family — Grace, Kristen, Reagan, and Matt — find time to romp during a visit to Stanford.



people whose genetic abnormalities and phenotype, or symptoms, both matched Grace's. With this latest analysis, Baylor and the Wilseys ignored phenotype and looked at her genome with blinders on — a much more laborious process that required step-by-step scrutiny of billions of data points. The Baylor analysis ended up singling out a gene as the cause of Grace's condition: *NGLY1*, which also had been flagged a year earlier by Stanford as one of eight potential candidates.

The discovery of a diagnosis brought the Wilseys some relief. They'd found their gene and learned their enemy's name.

All they needed now was a cure.

"It was like, 'OK, now we really need to mobilize,'" Matt recalls. "We thought the diagnosis part was hard, and it was. It was a monumental task. But in hindsight, compared to what came next, it was easy."

A Fight Worth Fighting

Carolyn Bertozzi remembers clearly the first time she heard from Matt Wilsey. It was September 2015. Bertozzi had just moved from the University of California, Berkeley, into her office at Stanford, where she had come to join — and would later run — a newly created institute known as ChEM-H (Chemistry, Engineering & Medicine

for Human Health). Most of her stuff was still in boxes when Matt reached out.

Bertozzi is a chemist of worldwide repute and a pioneer in glycoscience, the study of how sugar molecules interact with proteins. Matt had come to her because he was on the hunt for an expert in the field.

The Wilseys had been busy in the two years since Grace's diagnosis. Matt figures he'd talked to about 100 scientists by the time he reached out to Bertozzi. He and Kristen had also created the Grace Science Foundation in 2014 and quickly raised about \$3 million. (Matt says most of the foundation's donors to date are family and friends.)

Bertozzi was taken aback by her first conversation with Matt. "No one had ever come to me and said, 'Here's a patient. Here's the diagnosis. It's a mystery. I think you can help us figure out what's going on, and I'd like to fund a project in your lab.' That had never happened to me. I'd moved to Stanford with the hope of having such an opportunity."

Matt's pitch surprised Bertozzi for another reason: He insisted that any discoveries she and her team made on the foundation's behalf had to be shared immediately with other researchers. There was to be no hoarding of data, no waiting around for papers to be published for the sake of claiming credit. Wilsey was in a hurry, and he had no patience for what he regarded as the medical



research system's habit of stifling innovation by rewarding secrecy. He wanted instead to use tech-startup tactics. Open-source collaboration. High-speed prototyping. Constant customer feedback.

The value of his entrepreneurial approach became apparent fast. At the time of the foundation's launch, only one scientist in the world was seriously studying the NGLY1 enzyme — Tadashi Suzuki, who had discovered it in his lab in Japan — and he'd only recently learned that it was connected to a rare disease.

Within a year, the foundation was funding Suzuki's lab and close to 15 other research projects around the world, to the tune of about \$100,000 each per year.

Both Suzuki and Bertozzi are now part of the foundation's research team, along with about 70 other principal investigators. Many of them gather each year at a symposium, organized by the foundation, to share their discoveries.

Leonard Post, the chief scientific officer at Vivace Therapeutics, a former CSO at BioMarin, and an informal advisor to Matt, recalls the first symposium he attended, in 2016: "I was just blown away. It was a group of very high-powered academics talking about their unpublished data, their new ideas, freely exchanging information, working together. I had never seen anything quite like that.

"Usually when you go to a scientific meeting, everybody's wary of talking about their early-stage stuff, because the labs are often competing. But here, people were talking about data that they were just getting. And it was good data — it wasn't just the throwaway experiments. You could tell people were formulating ideas together in a way that never happens. I came away saying, 'Matt, this is extraordinary. How can I help?'"

In addition to bringing scientists together, the Wilseys have put much effort into uniting NGLY1 families. In 2017, the foundation covered the expenses of 20 NGLY1 patients who traveled to Palo Alto as part of its annual symposium. Some of the families had never been on an airplane before, and the foundation brought in nine language translators. It was the first time most of the parents had met a child other than their own who had the disorder.

Kristen Wilsey has vivid memories of that gathering: "Seeing another child who moves the same way, who communicates with their eyes and their gestures in a similar manner, who has the same oral-motor issues — it's uncanny. It's astonishing. You realize they have more in common with each other than they do with their parents or siblings."

At this point, the Wilseys have met more than half of the 54 known NGLY1 patients in the world, in places

Turning the Pharmaceutical Startup Model Upside Down

How a nonprofit gave birth to a for-profit that aims to disrupt Big Pharma.

The company Grace Science, LLC, was born through an inversion of the normal business sequence. Typically, if an entrepreneur launches a startup and it succeeds, the founders will create a nonprofit, declaring, "We want to give back."

In this case, the nonprofit spawned the startup.

The company's inception accelerated when Matt Wilsey first met with Carolyn Bertozzi in 2015. Bertozzi is the Anne T. and Robert M. Bass Professor of Chemistry and professor of chemical and systems biology and of radiology (by courtesy) at Stanford University.

Wilsey's daughter, Grace, has an ultra-rare disorder caused by a mutation in the NGLY1 gene. Only 54 people in the world have been diagnosed with the disease. In 2014, Wilsey and his wife, Kristen, created a nonprofit, the Grace Science Foundation, in their quest to find a cure. The foundation has raised about \$9 million to date.

Matt Wilsey knew that he had to start small with a foundation and then use its research to build something bigger — ideally a drug that could be monetized to help find a cure for NGLY1 deficiency and other diseases that are too rare for the profit-centered pharmaceutical industry to pursue. He also had to prove to investors that he could operate at a high level running an organization steeped in science and medicine.

By the time Wilsey reached out to Bertozzi, he'd already met with (and, through his foundation, funded) dozens of scientists and medical experts, and their research was showing that the NGLY1 mutation was somehow disrupting the process that enables sugar molecules to be removed from proteins in cells. The process is crucial to a cell's survival.

Wilsey reached out to Bertozzi because she's one of the world's leading experts in the field of glycoscience, which studies



LEARN MORE

Find out more about the Grace Science Foundation at gracescience.org and the for-profit Grace Science, LLC, at gracesciencellc.com.



ZEROING IN

Stanford physician Srikanth Muppidi holds Grace Wilsey's hand while conducting research on her genetic disorder.

the way that sugar molecules are attached to, and detached from, proteins. Wilsey didn't waste any time getting to his point: He believed that her expertise could help his cause, and his foundation was poised to finance a project in her lab.

Bertozzi said yes and dove in. Within months, she and her team discovered that one of the NGLY1 gene's primary functions is to activate a little-known "transcription factor" known as Nrf1. Transcription factors are proteins that make sure certain genes are activated to perform important tasks. As it turns out, Nrf1 is so crucial to the survival of cells — all kinds of cells, but especially neurons in brain and muscle tissue — that its origins date back to the beginning of cellular evolution.

"It's an ancient, essential pathway," Bertozzi says. "Slime molds have it. Yeasts have it. Plants have it. Worms have it. Mice have it. Humans have it."

When it became clear that Nrf1 doesn't work without a functional NGLY1 protein, Bertozzi quickly realized that the finding had implications beyond curing NGLY1 deficiency. Other researchers had been trying to inhibit Nrf1 as a way to destroy cancer cells but hadn't had any success, because Nrf1 is a transcription factor and transcription factors are hard to manipulate with drugs. They're regarded as "notoriously undruggable," Bertozzi says.

Enzymes, on the other hand, are druggable. And NGLY1 is the enzyme that controls Nrf1.

"That's when we were like, 'This is an oncology thing here,'" she says.

Bertozzi's team eventually figured out how to use druglike molecules to inhibit NGLY1 activity, which in turn inhibits Nrf1 activity, which in turn makes certain cancer cells easier to kill.

(This is essentially the opposite of what other Grace Science Foundation researchers have been trying to accomplish in their efforts to cure NGLY1 deficiency. Their goal is to activate rather than block NGLY1's processes and thus reverse the mutation's cell-killing tendencies.)

The cancer-killing potential of a Nrf1 inhibitor prompted Wilsey and Bertozzi to launch the for-profit company Grace Science, LLC, in 2017. To date, the startup has raised \$7 million from investors, and Wilsey is steadfastly optimistic that they'll have a drug ready for clinical trials by 2021.

Finding a cancer treatment would be great, Wilsey says, especially if it saves lives and turns into a revenue source. But he stresses that the business's central purpose is not to turn profits for shareholders. The idea is to generate revenue that can be poured back into research. Above all, Wilsey wants to find a cure for his daughter and other NGLY1 patients — and perhaps unearth treatments for other rare diseases that don't get much attention from Big Pharma.

"The problem facing ultra-rare diseases is the lack of R&D dollars," Wilsey says. "Many pharmaceutical companies avoid rare conditions because the markets are so small. Grace Science will always invest in rare-disease R&D and make connections with more common diseases. That's core to our mission. We'll commercialize findings where we can, but our goal is to get safe and effective therapies into people as quickly as possible. If we do that, the sky's the limit, and we'll be successful on several levels."

"We'll commercialize findings where we can, but our goal is to get safe and effective therapies into people as quickly as possible."



RECOMMENDED READING

These are books Matt Wilsey returns to for wisdom — in his personal as well as his business life.

