INNOVATION LEADER
ISSUE Nº 6 — FALL 2017

My CEO Undermines Innovation

(SEE P. 38)

My CEO Understands Innovation

(SEE P. 38)

INNOVATION LEADER
CEOs on Innovation
ISSUE Nº 6 — FALL 2017

INNOVATION LEADER **FIELD STUDY**

Our Field Studies provide an engaging and collaborative forum for innovation executives, enabling them to visit other innovation spaces, share war stories, and benefit from the insight of their peers.

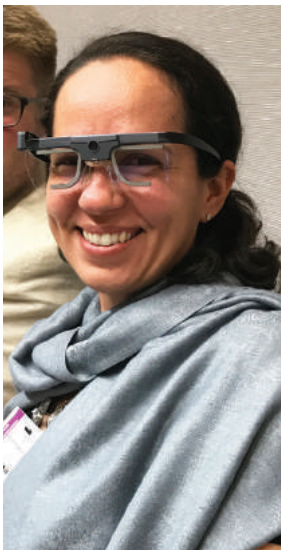
We've taken Field Study participants to more than two-dozen innovation labs and R&D centers at the world's best-known brands, including BMW, CVS, Fidelity, Google, Johnson & Johnson, MasterCard, Starbucks, Twitter, Visa, and many others. Join us at one of our next Field Studies.

LOS ANGELES • DECEMBER 6-7, 2017
NEW YORK • APRIL 2018
CLEVELAND • JUNE 2018

INNOVATIONLEADER.COM/EVENTS

FIELD STUDY

TABLE OF CONTENTS



1 FIRST

2 PEER PERSPECTIVES

ON THE COVER:

Does your CEO nurture innovation, or think all the focus should be on trimming costs? L-Dopa Design + Illustration created our playing card cover, as well as the four archetypal CEOs you'll find in the cover package, starting on Page 38.

3 CASE STUDIES

4 GUIDANCE

The Innovation Leader Editorial Advisory Board

Our Editorial Advisory Board provides direction and input and ensures we remain true to our mission—namely, helping corporate innovation executives deliver impact within their organizations. The group acts as a sounding board for editorial; weighs in on surveys and research; helps us design the best events on corporate innovation; and provides input on other ways Innovation Leader can be helpful to our membership. We are extremely grateful to the members of the Advisory Board for their insight and guidance.

Allstate
Moisés Noreña
DIRECTOR OF STRATEGIC INNOVATION

Boeing
Michael Hauser
DISRUPTIVE HORIZONS @HORIZONX

Capital One
Karen Stroup
SVP DIGITAL LABS/THE GARAGE

Cisco
Alex Goryachev
SENIOR DIRECTOR, INNOVATION STRATEGY

EY
Jeffrey Saviano
AMERICAS TAX INNOVATION LEADER

Home Depot
Prat Vemana
VP ONLINE

Houghton Mifflin Harcourt
Claudia Reuter
SVP DIGITAL SERVICES & LABS

Johnson & Johnson
Robert Urban
GLOBAL HEAD, J&J INNOVATION CENTERS

Lowe's
Kyle Nel
EXECUTIVE DIRECTOR
LOWE'S INNOVATION LABS

Pfizer
Daniel Seewald
SENIOR DIRECTOR, WORLDWIDE INNOVATION

Marsh & McLennan
Christina Mott
HEAD OF INNOVATION

Microsoft
Joel Nagy
MANAGING DIRECTOR, INNOVATION OUTREACH

New York Life
Joel Albarella
SVP AND HEAD OF NEW YORK LIFE VENTURES

Southern Co.
Michael Britt
VP, ENERGY INNOVATION CENTER

Starbucks
Dennis McGrath
VP, GLOBAL OPS INNOVATION

Thomson Reuters
Mona Vernon
CTO, THOMSON REUTERS LABS

Zimmer Biomet
Scott Mark
VP, DIGITAL HEALTH TECHNOLOGY

Innovation Leader's corporate- and enterprise-level members (those with 10 or more users) serve on our Research Advisory Council, which helps prioritize and shape our quarterly research reports and other special projects. For more information, see innovationleader.com/join.

How Does Your CEO *Really* Feel About Innovation?

It's almost a joke at this point: Watch any PowerPoint presentation about the essential components of corporate innovation and at some point a stock photo of the corner office will pop up, along with the admonition, "You need CEO support."

Of course it's true — many innovation initiatives or R&D reinvigorations get started with CEO support. Then, there's a bad quarter. Or the CEO moves on to a different pet project, or simply isn't available to help the innovation team knock down internal political barriers. Or the CEO departs unexpectedly.

So while you certainly do need CEO support, we wanted to look at what role CEOs, COOs, and other top leaders should play in supporting innovation over the long-haul. That's the focus of our cover story, which begins on Page 38.

This issue also takes you inside innovation and R&D centers run by W.L. Gore, UNICEF, Medtronic, and Delta Air Lines, and explores how new offerings are testing at Starbucks, as well as the latest digital efforts at Dunkin' Donuts. We've also got advice from Columbia Business School professor Rita McGrath on how innovation can be a tool to help companies deal with what she has dubbed "the end of competitive advantage."

Our biggest live gathering each year is the Teach-In, which takes place October 10-12 on the campus of MIT, in partnership with the MIT Industrial Liaison Program. (Details at innovationleader.com/teach). You'll learn from MIT faculty as well as corporate innovators from companies like Fidelity, American Express, Royal Caribbean Cruise Lines, PepsiCo, Walmart, Pfizer, and the Boston Celtics. For our final event of the year, in December, we'll visit innovation centers, R&D labs, and makerspaces in Los Angeles (innovationleader.com/la2017). Our complete event schedule, including 2018 gatherings, can be found at innovationleader.com/events.

Got suggestions for what else we should be covering? Drop me a note at the e-mail address below...

Scott Kirsner, Editor & Cofounder
editor@innovationleader.com
@innolead

P.S. If you're not receiving (or seeing) our e-mail newsletter, visit innovationleader.com/email.

FALL 2017 | ISSUE #6

Scott Cohen
PUBLISHER

Frank Hertz
CFO & COO

Scott Kirsner
EDITOR

Kelsey Alpaio
EDITORIAL ASSISTANT & RESEARCHER

Patrick Mitchell
CREATIVE DIRECTOR
MODUSOP.NET

Alicia Jylkka
DESIGNER

Andrew Donovan
DIRECTOR OF ADVERTISING AND SPONSORSHIP

Donna Amrhein
MARKETING DIRECTOR

Ellen Juskewitch
EVENTS AND STRATEGIC PARTNERSHIPS MANAGER

Patricia Yeager
CONTRIBUTING WRITER

Kaitlin Milliken
EDITORIAL INTERN

CONTRIBUTING ARTISTS

Cayce Clifford
Dave Gray
Jason Grow
Tim Redman
Jason Schneider
Nik Schulz/L-Dopa
Jeff Wilson

First

Fall
2017

Operators and Innovators

CAN INNOVATION TEAMS AND BUSINESS UNITS GET ALONG?
BY **SCOTT KIRSNER**

BUSINESS UNITS ARE OPERATORS. THEY'RE driven by concrete, near-term financial goals. They excel at keeping supply chains and factories humming, and overseeing complex networks of salespeople, distributors, and retailers.

Innovation teams are explorers. By definition, they're responsible for looking further ahead, and exploring terrain that hasn't yet been mapped. Often their prototypes and projects can seem like an entry in the science fair. How well will this work at scale? Will customers even want it?

Is there an ideal working relationship between operators and innovators? We believe there is—built on well-defined roles, appropriate resources, and, most importantly, a shared vision of what the organization is trying to achieve, co-signed by the CEO and other senior leaders.

HOW FAR OR HOW CLOSE?

The biggest decision a company can make regarding the linkage between an innovation or R&D group and the lines of business is about distance. Think of a satellite or space telescope orbiting the earth: you can see with so much more clarity when you're outside of the atmosphere. But get too close to the planet, and the gravitational pull will bring you back to the surface (often as a flaming piece of wreckage.) Go too far out, exploring the edges of the solar system, and communication becomes challenging.

Advice from survey respondents:

"You have to position yourself as equal, and earn that position, as opposed to being seen as just a free resource available to the business units."

Innovation groups have more latitude to explore, and can sometime see better, when they have some distance from the day-to-day concerns and needs of the business units. But the greater the distance, the more likely it is they will encounter friction when transferring their projects to the business units for commercialization. The closer to the business units they get, the less friction there is—but there's more pull to solve well-understood problems, react to competitors' moves, and deliver products and services needed to fill the pipeline in the near-term. Sometimes companies set up an innovation group with the expectation that it will be able to commercialize its own ideas, spawn a new business unit, or spin off independent new ventures. But that's a very complicated path, even when there is support from the company's leadership.

"Get lots of friends in the business units and flatter them continuously over lunch with beers."

WHAT TYPES OF INVOLVEMENT?

We believe that at most companies, once the objectives have been set for an R&D or innovation group, there's an ideal amount of involvement for the business units—which can range from extremely limited (when working on Horizon 3 or disruptive ideas) to continually engaged (when working on Horizon 1 or 2, more adjacent ideas.) This involvement can include:

- Helping set targets for the innovation group to work on
- Providing funding or resources
- Lending or rotating people through the innovation group
- Providing input on projects, or access to

customers for input

- Giving the thumbs-up or thumbs-down to projects that will either launch, be shelved, or require more work
- Taking responsibility for launch/commercialization

In general, the more involvement business units have, the more the R&D or innovation group tends to become a consultant or auxiliary product development resource to the business units. With less involvement, R&D and innovation groups have the freedom to develop ideas that customers may not know they want; that are ahead of competitors; that leverage new kinds of technologies or infrastructure; or that help the company enter new market segments or pursue new business or service delivery models. With absolutely no business unit involvement, the risk of "organ rejection" skyrockets—the business unit often simply under-resources or abandons the project.

CREATING ACCOUNTABILITY FOR SUCCESS IN THE TRANSITION

One issue that we've found most companies do not devote enough attention to is creating accountability and incentives for success. The moment when a nascent idea is given to a business unit is one of the most vulnerable phases of innovation. Is the CEO or another senior executive paying attention to the milestones it is expected to hit... whether members of the innovation team

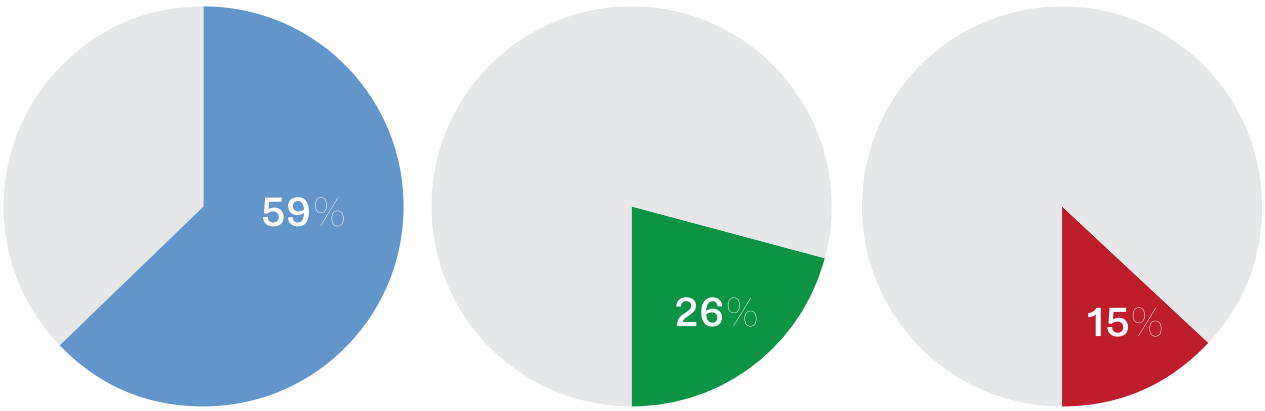
"We have not been successful when new solutions are 'thrown over the wall' to the BU for deployment."

are continuing to support it as promised... and whether staffers in the business unit are committing the time and resources promised? Are there goals for the business unit to generate growth through new products and services? Are there "after action" reviews when products launch, or fail to launch, to analyze what went right and wrong, and what could be improved next time?

If there's an expectation that the best work being done by the innovation group or R&D will make it to market, this is a key place for senior leadership to be involved, with regular check-ins and reports. ●

TO ACCESS THE COMPLETE REPORT ON INNOVATION AND THE BUSINESS UNITS, VISIT INNOVATIONLEADER.COM AND CLICK "REPORTS." UP NEXT: BEST PRACTICES FOR SCOUTING EMERGING TECHNOLOGIES AND TRENDS.

HOW INVOLVED ARE THE BUSINESS UNIT LEADERS IN SETTING THE R&D/INNOVATION AGENDA AT YOUR COMPANY?



Michael McCathren of Chick-fil-A, right, participates in a cocktail experiment at Marriott HQ

The event wrapped up with a fireside chat with Marriott CEO Arne Sorenson (at right)

Dan Wheeler of Dunkin' Brands leads a whiteboard session

Field Study Washington, D.C.

June 2017

Participants in our latest Field Study gathered in Washington, D.C. at the start of summer to visit Capital One Labs, Marriott's "Underground" prototyping space, Lockheed Martin's Global Vision Center, AARP's "Hatchery," and the 1776 startup incubator. Thanks to our sponsors, Moves the Needle and Imaginatik, and everyone who led sessions at the event —including Marine Corps Captain Christopher Wood and Arthur Daemmrich of the Smithsonian Institution.

IL's Scott Cohen with Peter Cherukuri of the startup incubator 1776

Sabre's Mark McSpadden and AIG's Natalija Jovanovic

TO LEARN ABOUT FUTURE GATHERINGS, VISIT INNOVATIONLEADER.COM/EVENTS.

Nora Neustadt of the IL events team

Jennifer Kirby of Hyatt tests out a virtual reality headset

Lockheed Martin's VP of Technology and Innovation Robie Samanta Roy

Daniel Friedman of Imaginatik discusses lean startup in the corporate setting

David Wade of J&J with Quinn Kiley, Audrey Kohout, and Jonah Kaplan of Target

A breakout group discusses innovation supporters—and skeptics

Which Lab is Your Lab?

THE PROS AND CONS OF SIX DIFFERENT KINDS OF INNOVATION LABS

BY **SCOTT KIRSNER**

WHAT ARE THE VARIOUS "FLAVORS" OF INNOVA-tion lab a company can set up?

We've now written about or visited dozens of labs run by Global 1000 companies. This list lays out the six primary types we've seen—though there are "hybrids" which combine aspects of these—as well as the pros and cons of each.

1 CONCEPT DEVELOPMENT LAB

▸ **What It Is**: Intended to create new products or services, or test new business ideas. Often involves a core group of "intrapreneurs" with marketing, tech, and product development experience. Many of these labs also bring in customers, business partners, or startups to "co-create" or otherwise participate in the process.

▸ **Pros**: The most common approach we see to labs, this model requires a delicate balance when it comes to the right staffing, appropriate funding to build prototypes, and distance from the core business. They can in some cases be well-connected to business units for agenda-setting, input, and eventual roll-out of projects, while having enough freedom to explore high-potential ideas.

▸ **Cons**: These labs rarely pursue truly disruptive innovations, and are better structured to pursue incremental and adjacent concepts. Politics often haunt these labs, as leadership and business units vie for access and control, or withhold funding. Requires politically-savvy leadership, not just technical or operational chops.

▸ **Examples**: Fidelity Labs, Visa One Market Innovation Lab, MasterCard Labs, Medtronic Applied Innovation Lab (see page 102.)

Gas station mockup at Visa's One Market Innovation Lab in San Francisco.

2 SKUNKWORKS

▸ **What It Is**: Usually located away from corporate headquarters, given lots of freedom to experiment, and charged with focusing on long-term initiatives. Often staffed with talent that hasn't worked in your industry before.

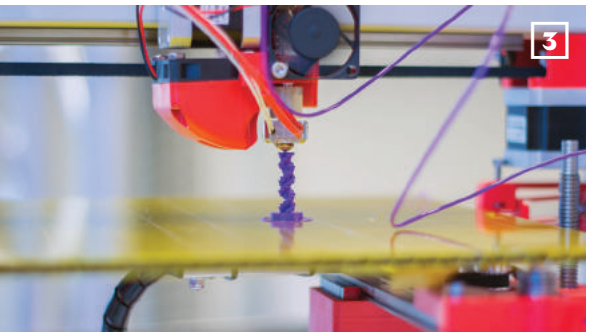
▸ **Pros**: Great way to pursue "Horizon 3" ideas, or disruptive technologies and business models. Remaining completely separate and insulated from the business units makes edgy exploration easier.

▸ **Cons**: The "pros" of this approach are also the "cons": Skunkworks are so separate and remote from the core business that they are seen as unchecked, strategically divergent, and (sometimes) expendable.

▸ **Examples**: Lowe's Innovation Labs, Shell TechWorks, Lockheed Martin Skunk Works

3 MAKERSPACE

▸ **What It Is**: A space set up with prototyping technologies, from 3D printers to drill presses to sewing machines, to be used by employees working on projects related to the business—or simply learning an array of new tools and techniques.



▸ **Pros**: Great way to provide innovative employees with the latest technical tools to pursue their passions—and potentially valuable business objectives. Can become more valuable when entrepreneurs are invited to use the makerspace, and the company is benefitting from their input, or the "brand" benefits from being a more significant contributor to the local ecosystem.
▸ **Cons**: Often perceived as a nice-to-have employee perk but not sufficiently strategic.
▸ **Examples**: Northrop Grumman FabLab, Autodesk Pier 9, GE/Haier FirstBuild

4 VENTURE/ECOSYSTEM LAB

▸ **What It Is**: Intended primarily to source and oversee venture capital investments, or create new connections with the startup ecosystem.
▸ **Pros**: Can help shift companies away from an "everything must be invented here" mentality, towards more openness and permeability to outside sources of innovation. Can also show that a company is serious about making investments in, or collaborating with, startups and entrepreneurs.
▸ **Cons**: Connectivity with the "mothership" can be a challenge. Takes a long time to really develop roots in a city. When strategy or the company's financial situation shifts, these labs are often the first to go. (As was the case with Target's "Food + Future" coLab in 2017.)
▸ **Examples**: Johnson & Johnson Innovation Centers, Target's Food + Future coLab, Cambia Grove, Barclays Rise New York

5 SHOWCASE/MEETING SPACE

▸ **What It Is**: A nicely-designed showcase for "cool new stuff" the company has been prototyping or testing, or a place to hold brainstorming meetings or training sessions where "out of the box" thinking is desired and encouraged.
▸ **Pros**: If your goal is to better communicate your capabilities to customers, prospects, and business partners, these showcase spaces can be a nice approach.
▸ **Cons**: Can be expensive to design, build, staff, and keep up-to-date, and are sometimes met internally with eye-rolling and cynicism. Besides a few tinkerers, there usually isn't much hard-core development taking place.
▸ **Examples**: Verizon Innovation Centers, Disney iD8, past iterations of Humana's innovation lab

6 L.I.N.O. (LAB IN NAME ONLY)

▸ **What It Is**: Take a typical marketing, software development, or R&D group...give them a foosball table, standing desks, and a few Yogibo beanbags...and call it a "lab."
▸ **Pros**: Can sometimes aid with recruiting and retention, and boost internal morale.
▸ **Cons**: Same people, processes, and bureaucracy in a new environment. Can also foment jealousy among other groups and functions—"How come we don't get a lab?"
▸ **Examples**: Too many to list... ●

Entrepreneurs work at Rise New York, an ecosystem lab operated by Barclays in Manhattan.

JONATHAN JUURSEMA (TOP)

NANCY TENNANT, formerly the Chief Innovation Officer at Whirlpool Corp., now teaches innovation leadership at the University of Notre Dame. She's also the author of the book *Unleashing Innovation: How Whirlpool Transformed an Industry*.

Tennant has been producing a series of insightful—and sometimes acerbic—slides that offer a look at how people *really* think about corporate innovation, which we're publishing in the next few issues of **INNOVATION LEADER** magazine.

Massachusetts Institute of Technology

MIT INDUSTRIAL LIAISON PROGRAM

CONNECTING THE WORLD'S LEADING COMPANIES TO MIT

Over 230 ILP members engage with MIT to:

- monitor disruptive technologies
- validate new product development
- solve technical problems
- seek faculty advice
- meet new MIT startups
- recruit new employees

ilp.mit.edu

Step Ahead

A LIMITED-EDITION SNEAKER FROM REEBOK IS PRODUCED—FAST—USING AN APPROACH DUBBED 3D DRAWING

BY KELSEY ALPAIO

Bill McInnis, VP Reebok Future

THE PROCESS OF MANUFACTURING ATHLETIC shoes is shockingly similar for almost every sneaker on the market. And according to Bill McInnis, the Vice President of Reebok's Future group, it typically involves shaping liquid using a mold.

The problem? Making molds is expensive, labor-intensive, and slow. Every piece of a shoe needs to be separately produced, carefully extracted from the mold, and then assembled. And according to McInnis, that can result in a design and manufacturing process for new sneakers that stretches to 18 months.

"[18 months] is way too long, particularly for something as simple as athletic shoes," says McInnis. "We wanted to get a lot more speed, a lot more local, and a lot more custom."

That was the motivating force for Reebok Future, one of the innovation and R&D teams within the Canton, Mass.-based footwear and apparel company, part of Adidas AG.