How to Win Friends and Influence People

by Dale Carnegie
Simon and Schuster, 1936

“My dad gave me this book several years ago. It’s a copy I will keep forever and read over and over. It’s the best business book I’ve ever read, because it focuses on people and interpersonal dynamics. It’s really less about business and more about life. I don’t think people spend enough time working on the lessons in this book. It’s still highly relevant in today’s modern world.”

Peanut Butter & Cupcake

by Terry Border
Philomel, 2014

“When we’re out with Grace, we get a lot of ‘What’s wrong with her?’ looks. Most adults have been trained to look away quickly and remain silent. Kids are a lot more honest and direct. They will walk right up and ask, ‘Why doesn’t she talk?’ ‘Why does she wear those weird braces?’ ‘Why does she drink from a sippy cup?’ The parents are quickly embarrassed, apologize, and race off while quietly teaching their child ‘you don’t say that.’ This is the wrong approach. Families with different, abnormal, or disabled children welcome the questions. They already feel very isolated and alone. Use the moment to engage. Even if a child can’t speak like Grace, chat with them like they can. Nurture the questions in your children and grandchildren. This book is a very sweet way to talk about differences and inclusion.”

A FAMILIAR PATH

Matt, Kristen, and Grace Wilsey on their way to yet another medical visit at Stanford.

as far away as Mumbai and Hong Kong. Kristen was particularly heartened when she connected in 2018 with a Turkish woman whose daughter was the oldest known living patient. The daughter was 37 — Kristen’s age at the time — and about to turn 38. “I thought, ‘Oh my God, Grace can live to 38.’”

The Wilseys are keenly aware that their quest to cure one of the rarest diseases ever discovered can seem quixotic. Not long after Matt’s first meeting with Bertozzi, the two of them launched a for-profit startup that has made great strides toward finding a drug to help Grace and others. Historically, though, a minuscule fraction of pharmaceutical startups ever make it to market with a useful drug.

“A lot of people think we’re just chasing windmills,” Matt says. “And I get that. I often think about the old adage ‘Don’t pick a fight you can’t win.’ At the same time, I also think about the counterargument: ‘Pick a fight that’s worth fighting.’”

Kristen remembers when Matt was at Zazzle and working 14-hour days to build relationships and cut deals. “He does the same thing for Grace,” she says. “He doesn’t stop working.”

At this point, given the surprisingly rapid scientific advances of the Grace Science Foundation and Grace Science, LLC, it looks like the Wilseys and their global team of scientists have legitimate reason for optimism, and Matt is concerned less about the wishful nature of their quest than he is about the “key-person risk” at the core of their enterprises.

One of Matt’s mentors at Zazzle and afterward was legendary Silicon Valley executive coach Bill Campbell, and Matt says he learned from Campbell (and from his father) that in business, no one is bigger than the team. That’s why he has told investors and donors that he’d be happy to step aside at any time if it would help either organization. So far, he’s happy to say, no one has asked him to.

“I can’t just hand this off right now, although I would like to,” he says. “I’m not a scientist, so there’s only so much I can really do to help. But no one else is going to have the same drive or energy that I have. I’m the one pushing the team, because I’m the one seeing the customer. Seeing the patient. I see the patient every day.”

“No one else is going to have the same drive or energy that I have. I’m the one pushing the team, because I’m the one seeing the customer. Seeing the patient. I see the patient every day.”

A Checklist of Symptoms

Back at the Stanford clinic, the research team continues its effort to pin down every aspect of what it means to have NGLY1 deficiency.

“Can she eat solid foods?” O’Malley asks Kristen. O’Malley is a physician and clinical assistant professor of neurology at Lucile Packard Children’s Hospital. She has spent a lot of time with Grace and has deep affection for the Wilseys, but on this day, for this study, she is all business.

“She can,” Kristen says, “but we do a lot of oral-motor therapy.”

O’Malley makes a mark on her checklist.

“Does she have any history of choking?”

“She aspirates if she sips more than three times in a row. So after three sips, we have her take a break.”

O’Malley will ask the same detailed questions of other parents whose children share the diagnosis. Thirty-five of them are scheduled to participate in the study over the next five years. Funded by the Grace Science Foundation, the survey is designed to give researchers a baseline so they can measure the therapeutic benefits of any future NGLY1 treatment — should one ever appear.

The principal investigator overseeing the study is Dr. Maura R.Z. Ruzhnikov, a neurogeneticist who runs the Stanford Neurogenomics Program. Ruzhnikov was surprised and delighted when the foundation offered to finance the project. Like Bertozzi, she says such offers are rare. “It was really impressive how organized they were and how much of a vision they had,” Ruzhnikov says. “They knew the steps we needed to take not only to learn about the disease but also to have an actionable end point.”

Ruzhnikov spends the morning helping O’Malley run tests and refine protocols based on how Grace responds, because Grace is the study’s first patient. In one coordination test, the researchers want to see if Grace can transfer her favorite blue rubber ball from her right hand to her left. Instead, she holds the ball to her open mouth and lets it fall to the floor.

Matt Wilsey kneels to pick up the toy. He knows Grace will want to chew it again soon, so he moves to a sink to clean it. He rubs it with soap and rinses it off and smiles and says, to no one in particular, “I’ll probably wash this ball a hundred times today.” Then he brings it back to his daughter. [GSB](#)



Game Changer

A Stanford business professor infiltrates the ever-shifting world of high-stakes eSports to unearth lessons in corporate adaptability.

BY LEE SIMMONS

ILLUSTRATION BY RUNE FISHER

Change is hard. Even mighty firms, with all the necessary resources, perish because they never manage to respond effectively to a sudden shift in their environment — like, say, the rise of the web. (Remember Blockbuster?) Or web 2.0. (Remember Yahoo?)

But why is that? Why do companies so often fail to adapt? It's a vital question in today's fast-moving world.

NEW LEVELS OF DETAIL

"I know it sounds crazy," Julian Clement says of his foray into eSports, but "we've never had that kind of granularity in organizational research before."

Surprisingly, says Julien Clement, an assistant professor of organizational behavior at Stanford GSB, we still don't really know the answer.

There's no shortage of ways to fail, of course. Companies can respond with a flawed strategy. They can be hamstrung by vested interests or internal politics. Or they can simply fail to execute for lack of unfamiliar new skills. But at a more basic level, firms need to recognize the need for change. And as anyone who's ever had a job knows, organizations tend to operate with a kind of blind momentum, often paddling furiously in the same direction as they sink into insolvency.

Clement found that rigidity especially perplexing. With all the smart, experienced people who make up any established company — not just in the C-suite, but also those on the front lines — why are they slow to change course? Why, he wondered, did firms so often respond to big challenges in small, inadequate ways?

Researchers have long been stymied in solving this puzzle. There are detailed case studies of companies that have failed to navigate shifting currents, but these are unavoidably subjective and anecdotal. It's very difficult to study how companies adapt systematically, Clement says, because you need both a large sample of firms and a reliable way of quantifying their choices.

A few years ago, he had an idea. "I was working on a theoretical paper using agent-based modeling," he recalls. "On a computer, we would simulate a world where the environment changes every once in a while and companies try to adapt to it. But this was all theoretical — we didn't plan to use any real data." Around that time, he often relaxed before going to bed by watching video game tournaments on Twitch. One night it struck him: "I thought, wow, this is something I could look at in that context."

To understand how businesses respond to change, he realized, video games — specifically, the professional multiplayer games known as eSports, which have exploded in popularity in the past few years — would provide an almost ideal natural laboratory. Wait, what? *Video games?*

Barbarians at the Gate

"I know, it sounds crazy," Clement says, laughing. But all the elements of business competition are there: eSports teams are high-stakes, profit-seeking enterprises that can earn millions of dollars a year and that use strategy and tight coordination in an arena where sudden and unforeseen changes occur in the form of game updates. But unlike traditional organizations, in eSports every



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action by every player leaves a digital footprint. By tracing every mouse click, Clement could track teams' strategies over time and see exactly how they react to change.

"It offered deep visibility into what's happening, not just in the aggregate but at the micro level of individual behavior," he says. "We've never had that kind of granularity in organizational research before."

Clement decided to focus on a game called *Defense of the Ancients 2*. In it, two teams, each with five players, battle to destroy a mystical glowing structure called the Ancient in the other team's fortress. Prior to the match, each player selects a certain "hero" with defined powers of varying sorts — much like functional experts in a firm, but with names like Bristleback, Enchantress, and Lifestealer.

Different heroes have different powers — from gravity-defying leaps to temporary invisibility — which allow each player to carry out a specific role in the team's strategy. One might be responsible for hunting "creeps" to gather resources, while another provides cover. A team

"For 275 teams over this three-year period, we got every mouse click by every player in every match."



might use decoys to position itself for an assault, or play a guerrilla game, disrupting the enemy's efforts to gather resources. (As in any enterprise, supply chains are vital. Gold is earned and traded for swords and bludgeons, healing potions, and myriad other useful assets.)

As part of his fieldwork, Clement attended *DOTA2* tournaments and interviewed the pros. There was no doubt about their motivation: eSports matches are viewed by huge audiences online, and teams can earn millions of dollars for winning a single tournament. For the players, it's a high-stakes, full-time job, and they are just as deeply committed to success as the members of any startup with stock options would be.