One product created by the Reebok Future team was the "Reebok Liquid Speed" shoe—the first product out of the company's "Liquid Factory," a variant of 3D printing the company has dubbed "3D drawing."

"We had a caulking gun hooked up to a CNC machine," McInnis says, referring to a computer-controlled device for carving or sculpting. "And we had it draw a path for us while we pulled the trigger [on the caulking gun.]"

That was one of the first times the team prototyped the idea of drawing a shoe. Following the initial experiment, the team settled on polyurethane as the material to use for this 3D drawing effect, partnering with the German chemical company BASF and Michigan-based RAMPF to take the concept into a short production run.

The "Reebok Liquid Speed" shoe sold in a limited run of 300 in late 2016. The shoes cost $189.50, and each pair was individually numbered, tagged, and boxed. The box also boasted a "designed and assembled in the USA" sticker, which McInnis says is rare in the athletic shoe space.

"To me, we'll get further faster by changing how we make things," he says. "The instinct [at many companies] tends to be, 'We saw somebody doing this; we should be doing that as well.' For a company the size of Reebok in the scale of the athletic footwear industry, we're not big enough to chase [others.] We have to do something very, very different. That's where we start. If somebody else is doing it, we're better off looking in a different direction." ●

Navigating the Maze

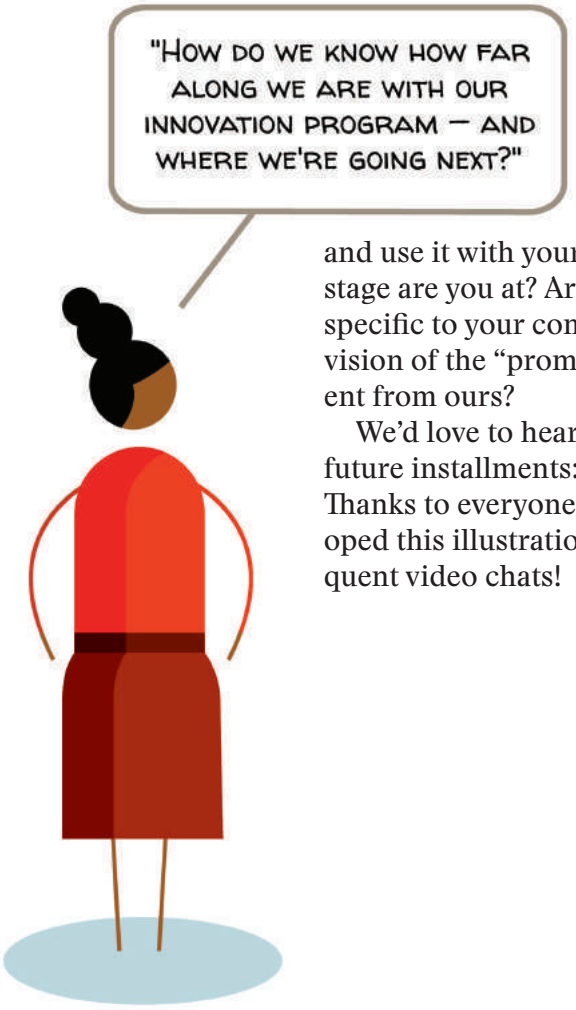
A GUIDE TO FIVE STAGES OF INNOVATION EVOLUTION

BY **XPLANE & INNOVATION LEADER**

What does progress look like when you're the team tasked with doing the new stuff?

It's a question that comes up at most of our in-person gatherings. What are the characteristics of each stage of innovation, the things you ought to be focusing on, and the risks that you may not make it to the next stage?

For the second installment of our "Innovation Illustrated" series, a collaboration with the renowned visual thinking firm XPLANE, we explore the subject of making progress—which can sometimes feel like navigating a maze. There are important decision points, dead ends, and eventually, we hope, a feeling of accomplishment.



You can tear out the illustration and use it with your team to spark discussions. What stage are you at? Are there priorities or risks that are specific to your company, but not listed here? Is your vision of the "promised land," or the final stage, different from ours?

We'd love to hear what you think, or your ideas for future installments: editor@innovationleader.com. Thanks to everyone who provided input as we developed this illustration at our D.C. Field Study and subsequent video chats!

TO SEE THE FIRST INSTALLMENT IN THIS SERIES, WHICH MAPS OUT THE KEY PLAYERS AND TENSIONS INVOLVED IN CORPORATE INNOVATION, OR TO DOWNLOAD THIS ILLUSTRATION AS A PDF, VISIT WWW.INNOVATION-LEADER.COM/INNOVATION-ILLUSTRATED.

Welcome to the newest members of the Innovation Leader community.

BNY Mellon • AAA Insurance • Lands End • Daimler Trucks • ING • MITRE • Medtronic • RR Donnelley • Owens Illinois • Chick-fil-A • Northern Trust Company • Hyatt Hotels • RAND Corporation • PepsiCo • Amgen • GEICO • Sabre

Coca-Cola • LogMeIn • Becton, Dickinsons and Company • Ingersoll Rand • McCain Foods • Walmart • Pfizer • IKEA • BAE Systems • Novartis • Visa • Stryker • Phillips • Prudential • LinkedIn • American Express • General Mills • Bridgestone • Johnsonville Sausage • Suffolk Construction • Universal Parks & Resorts • PA Consulting Group • Occidental Petroleum • KPMG • Dominion Energy Services • Invista • IRT Group • Laclede Group • Canadian Tire Corp • World Vision Canada • yet2 • JFDI.Asia • Fahrenheit 212 • Kids Help Phone • Principal • Monotype • SAIF Corp • Willis Towers Watson • Cecilia Unlimited • Dover Idea Factory • KEX Knowledge Exchange AG • Amica Mutual Insurance • Astellas • Storyhackers LLC • True North Capital • Solar Turbines • What If Innovation • Tunnel Tek • Citrix • OMG, Inc • The Collaboratory • Atlassian • DB Schenker • LPK • FutureCo Ventures • L3 KEO • IAG • Butler University • BD Medical • Point B • Radobank • HSS • Flight Centre Travel Group • Boeing Vancouver • JWMI • ACT • Honeywell Building Solutions • Don't Panic Labs • Ply Gem • CAIL • Wonderland • Harris Computer Corp • Amadeus IT Group • Decco Ltd • Anthem • Kaufman Rossin • Dealer Tire • Cantel Medical • Genentech • Arthrex • Illumina • Turner Classic Movies • MaRS Discovery District • Lutron Electronics • Aesop • QBE Insurance Group

Want to learn more about membership? Visit innovationleader.com/join.

Peer Perspectives

2

Fall
2017

How Starbucks Tests New Ideas in the Real World

INTERVIEW BY **SCOTT KIRSNER**


Dennis McGrath

The path that ideas travel from initial sketch to real-world test is often a rough one.

Starbucks is one of the companies that has been working hardest to pave that path, and as part of our IL Live series of conference calls, we spoke with Dennis McGrath, VP of Global Ops Innovation, about how they've been doing it.

McGrath says that since 2009, the Seattle-based coffee chain has been working to accelerate the way it can test ideas in just a handful of stores—in part to see what will break before the idea is rolled out nationwide. Now, McGrath explains, "we can have a concept on Monday and have it in the store by Thursday."

One example of a concept that made it through McGrath's testing protocol: the wildly successful order-ahead feature that is part of Starbucks' mobile app.

We started the conversation with McGrath by talking about Starbucks' culture.

KEEPERS OF THE INNOVATION PROTOCOL

Starbucks still has a very strong entrepreneurial culture within the organization. There's not a function or a team that is a keeper of innovation; it's integrated throughout the entire organization. For instance, there is a beverage concept innovation team. There is a food innovation team. There's my [operations innovation] team, and there is an IT innovation team.

Some of those teams...do not have the burden of the day-to-day business. They are charged with innovating against our [strategic] plan. Our strat plan is a five-year plan.

For myself, as well as many of those other teams, we live in 2021 as of today, and we are innovating to deliver against our five-year strat plan.

In terms of where my team sits, we're a little unique. I actually report into two functions. [I have a] dotted line into Andy Adams, who is our global leader of real estate, facility, store design...as well as to our EVP of global operations. My time is shared equally between those two functions, but our team serves the entire organization.

The quickest way I can describe it is [that]

we are the keepers of the innovation protocol. That means the idea or the program or the concept may not have been generated by us. About 20 percent of them are. About 80 percent of them are generated by other teams throughout the building.

LEARNING HOW TO TEST DIFFERENTLY

Prior to 2009, Starbucks really didn't test anything. We may have used that language from time to time. But, basically when we were testing something, it was launched in 5,000 stores or 8,000 stores.

[That's] a launch, it's not a test. [And the] development process to get a program to [that point] was two or three years.

[As a result] we were slow to market, because we had to get it perfect before we would launch it. Then it's showing up [in] 5,000 locations. Then we would go into this perpetual continuous improvement [process] trying to tweak it and fix it.

What started as a very small idea back in 2009 was, what if we could have direct access to a small number of stores, [and] use those stores to help us develop the program—it's really what we call feasibility testing.

With feasibility testing, we're just trying to answer [a few] simple questions: Can we do this? What are the problems to solve? Now that we know what the problems are, are they worth solving? How do we prioritize the work on this? That started in 2009, and today we have a very robust catalog of stores that are available to our team.

We don't operate the stores. The field operations team does that. These stores are available to us. We can have a concept on Monday and have it in the store by Thursday. We may leave it in the store for as little as three or four days, or as long as six months.

[Today], we have labs, we have the stores, and we are accountable for all testing in North America. A test could be as little as two stores or 600 stores, depending on the test objectives and where the innovation is.

HOW WE CHOOSE STORES FOR TESTING

The stores that we selected we wanted to...be representative of the US portfolio. We wanted to have space-constrained stores. We wanted to have drive-throughs, and all the segmentations of our customer demographic. [We wanted the test stores to] be representative of how something would perform in the US.

We did spend time training the store partners. (At Starbucks we don't call each other employees or associates. Everybody is called a partner.) [But] the training is not on how to test things. The training is on how to get feedback, how to remain objective. Part of testing in the real live environment is getting fact-based, objective feedback, and sometimes people tell you what they think you want to hear.

We do not hand-pick the store managers or the teams. We leave that up to the field organization; sometimes we get a top-performing store manager on the team, sometimes not. But, that's also representative of how [things] may happen in the US.

In order to keep the stores objective, we never give them goals on anything. Sometimes, we'll not really tell them the true objective of the test. That's a way to keep them objective; we give them enough information to execute the program. What they're held accountable for is executing the program.

If that means [that] every day they're throwing out $100 worth of food or $500, we tell them, "keep throwing it out," because that's how we continue to learn. There's a lot that goes into setting that up and planning it.

I could tell you [about] the change management component of the first time I went to a field leader, a regional vice president, and said, "Hey, I want to take these 36 stores, and I want to have direct access, and you're going to have no veto rights and I'm going to do whatever I want in those stores." That wasn't the best conversation I've ever had.

LAUNCHING MOBILE ORDER & PAY

What we used to do is say, "OK, team. We want to launch Mobile Order & Pay in all stores in North America," and we picked a date.

That date became an immovable object. In that strategy, what happens is you're making compromises all along the way just to get to that date.

What we did with Mobile Order & Pay was different. We really started off with a question of, "What would we do if we were a startup and we decided we were going to build an app and enable mobile order and pay? What if we were not part of Starbucks?"

What we came up with was, we will launch a minimum viable product at a small scale,

TO SEE THE SCHEDULE OF UPCOMING INNOVATION LEADER LIVE CONFERENCE CALLS, VISIT WWW.INNOVATIONLEADER.COM/IL-LIVE

and build to learn. That's what we did. We launched Mobile Order & Pay in 12 stores in Beaverton, Oregon.

We selected Beaverton because it was not in Seattle, so we could keep our senior executives out of there so the team could continue to develop it. It was close enough where we can get [from headquarters in Seattle] to the market fairly easily.

When we launched it in those 12 stores, the first couple of weeks we had some [issues]... In hindsight, looking back, they would have been catastrophic disasters had we launched in a larger number of stores.

I'll give you one simple example that none of us on the project team had foreseen.

When we launched it in the twelve stores, up until then, store naming conventions were done for internal purposes. ...In Beaverton, there's a place called Washington Square. We had Washington Square 1 and Washington Square 2, with no reference in the app of which store is located where. We had customers placing orders, sending it to one store, and going to another expecting to pick it up.

"When we fail, we fail and we move on. The acceptance of failure as part of the innovation process is our greatest competitive advantage."

We learned quickly in that week [that] we need a naming convention for all stores...so it's consistent across the US.

We had lots of failures on the IT side. Actually, in those twelve stores, we had programmers sitting in the stores who could make real-time code changes as we were learning things. We did that for 60 days.

...We wanted that [software] engineer to understand and design it from the perspective of the people who are using the software, from the perspective of the customer and the perspective of the store.

Many times, you can design a great program, but if people don't know how to use it that way or it's not intuitive, you have a great program that nobody adopts.

THE RIGHT RIGOR AT THE RIGHT TIME

Early on, you don't need a business case—you need a hypothesis, you need an objective. We will activate based on that.

That doesn't mean we're going to put something in 15 stores or 1,500 stores to go test it. That may mean we're going to take it to our lab and do some feasibility trials on it.

We keep sales out of scope early on. We keep customer validation out of scope early on. Those are the things that enable you to move much faster.

For instance, in the case of Mobile Order & Pay, going to the 12 stores, we [defined] what the minimum viable experience would be. That would be [that] a customer can open the app, find a store, browse the menu, place an order, pay for it, go the store, and pick it up.

When the question came up, "Does it have to have every single item of the menu?" The answer to that was no, because we went back to our five minimum viable experience [criteria.] They have to be able to find the item, browse the menu. We did not say, "It has to offer every item."

If we were to put every item that we had on the menu, with those twelve stores, we would have delayed launching it in those stores by about four months or five months.

We said, "You know what, 80 percent of the [items] customers buy, having those on it will be good enough for now."

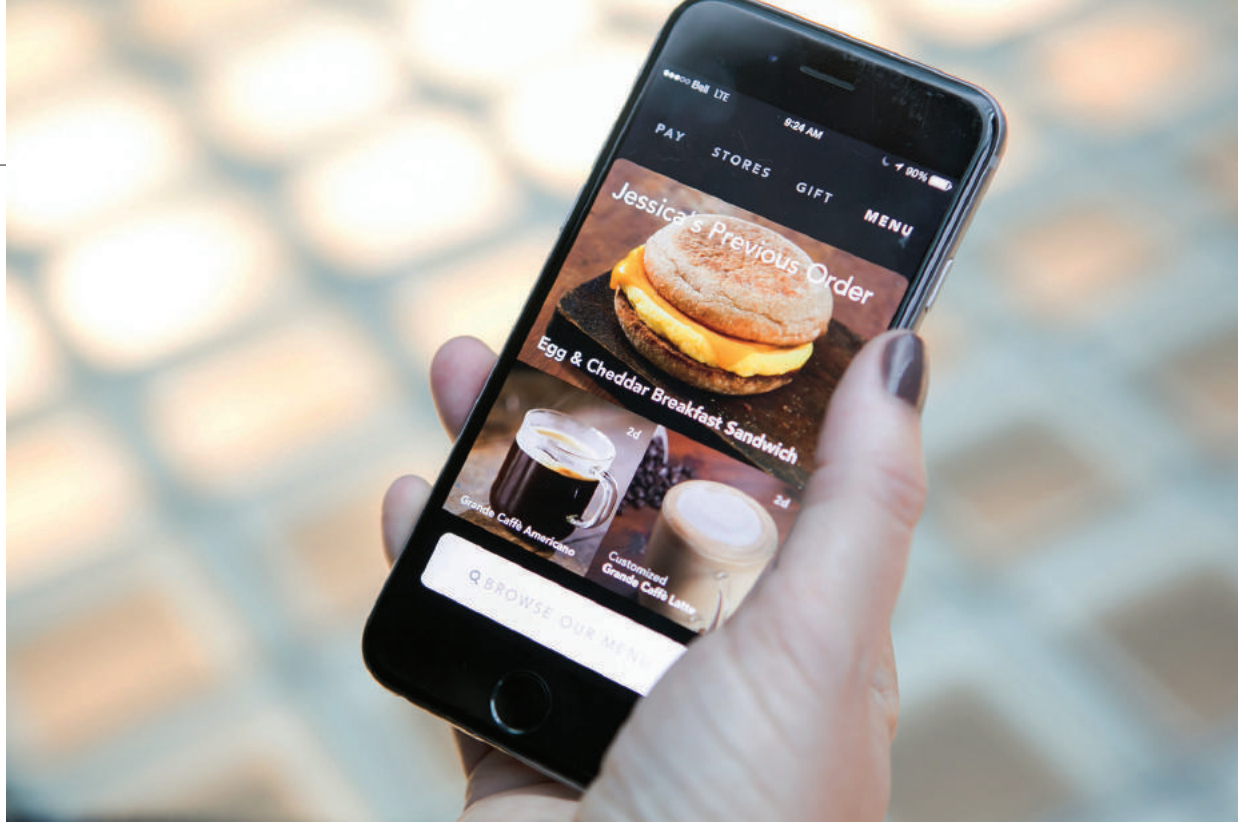
That's how we moved fast. We have a saying on the team: "We want to apply the right rigor at the right time."

HOW WE PRIORITIZE PROJECTS

We have a decision logic that we use. Our first question is, "Is that in our strat plan?" If it's within that [plan's] five-year horizon, now we know the enterprise has decided that this is important. If it's not in the strat plan, then it goes into Column Two. [If it's in] Column Two, we de-prioritize it.

The second is, "Is it a business imperative or business critical?" That could be, let's say, there is a new regulation that we need to address that no one foresaw. We need to solve this problem in the next six months. I'll give you an example of that.

We used to have dipper wells at the espresso bars. One day, a customer took a video of our dipper well and posted it on YouTube. What it showed was this continuous flow of water running. He was a professor. He used it as a class project to get



To get the Starbucks Mobile Order & Pay functionality built quickly, early prototypes of the app didn't include the entire menu. The feature was rolled out nationally in 2015.

the students to determine how much water Starbucks was using in the dipper well.

We got a lot of bad press about it. We knew we had to solve the problem, but we also had to meet health regulations.

We prioritized that work. In 90 days, not only did we solve the problem, but [then] we actually implemented it within 18,000 stores in about seven months.

'WE FAIL AND WE MOVE ON'

[Founder] Howard [Schultz] is the visionary within the organization. I would say one of the things that keeps that [entrepreneurial spirit] alive is we don't dwell on our failures.

I've been in other organizations [where,] when you failed, the first steps were like, "OK. Let's figure out whose fault it was, who's to blame, how we're going to change that team."

At Starbucks, when we fail, we fail and we move on. That culture of the acceptance of failure as part of the innovation process is our greatest competitive advantage. We have lots of sayings. One of them is, "Fail often, fail fast, and fail cheap."

WHEN DO YOU BRING IN STAKEHOLDERS?

We engage our partners, customers, and suppliers early and often. If we are developing a concept and a piece of equipment is involved, we actually want that supplier to be part of the innovation team.

We want them to not design a piece of equipment based on what we're telling them—because sometimes we're wrong. We want them to be immersed in it so they understand how we're going to use it...

TESTING A NEW STORE FORMAT IN SEATTLE

Today [April 6, 2017,] we opened the world's first cashless Starbucks [at our headquarters.] This is a store that is built for speed and the digital experience.

It is about 275 square feet. Your typical Starbucks is around 1,900 square feet. It is designed for high-volume capacity. It is digital orders only.

[The] staffing is different. We have introduced what we call a concierge model. You walk up. [Since] there is no [cash register] transaction anymore, there's a digital screen that tells you whether your order is ready or not. You walk up to a concierge, and they hand [the order] off to you. You can be in and out, we believe, in under a minute.

This is a concept study. I believe it will have legs in places like airports, universities, hospitals. I could see [these] as satellites in places where, the store we have, we can't renovate it or make it any bigger than it is—but within that area, we could open a small Mobile Order & Pay store. Think about places like New York City, where midtown rents can be $650 a square foot. This could be a viable alternative. ●

THE 2017 TEACH-IN

WHERE CORPORATE INNOVATORS SHARE BEST PRACTICES

No PowerPoints. No keynotes. No exhibits. Just your peers, shared learning & collaborative problem-solving.

Walmart
Head of Technology
Myron Burke

American Express
VP B2B Platform
Andres Ricaurte

PepsiCo
Vice Chairman
Mehmood Khan

Pfizer
VP Strategy
Wendy Mayer

Blue Cross Blue Shield
VP Innovation
Robin Glasco

Hyatt
Director of Innovation
Jennifer Kirby

Boston Celtics
VP Strategic Marketing
Matt Griffin

MIT
Global Innovation
Imran Sayeed

INNOVATIONLEADER.COM/TEACH

"At the Teach-In, you feel like a kid in a candy store, having to choose between shelves full of delicious innovation talks."

- Alexandru Darie, Philips Lighting Research

Scaling Innovation Regionally and Globally

Thinking About External Innovation

Five Principles of Rapid Prototyping

How Data Can Fuel Innovation

Doing Corporate Venture Capital Right

Setting Up an Innovation Program

Deploying New Technologies

Innovation & the Business Units

"I learned more practical applications and strategies for innovation programs than I have from any other single source."

- Charlie Garland, Senior Fellow, Healthcare Innovation Lab

"Great event to meet with and learn from like-minded souls and review what works and what doesn't."

- Chuck Brunner, Director R&D, Shark Ninja

Thank you to our sponsors:

MOVES THE NEEDLE

NOTTINGHAM SPIRK

EUREKA! RANCH®

c space

SPIGIT

No Ivory Towers: Delivering Impact at Manulife Financial

INTERVIEW BY **SCOTT COHEN**

Jesse Bean

Innovation groups can sometimes be perceived as " ivory tower" entities, Jesse Bean told Innovation Leader members on a recent conference call. Instead, "we want the whole company to be thinking about [innovation.]" Bean is the Chief Experience Officer and Head of Innovation for Global Solutions Delivery at Manulife Financial, the $53 billion financial services group that operates as John Hancock in the US. In his current role, Bean is focused on creating a more agile organization that can meet the current and future needs of Manulife's business clients, and he was central to the launch of Manulife's "Labs of Forward Thinking" (or LOFT) in Boston, Toronto, and Singapore.

During the call, Bean discussed the mandate for his role, engaging senior leadership and middle management, the benefits of the DevOps approach, Manulife's experience with hackathons, and more.

WHO IS MANULIFE?

People in the US know us as John Hancock, but Manulife Financial is our global brand. We span almost every continent. We have a major presence in Asia, Canada, and the US. We offer not only insurance products, but wealth and asset management, and private-asset, institutional investments.

REPORTING AND STAFFING

I was given a mandate to launch the Labs of Forward Thinking (LOFTs), to bring in new ways to think about things and also research and look at forward-looking technologies.

I actually sit in the technology area. I sit under the CIO for the firm, but I also have a dotted-line to our Chief Innovation Officer. He'd be responsible for strategy and so forth, but we need to actually look at it from the technology lens, because we believe innovation is an intersection of business need and new technology.

I have a team of about 40 people across the globe. We have three different incubation labs: one in Toronto, one in Boston, and one in Singapore. We basically split it down the middle. [Half of the people are] working on incubation teams, so full-stack teams, that work from a product-manager perspective all

the way down to engineers. Then the other half of the team is what we call a programs or an enabling team, and these guys go around the globe teaching lean, design thinking, basically training the trainer and spreading new ways of thinking at the firm.

WHAT WE DO IN THE LABS

We opened up new spaces that differ from the corporate norm. I know a lot of folks have opened their own labs. We wanted to create a place where we could experiment with different ways to set up incubation teams.

The labs are not set up exactly the same. We have one spectrum where the lab is wholly inside one of our corporate buildings, and then we have another lab where it's in shared space, such as in Toronto with MaRS, with other startups and other labs.

We're experimenting. We're about two years in, and trying to find the best model there.

I have a team of five to seven people who are trained in the "Stanford method" of lean, but also in design thinking. What they do is they structure programs for business units or technology units that want to attack a problem. These programs could be anywhere from a half-day [of] testing to something planned out over three months, [where we] get into full sprints of developing prototypes to solve problems.

When we did our research before launching the labs, we were trying to figure out which setup yielded the most for the firm, when you're talking about producing. We wanted to staff our teams with folks that can do an end-to-end delivery, to get you an MVP, to show what we're doing for a problem.

Instead of people just coming up with possible solutions or thinking through ideas and proposing them and handing them back to the business, we actually develop something for the business and hand that off, before it goes in to accelerate in the core.

From a staffing perspective, we tend to hire a product manager that knows our business. These are usually people who are inside the company that have a little forward-thinking view.

We hire a lot of external folks that may have a specific technology bent or a specific skill-set, such as having experience in AI or data modeling or in blockchain or digitization of businesses.

We've had people working in the videogame industry or working at a design company...[they] come in and actually pair with our internal product manager. We get better solutions and new solutions that way. We find that we work best that way.

At a corporation, it's important to have something that looks and feels like a lab. What I'm seeing, though, is the look and feel of the labs are starting to spread amongst [other] floors around here. The labs are coming into the corporate space.

LAUNCHING WITH A HACKATHON

What we try to do in each location is launch [with] a hackathon. Some may read that out there as innovation theater, probably. [But] we use the hackathon to raise awareness of how we're looking to attack a problem, a new way to do it.

What it did is it engaged the firm, because we did these 48-hour hackathons, where people presented in front of senior execs what their possible solution is, but through showing [instead of] a PowerPoint.

We had senior management coaches come in, and they were so impressed with what could progress over two days of this way of thinking, and the dedication that the staff took to do this. It raised awareness...that was the benefit.

"We wanted to staff our teams with folks that can actually do an end-to-end delivery, to get you an MVP, to show what we're doing for a problem."

Now, did it get to actual solutions? We carried probably one or two of these forward, but it's not as good as a design-thinking session specific to a problem for a business unit. We found that that actually provides more intel and better solutions.

The biggest lesson we learned out of the first hackathon, and we actually implemented [this] in the Toronto hackathon, is you have to have a follow-on [with the winning idea] after that. You have to give the people who won the capabilities to actually continue to explore their ideas.

You can time-box it and give them re-

sources, but if it's just a good idea and you expect the businesses to pick it up, I think you have to realize that it takes time to nurture that a little more before a business will pick it up.

We actually got commitment up-front from some businesses, for the second hackathon, to help with that. That's the one big lesson I learned.

FOCUSING ON MIDDLE MANAGEMENT

I've found, at Manulife and John Hancock—by the way, these are my opinions and not Manulife's—the senior level and the exec level were very supportive and were willing to come to the table and be [supportive] of this. The grassroots were very promotive, too. It's that middle management that we're trying to get buy-in [from.]

What I found works best is, you find the people who are actually out there to help and like these sort of things. If you use those as your advocates to start, it will then spread to the other managers, call it the middle-management layer, that are skeptical of what the new way of looking at things will be. I found that to be the best practice at a large firm.

Just work with the people who actually believe in it from the get-go.

CONTINUOUS DELIVERY AND DEVOPS

In the labs, we don't only experiment [with] new technologies or new ways of thinking, but also new processes on how to deliver software.

When I think about DevOps, I think about the words continuous delivery. [The goal is] to get into more of an Amazon-type model, but bringing that to financial services. There's new technology stacks out there... DevOps is allowing you to continuously integrate those solutions, versus a long, manual integration process. [DevOps seeks to create better communication and collaboration between software development teams and IT operations teams.]

DevOps is transforming teams into small, lab-like teams that can deliver on core capabilities and continuously improve on them.

[When] we experimented in the labs, we used a company by the name of Pivotal [to help deploy this approach.]

What I did is actually assign some of the guys I know and trusted at our firm, and sent them away to this lab experiment at Pivotal—it was a 14-week exercise—and said, "Hey, just live and breathe their DevOps process, and then figure out, will this work in an enterprise?"

We had to take their process and bring it back in, but we had to modify it for a 35,000-person company, versus their labs, where they're focusing on maybe 20 people. It was a challenge, but I think we have come to a point now that we've started rolling this out globally, and it's starting to get traction.

PARTNERING WITH ACCELERATORS AND UNIVERSITIES

[The accelerator program] MassChallenge has been a great partner. We've been able to give our brand [more] awareness around the Labs of Forward Thinking, as well as John Hancock. Because, quite honestly, to recruit talent, just going out as John Hancock is pretty tough because we're a 150-year-old insurance firm. We're not looked at as quite innovative and forward-thinking. This actually allowed us to open the door, to have those conversations, to recruit some talent...as well as facilitate [our employees] coaching the MassChallenge startups.

We have similar partnerships in our other regions. In Toronto, we use a place called MaRS. In Singapore, we work with universities such as INSEAD.

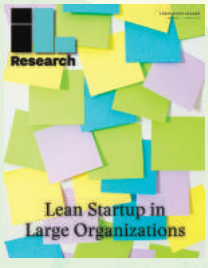
'DON'T BUILD AN IVORY TOWER'

What you don't want to do is create an ivory tower, where [your people] are responsible for innovation—and nobody else is. We learned that over the first year... We want the whole company to be thinking about [innovation] and not just saying, "Hey, they got it in those labs." You need to bring folks along. We've developed programs where we cycle in people from the businesses and technology areas to help facilitate, [and we do] train-the-trainer type of stuff.

We actually ask folks to self-select when they come in [to the lab] with a problem from their business unit, so we'll help them. We'll train them on a problem we're trying to solve, and then also facilitate helping solve their problem with new technology... You'll find that people who self-select in are actually, really, more passionate about it, versus, "Hey, you have to go to the lab to do this." ●

TO SEE THE SCHEDULE OF UPCOMING INNOVATION LEADER LIVE CONFERENCE CALLS, VISIT WWW.INNOVATIONLEADER.COM/IL-LIVE

RESEARCH
THAT MATTERS TO YOU



Innovation Leader publishes in-depth quarterly special reports on a range of topics suggested by our members. Past reports have dealt with compensation for innovation and R&D executives; metrics; program benchmarking; the lean startup methodology; business unit relationships; hiring; and connected products. Up next: best practices in scouting emerging technologies and consumer trends, and remaking the R&D organization.

www.innovationleader.com/research/

Can 'Business Minds' and 'Creative Souls' Get Along?

INTERVIEW BY **SCOTT KIRSNER**


Carol Miller

Many people think of American Greetings as a purveyor of greeting cards and party goods, but as Carol Miller describes it, the company is in the "meaningful connections" business, helping people maintain relationships and express themselves to family and friends.

Miller's role at American Greetings as Vice President of Innovation is to define a centralized innovation strategy for the privately-held company, which is based in Cleveland. She oversees a team of about 35 people, plus a handful of freelancers and contractors—a group that effectively serves as the company's R&D arm, honing in on consumer needs and creating new products or experiences to address them, before handing things over to the business units.

On a recent IL Live conference call, Miller shared ten tips for getting business-side people and creatives to work together more productively.

"Many companies," she told us, "will initiate a project and the business folks will do their thing. They [assess the] consumer need, [develop] the insights, and strategy, and marketing objectives, and financials, and [create] a sales strategy... Then they bring it to the folks who've been trained in creative. They expect those creative folks to execute on the business person's stated objective."

"What we have learned and heard from everybody is that is a huge mistake," she continued, "because it doesn't leverage the capabilities and the skill sets of both parties at the onset of a project."

OUR MISSION

The current position that I am very fortunate to have [at American Greetings] is to work with a cross-functional group of business, creative, and technical folks from all over the world. Our job is to work with the individual business unit leaders to help them define and then to actuate their innovation agendas.

A large part of what we work on is focused on new products and experiences that surprise and delight, which is, of course, a consumer need that we identified many years

ago. It helps consumers to meaningfully connect with one another.

Our mission is focused on new products and experiences that are two to three years out. We're looking at more of the late-stage, game-changing initiatives that are going to turn the industry on its head, in order to make sure we're ahead of those and that we can embrace them, in order to build on our purpose, which is to make the world a more thoughtful and caring place.

Back in the day, when Facebook first hit the market, we had identified that...there was a lot of social sharing that was occurring.

Now, with Snapchat and Instagram and all the other companies that are out there—all of these guys are out there creating platforms for consumers to take content that they create and to share with one another.

When you think about our category, which is primarily greeting cards...there really was no way for people to share with one another in the digital world, how they felt in receiving the greeting card.

Currently, you receive a card, and you'll take it, and you'll stick it up on your mantel. If you receive it in the office, you'll put it on your desk for a while. It shows that you're loved, and that people care for you.

On the Internet, there's no real way to do that, so we started working [on new kinds of products that people would hold onto and display.] We're actually celebrating our 10th anniversary here, in creating a pipeline of innovation.

[What we began developing were] all those greeting cards that you see out in the marketplace that sing, and dance, and wiggle, and move, and walk, and there's parts of them you can eat, they're just highly-interactive cards that are surprising and delighting. Those cards were all informed by consumer insights, foresight, and trends work that we had done right when Facebook first launched.

We have built on that particular innovation in the marketplace and continue to do so. We've got well over 200 new products that we have now launched and have patents on in the last 10 years alone.

METRICS WE USE

We're internally a functional unit. So like accounting, or lawyers, or our creative department, we provide a service to the business unit...We're basically R&D.

We have funding to do the consumer ideation, solve for those consumer needs, and then come up with solutions. There's not any hard-core metrics, other than making sure that we don't spend over our budget...

It's all about the new products and experiences that we can deliver to the business unit, and then the business unit has the actual metrics on a quarter-by-quarter basis that they need to deliver on, [typically] sales.

EVERYONE IS CREATIVE

When you take groups of people and put them in buckets, it tends to come across as stereotyping — "business people are like this and creative people are like that." That's not what we're intending to do.

We look at the definition of creative as being very different. Everybody is creative. We, here at American Greetings, are all trained in creative problem-solving and creative thinking.

For example, someone who is an illustrator is creative. Somebody who is a financial analyst here is creative. Somebody who is a writer here at American Greetings for greeting cards, they're creative. Then we have people who work on strategy for the company, and we consider those folks creative, too.

"Get yourself out of the building. You'd be surprised...how that unleashes creativity you've never seen before."

TEN TIPS

I have my own opinions about how creative souls and business minds can work together productively, but I also surveyed over 35 individuals within American Greetings, and outside of the company, across a bunch of different disciplines in order to get a well-rounded perspective. These are my tips.

1. Deeply understand and embrace your differences. Business folks tend to think very linearly—more like bullet points and in straight lines. Whereas, creative folks think more in pictures, and more in curvy lines. Yet both equally understand whatever the challenge is that they've been given, and what

the required output is in order for [the] unit to be successful.

I think an example of that is a business person will come to an hour-long meeting. They'll be on time. They have an agenda. They'll be very focused on a task at hand. They'll [have] very clear and specific deliverables when they leave the meeting.

Then, across the hallway, over that same hour, you have a group of folks trained in the creative skills. They may start a little early. They may end a little late. They're less sensitive to time constraints. They'll start the meeting by chatting about friends and family, and all their work projects, and also the challenge in front of them.

Yet, at the end of that hour, they would have accomplished the exact same task as the business folks.

"The business folks shouldn't tell the creative folks that it should be blue, and the creative folks shouldn't tell the business folks what the percentage of margin should be."

We also found that the trained business folks had jobs that had a tendency to define who they are... They start a conversation with a stranger around a work topic. Whereas, someone who's trained in a creative discpline might chat about their hobbies or their passions...

What's interesting about it is that it's important to recognize that [both types are] creative, but how they approach the problem that they've been given is often dictated by their education, their work lives, and skills. That provides a challenge to a lot of companies, a lot of individuals.

How do you take those two very, very different styles and map them together on one team, in one room, over one hour, and not have everyone leave incredibly frustrated and confused, and not delivering on the project?

If you're going to have the opportunity, [I] highly recommend [matching] up business and creative folks, and really spending a lot of time deeply understanding what drives them. Deeply understanding who they are, what they're about, and what their key emotional motivators are. It's going to help tremendously [in the] longer-term in being able to accomplish whatever [challenge] you have.

2. 'Dance from Day One.' Many companies will initiate a project and the business folks will do their thing. They do consumer need, the insights, and strategy, and marketing objectives, and financials, and a sales strategy, and so on and so forth. Then they bring it into the creative folks. They expect those creative folks to execute on the business person's stated objective.

That is a huge mistake, because it doesn't leverage the capabilities and the skill sets of both parties at the onset of a project. Based on my 16 years here and everybody that I've talked to, we can promise you that, no matter the project, you'll be 10 times more successful if you partner from Day One on the project.

If you're a business person and there isn't a creative person on a project that you're on, proactively go find one, two, 10. Bring them in the best that you possibly can, maybe even getting their opinions before work or after work, depending on the challenge. If you're a creative person, vice versa.

When you take business minds and creative souls, and you put them together in a challenge from Day One, and you immerse both of those disciplines in every aspect—from understanding the challenge to ideas around the challenge, and then solving for it from a commercialization standpoint—the value that the combination of those can bring is really priceless.

Here at American Greetings, the essence of every single product that we create comes from hybrid genes. There's no business folks passing off a deck to the creative folks. There's no creative folks coloring something and sending it over to business folks.

From the very beginning of the challenge, the business and the creative disciplines are in the room together, and are with one another along that entire journey.

3. Get to know one another. That sounds kind of weird, but I mean really get to know one another, so on a personal and professional level, you have complete transparency.

Oftentimes the relationships start to grow with your fellow coworkers and associates once you've been there for quite a long time.

Grab the one person or the 20 people, and find some place for you to go and to spend quite a bit of time. You've got to be patient with it. It may be a day, or it might be multiple times throughout the project, depending on the length of it.

We're all people, we're all humans. We're all driven by happiness, laughter, and love—that's what we say here in American Greetings. So really getting to know the people you're working with is key.

4. Role clarity. It's [very] important. Understanding, very early, alignment as to who does what. Sometimes creative people speak a creative language, and business people speak a business language.

It's really important to make sure that however each individual communicates, that you all have a clarity for both. In order to be successful, you're making sure that the business folks aren't telling the creative folks that it should be the color blue, and that the creative folks aren't telling the business folks what the percentage of margin should be when we sell it into our customers.

Make sure you have role clarity.

5. [Get] alignment on project objectives, how both parties can be successful, and what success looks like. What we mean by that is, success looks very different for people who are trained in different skills.

For a business person, success might be the sales numbers that happened because of a new product or experience that you sold. Whereas success for a person who is trained in the creative skills might be working with a new material, or a new manufacturing process, or perhaps being able to go to a new place to do ideation, or to learn a new skill.

It's really important to understand, if you're working with different disciplines, what their key driver and motivation is, because then it'll help you define the roles. It'll help to bring clarity to the project objectives, and each party will find themselves as successful participants on the team.

6. Mix it up. You have a tendency to get a group of folks together that create magic, and then you keep that group real tight because you think they can continue to create magic forever and ever.

Our recommendation is to mix it up, meaning to make sure that with every new project, you bring on new creative disciplines and new business-side individuals in order to keep it fresh.

[Otherwise,] you'll start to have groupthink—you'll talk alike, you'll walk alike, you'll do everything the same, and then the creativity and innovation you're looking for will just disappear. It's real important to mix it up.

7. Timely and honest communication. Sounds cliché, but there's a weird universe of language disconnect that occurs between business and creative folks. Make sure that you ask a lot of questions—clarifying questions that will help make sure you're having open, honest, and timely communication.

8. Mix up the environment. Get yourself out of the building—go bowling, play cards. Disrupt the environment to make it relaxing and freeing. You'd be surprised, when business and creative folks go out and do that together, how that unleashes a level of creativity in both disciplines that you've never seen before. So get out of the office the most that you can.

9. Share in success and failures. Share all the results: the consumer input, the financial results, anything you hear from internal stakeholders, customers, whatever that might be. Share in those results and failures.

10. Have fun and laugh a lot. Intentionally do goofy things. We do that all the time here at American Greetings in order to lighten the atmosphere.

If you take a Nerf Ball or a Nerf Gun and you shoot someone, it might just lighten up the mood a bit, and everybody will have a lightened spirit in order to ideate and solve for the challenge in front of them.

Because, you know, inventing stuff is hard. It's really hard, but it can also be super-fun if you have the right environment and the right people. ●

TO SEE THE SCHEDULE OF UPCOMING INNOVATION LEADER LIVE CONFERENCE CALLS, VISIT WWW.INNOVATIONLEADER.COM/IL-LIVE

Lucia Chierchia Gets Electrolux to Open Up

INTERVIEW BY **SCOTT KIRSNER**

Lucia Chierchia is the Open Innovation Director at Electrolux Group's Global Technology Center in Bologna, Italy. Electrolux sells home appliances under the Frigidaire, Electrolux, and Tornado brands; its 2016 revenues were $14 billion.