Clement admits, somewhat sheepishly, that he also began to play the game himself. "I had to, you know, so I would understand it better. It's all for the glory of science."

The Illusion of Separateness

His theory was that something in the very structure of organizations — of any sort — shapes how the individuals inside them see the world. And that worldview, in turn, can make them slow to adapt.

When humans come together to pursue a goal, their first instinct is to divide the labor by function: a department for production, another for sales, and so on. The purpose, though we rarely think of it this way, is to minimize the burden of coordinating this complex social machine, Clement says.

Thus, highly interrelated tasks are given to a single group of people who work closely together: They have their own wing in the building, their own Slack channels. Organizations are basically networks of such clusters.

This division of labor makes a lot of sense. It allows us to focus on our own part of the puzzle and develop specialized skills. And, crucially, it keeps us from having to think about too much at once. "Cognitively, we form mental maps of our work environment," he says, "and this structure lets us filter out a lot of the system-level complexity."

The trouble comes when the world changes. Shocks that seem to impact a single cluster can ripple throughout an entire company — but it's less likely that anyone will notice them. "When something changes," Clement says, "we view it through the lens of our own habitual concerns."

So while firms may respond at a local level, they often fail to consider the need for global changes in how the organization works. In other words, if this theory is correct, the very thing that makes a firm effective in stable times — a sharp division of labor — can make it ineffective in times of disruption.

Changing the Game

In *Defense of the Ancients 2*, that disruption comes in the form of revisions to the game's code. The game's publisher, Valve Corporation, made changes to the game every few months during the period Clement studied, from 2014 to 2017.

A HIGH-STAKES, FULL-TIME JOB

Like any business, eSports teams are profit-seeking enterprises that depend on strategy and tight coordination to succeed.

Some of these concerned the rules of play and directly altered the viability of certain strategies. Others tweaked the powers of specific heroes, often with an eye to restoring balance after players found synergies that tilted the scales. These latter updates can be seen as cluster-level changes that affect only one player of a team, but they also indirectly modify the optimal team-level strategy calculus.

For example, one update might boost a hero's "slow" ability, enabling him or her to constrain an opponent for five seconds instead of three seconds. That makes it more attractive to use this hero, but it also raises the value of strategies that generally rely on constraining the movement of enemy fighters.

This was the engine that set Clement's experiment in motion: When updates came out, would teams revise their game plan, or would they continue with the same plan and just swap in stronger heroes? Systemic change or business as usual with different personnel?

Sample size wasn't going to be an issue here: *DOTA2* boasts one of the largest worldwide pro circuits, and Clement was able to acquire a data set covering more than 14,000 matches on the platform. "For 275 teams over this three-year period, we got every mouse click by every player in every match," he says.

Big data? Oh, yeah. After winnowing it down, he had a log of 300 million "meaningful actions," which he sorted into a million action sequences. The analysis involved 850 million pairwise comparisons between these sequences. "Parts of it took weeks to run on a high-end desktop when I was a PhD student," Clement recalls. "Even now, using cloud computing at Stanford, it's an ordeal."

But out of that he was able to gather an astonishing amount of information. The role of each player could be inferred by tracking their position on the game map over time. He could distinguish different strategies from their click patterns. And with an algorithm from bioinformatics (used to analyze DNA sequences), he could quantify and measure the size of the difference between any pair of strategies. That meant he could tell whether a team was trying something truly new or merely fiddling on the margins of its usual game plan.

Evidence of Component Focus

The results were unmistakable: When hero abilities changed, most teams responded only by switching heroes — sidelining, say, the Queen of Pain and subbing in a Dragon Knight. Only after a lag of several weeks did some begin to revise their strategies. In fact, immediately after a change, teams were less innovative than in stable periods.

Clement explains: "When the environment is constant, teams still evolve the way they operate at a certain rate. They'll try new ideas, hunting for an edge. But when the world becomes more uncertain, they seem to refocus on doing what they already know. They implement their usual strategy, just with different pieces."

Remarkably, these small, nimble teams were exhibiting the same inertia that big corporations exhibit when faced with change. But here, it couldn't be attributed to bureaucracy or turf wars or fear of change. And Clement knew it wasn't a failure to execute, because he could see whether they *tried* to adapt. Rather, it was a failure to recognize the full, systemic implications of external change.

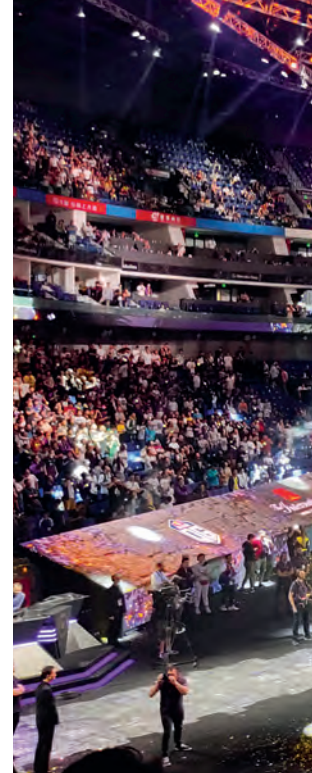
By studying these small, stripped-down, highly motivated teams, Clement found systematic real-world evidence that firms fail to adapt when they focus on specific tasks at the expense of system-wide behavior. This insight, he believes, should be fundamentally applicable to most organizations.

The Risk of Centralized Leadership

Clement also wanted to see if some teams are better at avoiding this problem than others. He was especially interested in the role of leaders. In times of tumult, could strong leaders guide their organization's adaptation?

As with real companies, eSports teams have leaders (one player per team is designated as "captain") whose role is to help the squad find the right game plan. Clement was able to analyze the leaders' roles from their in-game communications. He didn't have a record of their comments, but by tracing in-game signals, called "pings," he could get an idea of how much leaders involved other members in team decisions.

In some teams, information flowed in a hub-and-spoke pattern from the leader to the other players.



CHANGE COMES IN MANY FORMS

As with most eSports games, the designers of *DOTA2* are constantly rewriting the rules of engagement

In *Defense of the Ancients 2*, different heroes are given different powers. Each player is assigned to one hero and thus has a specific role in the team's strategy. One hero might gather resources, while another provides cover during battle. As in any enterprise, supply chains are vital. Gold is earned and traded for myriad assets, such as Slippers of Agility or a Tome of Knowledge. Or perhaps Enchanted Mangos — a nice pick-me-up after health-depleting melees.

HOW COOL ARE YOU?

Players must revise their strategies based on gameplay changes both arcane and minuscule. In 2015, for instance, the *DOTA2* developers announced this adjustment in powers for a hero named Abaddon: "Mist Coil cooldown reduced from 5 to 4.5."

CREEP REDUCTION

Other *DOTA2* rule changes in 2015 had more general applications, although they were equally impenetrable to outsiders: "Melee lane creep bounty reduced from 43 to 40 (-7%)" and "Hero kills (the non-net worth portions) are worth 10% more."



GAME ON

The most prominent eSports matches are viewed by huge audiences, both live and online, and teams can earn millions of dollars for winning a single tournament.

In others, the flow was more even and distributed, as players seemed to be mutually adjusting to each other rather than just listening to the captain.

Surprisingly, top-down directions didn't help very much, Clement says. Teams with flatter structures, where everybody seemed to be talking and contributing, were more likely to recognize the need to look for a new strategy rather than just swapping in new heroes. Only when the updates had an obvious and direct system-wide effect, such as far-reaching changes in the rules of the game, did teams with dominant leaders adapt faster.

"These two structures seem to facilitate change in different ways," Clement says. "A central leader may speed things up when it's fairly clear how the organization should respond to change. But when the problem is to figure out how to respond, a less hierarchical structure might be more effective."

Clement thinks future work should study how these results apply to traditional companies. Most companies, after all, have people whose whole job it is to think about strategy, scan the horizon, and run the show. The leaders of eSports teams, however, are player-captains — they also operate a hero in the game, so you might think they'd be more prone to forgetting about the big picture. But it does suggest that leaders in traditional organizations, when faced with change, should consider tapping more into their employees' knowledge instead of searching for the best course of action on their own.

Lean In to Change

Clement's study raises another question: Do organizations that adapt their strategies end up being more successful after a change?

Analyzing performance implications can be hard in traditional companies, where the right measure of success is often debatable. But in *DOTA2* matches, there's no ambiguity about what team ends up winning each game and earning a million-dollar payday. This means Clement could easily measure the effects of adaptation on performance.

Interestingly, he found that when teams introduced a new strategy after an update, they were more likely to lose that particular game. That actually makes sense, Clement says: "Experimenting with new ideas is a trial-and-error affair; it rarely pays off right away." But when he took a longer view, he found that those innovating teams eventually outperformed the others and upped their winnings.

There was a fascinating wrinkle: Following hero updates, teams that worked out the ripple effects and altered their game plans ultimately did better. But when the updates had a direct system-wide effect, such as overhauls in the general rules of play, he found no discernible benefit to adaptation.

That might seem odd at first: Does adaptation really pay off least when change is the most significant? But the key, Clement says, is not whether a team's strategy fits the environment. It's whether it fits the environment better than its opponent's strategy does. So when the effects of a change are evident, everyone adapts and no one gains an edge. When they're not evident, being the first to figure them out can deliver a competitive advantage.

Seen in that light, companies also might view change as an opportunity, especially when the consequences of the change aren't immediately obvious. When things are moving fast, it's natural to narrow your focus and concentrate on keeping the ship on course. But it might be smart, this study suggests, to take a step back and think about where you're headed and how the entire organization works.

"Sometimes the implications of change are a lot broader than they seem," Clement says. "There might be components we don't see as interdependent that actually are. Or maybe they weren't before, but they are now. There might be new synergies to discover. The more you can broaden your perspective, the more likely you are to survive and thrive in times of change." **GSB**

"It offered deep visibility into what's happening, not just in the aggregate but at the micro level of individual behavior."

Better If It's Man-Made?

Gender bias can negatively affect what we think about products made by women, especially in male-oriented markets.

BY ÁINE DORIS

ILLUSTRATIONS BY AMRITA MARINO

Imagine you're reading the label of a craft beer. Among the notes, you see the name of the brewer: Jane. Does knowing a woman made this beer change your perception of it? Will it taste as good as a beer made by a man?

Or say you're buying cupcakes, and you see they've been baked by a man: John. What's the impact on your expectations? Are John's cupcakes likely to be as delicious as, say, Mary's?

THE MANLY SCENT OF BACON

Research shows that consumers view bacon as a traditionally masculine food, while coffee is gender-neutral.





Do People See Products as Masculine or Feminine?

Research shows women are typically evaluated more negatively than men in the workplace, but Correll and Soule were curious whether those gender stereotypes extended to items women make. They first surveyed 150 people — a random mix of men and women — asking them to rate consumer products in terms of how masculine or feminine they believed the items to be.

“We asked them to look at around 360 products on the Jet.com retail platform, from fairly intuitive products like golf clubs and baby clothes, to less obvious things like lamps or air conditioning units or even bottles of water,” says Correll. “It’s funny how there tends to be consensus about the gender-typing of some products. Bacon, for instance, is almost universally seen as male, while coffee is rated more gender neutral.”

Using these insights, Correll, Soule, and Tak focused in on two products: craft beer and cupcakes, which were seen as equally masculine and feminine, respectively.

“After establishing that craft beer is typically viewed as masculine, we wanted to test people’s assumptions about beer that had hypothetically been brewed by either a woman or a man,” says Correll. “And the same for cupcakes, which are rated as more feminine. Would people see a cupcake made by a man as inferior to one made by a woman?”

The researchers asked over 200 volunteers to assess a craft beer label, changing only the name of the brewer in each case, to see if gender people’s their perceptions. Similarly, the researchers showed another set of participants a cupcake label, altering only the name of the baker, and surveyed them for their attitudes about the sweet treat based on the gender of the baker.

The results were striking.

Penalized Purely for Being Made by a Woman

With craft beer, when consumers believed the producer was a woman, they claimed they would pay less for the beer, and they had lower expectations of taste and quality.

But for the cupcake, there was little noticeable difference in attitudes toward producers who were women versus men.

“What we’re seeing here is that woman-made goods for sale in male-typed markets are being penalized for no reason other than the fact they are made by women,” Soule says.

New research from Stanford GSB researchers Shelley J. Correll, Sarah A. Soule, and Elise Tak suggests that gender stereotyping significantly impacts the way we evaluate products. And in traditionally male-oriented markets — beer, power tools, and automobile parts, for instance — goods made by women are often evaluated negatively.

“Our research suggests that customers don’t value and are less inclined to buy traditionally male products if they think they’ve been manufactured by women,” says Soule. “There’s an assumption that your woman-made craft beer, screwdriver, or roof rack just won’t be as good.”

The long-term solution, the researchers say, doesn’t lie in women modifying their behavior. The answer is in changing people’s stereotypical thinking at a societal level.

WHAT GENDER IS YOUR TRICYCLE?

New research shows what gender people ascribe to different products



VERY MASCULINE



ROOTING OUT BIAS

Sarah A. Soule (left) is the Morgridge Professor of Organizational Behavior; Elise Tak earned her PhD in organizational behavior in 2018; and Shelley J. Correll is a professor of organizational behavior (by courtesy) at Stanford GSB.

“Imagine that these goods are being graded on a scale of A to F. What you find is that an equivalent product, when made by a woman rather than a man, is knocked down to an A- or a B+ while a man’s product consistently gets an A. The same isn’t true for man-made products that target women. So the result is that across the board, identical products are cumulatively disadvantaged purely because they are woman-made.”

And this effect might not be limited to consumer goods, warns Correll.

“We’ve looked at craft beer and cupcakes, but this could extend to any type of product from academic research to entrepreneurship,” she says. “And that has very serious implications for all of us.”

There are, however, some encouraging discoveries within the research findings.

Industry awards and the degree of consumer knowledge or expertise about a product appear to attenuate and even eliminate the gender bias altogether.

“When we told participants that a woman-brewed beer had won an award, they rated it just as highly as if it was brewed by a man,” says Correll. “It seems that awards vouch for the competence of the woman.”

Beer snobs also are unaffected by the gender of the brewer, notes Soule.

“We find that individuals who have some degree of expertise or who really know about a product tend to focus on its features and don’t care whether it’s manufactured by men or women,” she says.

So what’s the answer for women looking to thrive in male-oriented markets? Should they focus on awards, target connoisseurs, or simply conceal their gender?

The long-term solution, the researchers say, doesn’t lie in women modifying their behavior. The answer is in changing people’s stereotypical thinking at a societal level and building awareness of inherent biases that we all bring to our purchasing and other behaviors — an enormous challenge, they both acknowledge.

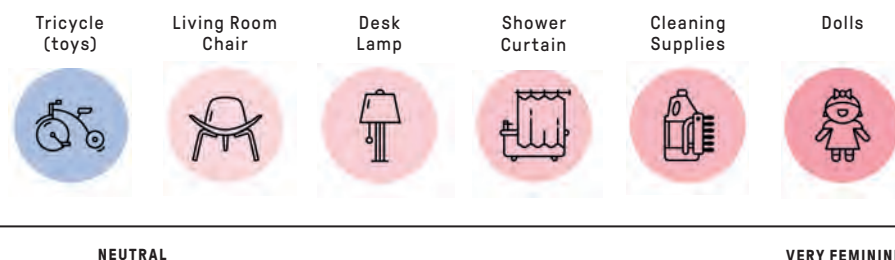
Meanwhile, organizations and industry associations would do well to be mindful of the importance of gender bias and build specific expertise in things like employee evaluation and hiring processes.

“As our research finds, the more expert you are about a product, the less gender bias affects your thinking. For businesses, there’s a key imperative here to build leaders’ expertise in things like employee review and appraisal to minimize gender stereotyping,” says Correll.

Industry organizations too should be cognizant of the fact that awards can eliminate bias, notes Soule. She suggests that awarding committees consider making sure that prestigious awards are given proportionately to eligible men and women.

“We’re not recommending awards ‘quotas’ per se, but these organizations need to understand the important and helpful role they can play in changing perceptions and driving us forward toward a society where the odds are not quite so stacked against women.” **GSB**

ALANNA HALE



Dream



Team

How the Stanford GSB Alumni Consulting Team helped a struggling nonprofit refocus and thrive.

In fall 2018, Dream Volunteers cofounder and executive director Brian Buntz was stuck.

The Bay Area-based nonprofit organization provides education to underserved youth in developing countries and brings U.S. students on service trips to those same countries. The group was coming off its most successful year yet, but problems with branding, scaling, and funding threatened that momentum, and Buntz was overwhelmed.

BY BETH JENSEN

ILLUSTRATIONS BY LINN FRITZ

“We’re very small, incredibly lean, and at the time, I was the only full-time person working in the organization,” he says. “To take the time to handle all of these issues was impossible. I was putting out fires daily and in reactive mode at work, rather than being able to think strategically or long-term. Problems kept getting pushed down the road.”

When a longtime supporter of the organization suggested he reach out to the Alumni Consulting Team at Stanford GSB, Buntz jumped at the opportunity.

“You apply for a grant, but instead of hoping to get funds, you hope to get human resources,” he says. “Really high-performing, talented, smart resources that come in and help you develop a critical project and move you along on a spectrum of growth.”

Focused on Social Impact

The growth — and transformation — of Dream Volunteers is just the latest chapter in ACT’s 32-year history of being one of the largest pro bono resource providers in the San Francisco Bay Area. Nonprofit organizations accepted into the ACT program are teamed with alumni volunteers from Stanford GSB’s MBA, MSx, and Executive Education programs to receive help in strategic planning, organizational growth, marketing, financial stability, and other areas. Each project is customized to the organization’s needs and ranges in length from one to six months.

The business plan for ACT was written as a class project led by Debbie Cohen, MBA ’87. Cohen and Alison Elliott, MBA ’84, further developed the program, which to date has sent over 1,500 GSB alumni into the community, donating an estimated \$78 million in consulting services to over 700 organizations. More than 900 projects have been completed, including 80 at various schools, departments, centers, and institutes at Stanford University. In addition to the Bay Area, ACT is active in

both Monterey and Pasadena, California, as well as the Dallas–Fort Worth area.