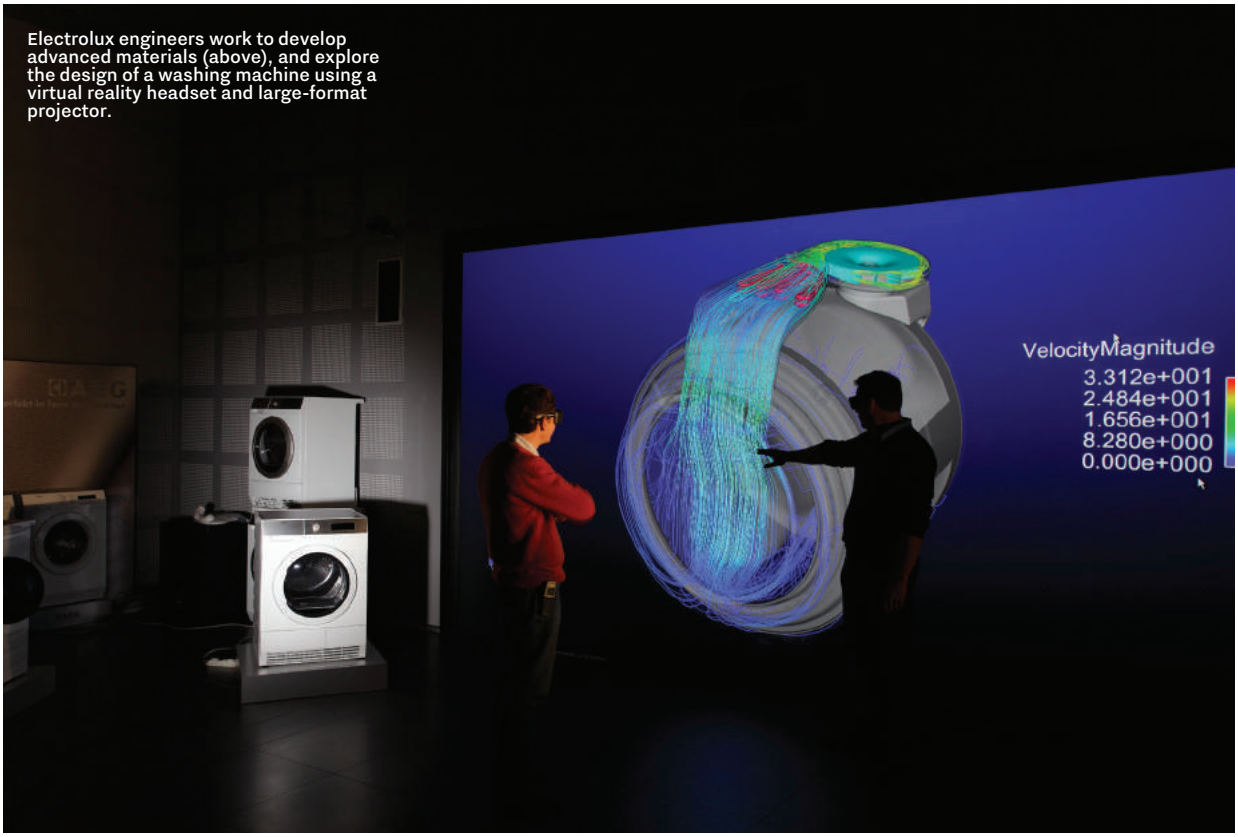
Many companies say that they do open innovation—"we work with suppliers, customers, and universities." To us, that is normal innovation. We think the challenge is to reach the hidden innovators. They can live in technology or business sectors that are very different from us, like biomedical, aerospace, or the military. They may be very small companies, or even garage inventors.

Everybody in Electrolux is our customer, since they are all looking for innovative solutions for their business, though they have may different priorities. Human resources is my customer, which is different from manufacturing or R&D. They have to define where we should focus, since we can't scout for everything. We sit down with them, typically on a quarterly basis, thinking about what their needs are going to be one year out, all the way to ten years out.

Sometimes my colleagues know what they want. They have questions or specific problems, and we create a targeted [open innovation] challenge. But if you're not specific enough, you can inspire people, but you receive thousands of ideas, and very few are relevant. That can create frustration on my team, which has to screen a lot of ideas, and it can create frustration outside the company.

Over the last two years, we've created an open innovation ambassador program within Electrolux, to create some expertise on open innovation processes, mechanisms, and methodology. That helps reinforce the connection between my team and the departments who are our stakeholders. We now have more than 100 ambassadors, and they can manage challenges on their own.

Focusing our work and bridging into the business are both very important, and two areas for improvement. The bridge step into the business is important; otherwise the risk is that ideas can die. ●



Electrolux engineers work to develop advanced materials (above), and explore the design of a washing machine using a virtual reality headset and large-format projector.

What are the THREE MOST IMPORTANT Jobs of a CEO?

By Doug Hall
EUREKA! RANCH

Recently, as I prepared for a meeting with a business unit, I found myself reflecting on my most important jobs as a leader.

The more I thought about it, the more I realized how much the job of a CEO has changed over the past 10 years.

As I see it, these are the three most important jobs of a CEO today.

1. Make strategic decisions on where the organization should go

In the old world, a CEO did this by reviewing what the "strategic planning" team developed. The leader's role was primarily to "react" and "approve" the plan, not to author it. The strategic plan itself was high on numbers (metrics to hit) and low on narrative. The assumption is that if people were given a numeric goal, then they will make it happen.

In the new world, a CEO works with other company leaders to define the company strategy and writes a strategy activation document to inform and engage employees. In the military this is called the Commander's Intent.

Just as in the Canadian, US, and NATO military, the business leader of today personally writes the strategy in her or his own words. They don't delegate it. Strategy activation is so important that the CEO of today must make time for it.

Strategy activation documents are high on narrative and light on numbers. What I mean by this is it explains in a motivating way where we need to go

and why we need this change in direction, or why we are doubling down on the existing strategic plan. There should be no more than three strategic missions from the top of the organization. This means the CEO makes real choices on what we are going to focus our limited resources on.

In addition to defining where we are going, it sets clear strategic and tactical boundaries on what is and is not aligned with the strategic mission.

Importantly, it defines a clear direction without being too prescriptive. After reading it, any level of employee can understand the company's situation and leadership's game plan for winning in the future.

2. Give power to my people to help them achieve the strategic mission

In the old world, this was done using a modern version of the Henry Ford assembly line. A team of middle managers create a detailed plan for who is going to do what. Then, the tasks are assigned to each department, sub-group, work team, and individual. Each is to do their task as defined—just as the immigrant worker in a Ford plant did the handful of tasks he was assigned to do on each Model T. This works if the plan is brilliant, detailed, and there are no interactions between the tasks (or surprises along the way). Given that this is rarely the case, failure is more common than success.

In the new world of business, our job as CEO is to enable our people to do great things. To give them the clarity of mission, tools, and training to create and execute the best ideas for accomplishing our mission.

Those close to the work have the greatest knowledge today. A retired Army officer, educated at West Point, told me how the complexity of today's technology requires us to enable and rely on our people. He said, "Today's technology is changing so fast and is so specialized, there is no way I can understand what my front line troops can do. As an officer, I need to set the commander's intent then listen and learn from my troops. If they've been trained properly and have the right resources, they will be far smarter on how to execute than I ever could be."

3. Be the company's system zealot

In the old world, our job was to beat up on people who failed. Sadly, many times we'd fire the Chief Innovation Officer and hire a new "guru," only to end up with the same lack of success.

In the new world, as a CEO, our job is to focus our energy on the system not the people. We focus on upgrading our fundamental Innovation System—our process for creating, communicating, and commercializing ideas.

Recall Dr. W. Edwards Deming, the architect of the Japanese "business miracle" after World War II, who taught us that 94 percent of the problem is the system, six percent the worker. When we improve the system, the problem is vaporized. When we improve the system, we work smarter not harder.

Our quantitative research on over $14 billion dollars worth of innovations, from idea to market, has found that if we want to increase speed and decrease risk with innovation, the most important innovation systems are for 1) ensuring alignment, 2) creating innovations for products/services/systems/business models, 3) clearly communicating innovations, 4) accelerating innovation projects (commercialization), 5) conducting rapid market research, 6) collaborating inside and outside the company, and 7) leveraging patents to build profits.

The best method for accomplishing these seven things is through upgrading the system of thinking within our people's brains. Training employees enables them to work smarter, faster, and more creatively.

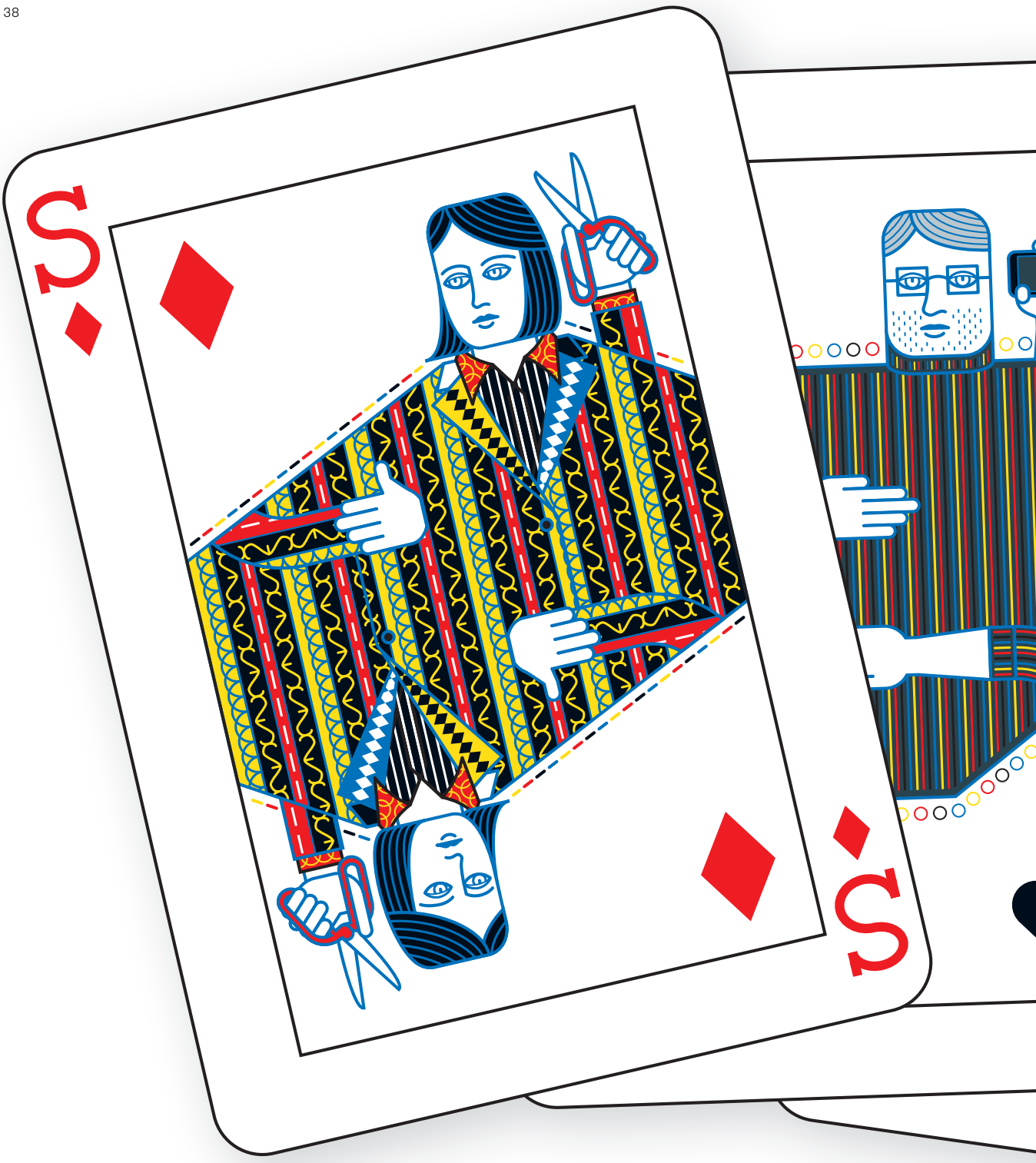
Importantly, training is not "one and done." To really educate employees, we have found that a Cycles to Mastery approach is most effective. It's a sequential training of online digital classes on each skill, hands-on lab and application classes, and coaching on real-world experiences. Interestingly, Chief Innovation Officers are telling us that 70 percent of the learning is in coaching employees as they apply what they've learned in their work.

Sadly, most companies don't invest in their people. They expect employees with old methods, mindsets, and work tools to compete against start-ups and international competitors who are working with a different mindset and toolset.

From my perspective, the three most important jobs of today's CEO are to make strategic decisions for the future, give power to our people to help them achieve the strategic mission, and to be a systems zealot.

How do you feel the role of the CEO has evolved? What are the most important "jobs" of a CEO? Drop me a note at the e-mail below.

DOUG HALL IS FOUNDER AND CEO OF THE EUREKA! RANCH (WWW.EUREKARANCH.COM). THE RANCH TEAM'S SPECIALTY IS HELPING LEADERS UPGRADE THEIR INNOVATION SYSTEM CAPABILITY VIA TRAINING, TOOLS, AND COACHING IN THE INNOVATION ENGINEERING METHODOLOGY. HALL CAN BE REACHED AT DOUGHALL@EUREKARANCH.COM.



Big Bets & Bluffs

WHAT CEOS REALLY THINK ABOUT INVESTING IN INNOVATION. INSIGHTS FROM UPS, MARRIOTT, ALPHABET, STAPLES, AND MORE...

STORY BY SCOTT KIRSNER, KAITLIN MILLIKEN, AND SCOTT COHEN

ILLUSTRATIONS BY L-DOPA

"Did the Uber-Tesla Threat Just Get Ford's CEO Fired?"

"Uber CEO is Pushed Out as Company Tries to Clean Up its Act"

"Target Faces Deeper Financial Trouble as the Company's CEO Takes a Pay Cut"

"A Stagnant GE Will Replace the CEO Who Transformed It"

If you're a CEO reading the headlines in 2017, things aren't terribly reassuring. ♣ Many of the companies above were already investing heavily in innovation—Target and GE, for instance, each had several initiatives focused on working with startups, tapping into outside expertise, and attracting new kinds of talent. ♦ So is the message to CEOs that they should make bigger, bolder bets? Or turn to strategies that are guaranteed to deliver a return, like cutting staff, raising prices, shutting down underperforming stores, and outsourcing non-core operations? ♠ The stock market seems to have plenty of patience for long-term vision and moon shots—as long as your name is Jeff Bezos or Elon Musk. ♥ We wanted to explore how CEOs think about innovation-driven growth—and the costs of investing in projects that may not have a clear payoff. So we spoke with current and former CEOs of companies like Google, Staples, Crate & Barrel, and UPS; a professor, Len Schlesinger of Harvard Business School, who served as COO of Limited Brands and Au Bon Pain; and an author and adjunct professor, Steve Blank, who has been a co-founder and director of numerous public and private tech companies. ♣ Our big questions: what role should the CEO play in fostering innovation? And how can corporate innovators best work with the CEO to identify and pursue sources of future growth? ♦ We also worked with the design firm L-Dopa to create a set of four cards that represent the different roles that CEOs can play, from cost-cutter to innovation advocate. Do any of them resemble someone you've worked for?

Eric Schmidt When You're Trying to Achieve Big Things, You Will Sometimes Fail

Jonathan Rosenberg, left, and Eric Schmidt

ERIC SCHMIDT, THE EXECUTIVE CHAIRMAN OF Alphabet Inc., has deep roots in the world of research and development: He worked at both Bell Labs and the Xerox Palo Alto Research Center, before becoming a senior executive at Sun Microsystems and the CEO of software maker Novell. In 2001, he became the CEO of Google, which he led until 2011.

In 2014, with former Google SVP of Products Jonathan Rosenberg, Schmidt published the *New York Times* best-seller "How Google Works." Rosenberg serves as an outside advisor to Larry Page, the co-founder of Google and CEO of Alphabet, Google's parent company. We pinged them via Gmail—what else?—with a few questions about talent, acquisitions, failure, and moonshots.

In "How Google Works," you define the concept of an employee who is a "smart creative," organized in small teams with the freedom to move fast. Is it possible for established, more hierarchical companies to set up separate labs or divisions to attract and enable those kinds of people and teams? Do you find that CEOs take the talent issue seriously enough in 2017?

Schmidt: Yes, we find that CEOs and other company leaders pay very close attention to their people, both those in the company and those they want to recruit. After all, it's hard to shift a company's culture, but one thing a senior executive can pretty easily do is change how they hire people. In our experience, talented smart creatives want to work for companies where they care about the company's mission and its values, and will have the freedom and opportunity to work on exciting things.

Setting up a separate lab or division can help; at Google we have set up a special program called Area 120, which gives people the opportunity to pursue new ideas with small teams in an entrepreneurial environment, without having to leave the company. We also have spun off companies like Waymo and Verily to pursue big visions in businesses separate from Google's. So we have had success with the approach of creating separate groups. But we also strongly believe that the main company needs to be innovative as well, so that it can attract talented smart creatives. You don't want to set up a structure where only the spin-off gets to do cool stuff.

You talk about the Chief Executive Officer serving as the Chief Innovation Officer. Can you explain what you mean?

Rosenberg: We think that innovation isn't something that should be delegated to just one executive. You can't have executives thinking, "Hey, innovation isn't my job—that's Jennifer's department." Every executive in a company needs to think about innovation all the time, and that starts with the CEO. At Google we have various teams that may help with innovation, but these are pretty small and are working hands-on throughout the organization. At an exec level, everyone owns innovation!

We dropped by the Google Garage on one of our last visits to Mountain View, for a 2016 Innovation Leader Field Study. As we understood it, the Garage is a makerspace where employees can go to prototype things. Is that a perk, or something strategic?

Rosenberg: The Garage is a space we have where Googlers can go to work on new ideas and projects, kind of a hacker space. We have this long-standing cultural tradition

at Google of 20 percent time, which is the idea that as long as they are performing well in their "day" jobs, Googlers have the freedom to work on side projects of their own choosing. Some Googlers thought that it would be helpful for people working on 20 percent projects to have a place to go, so they could get away from their regular office space. They started by commandeering a couple of cubicles, and eventually opened up the Garage. So the Garage was itself a 20 percent project, and now it hosts them.

The space is important, but what is truly strategic is that anyone can book it, and anyone has the freedom to work on 20 percent projects. People use that freedom to try new things and learn new things.

The idea of 20 percent time has really spread throughout the Fortune 500. Not many are actually doing it, but they realize that they probably should be giving employees some dedicated time to come up with new ideas. What advice would you give about creating a policy that works?

Rosenberg: In practice, 20 percent time at Google is more like 120 percent time. People feel so passionate about something [that] they put in the hours when they can, on top of their normal work schedules. There is no funding or special compensation, and we don't officially track progress. What matters is [they] know the company values their pursuits.

That said, 20 percent time is such a cultural staple at Google, we're not sure how to start it from scratch in an ongoing business. Probably start with a product team—engineers and designers—and let them know that it's ok to tinker in their spare time. Then give them some resources to do so—a lab, a dedicated space, whatever information and computer resources they may need. Then *don't* manage it! And see what happens.

The idea that companies need to "celebrate failure" (or at least de-stigmatize it) is now part of the lexicon. What have you learned about how to do that, and to make sure people learn from failures, since the book was written?

Schmidt: We don't celebrate failure. It's not something we strive for. But when you are trying to achieve big things, you will fail. You have to accept it, learn from it, salvage what you can from it, and move on without stigmatizing those who participated. In fact, people who have failed are usually more valuable as a result.

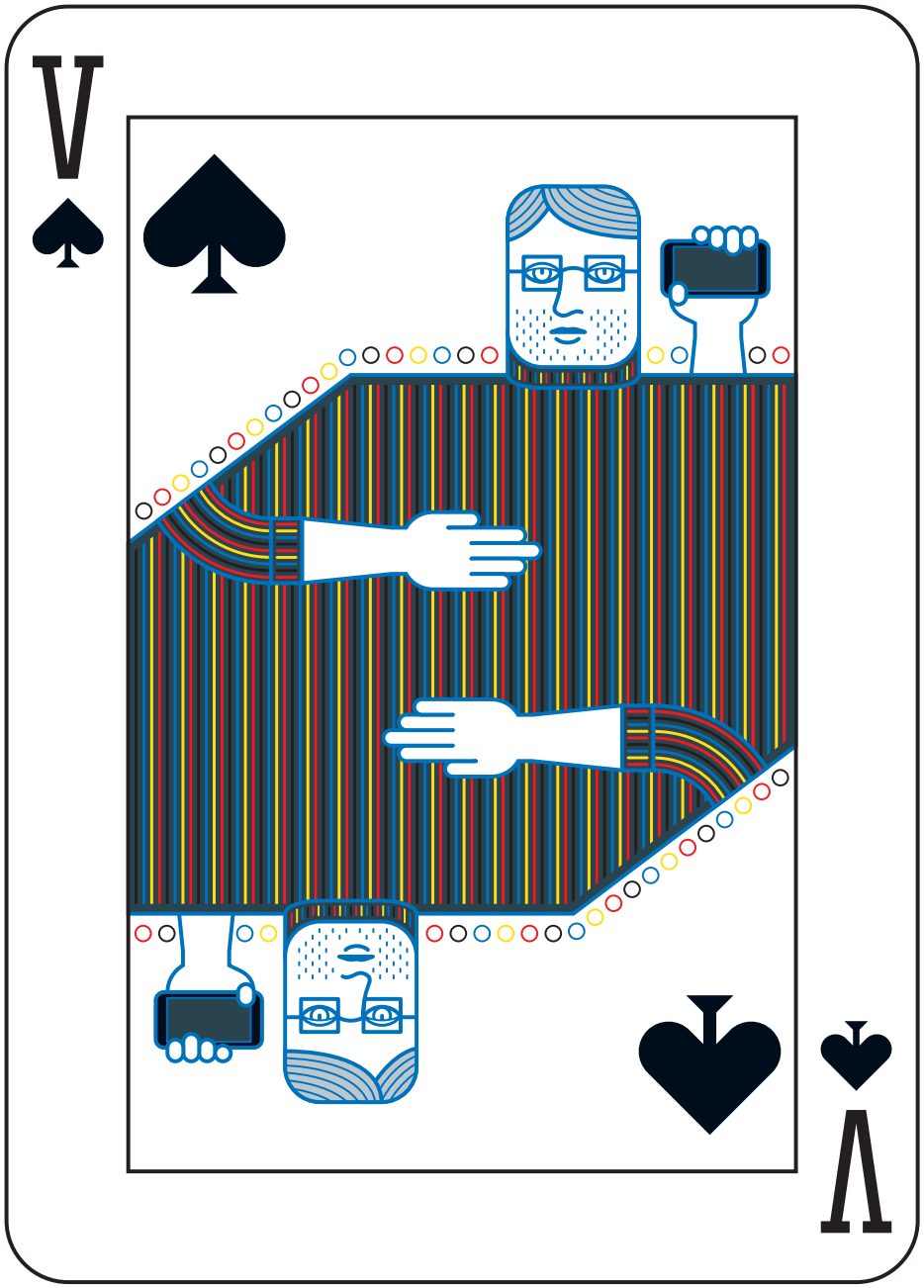
This becomes harder to do as you invest more money and resources in things. It is much easier to kill a small project in its early days than it is to kill a bigger project with more people on it, even if they are both destined to fail and even if the bigger project will in fact lose more money. Google X has an interesting approach: they set well-defined milestones, and only proceed as long as they fail to fail. Too often, people on risky projects look for signs that they are succeeding, and use those as cues to proceed. By making it your objective to fail, and then only proceeding when you fail to fail, you can turn this calculus on its head.