“ACT volunteers are people with a passion to use their business skills to increase the impact of the social sector,” explains ACT Program Director Susan Austin. “They like working with other alumni, getting to know an organization deeply, and knowing they’re having an impact. Nonprofits benefit from this infusion of talent and the expertise of these individuals, which then helps the organization be more effective and the community stronger.”

Dream Team

The team assembled by Austin to work with Dream Volunteers was led by Karen Carter, MBA ’94, who had participated in a previous ACT project a decade ago. An independent marketing consultant, Carter joined with Karen White, MBA ’96, director of product management at Khan Academy; finance and investment professional Rosa Estrada, MBA ’90, who had just finished leading another ACT project focusing on juvenile justice; and Patricia “Patty” Soriano, MS ’18, vice president of marketing and product management at G-Coin and former CEO of animal welfare startup WUF, based in Lima, Peru. The four clicked from the beginning.

“Nonprofits benefit from this infusion of talent and the expertise of these individuals, which then helps the organization be more effective and the community stronger.”



THE MENTORS

From top, Karen Carter, MBA '94, Rosa Estrada, MBA '90, Patty Soriano, MS '18, and Karen White, MBA '96, worked with Dream Volunteers to help the education nonprofit overcome its biggest challenges.



“Each of us brought a slightly different experience set to this that turned out to be remarkably complementary,” White says. “Rosa has deep finance experience, and Patty has international experience. I was able to drive our voice of the customer initiative and roll that up into a messaging platform, which was really fun for me, because it was an adjacent area I don’t usually get to work in. That’s something that’s appealing about these projects; you bring your functional experience to the table, but the way you contribute is not limited to your functional résumé.”

ACT in Action

The team first met with their client in fall 2018 to define the problems plaguing the organization. There was an identity crisis; the group operated under different names on multiple platforms. There was a lack of focus; in an attempt to reach more children in need, the organization was erratic in its attempts to scale into different countries. And then there was Buntz himself. Like many nonprofit founders, he was a talented and motivated leader, but also overcommitted, trying to do everything himself.

“Any time he saw a need, he’d attack that need,” Carter says. “He needed some help focusing that passion.”

Over the next five months, the team set out to learn everything they could about Dream Volunteers, which has an annual operating budget of \$800,000 and runs two broad programs. The first provides scholarships for secondary education to youth in developing countries — teens who normally would have no access to education after the sixth grade. To support that program, Dream Volunteers also operates service and gap-year trips to

those same countries for students from the U.S. and Canada. The programs work in conjunction to encourage both groups of students — those traveling and those receiving scholarships — to engage with each other, broaden their worldview, build cultural bridges, and discover how their abilities can help others.

Carter and her team interviewed Dream Volunteers’ staff, scholars, service trip students, stakeholders, and coordinators around the world; combed through social media platforms; performed competitive research; evaluated the organization’s historical and forecast financials; and created a quantitative survey that was also translated for use in India and Central America. They developed a dynamic financial model to run economic sensitivities around different initiatives and to help with prioritization decisions. They even created a pie chart to show Buntz how he actually spent his time.

“Seventy-five percent of his time was going to things that others could do,” White recalls.

Helping Buntz to both relinquish personal supervision over every aspect of his organization and adopt a more disciplined approach to scaling proved to be two of the team’s biggest challenges, Soriano says.

“When somebody asks for your help, and you know you can help them, how do you say no?” she says. “He knows so much, but resources are limited. How do you have a strategy that will help you scale up in a sustainable way? That’s where our added value came in. We were having tough conversations with him about situations in which he was definitely helping but not helping scale up the group’s impact.”

At the end of five months, the ACT team made its recommendations. They include a five-year financial plan and sensitivity analysis, a rebranding of the organization with the sole name “Dream Volunteers,” and a new tagline: “Open Up Your World.”



ACT's Impact Over Time

SINCE 1987

Projects Completed

923

~30 Annually

Alumni Volunteers

1,543

~125 Annually

Nonprofits Served

716

30+ Annually

Consulting Value

\$78.1M

\$3M Annually

(As of October 2019)

“We felt it was such a powerful statement that conveys the impact Dream Volunteers is having on both the American and the international students,” Soriano says.

They also suggested a more competitive pricing structure; the elimination of local chapters; the use of a webinar as an information source for parents; and exploring additional revenue sources, such as adding Spanish-language courses, that would not distract from core activities.

“We also came up with a ‘Now, Next, Later’ map of the areas where they should be putting their energy and focus,” White says. “Everything from ‘You should fix these bugs on your website’ to the expansion into new countries in future years; how they might think about a strategic presence in Asia, for example, versus an opportunistic partnership in Vietnam.”

Seeing Results

Dream Volunteers intends to implement all of the team’s recommendations, a factor that contributed to Karen Carter earning ACT’s Outstanding First-Time Project Lead Award. The honor is given to those who successfully blend inspirational leadership, project management skills, teamwork, and client satisfaction into an approach that has a demonstrable impact on both the nonprofit client and the volunteer team.

“We’re really happy with the results,” Carter says. “I think we were able to provide a lot of insight and a lot of value, a better tactical framework for going forward, and a clear take on some areas they should invest in and others they should divest from.”

Buntz agrees. The project forced him — finally — to take the time to consider the long-term viability of his organization.

“I don’t think this project was critical to our survival, but it was absolutely critical to our future success and sustained growth in a healthy way,” he says. “We would have succeeded scratching and clawing and keeping

balls in the air versus having the really specific, well-thought-out roadmap that we’re now starting to develop.”

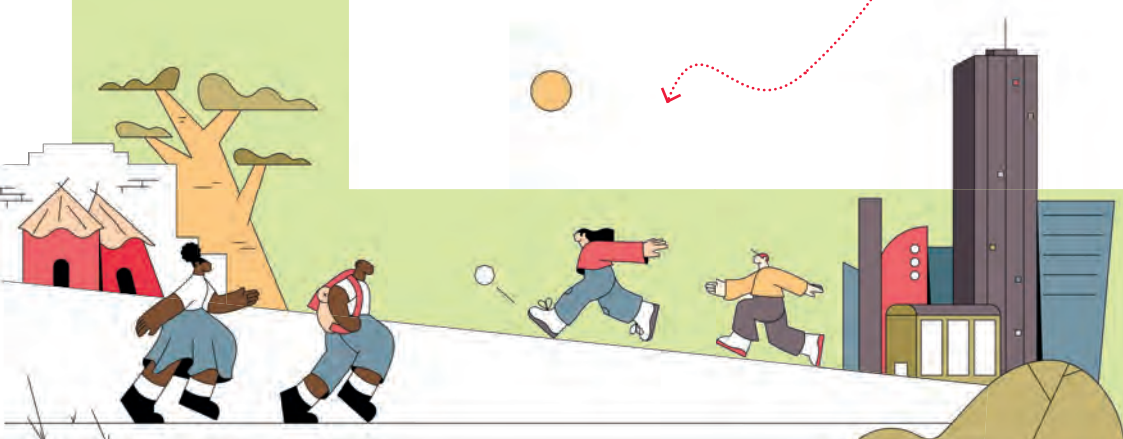
The project was a valuable experience for both the client and ACT team members, says Estrada, who’s participated in three previous ACT projects and likes the idea of the business and nonprofit sectors working collaboratively. Estrada is committed to supporting at-risk youth, which is why Dream Volunteers’ mission to help educate and inspire potential young global leaders in both the U.S. and developing countries resonated with her.

“Things today can be very divisive, but people need each other, and organizations like this bring tremendous value by allowing people to meet others from different walks of life, rather than be limited to making assumptions about others,” she says.

For team member Soriano, a project designed to help others reignited her own aspirations.

“Joining ACT was a way to remind me of why I came to Stanford and of what I wanted to do next,” Soriano says. “But I wasn’t expecting that Karen, Karen, Rosa, and I would have such great dynamics and complement each other’s skills, or that Dream Volunteers would serve as such an inspiration of what you can do if you want to pursue something meaningful to you and that will impact others.”

She adds, “As the project unfolded, these two elements recharged me. It was a combination of inspiration, of learning from my teammates, and of gaining an element of happiness and fulfillment.” **GSB**



GET IN ON THE ACT

To volunteer for the Stanford GSB Alumni Consulting Team, or to learn how your nonprofit can take advantage of its services, go to stanford.io/ACT.

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Voices



Sophia Shramko, MBA '19

AT 29, SOPHIA SHRAMKO'S LIFE STORY already is cinematic in both scope and drama.

Born into a nomadic Arab family, she grew up a social outcast in Israel as the fifth of nine children born to a mother who fled an oppressive marriage and conservative culture. At 14, Shramko was discovered by a fashion photographer and signed to the prestigious Elite modeling agency, eventually becoming the face of the Diesel brand in Israel.

But Shramko walked away from life as a model to pursue the educational opportunities so prized by her mother. Despite being diagnosed with multiple sclerosis at 19, she earned her undergraduate degree in electrical engineering at Tel Aviv University and worked at Intel before landing at Stanford GSB in 2017. She interned at Google, but chose to delay the finale of her MBA experience until December 2019, because her planned June graduation coincided with the due date of her first child, a boy.

HOMETOWN

Nahariya, Israel

EDUCATION

MBA, Stanford University, '19
 BS, Electrical Engineering,
 Tel Aviv University, '12

PROFESSIONAL EXPERIENCE

Senior Product
 Manager Tech, Amazon
 Product Management
 Intern, Google
 Engineering Project
 Lead, Intel

You've described being born to a reality you couldn't change but deciding you could still change your future. Was there a single moment that convinced you of that?

Not a single moment, but a series of moments. My mom was a single mom. She wasn't allowed to go to school. Her parents didn't think women should get an education. So she raised us by herself, and my father didn't recognize us as his children. In the Jewish town where we lived, people didn't accept us because we were the only Arab family living among Jews. We had nothing. No money. No social status. But every morning when she woke us up, she told us that education was our weapon.

KIEFER HICKMAN

“We had no money. No social status. But every morning, my mother told us that education was our weapon.”

She was always cheerful and encouraged us to wake up with a lot of energy. And because she kept telling us this, we learned the future was in our hands.

Did you learn any leadership lessons from your mother that help you today?

How important it is to inspire your people to go and do the impossible. That's what she did with her children. From nothing, we were raised to be educated people. She was so inspiring to us. And resilient. When we were confronted with racism in our neighborhood, she just showed them she could be a good neighbor. Now everyone knows my mom and likes her. She fought hatred with love.

After you realized you can choose your destiny rather than accept your reality, what were some of the ways you exercise that freedom of choice in your daily life?

I still apply that every time I have a hard decision. That's when that idea comes up. I've thought about that many times with my disease. Life is uncertain with MS, and it's easy to be depressed, because I may someday live with a disability. I choose to focus on the good things. I'm trying to be present in the moment. I meditate for two hours every day. I try to approach things objectively, to think about what I can do to change the situation I'm in.

How were you discovered by a modeling agency?

I participated in some sort of small, local beauty competition in my town when I was 14. The woman who organized it was my mother's friend. It turned out some people from the Elite modeling agency were in the front row and saw me. They invited me to an audition, so the next day I went with my mom to see a photographer, and he thought I had potential. Then I got the Diesel campaign in Israel.

Was that a dream come true for you?

It was fun, but I did it only for a couple of years because it didn't align with my

values. I always saw myself as smart but not beautiful. But I was curious because it was new and unexpected. I also knew this was taboo in my culture, and that there could be bad consequences. In fact, my mother's brother threatened to cut off my head because he thought I was bringing shame to my family.

That must have been terrifying.

At first I was very afraid. But my mother is a very strong person, and so having her by my side I realized nothing could harm me. She encouraged me to stay with it. She understood why it was important that I keep doing it.

Important?

This was at the time of the intifada in Israel, and there were a lot of terrorist attacks and a lot of tension. In the media, whenever they talked about Arabs, it was always in the context of war, always negative. But the majority of Arabs in Israel just want peace and to succeed in life, and I wanted to be their voice. It was important to me to leverage the media exposure, because I was the first Bedouin fashion model in Israel, and I wanted to inspire other Arab girls to pursue any paths they choose and break the chains of the overly conservative society. It gave me a chance to emphasize how much I love Israel and that I didn't intend to kill Jews. I wanted to be the face of peace and use it as a platform.

And still you decided to leave all that behind.

Modeling didn't align with my values. I wanted to focus on my education instead of being a part of a world that distorts the reality of how a woman should look.

That seems like an incredibly mature decision for a 16-year-old.

I grew up a lot during that period. I was traveling all over Europe by myself, because my mom was busy at home. It opened my eyes to the world outside

the conservative bubble where I lived and taught me a lot about freedom and accepting others. I became an adult. But when I quit modeling, I realized I could not go back to live with my family and be a normal 16-year-old. So I asked my mom to emancipate me, and I moved to a city near Tel Aviv.

How did you support yourself?

I woke up at 5 a.m. to clean houses before I went to school at 10. I also worked at a restaurant. I remember cleaning a toilet in one of the houses and thinking, "You can only rise from here." I remember telling myself I shouldn't be ashamed of cleaning houses, because I knew it was supporting my future. I could have been miserable — I had been a model and now I was cleaning toilets — but I knew I was working for my future.

How does your engineering background support your ambitions in business?

Looking back, I didn't think I'd go into business. I studied engineering because I loved science and math and logic. Then when I was working as an engineer, I wanted more strategic ownership, to actually set the vision. That's when I decided to go to business school. Here at Stanford GSB, having a tech background gives me leverage. It differentiates me. I can speak the language of engineers and am able to influence them because of that.

Any specific experiences at Stanford that have proved particularly useful?

It sounds cliché, but one of the most useful classes I took was *Interpersonal Dynamics*, what they call "Touchy Feely." It's the flagship course of Stanford GSB. I learned so much about how to give feedback and manage difficult conversations. But every course has experiential learning that makes you do something outside of your comfort zone. It's painful, but you see actual growth happening.

— Martin J. Smith

Recommended Reading

"What allowed me to persevere in the face of adversity was my ability to focus on things I had the power to change," Shramko says. "This book is about that."



The Seven Habits of Highly Effective People
by Stephen R. Covey
Free Press
1989



WAIT, THERE'S MORE
To read our full interview with Sophia Shramko, go to stanford.io/Shramko.

Rodrigo Tostes, SEP '18



RODRIGO TOSTES'S FAST-TRACK CAREER found him overseeing the biggest private industrial project in his native Brazil at age 29. By his late 30s, he was managing 300,000 people — including more than 11,000 athletes and the expectations and aspirations of his country — as chief operating officer of the 2016 Summer Olympic Games in Rio de Janeiro.

But a major health scare just before his 42nd birthday in 2018 convinced Tostes to reevaluate this life trajectory and refocus on his wife, his two sons, and opportunities to help his country and its people. He decided to quit his job as CEO of VLT Carioca, one of Brazil's largest transportation companies. He since has become an investor and founder of YVY, a startup that focuses on disrupting the household cleaning market by developing an innovative natural product and sustainable system to minimize plastic waste.

He also decided to deepen his education and sharpen his skills, which brought him to the Stanford Executive Program in 2018.

You quit your CEO job at VLT Carioca shortly after being diagnosed with a heart obstruction. Was that difficult?

I had been postponing it a long, long time. After the Olympics, my wife and kids made me promise to stop for a while. But five days after I quit the Olympics, I was offered the position as CEO of VLT. After the heart incident, I heard a very strong call: "This is your last chance." I wanted

to use this second part of my life in a better way. A lot of people think it was a strange decision. But I'm one of those people that says if you don't do something radical in terms of changing completely, you don't get there.

You've said the things you've enjoyed most during your career have been "critical challenges and difficult times." Why?

I'm the guy that takes jobs that others do not want. In standard situations, everybody can perform. But those critical times are when you really see who can perform and not perform.

Why did you decide to leave VLT?

I started my career with C-level positions very early, and I learned a lot of things from brilliant people. But I somehow had missed learning how to think in a more structured way. I wanted to translate my experiences into insights.

How are things different at your startup?

Now I can create my own priorities. That was the biggest gain. I want to do something better — change lives, change organizations, and change the world. YVY is attempting to make the way consumers clean their homes more sustainable with super-concentrated capsules that use natural ingredients and less water.

This phase of your career seems to be less about personal advancement and more about helping others.

I feel it's important to explain to people in Brazil what's going on in places like Silicon Valley. I'm supporting an initiative by some Stanford students to bring the top 300 executives from my country to Stanford for two days to show them what's going on here in fintech, healthtech, and edutech. That's a very important piece of what I want to do. When you share experiences with others, people will find a way to do things better. The biggest question is how to transform the knowledge we have here into action there. — MJS

LOCATION

Rio de Janeiro, Brazil

EDUCATION

SEP, Stanford University, '18
Undergrad in Law, Rio de Janeiro University

PROFESSIONAL EXPERIENCE

Founder, YVY
CEO, VLT Carioca
COO, Rio 2016 Olympic Games



WAIT, THERE'S MORE

To read our full interview with Rodrigo Tostes, go to stanford.io/Tostes.

"In standard situations, everybody can perform. But those critical times are when you really see who can perform and not perform."

Rukaiyah Adams, MBA '08

THE PIVOT POINT FOR RUKAIYAH ADAMS'S approach to socially conscious investing came in 2012 as she walked between an off-site parking garage and the offices of the Standard, a Portland, Oregon, financial services company where she managed six trading desks and \$6.5 billion in assets.

Her morning and evening routes took her past the city's Occupy Wall Street encampment, and she often did something few of her colleagues did. She stopped to listen.

"They were protesting 'the Man,' and in that job I was essentially 'the Man,'" recalls Adams, JD '99, MBA '08. "I remember thinking that if these young people are trying to tell us something, I have to find a way to listen."

What Adams heard on Portland's streets in 2012 still shapes her investment choices today as chief investment officer of the Meyer Memorial Trust, which the late retail magnate Fred G. Meyer created in 1982. The trust awards about \$40 million a year in grants and loans to organizations throughout Oregon, and Adams oversees an investment portfolio of roughly \$750 million. She also chairs a board that manages approximately \$100 billion of public pension and other assets for the state of Oregon.