Many companies see the value of investing in traditional R&D organizations. X, the "moonshot factory" that is part of Alphabet, feels like something different.

Schmidt: X is a business lab, not a technology lab. Its mission is to invent and launch new "moonshot" technologies that can make the world radically better. Note the "and launch." So they set out to achieve ambitious things and try what may seem like crazy ideas and technologies, but they ground that in business reality. This doesn't mean they are driven by financial objectives, but it does mean the idea needs to have a feasible way to make money as it comes to fruition. If it doesn't, then it probably isn't that valuable.

Many companies prefer to buy innovative startups or rivals rather than building things themselves. Google has a track record of doing both. But what advice would you give about the importance of building up that internal innovation or R&D "muscle," rather than only innovating through acquisition?

Schmidt: The acquisition process actually helps you build that R&D muscle. At Google, acquisitions are usually initiated by product teams, who have identified a company with technology or resources they think fits into their vision for a product. So the acquisition process becomes an excellent opportunity to thoroughly review that vision. Are we thinking big enough? Are we building things based on our own unique insights? If the vision, strategy, and plan are sound, and it's clear that the acquisition bolsters them, then we proceed. But sometimes this discussion illuminates issues with our approach that we wouldn't have discovered otherwise. So we look on the process as another way to test our approach.



The Visionary

The Visionary sees himself as the source of all innovation, and doesn't worry about getting too deep into the weeds when new products and services are being designed. The upside? Everyone at the company knows innovation is a priority. The downside? Listening to him repeat the same Steve Jobs anecdotes over and over.

Shira Goodman Let the Best Opportunities Rise to the Surface

IN 2016, SHIRA GOODMAN TOOK OVER AS CHIEF executive of Staples at a challenging juncture: a plan to merge with Office Depot had been nixed by the Federal Trade Commission, and the 30-year-old company was under extreme pressure to shift its business quickly from retail stores to online sales.

That urgency remains, but Staples was acquired by a private equity firm, Sycamore Partners, in mid-2017, taking the company out of Wall Street's quarterly pressure-cooker.

How do you divide your time when you think about growth?

Personally, I am a big believer in [McKinsey's] three horizon approach and talk about it a lot within Staples. For our business, Horizon 1 is facing real-time challenges—specifically secular decline in our historic categories, like paper and ink, and a channel shift from traditional retail to e-commerce. While we are doing a good job of adapting in these areas, it increases the importance of Horizons 2 and 3. Horizon 2, our mid-term growth, is where I spend the majority of my energy because we need to get the flywheel going there fast.

Spending so much time on Horizon 2 has taught me the importance of focus. There are a lot of great ideas out there. But as a company, we need to focus on a few to get scale, and then utilize the advantages of that scale, which we're doing by focusing on our Pro Categories like Facilities, Breakroom, and Technology.

Finally, I find that not over-managing Horizon 3 works. We have good people and processes in place to fuel creativity. It's my job to give them the time and space they need to innovate and let the best opportunities rise to the surface.

Are there new positions or structures or processes you've created since becoming CEO in 2016 to help Staples be more aggressive about innovation, enter new markets, or find new sources of growth?

We've recently opened [digital and software development] labs in several different geographic areas, including Cambridge, Seattle, Silicon Valley, and Vancouver, so that we can source tech and digital talent more broadly. To further streamline and drive innovation, in the past year we combined our legacy IT and e-commerce experience organizations into one combined entity—Staples Digital Solutions—so we can more rapidly bring products to market.

We've also created an applied innovation group, which delves deeply into customer needs and surfaces relevant solutions to their problems. The standing meeting I have with them is one of the best hours of my month, as it shows me the types of innovation we're capable of. This group was the originator of our Staples Easy System, a digital platform that makes it easy for office managers to order from and interact with us.

Are there new types of talent you're trying to bring into the company?

Our focus on B-to-B customers has put an added emphasis on e-commerce capabilities, and our labs have been a great way for us to attract top digital talent. But it's not just focusing on designers, developers and product managers—it also starts at the top. We have made it a point to hire folks who have a passion for innovation—like our Chief Technology Officer Faisal Masud, and new Chief Marketing Officer Michelle Bottomley. ...Having the right people in place is critical when you're transforming an iconic company like Staples.

Arne Sorenson Don't Try to Failure-Proof New Ideas

ARNE SORENSEN BECAME CEO OF MARRIOTT International in 2012—the company's first leader from outside of the Marriott family. In 2016, Marriott acquired rival Starwood Hotels and Resorts for $13 billion, creating the world's biggest lodging company.

The comments below are excerpted from a conversation Sorensen had with Innovation Leader members at a June 2017 event at the company's headquarters in Bethesda, Md.

Integrate, Don't Separate I think in years past, we didn't necessarily use the word "innovation." We used a sort of skunkworks team, a strategic planning team, or some group of folks who came out of consultancies. We'd say, "We want you to go off and come up with the brilliant ideas that are going to take us to a promised land in the future."

I think our experience at Marriott was, that was not a good approach.

To separate the strategic thinking, the big thinking, the change thinking—in today's words, the innovation thinking—from folks who are responsible for running the business actually made them less effective. It also made it too easy to reject the ideas, because they were coming from outside. They were coming from some place that wasn't really part of running the business.

We got rid of it because Mr. Marriott has this point of view...[that] all of us need to be engaged in a constant effort to say, "OK, what are the new ideas?" It's not [only] my responsibility as CEO. In fact, just the opposite. If you were dependent on one executive for coming up with the bright new ideas for the future, most companies would fail.

Instead [we focus on], where are the experiments being done, how do you make sure you find those experiments, how do you elevate them so [you] can figure out which ones are succeeding and which ones are not? How do you get enough conversation going so you can decide which one of those many experiments are worth pushing out faster?

We have an advantage in some respects. We have about 6,000 hotels, and in a sense we can look at each hotel as a living lab. Now, each hotel is not going to solve what we're doing with the global loyalty program for example, because they're not set up to do that. But they can experiment around food and beverage, or they can experiment around service initiatives, or they can experiment around mobile services in a hotel. Or, they can come up with ideas about a different approach to the front desk.

How do you tap into those living labs and say, "What's working and what's not working?" How do you [give] permission in the organization, to say, "You've got the power to go experiment, and then we can figure out which experiments are working"?

If people are going to have permission to innovate, they have to have permission to fail. Otherwise, they're taking no risk.

That is the challenge for any big company—we are big organizations, and nobody wants to fail. [Everyone] wants to be the one who has rolled out the successful idea. Which means that too many ideas that seem to be on the edge can get nipped early. Or if it survives, they get analyzed to death. They get structured to death so that somebody can roll it out and say, "I know when the rollout happens it won't fail."

You've heard of the Heavenly Bed from Westin? Starwood, which is now part of Marriott, came out with the Heavenly Bed, in 1999. It was the most basic, brilliant idea, which causes everybody in the hotel industry

to say, "What on Earth were we thinking?" We sell a night's sleep, but we weren't focused on any aspect of the bed, other than making sure it was indestructible. It's slept in all the time, and we wanted to make sure the mattresses lasted forever, that the sheets lasted forever. Remember those old floral bedspreads? They were indestructible. So, here this brilliant idea [of the Heavenly Bed] comes up. The rumor is that at Marriott somebody had that idea, and it got killed in the organization.

Somebody said, "No, no, no. We want indestructible beds." The organization essentially prevented that idea from bubbling up. Now, Westin rolls out Heavenly Bed. Marriott comes up with our own new bed frame within two years [of that]. Barry Sternlicht, he's still [CEO] at Starwood, calls me, and he says two things. "Your bed's better," and, "It's in more of your hotels than it is in Westin hotels." That was the execution; you can in fact catch up. We didn't innovate that idea. But we rolled it out quickly and much more completely. We spent about $40 million of our own money to incentivize the owners, who pay for bedding, to get the beds out quickly.

Moving Into a New Headquarters We've been in this building since the 1970s. We are in a soul-sucking suburban office park, which is 100 percent dependent on the automobile. A big chunk of our workforce says, "That's not the relationship I want to have with the place I go to work." We were aided in the fact that the lease here is expiring, and it would cost as much to renovate this building as to build a new building from scratch.

So why wouldn't you go build something which will not be walnut paneling, gilded, and all the rest of it? But it will be space which has floor-to-ceiling windows, because we all love natural light. It will have spaces where we can work with each other. It'll have all the places that we all now have been taught that we need to have, which is an espresso bar at every turn, and a place to have cocktails at the end of the day. You can get there by public transit. It'll be an experience which is so much better than this one. We're going to have a hotel at the headquarters building. One floor will be nothing but sample rooms, so you can try every one of the nice beds.

Tech Changes Ahead Frequently, we think about technology first when we think about innovation. There's a little bit of a danger in that, because it's not only technology [that drives innovation.] We will, in every hotel room, have a big, smart TV. Smart, in the sense that it will connect with the device that you have with you, so that your content can be played on that 55-inch TV in your room [and be] highly intuitive.

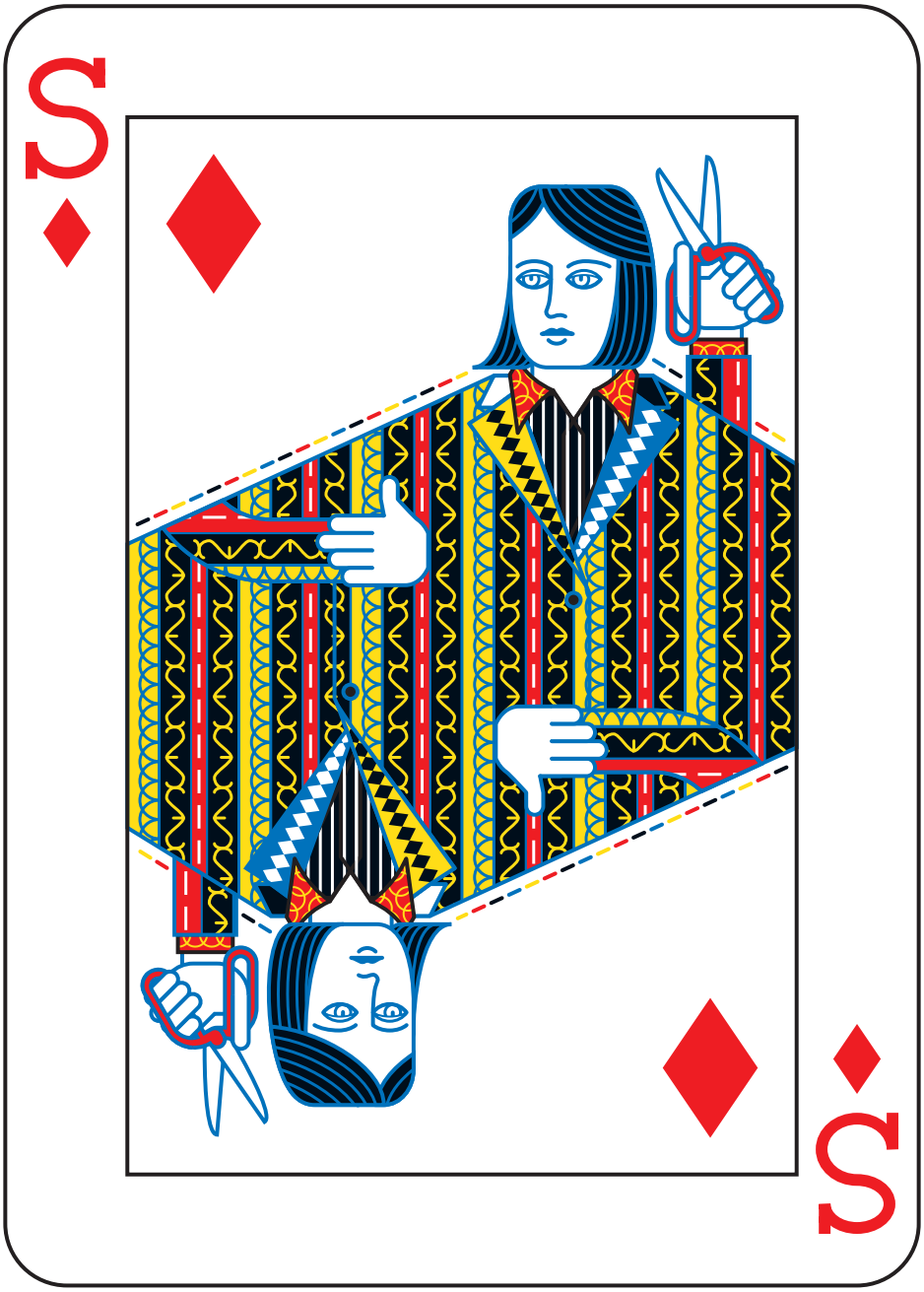
We will have technology that allows you to influence your relationship with the hotel, with your phone. That means clearly opening your door, and not needing a key. It means being able to communicate with the hotel with your own phone, as opposed to the phone that's by your bed.

There is a broad trend, which is driven by all of our desire for authenticity, towards a much more locally-intense experience. I want to know when I wake up in Washington, D.C., without going out and looking out the window, that I'm in Washington, D.C. How do you pull that through in food and beverage? How do you pull that through in the design of the guest room? Washington, D.C. and Baltimore may not be that different, but Washington, D.C. and Paris ought to be dramatically different. For a big company, that's a harder thing to do. It really means you've got much more variety. You have to let go. We'd be buried in cost if we tried to drive all of that out of [headquarters] and say, "Here's the model for this city, here's the model for this one, and here's the model for this one."

How I'm Changing My Approach One [way I'm trying to change is] to be less of a control freak. This is still something I'm learning. There are times when I will see [that] we've publicly announced something which I'm reading about for the first time in the press. My reaction five years ago would have been, "Why the hell didn't I know about that?" Today it is, "Yeah, that's interesting. Let's see what happens."

I think that's not just something that I need to learn. I think it's something that the headquarters team needs to learn, or the experts in a discipline who say, "I run the loyalty program. Therefore, everything that the loyalty program does, I want to control." That's a trap.

Unraveling the Conglomerate Our 90-year experience was to go from being in one business, which was restaurants, to being a conglomerate, where we were in a dozen businesses and where the question from the investment community was, "What new business are you going to get into next?"



The Streamliner

The Streamliner gravitates to new ideas that will cut costs, reduce complexity, or speed up processes. Got a plan to save money by moving terabytes of data into the cloud? Swell. But good luck trying to pitch her your ambitious project to connect with a new customer segment.

... [More recently,] we have been all about going back to one business, which is the hotel business.

We had gotten into cruise ships, senior living, food distribution, theme parks, timeshare, corporate housing, cafeteria management in hospitals and universities, the toll road business. By and large, we would say we weren't good at any of those. We exited them pretty well. ...We got into senior living because we thought it was both hospitality and real estate development management. Well, it turned out it was healthcare. People are regularly dying in your facilities. Not because of bad service or bad management, but because they were at the end or their lives.

We weren't passionate about it. You have to be passionate about taking care of seniors, or you're not going to do what you need to do. If you've got a whole bunch of hotel people sitting in a room talking about the business plan for a senior living community, you're not going to bring the kind of passion that you need to have. We've gone back to this super-concentration on one business, which is all we're in today.

An adjacency, which we've added recently, would be experiences. We have decided [that] we want to be able not just to sell you a room, but we want to be able to arrange in advance for you whatever experience you want in that market. "I want a unique tour of Washington where I go see where all the scandals have occurred in the last 50 years." Or, "I read about a chef in Washington, José Andrés. Can I go to his kitchen in the morning and have a private cooking lesson?" How do you set those things up in advance? We've

HARVARD BUSINESS SCHOOL

Len Schlesinger How Does the CEO Spend His Time?

Len Schlesinger is a professor at Harvard Business School and author, most recently, of the book "What Great Service Leaders Know and Do." Schlesinger has previously served as President of Babson College; Vice Chairman and COO of the retailer Limited Brands; and COO of the bakery-café chain Au Bon Pain.

Which Box is the CEO Living In? The most basic question, when I think about the CEO's role, is how he or she spends their time.

If you have 100 points, how much time do you spend in the here and now; how much in the adjacent two to three years; and how much time do you spend thinking further out than three years. Everyone has three boxes, or three horizons, in their framework. My colleague Vijay Govindarajan calls them Box 1, Box 2, and Box 3.

If they say, "I've never thought about it," I view them as a lost cause.

For a CEO today, particularly in a public company, the job is much more complex than it has ever been before. We've always talked about the tension between the short run and the long run, but public marketplaces today think about a quarter out. And the rise of the hedge fund is a new phenomenon. Sometimes they're pushing the company to do something that leadership just doesn't want to do, or they're pushing the company to move faster in the here and now than the company has been willing to do. Very little of that has to do with the long-term positioning of the firm. If a CEO is talking to the media, he or she would likely say they spend 70 percent of their time in Box 1, 20 percent in Box 2, and 10 percent in Box 3. But I think the reality for most CEOs is 90 percent Box 1, seven percent Box 2, and three percent Box 3. And if the CEO is not spending time focused on a certain box, it's very unlikely that anyone in the organization is going to be successful working on projects in that box.

'Very Few of Us are Jeff Bezos' Spending time in Box 2 and Box 3 doesn't absolve you of delivering results in Box 1. Very few of us are Jeff Bezos, so very few of us are blessed with a market relation-

made an investment [in the startup PlacePass], which allows them to try and drive as much of that as possible. We were doing some of that on our own, but I think it's much more attractive to me to say, "OK, let's find somebody who's going to be passionate about that. Let's make an investment and do a partnership with them."

Thinking About the Next 90 Years The pace of change is extraordinary, and that is frightening, but also incredibly energizing. We have in Airbnb a notorious disruptor in our business—probably not as impactful as people might think, but a big company. Every single company has got folks out there that are saying, "I want to invent the platform that's going to disrupt that business, that product, with something else."

They're popping up everywhere. We do spend time sitting together and saying, "All right, where's the threat coming over the horizon. What are we going to do about it?" Whether we'll make the right decisions or not—I won't necessarily guarantee that we will—but I think we're set up for it.

I think there's one thing that Marriott is really blessed by, which is an extraordinary long-term focus. We have long tenure here. I've been here 21 years, and I'm still viewed as an outsider, sort of a mid-career arrival. We have folks who have grown up here, who say, "I'm thinking not just about this quarter, or this year, or this year's budget, but I'm thinking about how do we make Marriott successful for the next 90 years." That, culturally, is a big advantage.

ship that allows us to experiment as much as he does. We don't all have an Amazon Web Services that pays so many of the bills. Bezos has the explicit flexibility as a manager focused on the long haul to allocate revenues in ways that allow him to make money in one space, and lose money in another space at the same moment. Amazon makes for great stories, but it's not the norm.

Why is Apple investing so much energy and money into autonomous automobiles, which is a Box 3 project? Fundamentally, there's a belief that the automobile can exhibit many of the same characteristics strategically as the telephone, and Apple's business throws off lots of cash. But you see that the company is beaten up badly when they're not meeting their numbers in the here-and-now.

At GE, Jeff Immelt's inability to deliver productive, predictable earnings eliminated their ability to spend a lot of time in Box 2 and Box 3. For managers responsible for new ventures and innovation, it really is a simple "managing your boss" problem. If my boss is getting the crap kicked out of him or her in Box 1, I need to demonstrate my profound understanding of that set of problems, and work on helping the organization in Box 1. A Chief Innovation Officer could actually, on behalf of the CEO, work to create an environment that makes the average employee more capable of innovating in their job on a day-to-day basis. The more you do that, the better off you're going to be.

We spend most of our time talking about disruptive innovation, and Box 3 innovation, but it occurs rarely. The reality is, breaking down walls and getting people who have better solutions to problems to speak up is a big deal. Can you create a group of self-selected volunteers to engage on substantive problems in new and different ways, and just give them space to do that? There are a bunch of simple, behavioral, cultural opportunities that don't require lots of labeling and reporting out, that recognize fundamentally that it is people who innovate, and people who are creative. You just need to give them the space. If we look at the work of innovation at an organization that is spending a disproportionate amount of time in Box 1, it's really boring work. It's getting a group of people to sit down and say, "What are three different ways to organize ourselves? How could this process that we spend eight hours a day in be more efficient?" It's licensing and endorsing that work.

Is This Administrivia, or Innovation? I sometimes like to tell a really old Jack Welch story, from when he was CEO of GE. This happened at Crotonville. I was working [as a consultant and Harvard Business School professor] with one operating division of GE, which included NBC. One of the problems that the NBC employees had tackled was expense reports. We got some folks from David Letterman's show to do a two-minute video about expense reports, asking, "Isn't there a better way?" They wanted to give people back some of the time they spent on expense reports. We showed the video, and Welch blew up. "This is administrivia! I'm looking for the next generation of innovation for our company!"

I was thinking, "This didn't go so well." I bumped into Welch in the men's room. I said, "I hear you, and I disagree. You're talking about wanting large-scale innovation in an organization where people feel completely powerless. How do you expect them to innovate if they have no voice?" And Welch says, "OK, when we go back in, I want to continue this discussion." I repeated what I said

to the whole group, and eventually Welch said, "You know, he's right. You can't have self-confidence unless you can take a step and trust that you're not going to get beaten up. And you can't do anything to innovate, to have speed, or to simplify things, unless you have that self-confidence." This was around the time that Welch developed the three S's: speed, simplicity, and self-confidence.

That was 1989, and the vast majority of organizations still have that problem. The work people do every day is over-engineered and over-designed. People don't have enough of a voice in rethinking their work. The notion that engagement continues to be highlighted as a new managerial technique leads me to conclude that there's a lot of Box 1 work to be done to build your innovation muscles so you can move on to Box 2. If you can't do [the work] in Box 1, the likelihood that you're going to do Box 2 or Box 3 work with the existing workforce is low.

Now, many people, including Clay Christensen here at Harvard Business School, suggest that if you really want to do Box 2 or Box 3 work, you hive it off and put it in a skunkworks or a separate facility. We couldn't disagree more. It's almost impossible to bring those innovations back [into the core business.] The reality is, there's very little evidence that these hived-off situations ever have the capacity to be integrated back into the organization. There are books that were written as far back as the 1960s that show that the greater the amount of energy you put into differentiating the agenda of this separate innovation enterprise, the less likely it is that you'll be able to bring it back. The innovation they are doing will get ignored.

How is the Boss' Score is Being Kept? A large part of how the CEO views the world is shaped by his or her interactions with the board. If the board overreacts to the day-to-day [movements] of the marketplace, don't be surprised if that translates into the CEO's behavior. But other boards [are more] understanding of their major roles, which are to hire a CEO and to engage in debates and discussions about the long-term strategy of the firm.

If it's clear to you how your boss' score is being kept—what the boss is hearing from the board about which box to be focused on—and the direction your boss is providing to you, those ought to be the primary data points you use to decide your strategy as the Chief Innovation Officer.

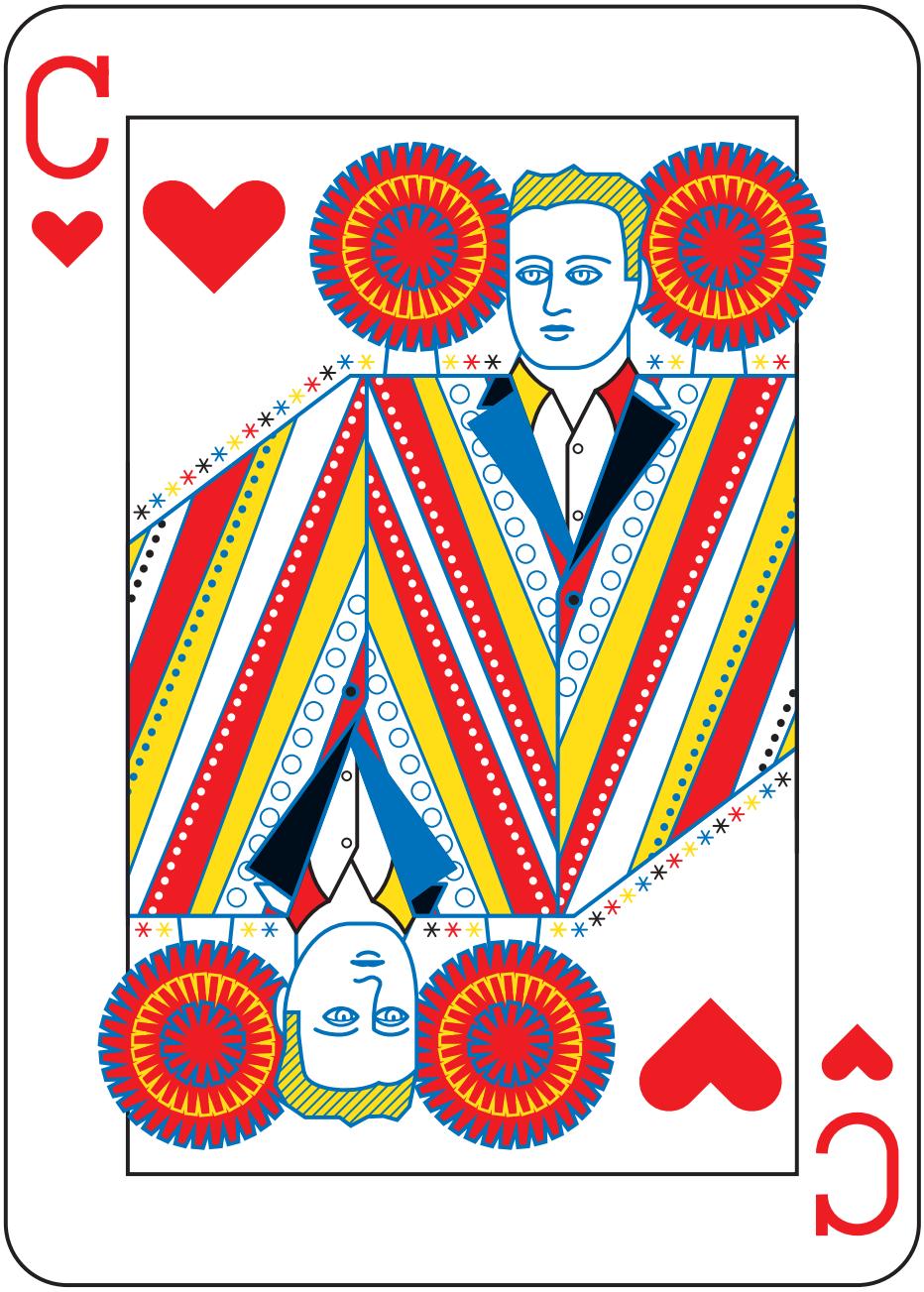
CRATE & BARREL

Sascha Bopp Bring Down the Hurdle for Experiments

SASCHA BOPP SPENT FIVE YEARS AS CEO AND COO of Crate & Barrel, the housewares and furniture retailer founded in 1962 and owned by Germany's Otto Group. He's now Co-Founder and COO of the architectural technology startup Blueprint Robotics.

When it comes to innovation, it really only works if the CEO is the champion of it. The main reason is that in an organization, you constantly have a ton of pressure and competing priorities. Innovation is something that never pays off right away, and it has no certainty of paying off. If you have other priorities that have immediate payoff, you will always come back to what is most urgent, right now, and put on the side any investments for the future.

But the organizations that have the spending power and the mission to dedicate entire branches to innovation—having a Google lab or Apple lab—are exceedingly rare. At Crate & Barrel, I was the key guy for anything innovation. If I thought it made sense, then it was going to happen. If I wasn't behind it, then somewhere in the organization, someone



The Cheerleader

The Cheerleader likes to say the word “innovation” a lot in presentations to Wall Street analysts and dole out innovation awards to employees. He likes to take customers on tours of the shiny new innovation lab. But when it comes to corralling resources or helping the innovation team blow away obstacles, he’s often too busy to get involved.

would put the brakes on: "This is great, but right now, we have other priorities."

A small example: there was a company in California that was developing a technology that was supposed to track phones that came into your store—a wifi sniffer [from a startup called Euclid Analytics.] It's completely anonymous, but it does tell you where they were in a store, and how long they were in the store, and if it was a repeat customer coming back. Somebody in our e-commerce department had seen it and referred the guy to me. I said, "This sounds great." He needed a pilot customer, so we did it in all our San Francisco-area stores. I called the regional sales manager in charge of those stores, put her in touch with the entrepreneur, and they worked together to get it done. I would get reports on its progress. It worked really well.

A much bigger example would be that when I joined in 2009, the company had just opened a store in Dubai. It was a franchise. My predecessor, the founder, was behind that, but he later distanced himself from it. I felt it was important to the company to have franchising; it was a big change, if not a typical innovation. The bigger it is, the more you have to own it, and communicate that it's something you want. You need to make sure people don't shut it down. When I left, we had [franchised stores] in Mexico, Peru, Chile, Columbia, Singapore, Russia, the Phillipines, and Turkey.

In general, you want people who will say, "I want to try," and are open to it and enjoy the challenge of change. At the same time, you don't want people who are not being realistic or transparent, or are not brave enough to tell you about the trouble you will run into. I always try to [understand] where people have doubts. As CEO, ultimately you have to make the decisions about whether you want to do something or not, and you want to do that on the best available information.

'Fake It Before You Make It' I have rarely seen a situation where the choice of going-toward innovation is backed by data at the point that you need to choose. If you're lucky, down the road, the innovation can be validated as being useful or not based on data. At some point, you have to say, "Is it worth it?"

I always talk about nice-to-have information, versus information that is going to make you change your decisions. Information that confirms what you already knew, it's not very valuable.

The other really critical point about innovation is, are you able to fake it before you make it? Is there a way to bring the hurdle for trying something down, so you can make a decision even though you don't know whether it's right or not? The lower the hurdle in terms of money, attention, and resources, the easier you can go after it. Make it as simple as you can on [senior management] to find out whether the thing is a good idea.

The Euclid Analytics [founder] laid out a plan that was zero cost, very low attention, and very low tech involvement on our side. It was only about...wanting to do it.

When the Going Gets Tough... I would argue that when you are in that cycle [of being pressured on costs, or being disrupted by new entrants], it's when you have to [experiment] even more. Not everything that delivers value requires a big investment.

The high-pressure environment can be better for generating innovation than a comfortable environment...but it depends on the commitment of the CEO. If the CEO has a really short-term focus, and is only thinking about the next quarter, then innovation will be less relevant. But if pressure is high and you have someone thinking long-term, there will be an even greater desire to find innovations that help. You can't cut your way to success and growth; only to short-term earnings.

Incentives for Innovators I think that setting performance goals [for employees based] on intangibles like innovation—those are hard to administer and very subjective. They take time to come up with, time to monitor, and time to debate whether you achieve them.

What's more important is letting people in the organization know that the leadership, in principle, is very open and eager and wants to work on innovation. You find the people who have a personal purpose—which is stronger than financial incentives. [Working on new ideas creates] a way for them to get more exposure and to be appreciated by their leadership. So it's about career development, more than short-term financial incentives.

What I saw at corporate and in the field is that you have those go-getter people, and if the organization has this innovation mission, they say, "I need to find a way to get on that project." They throw themselves at it, and not just for financial reasons. There's this sense of belonging and doing something for the future.

When CEOs and leadership spend time with those people, it matters a lot—you just give them a call and say, "How's it going?"

Jonathan Bush Make It Clear How You'll Change the World

JONATHAN BUSH IS THE CO-FOUNDER AND CEO of athenahealth, a provider of cloud-based software for the healthcare industry. The company had $1 billion in 2016 revenues, and employs about 4,600 people. In 2014, it started a program called More Disruption Please, which offers startups a way to plug into the athenahealth ecosystem and gain access to new customers.

How do you think about fostering new experiments and innovation to drive growth? What creates the urgency?

Healthcare is unique when it comes to innovation. With all the billions of dollars invested into purchasing, building, and upgrading technology, we are still living in a world where patients carry around physical records, providers struggle to get paid, and treasure troves of data are inaccessible. There is a desperate need for healthcare to be better connected, which many believe (me too!) would lead to decreased costs, improved patient outcomes, and an overall better experience within the health system. Sadly, we lack a national infrastructure to do it right. For me, this creates urgency.

At athenahealth, we're focused on unleashing our collective potential to transform healthcare. We focus on projects that deepen our services and extend the value we bring to clients and other stakeholders; scale our services to grow within new and existing markets; and position us as the strongest connective tissue between the various disparate care settings and many players of the industry. If the concept doesn't fall into one of these three categories, it doesn't move forward.

Can you talk about the More Disruption Please program? Why did you start it? What impact do you think it has had so far?

We started MDP to solve a double-sided problem with healthcare innovation—entrepreneurs couldn't scale their businesses, and providers were only ever offered "one size fits all" solutions. MDP brings together innovators and helps them build and distribute through the athenahealth platform, while allowing our providers to plug and play solutions and tailor their experience.

Since inception, the MDP Marketplace has scaled to support over 160 apps, and over 27 percent of our providers use at least one of our solutions. The key performance indicators for MDP have changed over time, but we look closely at adoption among the client base, the speed at which a new app can be published, and how quickly leads are closing for the partners that distribute through us...

While MDP acts as its own vertical, they work very closely with our internal teams to ensure that we constantly add to our API library and make our internal work accessible to external innovators. One of the key purposes of MDP is to shine a light on how fast innovators are moving in the wild to help athenahealth move faster.

If you were talking to someone who is a head of R&D, or head of new ventures, at a large company about how to work with their CEO and have a constructive relationship, what advice would you give?

Position everything around the value it will create. Make clear how you'll change the world in a way that no one else can. If this framing can't work, go back to the drawing board.

David Abney Stay Grounded in Core Values, But Focus on the Future

DAVID ABNEY STARTED WORKING FOR UPS AS A part-time package loader in 1974 while earning his bachelor's degree from Delta State University; he became CEO 40 years later. UPS's 96,000 vehicles and 500 aircraft serve more than 220 countries and territories. Last year's revenues were $61 billion—a record.

How would you say you divide your time between working on short-term, medium-term, and long-term business issues—what McKinsey calls Horizon 1, Horizon 2, and Horizon 3?

My job involves balancing priorities and dividing my time between all three horizons. I am particularly focused on our long-term strategies. We have a long history of optimizing for maximum efficiency. In the end, one person can't generate the best solution alone. The trick is to surround yourself with smart partners you can trust to help you prioritize the short-, medium-, and long-term strategies and related investments. That's how I do it, or I should say, that's how *we* do it.

What new positions or structures have you created since becoming CEO in 2014 to help UPS be more aggressive about innovation, entering new markets, or finding new sources of growth?

One of the most important changes we've made to our company structure to support innovation occurred just this year, when we realigned our IT and engineering functions under a single UPS leader who reports directly to me. Our intention was to align all of our efforts into one cohesive, fast-moving and powerful technology organization. Our Chief Information and Engineering Officer, Juan Perez, is a proven change agent at UPS. Juan created the Advanced Technology Group, which helps UPS develop new technology solutions faster. We are creating a smart logistics network that uses data analytics, automation, and technology to generate the next generation of UPS customer capabilities and operations cost reductions. We fully expect it to spur innovation that will propel us forward...fast.

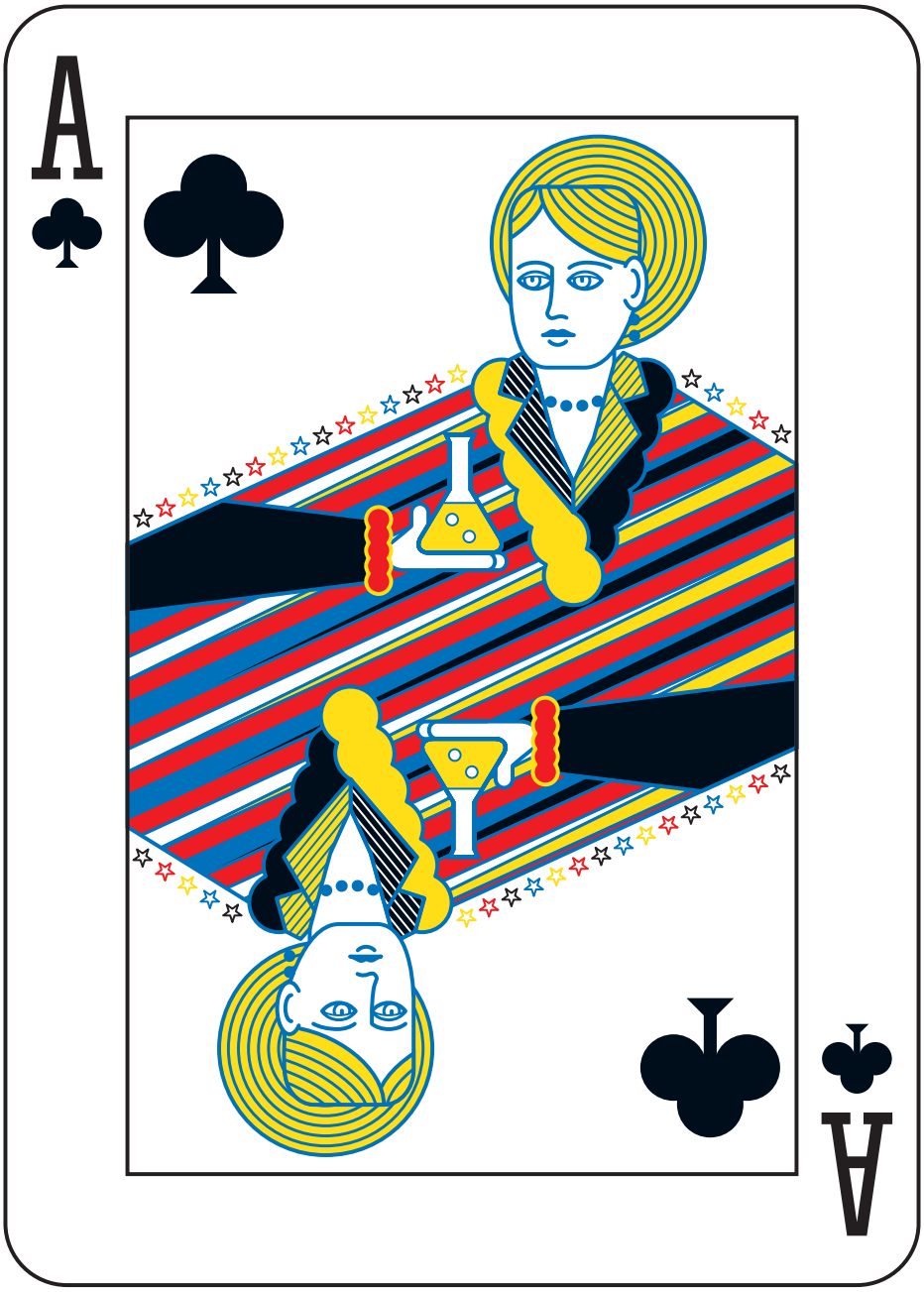
Are there elements of the UPS culture that you've been working to change since you became CEO?

UPS is a unique company. We have our own way of doing things: Deliberately. Precisely. Efficiently. We have a strong and a distinctive culture that's made us very successful. I couldn't be more proud of it. But we have to be careful that we aren't so loyal to our culture that it limits our creativity. That happens when culture itself forms a barrier to innovation and change. But I advocate building a culture grounded in our core values with a focus on the future.

We are accelerating at the pace of business and moving forward fast. We have a willingness to take on more risks and learn from our mistakes and continuously transform our business to exceed our customers' expectations.

How do you as the CEO keep tabs on emerging technologies or startups that might be relevant to UPS' business—whether something like drone delivery, Uber, Shyp, etc.?

One way we keep tabs on new and emerging technologies is through the Strategic Enterprise Fund, our corporate venture capital group that invests in startups that will help us better understand emerging technologies



The Advocate

The Advocate understands the importance of investing in innovation over the long haul. She works hard to make sure that everyone from board members to middle managers to front-line employees know that they're expected to be supportive of experiments and open to new ideas—rather than defending the status quo.

and business models. And just this year, we announced the creation of the Advanced Technology Group, which helps UPS develop new solutions faster for customers and UPS operations. The group is also responsible for evaluating technologies and technology partners, and for creating alliances with leading business and non-business technology organizations. Technologies that are of particular interest to us revolve around big data, AI, machine learning, and the industrial internet of things.

Are there new types of talent you're trying to bring into the company? I know UPS is a company where many people have grown up in the business, but curious if there's a concerted effort to attract people with different kinds of skill sets or backgrounds. What are you doing differently to attract these folks?

We have a very effective IT internship program. The program is so important to us that the CIO personally holds final project reviews with several of the interns who produce some of the best deliverables. The program provides a steady flow of qualified graduates for our entry-level positions. From a career advancement standpoint, we leverage a strong "promotion from within" approach that provides our technologists and IT professionals with continuous opportunities for advancement. Our value proposition is simple but strong: work for a great organization focused on solving some of the most complex logistics problems for our customers using new and exciting technologies.

The stock market tends to focus on a certain set of financial metrics. Are there other metrics or indicators you use as CEO to tell

STANFORD UNIVERSITY

Steve Blank The Difference Between Steve Jobs and Tim Cook

Steve Blank is an entrepreneur, writer, and teacher who helped kickstart the lean startup movement. He is the author of several books, including "Four Steps to the Epiphany: Successful Strategies for Products that Win."

What role does a good CEO play in aiding innovation in a company? [I]n the most extreme case, they are the innovators. They are the Steve Jobs, the Elon Musks, etc...[But] most CEOs—I'd say 98 percent of them—aren't innovators... They're executors.

Can you distinguish the difference between an innovator and an executor? An executor is somebody who's a world-class manager of processes, procedures, people. They know how to get the trains running on time... If you're managing process, procedure, and people, you're looking at numbers, so you tend to be finance-oriented. That's what the board tells you to worry about, and that's what your investors on Wall Street tell you to worry about.