LOCATION

Portland, Oregon

EDUCATION

MBA, Stanford University, '08
JD, Stanford University, '99

PROFESSIONAL EXPERIENCE

CIO, Meyer Memorial Trust
Chair, Oregon Investment Council
Director of Investment Management, the Standard

Your Meyer biography begins with a quote: "Don't grow a wishbone, daughter, where your backbone ought to be." Why?

It reminds me that although there are times when I wish things were different, we have to thrive in the world that we actually have.

How was that point of view shaped by your Occupy experience?

As I moved into a CIO role managing a long-term portfolio, it made me think that if I don't listen to these young people, then I'm ignoring an investment risk. If we invest for 15- or 20-year horizons, the reality is that it will be today's 20-year-olds who help us achieve our expectations over the long run. And if their points of view are significantly different than generations before — if they delay home-ownership or stop buying cars — we have to think about what matters most to them, because those dramatic changes have become investment risks.

How does that play out in your job?

One of the people at Meyer who makes environmental grants asked me about our investments in oil futures. She felt our values were out of whack, because on the grant-making side of our business we promoted a clean environment, yet we still invested in conventional energy assets. I ended up selling oil and bought clean water assets around the world. That has probably been my most successful single trade, and it was because I started to listen to our grant makers.

You often talk about wealth in a racialized context. Is that risky?

The same race dynamics that play out in society also play out for CIOs. You can't be a top CIO without having the best venture capital partnerships in your portfolio. And in the U.S., gaining access to those funds is like gaining access to any elite club. The social dynamics are the same. For a black woman, it's tough. — *MJS*



SAM GEHRKE

Finding Time to Give Back

Adams received the GSB's 2019 Tapestry Award, which honors African American alumni who display inspirational leadership, intellectual excellence, and service to others. "Now that I'm older, doing well personally is not enough to get me up and going in the morning. I've started to focus on service to my community."



WAIT, THERE'S MORE

To read our full interview with Rukaiyah Adams, go to stanford.io/Adams.

Dave Lyons, MBA '01



WITH A MECHANICAL ENGINEERING DEGREE FROM MIT in hand, Dave Lyons was drawn West in the late 1980s by the irresistible energy of Silicon Valley, where new tech enterprises were sprouting like mushrooms. Today, after two advanced degrees from Stanford, Lyons looks back on a career spent finding technical solutions to confounding human problems. Whether that's working as the lead engineer at Tesla Motors, or improving fuel efficiency and safety in commercial trucking, or simply helping people sharpen dull kitchen knives with his latest venture, Lyons welcomes any challenge as long as it solves a real-world problem.

You joined Tesla Motors as director of engineering in 2004, the year after the company launched, as Employee No. 12. What appealed to you about working there?

How could you not want to be part of someone saying they wanted to start the first new car company since DeLorean? And Tesla has exceeded our wildest expectations. We were able to reinvigorate an electric vehicle power train — we didn't invent it, but basically improved on what was done by GM and a bunch of technologists out of Caltech — and built a business that moved the needle on the auto industry. If you drive around Palo Alto today and see how many Teslas are on the road — that's incredibly rewarding to me.

LOCATION

Palo Alto, California

EDUCATION

MBA, Stanford University, '01
MS, Mechanical Engineering, Stanford University, '90
BS, Mechanical Engineering, MIT, '87

PROFESSIONAL EXPERIENCE

Cofounder and Chief Innovation Officer, Peloton Technology
Director of Engineering, Tesla Motors
Program Manager, IDEO

What was it about working there that made it so influential on your career?

We got to work on a really challenging technical problem, but more important, we got to work on challenging organizational and business problems. I gravitate toward environments where technology and business intersect, and hardworking, less egotistical teams are given the freedom to succeed.

You seem like a quintessential East Coast/New England guy. What originally brought you West, and why did you stay?

I wanted to be where things were happening. In the 1980s at MIT there was a pursuit of excellence, but with an academic flavor. I felt as if the school was there to breed the best academics for the future. Stanford always felt like the promised land. It was focused on entrepreneurship and growing of businesses and industry.

Resharp, your latest venture, turns the old-fashioned grinding-wheel business of knife sharpening into a tech business. Why did you jump into that?

It's a classic value proposition. Everybody has knives, and they all go dull sooner or later. Most people have no idea how to get them sharpened properly; and if they do, it's a chore. When I was shown the business opportunity, I said, "Gosh, this is an easy problem to solve with machine tool technology." Imagine being able to take your knives to a hardware store or grocery store and have them sharpened on the spot, anytime, on demand, and 10 minutes later walk away with factory-sharp knives. The skilled tradespeople out there are charging about a dollar an inch to sharpen a knife. That means sharpening a knife costs between 5 and 10 bucks. The marginal cost for a machine to do it is pennies. We can create a really nice customer solution with a high-value proposition, and maybe even charge less. So there's a huge profit component to that. It's a win for the customers, a win

“I want to solve problems that people care about.”

for the retailers, and a win for the company that manufactures the machine.

You cofounded Peloton Technology nine years ago. How does its automated vehicle technology differ from other self-driving solutions?

We put radar systems and automatic emergency braking systems onto commercial vehicles, along with vehicle-to-vehicle communication systems. We use this connection to synchronize the control systems of two trucks on the open road. Once they're close enough, the communications link allows them to maintain a tight and highly controlled following distance so that both trucks benefit from the aerodynamic savings. If the lead truck has to brake, it could brake in a full emergency stop and the rear truck would brake with the same authority. Platooning addresses the two biggest pain points in the commercial vehicle industry: safety and fuel efficiency.

The song "Convoy" is now unspooling in my head.

It's exactly like a convoy, but it's automated. It doesn't require the driver to be as vigilant as in a convoy when you're close-following the way, say, NASCAR drivers do. That requires tremendous focus.

How much more efficient is it than a regular trucker-driven convoy?

There's a fuel savings of about 10% on the rear truck and, surprisingly, about 4.5% on the front truck.

How many of these systems are now out there?

We're still piloting with large fleets, but trucks are on the road today in multiple states.

You've focused more on investing in recent years rather than mechanical engineering. Was there a moment when you made a single decisive pivot, or did your career path evolve more gradually?

In the 1990s, when I was at IDEO, the design and innovation firm, I got to do some world-class mechanical engineering design. And I got to be around some of the best in the industry working on problems brought to us by our clients. I got to see how important those technical skills were to our clients. They came to us because they didn't have that skill in-house, but they did have other skills, and they also had entrepreneurial aspirations. It became clear to me that just having mechanical design excellence was not sufficient to be successful.

So, a pivot?

I want to solve problems that people care about. Many people can identify those but can't come up with technical solutions that are cost-effective. My skill set sat in the space between those human, technical, and manufacturing challenges. I tried to be a universal translator between those three fields. Every problem I'm involved with has some sort of technical challenge that's not easily solved.

Do you think there are any disadvantages to having an engineering mind in a business world?

I think engineers often miss human factors and adopt solutions that may not be optimal. Sometimes you can miss the inherent irrational nature of consumer behavior. You might think you have a great technical solution that's superior in every way and you can prove it rationally, but in reality, rational thought is only part of the game. Emotion has to be taken into account.

Makes me think of the U.S. auto industry of the '70s and '80s.

They were trapped behind the times, studying their current customers as opposed to studying young up-and-coming customers. They ended up with dinosaur cars during that period that were surpassed by the European and Japanese cars. They classically missed the emotion about vehicles. — *MJS*

On Your Mark...

In 1997 and '98, while working at IDEO, Lyons twice led teams that won the Sand Hill Challenge, Silicon Valley's version of a Soap Box Derby-style competition, in which designers build engineless cars that compete in downhill races, propelled only by gravity.

"We took young engineering enthusiasm from all the right-out-of-college kids working at IDEO who would give their nights and weekends to create a fast gravity car, and we harnessed their energy. I learned how to drive excitement around the problem and then manage that enthusiasm toward pragmatic solutions. So it wasn't about just getting excited; we also had to deliver the goods. To win those races was incredibly rewarding. It was also one of the reasons the Tesla founders invested in me to become a leader there. There's a direct connection between the Sand Hill Challenge and my being tapped on the shoulder to run engineering at Tesla. It was far from trivial."



WAIT, THERE'S MORE

To read our full interview with Dave Lyons, go to stanford.io/Lyons.

Danielle Wyss, MS '15

DANIELLE WYSS WOKE UP AND LIFTED her wrist to look at the buzzing smartwatch. Its small screen lit up with a message: “Congratulations, you’ve improved your sleep average from 3 hours and 52 minutes to 4 hours and 2 minutes.”

Wyss laughed as she got out of bed. It was the week before finals during her Sloan Fellowship at Stanford GSB. She was also in the midst of co-creating an architecture firm and working on seven design projects.

“I kept saying yes to every opportunity, maybe to a fault,” Wyss says. “But here I was, going to business school, and people were passing my name around as an architect more than they ever had before.”

An Architect Drafts a Business Plan

Wyss came to Stanford GSB by way of the mountains. After studying architecture at the University of Washington, she lived in Aspen, Colorado, where she fit in powder runs between drawing plans for high-end houses. When she realized that the clients she worked for were selling the homes for a hefty profit, a light went off.