Innovative leaders look past that. [Innovative] leaders are curious and see things others don't—and they see further than others do.

An execution-[oriented] CEO operates in the present or the next quarter, but very rarely sees further...

About 30 years ago, McKinsey came up with the idea of three horizons of innovation...The first one is your core business... Who are your current customers? Your current products? You innovate in that horizon. It's not like you stand still; you get better materials, better pricing, new products, etc.

Some companies are pretty good at doing Horizon 2 innovation: "Let's extend our distribution channel. Let's go to the web. Let's go to mobile. Let's sell the same product to different customers. Let's team with Procter & Gamble. Let's invent the Swiffer for our existing customers." That's Horizon 2 innovation. Competent companies that stay in

whether UPS is being innovative enough — whether it is the speed of developing new services, employees submitting ideas, pilot programs you run with customers, etc.?

We use a balanced scorecard that measures, among other things, the value we create for our customers. We are convinced that if we demonstrate value, then we win their trust, and their business.

This enables UPS to move in the right direction on all other categories of metrics important to shareowners, employees, and partners.

I notice that UPS does a TED@UPS event series. Have you been to those? What's the objective? What impact has it had?

I would not think of missing one. I've attended all of them. These are wonderful events. We have several reasons for participating. UPS wants to influence and enhance impressions of the company among evolving audiences around the world.

We want to spotlight our people, their big ideas, and their ability to solve all kinds of complex problems. TED is a great platform to showcase the ideas, creativity, and problem-solving capability of our people for hard-to-reach C-suite audiences. TED's platform reaches executive-level audiences in the US and internationally.

Our goal is to spur open conversations between UPS and this important audience. Every time I attend one of these events, I become even more proud to be a UPSer. Our people have amazing stories. I have yet to attend one of these events where I did not laugh and cry—sometimes at the same time.

business for a while do that.

The real innovators are the ones who do Horizon 3 innovation. That was when [Steve] Jobs invented four new industries in the span of seven years. That's when [Jeff] Bezos in 20 years put the entire retail business—not just books, but everything from groceries to everything else—literally out of business.

Great CEOs have all three going on simultaneously. Nowadays this isn't an option because disruption, which happened rarely in the 20th century, now happens continuously in the 21st.

Innovation is no longer an option. Innovation is a matter of survival in almost every industry.

What we're going to see is…a lot of companies going out of business that simply don't have this continuous innovation culture.

How do you avoid death of innovation when a CEO who creates the innovation program leaves their position? That's hard. In fact, the equivalent is what's going on in Apple. Tim Cook is, in my opinion, the new Steve Ballmer. Steve Ballmer took over for [Bill] Gates as his anointed successor [at Microsoft.] Actually, Steve Ballmer was the most profitable CEO Microsoft had, yet he almost made them completely irrelevant in the 21st century…

He missed every technology trend. He missed mobile, missed search, missed all of that stuff. He optimized Windows and Office, [and] made more money than Bill Gates ever did.

If you look at what Tim Cook did, Apple's the most profitable company in the history of companies on Earth, with a third of a trillion dollars in the bank. Yet I'll contend he's been a failure, because [of the question], "Why should we innovate? We're making more money."

In another five or 10 years, they will be completely irrelevant. They'll be a company that's living off their past. They're not going to go out of business, just like Microsoft wouldn't go out of business. But they will be irrelevant.

When Steve Jobs died, when Bill Gates retired, when Walt Disney died, the people underneath them [were not] innovators. World-class innovators do not have world-class innovators working for them. They have world-class executors.

That's not a problem when the innovators are there. In fact, that's what you need to make the company stable.

So let's say a CEO sets up an innovation initiative and the job is handed to one person, a Chief Innovation Officer… [Most] Chief Innovation Officers are innovation theater for the board and investors. The first test is, do they have process, people, and budget? If they don't have any of those, then they're just window dressing.

If you think about where innovation belongs, it belongs in every component of the organization using the same language and same methodologies.

Typically, the board beats up the CEO, and says, "We need to be innovative." They [write] some memos, [put up] posters in the cafeteria, and that's wonderful. Then you come back in three years, and go, "OK, did we move the top or bottom line?" The answer is almost [always] no. The CEO doesn't really care, because he was operating on quarterly numbers.

By the way, the board in the meantime says, "Hey, why don't we buy company X? They're innovative." So much for doing innovation internally.

Ken Gabriel Three Keys to Breakthrough Innovation

DRAPER IS A NON-PROFIT RESEARCH AND development organization in Cambridge, Mass. that develops new technologies, primarily for government customers. Draper has 1,700 employees, and about $600 million in annual revenue. Ken Gabriel, its CEO, joined Draper in 2014 after stints at Google and the Pentagon's Defense Advanced Research Projects Agency.

To me, there are three elements that improve the likelihood of getting a breakthrough innovation. They are counterintuitive.

One is you have to go out and get the best technical leadership that you can, but technical leadership that also knows how to manage a program, execute financially, stay to a schedule, make those tough trade-offs and decisions as a project evolves. You have to invest that person with authority.

Now, here's where the counterintuitive stuff comes in. You should [embark on] fixed-duration projects, and everybody should know when that project is going to end.

One of the things that I like to tell people that most people don't know [is that] if you visit DARPA [at the Pentagon,] look at people's badges. On the bottom of the badge is their expiration date, so everybody knows there's a fixed amount of time for you to be here.

The reason that's important is it creates a natural sense of urgency that may not be there in a big company.

...You're doing the thing that you've been passionate about, [and] finally, you get the chance to execute it. You're the principal investigator. Guess what? You're not going to let a contracting office get in your way. You're not going to let hiring get in your way. You're going to be banging on people, because if you've only got two years to do it, one week is one percent of your time.

The third element is don't try to do everything internally... It goes back to that speed thing. If you've got two years, guess what? You're not going to wait three months for a search to bring in expertise when you can go out and, in a week, secure a subcontract to someone to do work for you.

They've got the expertise. They've got the equipment. I don't need to bring it in. You tend to create a relatively small team and not a big mass. [The big mass] is what tends to happen at big companies. They tend to worry about, "I've got to own all the IP."

What they forget is the risk of not moving fast enough. Then, when they decide to shut down this program, they say, "Shoot, we've got 150 people here as full-time employees. What are we going to do with them?"

They either have this not-so-great firing of everybody, or they try to shuffle them around and get them working on other projects.

...I started out my career in a big company. There's no sense of urgency. You get it done this week or next week. It doesn't matter.

But here's the corrosive thing about that. I'm going to exaggerate for effect. "Well, I didn't get this contract signed, because I'm trying to get material from this startup." Or, "I'm trying to get some external resource. Contracting held it up. Legal held it up for two weeks." Now, instead of getting it done today, it's not done for two or three weeks.

Now, three months have gone by, and one of your team members is snatched up by Facebook. They're gone. Now I need to replace that expertise, so put in a req for HR and begin the recruiting process...

You can easily see the lack of urgency. You've lost six months or potentially even lost the opportunity.

Deborah Dunsire Connect Scientists with the Outside World

DEBORAH DUNSIRE SPENT MUCH OF HER career rising through the ranks of Novartis, the Swiss biopharma giant, before becoming CEO of Millennium Pharmaceuticals, a developer of cancer drugs. Dunsire is now chief executive of XTuit, a small biotech company based in the suburbs of Boston. Dunsire joined the company, focused on cancer and fibrotic diseases, in May 2017.

Research Breakthroughs are Unscriptable To some degree, there's a magic to discovery-oriented research that you can't script. That's one of the things that makes it more difficult in larger companies. As you get larger, you need more predictability. There's a bigger investment, so there's more oversight, and more big company processes that are necessary. In all of that, it makes it harder for people to pursue a random path, or take advantage of an insight that came when they were working on something different, because there are corporate goals attached to everything, and milestones, and people expecting outputs on those milestones.

What is the answer in a bigger organization? Making sure that the scientists are connected to the external world is just so critical, to refresh and challenge their thinking. That may mean collaborative partnerships with smaller companies, or with academia. But it really is a critical leavening. You want meetings and collaborations, where you're really working with another party. At Millennium, our R&D organization was working with Wade Harper's lab at Harvard. They were coming at the science from different directions. Each one was able to stimulate the other, and it was a very productive partnership.

What's the Culture of the Research Organization? One of the most critical things for a CEO is to have that right Chief Scientific Officer—somebody who has been a successful researcher, but also has the softer skill set to be able to mentor other scientific talent–and the openness of mind to be able to reach out beyond their organization. You need to be able to work with your CSO...Working with Joe Bolen, my CSO at Millennium, we would debate quite fiercely how we were deploying the resources between nearer-term and longer-term.

One of the things that was also helpful to me as a leader of the organization was [spending time in the research organization.] I would go and sit and chat with the scientists about what they were doing, because you never know if somebody is managing the information you get. I wanted them to share successes and failures.

It's challenging for research organizations, because their timelines are long. [The CEO has] to be able to engage with them, and share the progress, and be a vocal advocate for the research organization with the rest of the company. One of the things we'd do was have the CSO talk to the sales force about the research. That motivated the sales force, and the research organization felt respected, that they weren't buried in the basement slaving away.

The larger the organization, the more important it is for the CEO to know who the next level of leaders are in research—not just the top ones—and what culture is really being created there. Is it personal aggrandizement, and fiefdoms? How are we recognizing the scientists? The CEO paying attention to that is impactful. ●

Is There Ever a Good Time to START INNOVATION INITIATIVES from the CEO's Perspective?

By Gary Getz and Michel van Hove
STRATEGOS

When times are good, people underinvest in innovation because there is no sense of urgency. When times are bad, they underinvest because of a lack of resources and more pressing priorities. When Strategos performed a study among 500 senior and mid-level managers in large U.S. companies, asking them to identify the biggest barriers to funding innovation, the top response was short-term focus, followed by competition for resources.

The vast majority of CEOs believe innovation is key to the success of their companies, and the current economic climate is such that a lack of resources isn't usually the issue. So why does innovation seem so tough in boom times, and how can CEOs break the impasse?

Why it's hard

Study a company that has delivered strong revenue growth over a decade or more, and you're likely to find evidence of world-class innovation. Look further and this world-class innovation is the result of ongoing investment, focus, and support from the top in both up- and down-cycles—the same as we would do to achieve excellence in any other area.

Paradoxically, golden ages of business growth can be lethal to innovation, because while in concept resources should be available, in reality businesses can find themselves scrambling to meet rising customer demand while fighting off both successful incumbent competitors and well-resourced new entrants. At the same time, the pressure to grow the top line while reducing costs never goes away; as a

result, innovation can easily get squeezed into the "nice to have" category.

When the solution becomes the problem

Every organization innovates, but approaches vary, and so do the results. In some cases ,we see CEOs communicate the importance of innovation publically, and expect that to be enough to motivate employees to act differently and start to innovate by themselves. This usually leads to well-intended but ad hoc initiatives. Imagine a business unit of a tech company organizing a hackathon to find new ideas that help them deliver new solutions, while the HR department organizes training on creative skills. Both are potentially worthwhile efforts, but it is unclear how they link together and strengthen the organization's overall innovation capability.

In other cases, we see companies acting on the hope that implementing single tools like customer experience mapping will somehow make them innovative. While these point solutions can be useful as part of a larger tapestry, in isolation they almost never generate real results, and the enthusiasm for innovation wanes quickly.

The world's top performers approach innovation in a more strategic way. CEOs paint a bigger picture of how they expect innovation to contribute to the overall business, where they want to focus their innovation efforts, and what organizational changes they will start to implement to make it all work. In this case, strategy and innovation are closely linked and it is clear how innovation supports a more ambitious, longer-term goal.

To win at innovation, there are several important choices to be made and questions to address.

Get the rest of the executive team on board

As the CEO, innovation may be part of your plan, but that doesn't automatically mean the rest of your team is on board. CEOs who talk about the importance of innovation still need to create buy-in and alignment with their executive team.

The questions to address: What's in it for them? How will innovation efforts contribute to the performance of their parts of the overall business, and what is the scope of innovation that collectively we will have to focus on to make that happen? Ultimately, this executive dialogue creates a shared vision of success with innovation at the core.

Explicitly split resources between core business growth AND new areas for growth and renewal

When investments in ideas for future growth compete head-to-head with opportunities that grow the business of today, the future usually receives the short end of the stick. When we worked with a client in the steel industry, they simply couldn't get promising ideas to make it past the paper stage. The cause was simple: Unit leaders tended to favor decisions that "sweated the assets" over ones that might (or might not) fill their future pipelines.

As part of executive alignment, decisions need to be made about where to play and how to win, but equally how that translates into investments in core vs. adjacent vs. new areas.

Create an Innovation System

It is highly unlikely that all the required innovation capabilities to deliver your growth vision exist in your company today. Innovation leaders develop policy- and process-based organizational capacity, not just individual capabilities, to ensure lasting innovation success.

And it's not just about generating ideas. Identifying broad opportunity platforms, articulating winning business models, and executing commercialization through agile approaches are all prerequisites before the cash register begins to ring. Infrastructure to nurture ideas that do not immediately fit the core business, such as a corporate incubator or accelerator, may be part of what's needed. And leadership needs to be able to navigate different innovation infrastructure options, understand which one is right in each situation, and execute a portfolio of coordinated approaches.

Leaving a legacy

Whirlpool CEO Dave Whitwam began the company's transformation in 1999 from a manufacturing-driven organization to a consumer-driven one with innovation at the core. He didn't see innovation as a project or a one-time event, but invested in developing enterprise-wide capabilities and an innovation core competence that created tangible success. That outlasted his tenure as CEO and produced substantial shareholder value that has lasted for over a decade.

In down times, only the strongest and most visionary CEOs can resist the pressure of quarterly results and present a vision for the future that is backed up with clear and focused innovation plans that link to strategy.

And in boom times, it requires real leadership to set the stage for future prosperity in both good times and bad. By aligning your team, managing a diverse opportunity portfolio, and taking a systemic view of organizational capability, you have a much better chance of leaving your own legacy.

LEARN MORE AT STRATEGOS.COM, OR FOLLOW US ON TWITTER: @STRATEGOSTEAM.

Case Studies

3

Fall
2017


DD
DUNKIN' DONUTS
DUNKIN' DONUTS

A Business 'Built on Ritual' Goes Digital

HOW DUNKIN' DONUTS IS STREAMLINING THE COFFEE RUN

STORY BY SCOTT KIRSNER

ILLUSTRATIONS BY JASON SCHNEIDER

There are two varieties of innovation at Dunkin' Brands: donut and digital. ¶ Scott Hudler, Chief Digital Officer at the Canton, Mass. company, is responsible for the latter—though earlier in his tenure he was responsible for starting the food and culinary innovation group, which focuses on the former. ¶ But both exist because in a chain with nearly 20,000 locations worldwide—11,500 are Dunkin' Donuts, and 7,600 are Baskin-Robbins ice cream—keeping the operations humming is top of mind for almost everyone.

Whether headquarters employees worked on the food side of the business or the tech side, Hudler says, "the innovation part of the job was just falling off the table, because you constantly have supply chain issues, operational issues, franchisee issues."

And in 2017, "the innovation piece of our business is becoming more and more important to us," Hudler explains, "because we're fighting some incredibly well-capitalized competitors in McDonald's and Starbucks. If the analogy is 'Moneyball,' then we're the Oakland A's. We've got to be smarter and faster. Consumers don't give anybody second chances from a tech standpoint."

DEFINING THE OBJECTIVE

Dunkin' Brands is a publicly-traded company with $828 million in 2016 revenues and 1,100 employees. Nearly 100 percent of its locations are operated by franchisees.

"We're a brand that is about busy people who have busy lives," explains Hudler, who joined the company in 2006. He reports to David Hoffman, the President of the Dunkin' Donuts brand in the US and Canada. "Our goal is to be the most-loved, on-the-go beverages brand."

When Hudler was Vice President of Brand Marketing, he created the food innovation team, which develops new products like frozen coffee, fruit teas, and pretzel croissant breakfast sandwiches. Based on that team's track record and impact, "we made the case for a digital innovation team," Hudler says. "It's a very replicable model, because on the digital side, you have very similar needs and tension points with people. If someone here on the IT team is really just laser-focused, as they should be, on the [current] mobile [app] and its performance, they're not going to have as much time to think about what's next."

That digital innovation team started as a "one-man band," Hudler says, but has since grown to six people. "They're not involved at all in the day-to-day product discussions," he explains. That lets them focus on how, for example, voice technologies like Google Home or the Amazon Echo might change the ordering experience in a consumer's apartment, or at a restaurant's drive-through.

What helped Hudler make the case for the new team? "The breakneck pace of technology, and how retailers are seeing technology impact their businesses, both positively and negatively," he says. "We realized that we have to be nimble, and we have to be fast. All retailers are feeling this—it's exciting and nerve-wracking at the same time."

RUNNING TESTS

Much of the digital innovation team's work has focused on making the customer's stop at a Dunkin' Donuts location speedier and more convenient.

"We're a brand and a business really built on ritual," Hudler says. "So whatever we can do to make that relationship easier tends to pay off." Being a leader in digital, he adds, often involves removing friction—like waiting in line at a counter or drive-through.

Dunkin' rolled out mobile ordering nationwide in mid-2016, but it isn't yet widely used. Hudler says the percentage of customers ordering in advance with the Dunkin' app is still below 5 percent, but that those who do "have higher satisfaction. We give them the gift of time back."

As with any technology, the mobile ordering feature of the app has its early adopters—and others who are aware of it, but haven't yet tried it. "We've been really focused on getting people to try it that first time," Hudler says. Among the tactics that have worked so far are offering bonus points in the Dunkin' loyalty program for using it, or a discounted coffee if a local team wins.

"In Philadelphia and Boston, they've done promotions around team wins/you win," Hudler says. If the Philadelphia Flyers win a hockey game, for instance, and a customer uses the app to place a mobile order, they can get a medium hot or iced coffee for 50 cents.

"The rewards program and special offers are both big drivers," he explains, in getting customers to download the Dunkin' app and begin using mobile ordering.

In December 2016, Dunkin' began testing curbside delivery at one location in the Boston suburbs, as a way to make it easier for customers to stop by a location that doesn't have a drive-through. When the customer parks in the lot, an employee dashes out with the order. "We jokingly refer to it as the mom or dad with kids in car seats," Hudler says. "They really want a coffee, but they're not going to undo the car seats or leave their kids in the car. They might also not want to leave a pet in the car. It's a great way to give people the opportunity to use us the way they want to use us." The curbside delivery test rolled out to more Boston-area stores this July.

Dunkin' Brands CEO Nigel Travis has described delivery to homes and businesses as a "holy grail" for the company, and starting

last year, Dunkin' has been testing that with partners like DoorDash and Favor.

"Every day, there's another whitepaper published about how delivery is going to disrupt the entire restaurant business," says Hudler. "We're continuing to look at how we unlock the growth in that channel."

One possibility may be allowing franchisees to build so-called "ghost restaurants" that don't need space for cash registers, counters, or tables; they'll only produce and package up orders for delivery.

In testing these new offerings, Dunkin' needs to take into account how they will affect a store's operations. "We constantly are asking, how does everything we're doing integrate with our operations team, in terms of making Dunkin' a better experience," Hudler says. He says that franchisees, in general, "are very eager to test with us." But ensuring that they remain eager means being sensitive to the dynamics of the fast-paced, high-stress store environment.

WHAT'S NEXT

Hudler says that it's important to understand changes in the way consumers use their smartphones—and look for the opportunities that creates. "Consumers are on their phone 23 hours a day," Hudler says. "A lot of it is information, work-related, or social, but it's also a great tool to make the restaurant experience better."

Dunkin' is also considering testing an older technology: the touch-screen kiosk. "One analogy we use a lot is flying on an airline," Hudler says. "To get your boarding pass, you could get it on your phone or your laptop. You could go to the self-serve kiosk. Or you could go wait in line and talk to someone. We want to be able to offer all of those options."

Dunkin' Donuts President David Hoffman likes to observe that the drive-through of a typical quick service restaurant hasn't changed much since it was invented in the 1940s. "That's something that seems ripe for disruption," Hudler says. What if Alexa- or Siri-like speech recognition technology could be used to take orders, verify accuracy, and relay them to kitchen staffers? "We think there are some things that can make the drive-through experience much better," he says.

"We need to be sure that we're building solutions that all 'ladder up' to being the most-loved, on-the-go beverage brand."

With Starbucks aggressively promoting its own mobile ordering service, and McDonald's planning a nationwide roll-out later in 2017, Hudler says that Dunkin' executives feel that "we have to out-punch our weight class a bit. We're eager to try things, learn, fail." But the overall objective for his team, he says, is that "we need to be sure that we're building solutions that all 'ladder up' to being the most-loved, on-the-go beverage brand." ●

EDITOR'S NOTE: *After spending 11 years at Dunkin' Brands, Hudler recently announced that he would join Dick's Sporting Goods as Chief Marketing Officer.*

W. L. Gore & Associates, Inc.
Sunnyvale, California

WESTERN FRONTIER

MATERIALS GIANT W.L. GORE WEAVES ITSELF INTO THE SILICON VALLEY SCENE

INTERVIEW BY SCOTT KIRSNER

PHOTOGRAPHS BY CAYCE CLIFFORD

W. L. Gore & Associates, Inc.
Sunnyvale, California

W.