“I thought, ‘I’m on the wrong end of this thing. I should be on the development side,’” Wyss says. “At 22, I built up my first-ever

LOCATION

San Francisco, California

EDUCATION

MS, Stanford University, '15
BA in Architecture, University of Washington, '01

PROFESSIONAL EXPERIENCE

Founder, President, and Principal Architect, Shift Collaborative
Founder and President, Formwork
Senior Architect and Project Manager, Fergus Garber Young Architects

business plan. I didn’t know what I was doing — architecture school doesn’t teach you business.”

Wyss headed to the Bay Area, where she launched an online marketplace for sustainable building materials before becoming lead project architect at Fergus Garber Young Architects in Palo Alto. Her work included designs for the homes of executives, including Steve Jobs.

While at Fergus Garber Young, Wyss drafted an application to the Stanford MSx Program but told only one person. “I didn’t think Stanford GSB would be interested in an architect,” she recalls.

“I’ll Do Just This One”

She started as a Sloan Fellow in 2014 but still had to complete one last design project. Having left her former firm to attend Stanford GSB, Wyss formed her own — Shift Collaborative, an architectural design studio focused on sustainable design, building technology, and real estate development — with Kelly Kopelson, BA '98.

Wyss tackled the project with a singular focus: “This will help me pay for business school; I’ll do just this one.” But the natural course of networking with classmates and alumni brought more work her way.

By the end of that one year at Stanford GSB, Shift Collaborative had seven projects, including heading the architectural team for the Hyperloop One headquarters in Los Angeles. “It was interesting to see that I was validated more as an architect because of the step I took to move away from architecture,” Wyss says.

Wyss wears tall work boots when reviewing plans with builders on site, and she realizes she’s not the person they expect. “A construction site is generally filled with men, so if a woman walks on, they assume she’s either the homeowner or the interior designer,” Wyss says. “But I can speak the speak, I can ask the right questions, and I come armed ready to solve problems.” — *Jenny Luna*



“At 22, I built up my first-ever business plan. I didn’t know what I was doing — architecture school doesn’t teach you business.”



WAIT, THERE'S MORE
To read our full article about Danielle Wyss, go to stanford.io/Wyss.

Ashutosh Thakur, PhD '20



ASHUTOSH THAKUR IS USING MATCHING and game theory to study institutional design in some unusual places.

Thakur, a doctoral candidate in political economics at Stanford GSB, is trying to determine if systems designed for matching, say, medical students with residency posts can also be used to improve the effectiveness of public administration.

“These projects take the theoretical tools and apply them to real-world problems and systems in practice,” says the Princeton graduate. “I’m hoping to improve government administration and development, trying to not just write academic papers but also use the findings to inform policymaking.”

Thakur is also an expert chess player and an accomplished musician — pastimes that connect in their own way to his work.

You’d better explain the concept of “matching theory” before we go any further.

When we think of economics, we generally think of allocations in markets being determined by prices equating supply and demand. That’s a classical economic notion. Matching theory deals with markets that don’t have prices. For example, what do you do if you want to allocate civil servants to different states in India? Everyone’s price is the same, because everyone gets the same government wage. So if you don’t have prices, then how do you figure out how to make allocations in the market?

A Marriage of Art and Science

Thakur is an accomplished tabla (Indian drum) player: “Indian music is very complex. You’re trying to improvise within a framework that has to be followed. So there’s this underlying scientific structure, but inside of that is the artistic part of creating something different and new.”

What have you concluded about the committee assignment processes in the U.S. Senate?

It’s interesting. The two major parties have very different systems for committee assignment. On the Democratic side, the system incentivizes people to misreport their preferences. For example, say I really want to be on Appropriations, but it’s also very popular and hard to get, given this competition. So, based on how that system currently operates, I might not truthfully report that it’s my first choice. Because if I fail to get my first choice in a tie-breaker, by the time that’s decided my second and third choices may already be filled up and I might get assigned to a committee I like much less.

So you pretend that, say, your second preference is your first choice, because it’s less popular and thus easier to get, and that works as a hedge against potentially getting a much worse assignment.

This is the type of gaming that goes on. Democratic senators strategically misreport their preferences to get a better assignment. And where there’s more demand than supply, it gives party leaders, who make the tie-breaking decisions, a lot of power. They can use committee assignments to reward certain people or punish those who don’t vote the party line.

And the Republican system?

It’s ordered by seniority, and it’s very formulaic. The party doesn’t really have any say in it. You have an incentive to truthfully report your preference. They use a mechanism called serial dictatorship, and because it’s based on seniority, it’s strategy-proof. So you have one system where people are truthfully revealing their preference and another where there’s all types of gaming going on. These committee assignments are at the heart of political decision making, so it’s important for people doing research related to politics and Congress to understand how the system really works. — *MJS*

HOMETOWN

Rochester, New York

FIELD OF STUDY

Political Economics

EDUCATION

PhD in Political Economics,
Stanford University '20
AB in Economics, Princeton
University '14

PROFESSIONAL EXPERIENCE

Research and Teaching
Assistant, Stanford University
Research Assistant, Princeton
University



WAIT, THERE'S MORE

To read our full interview with Ashutosh Thakur, go to stanford.io/Thakur.



WHAT MATTERS TO ME NOW AND WHY

Doreen Oliver, MBA '02



I was feeling pleased with myself, having found the shortest checkout line at Costco, when an older woman on the long, anaconda one next to mine lodged a complaint. “The line starts all the way back there,” she said to me, pointing. I tried to explain that my line didn’t actually start where hers did. She disagreed, pleading her case to bystanders. Gaining no support, she instead tried to penetrate my soul: “You cut all those people. That’s on you if you can live with this on your conscience.”

I almost laughed out loud.

Let’s be clear: I have plenty of things on my conscience. Sometimes I think about the time in first grade I borrowed a tiny green pencil sharpener and “forgot” to give it back. Recently, I teased someone because he didn’t remember I was once his next-door neighbor, only to discover later he’s suffering from memory loss.

Illogically, I sometimes wonder whether I could have prevented my 13-year-old’s autism if I hadn’t had a planned C-section on the earliest date possible. Surely, I put too much pressure on him during potty-training, which must be why he still holds his bowels on occasion, causing sleep disturbances. Then I worry I’ve made my youngest son anxious, having been raised by a mother fretting about all the things hanging on to her conscience.

LOOKING BACK

Doreen Oliver, MBA '02, was asked to revisit her Stanford GSB admissions essay and reflect on how her worldview has changed in the years since. Oliver (doreenoliver.com) is a writer/performer whose solo show, *Everything Is Fine Until It's Not*, ran Off-Broadway.

So I found it amusing that this woman wanted me to feel bad about something I objectively shouldn’t have, simply because she was upset I hadn’t waited as long as she had. Back when I was applying to Stanford, I might have. I’d often accommodate others first, disregarding hardships on myself. I did it to respect my elders. To not rock the boat. To make others feel comfortable.

Not to say I was a fading flower. But there were times I didn’t demand my worth because I was afraid I’d insult my boss; avoided a dream career to satisfy the expectations of my working-class upbringing; or, later, abandoned my work to support my son at home. In my Stanford essay, you can see me hedging my true desires over what I think is more acceptable. Reflecting on my venture producing talent showcases in NYC, I wrote: “I perform from time to time, but I am mostly delighted to have found a way to blend my love for the arts with my talent for marketing and running a business.” Truthfully, I just wanted to act, sing, create art. Sometimes it’s easier to do what’s expected rather than trip landmines running toward your deepest desires.

Eventually, those choices suffocated me, including staying at home. After 10 years, I felt like I was dying. Then, in 2017, my 45-year-old sister actually died. Life was too short to make others comfortable at my expense, even my family. My husband and I now juggle the kids and my unpredictable career as a writer, performer, and speaker. My husband is supportive; my mother thinks I’m nuts. It’s hard, uncomfortable, exhausting. Sometimes I trip a landmine, but it’s not as explosive as I’d imagined. We all survive. I feel alive.

I didn’t argue with this woman in Costco, nor did I laugh, even when she repeated her line about my conscience. It can sometimes weigh me down, but I refused to bear her load. I moved toward the front of my own line, not looking back. **GSB**

It’s hard, uncomfortable, exhausting. Sometimes I trip a landmine, but it’s not as explosive as I’d imagined. We all survive. I feel alive.

Redesign, ²⁷Workplace Sabotage,
Industrialist's Dilemma,
Cashless Society, ¹³Stolen M&Ms,
Rickshaw Bagworks, Glamping,
⁴²Blind Momentum,
Intifada, ¹⁵How to Unretire,
Autonomous Convoys,
Undruggable Targets,
⁵¹Alumni Consulting Team,
Pseudo Competitions,
Genome Sequencing,
Technology Theft, Fly-Fishing,
Performance Art,
Masculine Cupcakes,
⁹The Art of Change, Free Yoga,
Occupy Wall Street, ¹¹R&D,
Dream Volunteers, DOTA2,
Mushy Words, Zazzle,
²³Globalization, Gender Bias,
Communication Blunders,
Female Brewers, ²¹Recruiting.