L. Gore employees aren't surprised to get a blank stare after they explain where they work. ¶ In addition to selling sealants, surgical sutures, guitar strings, and ultra-strong rope, the company makes the weatherproof material GORE-TEX. That's what usually produces a nod of recognition. (It doesn't help that the $3 billion company, based in Delaware, is privately-held.) ¶ "Gore is well known for internal innovation, and we're increasing our focus on external innovation," says Linda Elkins, a veteran of Gore's R&D organization and leader of the company's new Silicon Valley Innovation Center. "We're a 55-year old materials company, and today's environment is very different than 55 years ago. We realize that, and want to capitalize on some of the ideas, talent, and activities going on out here in Silicon Valley. Our lab is really focused on the external innovation—working with partners in the ecosystem, like startups, universities, and venture capital firms." ¶ In May, Elkins held the first public event at the new innovation center, hosting 10 startups working on digital healthcare products and services. The space consists of a 2,500-square-foot lab, and a 3,000-square-foot shared workspace, which is "set up so we can create with partners," Elkins explains. ¶ Elkins gave INNOVATION LEADER contributing photographer Cayce Clifford a look at the center in July.

Opened in May, W.L. Gore's Silicon Valley Innovation Center sits across the street from the San Jose International Airport.

Linda Elkins, leader of the Silicon Valley Innovation Center, says the space was designed with maximum flexibility in mind, to create and prototype with startups and other potential partners.

"Our enterprise leadership team was involved in the decision to create the innovation center. Gore does have a facility out here in Sunnyvale, so it was easier to have an innovation center in conjunction with that facility, as we can leverage some of the same resources. The need to monitor trends for disruption, the talent pool, and a number of other factors made it really attractive to add on to our current presence out here in Silicon Valley."

LINDA ELKINS

Innovation Leader

Ideation that happens in conference rooms can quickly lead to the creation of "minimum viable products" in the lab, Elkins says.

"One of the biggest eye openers for me, and actually a huge positive, is the willingness of this community out here to help. Gore is very new to setting up an innovation center here, and I've been able to connect with a large number of companies that have innovation outposts, or individuals with expertise. Everyone has been very willing to share some of their best practices... It's important to have an understanding of how we need to act in the Valley, who we need to interact with, and have the Valley perspective, not just the Gore perspective."

LINDA ELKINS

The prototyping lab offers space and tools for hands-on collaboration between startups and Gore scientists and engineers.

“THE MISSION:

Find & integrate complementary technologies emerging in Silicon Valley that expand Gore’s capabilities and product opportunities.”

— FROM THE INNOVATION CENTER’S MISSION STATEMENT

“HOW DO WE CONNECT BACK INTO GORE?

Develop & deliver viable early stage product idea packages, including prototypes, basic test & evaluation data, and value proposition hypothesis. If applicable, connect into existing businesses or development teams. If [there’s] no obvious landing place, work with Innovation Center of Excellence core team for advocacy and sponsorship.”

— FROM THE INNOVATION CENTER’S MISSION STATEMENT

How Can You LEVERAGE INNOVATION to Become an Industry Leader?

By Denise Fletcher
EZASSI

To outsiders, the term innovation can seem like another empty buzzword, but as a CEO in a world where technology is driving market competition, you know that innovation is essential. Even traditional forecasting models, like the five-year plan, are increasingly irrelevant as the pace of technology increases and more companies are disrupting markets that were once considered unchangeable.

Keeping up can prove challenging, especially if you are continuing to rely solely on internal personnel. Currently, the key to innovation is to go beyond existing resources and seek ideas from external sources, while also developing a budget that makes room for innovation, so that you can focus on growth rather than simply trying to stay afloat. This might sound like an intimidating undertaking, but here's my advice...

Know your market

A lengthy research and development process simply won't cut it in today's business world. While you may be working to move an idea to production in three years, your competitors are already using external resources and software technology to leapfrog you. By the time you are ready to enter experimental phases, they may be poised for a full launch.

You need to know what your competitors are up to and think about where your market might be headed. Imagine the worst scenario. What product or

service could your competitor design and offer that would completely disrupt your market and upset your business? That should be your biggest concern, and reason enough to invest time and money in innovation.

Don't be afraid to seek help from external resources

While you may be actively working on cultivating an environment that promotes innovation, you might not quite be there yet. Instead of continuing to rely on internal resources, it may be time to consider speeding up the process by bringing external experts on board. They can provide training and workshops and decrease the time it takes to go from idea to production. Bridging certain gaps by investing in consulting services can prevent great ideas from getting stuck in the pipeline.

Don't assume that you can't compete with the big guys

You can leverage the power of technology and outside resources to fast-track the research and development process and avoid getting left behind as large organizations introduce disruptive products and services. This will allow you to focus on growth, instead of fighting to stay relevant as industries evolve. By investing in the right people and tools, you can research what your competitors are working on and whether you need to move on to your next big idea. Remember, today's solutions are adaptable and scalable, so a startup can have the same disruptive effect as a giant like Amazon.

Get to know your existing staff a little bit better

When you are running a large organization, it can be difficult to track the progress and potential of each employee and make sure that they are matched up with the right projects. You have to rely on project managers to put together dream teams, and make sure that everyone feels comfortable sharing ideas in a corporate hierarchy where it can feel intimidating to make suggestions. Chances are that some of your staff is being underutilized and stuck on assignments that don't speak to their skills. The key to innovation may already be on your payroll, and you aren't even aware of their talents.

Make sure that your innovation and corporate strategy are the same

If innovation has traditionally been a more organic process with less structure, then you will need to make sure that your corporate strategy aligns with your innovation strategy. You probably have a clear vision of the direction you want to take the company, but you also need a plan that will get you there. The more you work innovation into your budget and make room for this important tool, the more you will be able to lay down a path to your goals, supported by the appropriate funds and research.

Embrace open innovation

Companies appear to be comfortable with the idea of cyber or tech scouting for external ideas and individual experts to add to a project. However, there seems to be more discomfort with and resistance to the idea of open innovation, where problems and challenges are presented to a global audience that can submit ideas and even collaborate with one another in order to create new solutions.

Using this technology, companies can receive outside perspectives that help to break out of the insular thinking that can happen in corporate environments. With the right open innovation software and tools, companies can easily filter through and score submissions and decide which solutions are worth pursuing. All this can be done in a safe and secure environment where intellectual property is protected. Open innovation provides a great way to collaborate with a much wider audience.

Be smart about your budget

When it comes to your household budget, you probably keep track of what you are spending and can easily identify areas to cut back. So why not take the same approach with your corporate budget? If it isn't within your means to invest in your own research and development space, look into renting space from larger labs. This is a simple way that big corporations lend a hand to startups and smaller businesses.

Another great idea is to take advantage of interns who are working on their Master's or PhD degrees. You may be able to use them to fill in certain gaps. In addition, internships provide a great way to cultivate future employees.

Innovation is the driving force behind business, and it requires both intelligent strategies and budgeting. You need to cultivate an environment for innovation by recruiting the right external resources, taking full advantage of existing employees, and providing your entire team with the tools they need to collaborate and communicate. All of this requires money and resources. Your corporate budget must make room for innovation, because it is a sure bet that your competition is already working on the next evolution that will shake up your industry.

LEARN MORE AT EZASSI.COM, OR FOLLOW US ON TWITTER: @EZASSITM.

New Itinerary

HOW ONE OPERATIONS-OBSESSED AIRLINE IS PRIORITIZING INNOVATION

STORY BY SCOTT KIRSNER

PHOTOGRAPHS BY TIM REDMAN

Delta Air Lines
Atlanta

It's

hard to think of a more complicated, operationally-intensive business than air transport. It's regulated and overseen by a federal agency. Customers expect on-time arrivals, food, and frequent flier miles—and increasingly, in-flight wifi. Many of the employees are unionized. You don't control the facilities you fly into and out of. And every new plane you add to the fleet can cost $75 million or more, and needs to be inspected regularly. ¶ In that environment, what role does innovation play? That's the very big question that Matt Muta, VP of Innovation and Operations Technology at Delta Air Lines, has been responsible for answering since March 2014, when he joined the company from Microsoft. ¶ From the outset, Muta has acknowledged that the company doesn't need an innovation group that "chases shiny objects," he says. "We were focused on solving business problems: what are the challenges facing our airline? What are the things we could do differently?"

Airline seats at The Hangar, Delta's innovation lab in Atlanta. It opened in 2016, and attracts interns from nearby Georgia Tech.

IMPACT TECHNOLOGIES, NOT EMERGING TECHNOLOGIES

Muta began his career in the grocery industry, working for Idaho-based Albertson's, where he rose to the position of Vice President of E-Business. Before joining Delta, he was the Global Managing Director for Microsoft's hospitality business.

"My background at Microsoft was always working with customers on what we call 'impact technologies'—the kind of things that can really have a meaningful near-term impact to an organization—not emerging technologies or trailblazing technologies," says Muta. He reports in to Delta's IT organization.

It isn't a cultural fit, he adds, for his team to say, "'Let's play with emerging technologies and try to put something like cognitive computing everywhere." Instead, the approach has been to look at other industries that involve serving customers, engaging employees, and increasing operational efficiency through use of technology, and exploring whether the approaches and tools they are using can be applied within Delta.

As an example, he cites RFID tags on luggage as a potential replacement for bar-coded stickers that need to be scanned by a human. "The passenger can know his bag is on the plane at ATL, and he knows it will arrive with him," Muta says. "That reduces anxiety, and there's the benefit to our staff in knowing where the bag is, if it misses the plane and needs to be rerouted. That's what we mean by impact technology." Delta announced a $50 million roll-out of RFID luggage tracking technology in 2016.

Muta says he sees opportunities for innovation from the moment a passenger drives up to an airport terminal. "As soon as you get curbside, immediately, you have the opportunity for interaction with us as a brand—the curbside team, ticketing, checking a bag, going through TSA, spending time in the lounge." A big part of upgrading those interactions will involve mobile devices, Muta says: finding ways to communicate better with passengers on their own devices, and ways to equip Delta staff with mobile devices and useful apps.

Already, Muta's team has been working with others in the IT organization on what

READY FOR A TEST FLIGHT: PROJECTS FROM "THE HANGAR"

In a little over one year of operation, Delta's innovation lab at Tech Square in Atlanta has developed more than 20 projects, often with help from Georgia Tech interns. A sample:

▸ **Sky Club cccupancy tracking**: Delta's Sky Club lounges for premium status travelers can get crowded during peak days. The Hangar has been exploring various technologies, including video monitoring and mobile device identification, to measure traffic in and out of Delta Sky Clubs in an effort to better staff and service the lounges during busy times.

▸ **Drone lightning inspections**: Inspecting a plane that has been struck by lightning is a time-consuming process that requires trained employees to examine every inch of the exterior. Delta TechOps came up with an approach to fly drones outfitted with HD cameras around the plane while it is parked in a hangar. The goal: to speed up the process while improving accuracy. Early tests suggest that inspection times could be cut by about 85 percent, meaning planes would be back in the air sooner.

▸ **Pre-select meal bot**: Can "chatbot" software help Delta gather meal preferences from passengers in advance? A subset of customers traveling on international flights in the Delta One business class cabin are being asked their meal preference via email. If they don't make their selection within the email, a SMS message is sent several days ahead of the flight to try and capture their meal preference.

▸ **Voice assistants**: Get your flight status, search for flights, or check in using only your voice, on a device like the Amazon Echo.

▸ **Flight family communication**: Getting a single plane boarded and ready for departure involves employees from many different functions. Staffers at The Hangar, working in collaboration with Delta's Operations and Customer Center, developed a system of devices that support improved communication between pilots, flight attendants, and gate agents. The result was fewer trips up and down the jet bridge to communicate with one another.

▸ **Aircraft galley redesign**: How can existing galley space be used more efficiently, and accommodate new food and beverage offerings? Hangar staffers worked with students from Georgia Tech's School of Industrial Design to explore existing galley layouts and how flight attendants prepare food and drinks, and suggest ways to reorganize the contents of the galley to create more space. Students even built a foam mock-up of a business class galley to facilitate the redesign.

Delta calls the "messaging engine" that sends information out to employees. A key challenge has been making sure that everyone, whether gate agent or pilot or baggage handler, has "one consistent version of the truth," so that everyone is on the same page. "That was and continues to be a big emphasis for us," he says.

Another project has been to port an application called SNAPP, which Delta's agents use throughout the airport, onto mobile devices. Up until now, agents have been tethered to desktop PCs to take care of tasks like rebooking a passenger on an earlier flight. After two pilot tests, Delta began deploying a production version this spring, starting at its Atlanta hub.

'LET'S RESOLVE THAT AS QUICKLY AS WE CAN'

Muta says that more than 95 percent of his team's projects involve "working directly with the business, and so we're tied to the same business metrics that they are. They're not going to do anything that isn't going to add value, and so we're trying to show them alternate ways of gaining that value: a different process, a technology, a vendor solution."

But one dynamic of Delta's operationally oriented culture—the company and its regional affiliates operate more than 5,500 flights daily—is that employees in various functions or business units try to solve problems as quickly as possible. "A lot of teams will come in with a problem statement," Muta says, "and the operational Delta mindset is always, 'Let's resolve that as quickly as we can and get it into production.'" Digging deeper and trying to understand the user's real needs is not necessarily an established approach within the company.

To introduce a new way of addressing problems and opportunities, Delta opened up an innovation lab called The Hangar in 2016, on the edge of the campus of Georgia Tech. Shortly afterward, Delta brought in Nicole Jones to run the lab.

"What Nicole and the team are doing with The Hangar is saying, 'Let's really try to understand what the issue is from the user's perspective,'" Muta says. "They'll engage with the business team, understand what their problem statement is, and say, 'We hear you saying this. Let's dig a little deeper. What does it actually mean?'"

Jones explains that the initial screening for any projects that The Hangar gets involved with is to "compare it to Delta's 2017

flight plan, our company goals." She says that projects often involve not just Hangar staff and employees from other parts of Delta, but consultants and agency staffers, student interns from Georgia Tech, and startups.

On one project, The Hangar explored ways to squeeze more stuff into an aircraft galley. "We engaged Georgia Tech students to work with us and figure out, what are some things we could do to create more space in the galley?"Jones says. "One of the things they came up with was turning the coffee mugs inward so the handles faced each other. That gave us almost two more carts worth of space on the airplane."

Another project explored how technology might be able to track usage of Delta's frequent flier lounges. The team from The Hangar visited 11 different Sky Club locations "and really dug in and shadowed the people in that environment," says Muta. "They are bringing in this notion of customer-centricity and design thinking. Sometimes you thought your problem was X, based on the corporate problem statement, and it really is Y. The goal is really to get that understanding."

And while The Hangar is located about 10 miles away from Delta's headquarters and the Atlanta airport, Muta says it's easy to get proof-of-concepts developed at The Hangar tested in a production environment, with both customers and Delta employees.

"We're trying to start small, think big, and learn fast," Muta says.

WHAT DO YOU MEASURE?

Since most of Delta's innovation projects tie in to challenges experienced by the core business, Muta cares about the same metrics the business cares about: things like operational efficiency indicators or improving Delta's Net Promoter Score among its customers.

"There's a whole set of metrics that we as a company align against," he says. "So we think about those a lot. We're not a group that is about shiny objects."

But "speed and impact" are also important to Muta's innovation team. "Speed of resolution is really a big push for us," he says. Another is the organizational impact they can have by developing "solutions that address challenges that we haven't been able to address previously."

One way that Delta's innovation program affects the company isn't easy to measure: the impact on recruiting. But Muta is convinced that as the company showcases more of the ways it is using technology and testing new ideas, the company will "attract a different type of individual who may not otherwise look at Delta as a path for their career."

"The kinds of roles that we're creating are very non-traditional Delta roles," he says. "They're roles where you come in and have a lot of freedom to explore, to learn a broad array of business practices. Versus when you're hired to be a developer in IT, and you're focused on one specific area. These individuals [on the innovation team] are coming in and getting exposed to all different aspects of the business, both commercial and operational."

DEMOCRATIZING INNOVATION

Delta has a culture that can lay claim to a long history of pivots, experiments, and industry firsts. It was founded in 1924 as a crop-dusting venture; five years later, it flew its first passengers. It pioneered the hub-and-spoke system in the 1950s, flew the first regional jets in North America in the 1990s, and twice launched low-fare spin-offs (Delta Express in 1996 and Song in 2003) to try to compete with budget airlines like Southwest Airlines.

Looking ahead, Muta says one key to broadening the innovation team's impact at Delta has been identifying more people throughout the company to work with Jones' team at The Hangar, and getting a slice of their time dedicated to that partnership. "That may be someone who reports in to Airport Ops or In-Flight Service, but they'll work together with Nicole's team on these initiatives. It really helps the momentum on our side, when we have someone on the inside helping us."

Muta also expects to have more involvement with startups as the program evolves, and more time "to think proactively about the what-if scenarios" around technologies like autonomous vehicles, and their impact on Delta's business.

But three years into his tenure at the airline, Muta believes he's already been successful at showing the need for a new approach to innovation. "We've been able to influence our business partners, I think, about why it is important to do this," he says.

"We talk all the time about democratizing innovation throughout the company," Muta says. "Yes, you should always have one foot grounded in the day-to-day operations. But you need to have a foot that is pivoted forward. You should always be asking, 'What do I need to be doing to address the needs of tomorrow?'" ●

Open Skies...

© UNICEF/UN070228/CHISIZA

...Op

en Source

UNICEF'S NEW APPROACH TO INVESTING IN 'FRONTIER TECHNOLOGIES'

STORY BY KELSEY ALPAIO

UNICEF
New York City

In 2013, UNICEF stopped a disaster in its tracks—a bacteria that was on its way to destroying the banana crop in Uganda. With more than 14 million Ugandans eating bananas every day, the country had an epidemic on its hands. On some farms, 90 percent of the crop had already been completely destroyed. ¶ That's when UNICEF, a United Nations humanitarian program, came on the scene. Using U-Report, an open source, two-way messaging platform developed in part by UNICEF's innovation team, 190,000 Ugandans were sent a message via SMS with a simple question:

"Do you know any farmers whose banana plantations or crops are infected with banana bacterial wilt disease? YES or NO."

Within minutes, they had thousands of replies and were able to build a map showing where the plague was hitting the hardest. And messages could be sent back to respondents, detailing how to deal with the plague and offering money from the government to compensate for crops that had been lost. ¶ According to Christopher Fabian, co-founder of UNICEF's Innovation Unit and head of UNICEF Ventures, this is just one of the notable successes enabled by the organization's "near-future sensing team."

Innovation Leader

Erica Kochi and Chris Fabian started UNICEF's Innovation Unit in 2007.


Innovation Labs
A Do-It-Yourself Guide
www.unicefstories.org | www.unicefinnovation.org
UNICEF Volumes: #2 of many

"UNICEF is a legacy organization," he says. "It was built 70 years ago, and it's part of the UN. It's an international organization, and it's a bureaucracy. That's how it was built. Our team is the opposite of all of that. We're a team of 30 people inside of UNICEF...that helps UNICEF be prepared for what's coming."

INNOVATION AT UNICEF

As part of the United Nations, UNICEF (The United Nations International Children's Emergency Fund) works to provide resources to the world's most marginalized children. The organization was started 70 years ago, and now employs 12,000 people in 190 countries.

But it wasn't until 2007 that Fabian and Erica Kochi, who is now in charge of private sector partnerships at UNICEF, founded the organization's Innovation Unit. Fabian and Kochi were eager to collaborate on overlapping projects (Fabian on a Wikipedia initiative, and Kochi on a partnership with "One Laptop per Child.") They pitched their collaboration up and down the halls of UNICEF, until they got a bite from the Director of the Division of Communication, Sharad Sapra.

"[Sapra] saw us with our whiteboard and told us to come up with a business plan," says Fabian. "We brought him one the next day. He said, 'That's not enough money. Double it. You both work for me.' It wasn't officially called the Innovation Unit until several years later..."

Now, UNICEF's Innovation Unit and Fabian's venture team are both focused on looking at the near future and anticipating challenges for marginalized populations.

"If you can think of the needs of a billion people, what are the things that are core problems?" says Fabian. "UNICEF's focus has always been on that bottom 20 percent in income—the most marginalized people... We tend to talk and act very differently. We're not into charity... We try to find things that can help build the businesses for our corporate partners, and also, at the same time, create good in the world."

Fabian's team has the first venture capital fund in the UN, and part of his role at UNICEF involves demonstrating that the organization can adapt to new needs, and is eager to engage with tech companies in the private sector. With $11.2 million in the fund, UNICEF Ventures makes $50,000 to $100,000 capital investments in companies focusing on frontier technologies like artificial intelligence, genomics, and blockchain. So far, they have

Engineers from Google work with UNICEF's innovation team to analyze data to map and anticipate the spread of the Zika virus.


- INSTALL MONGO ON AZURE
- INSTALL JUICE ON AZURE
THINGS WE (M
INFECTIOUS
PREVALENCE
OVIPOSITIO
MOBILITY
- GLOBAL
- NATIO
TIME
- DAILY CHANGE
- GRAPH FOR TE
CASE DATA
POPULATION
WEATHER WIDG

invested in 43 companies, and aim to have a total of 60-70 companies in their portfolio by the end of 2017.

"We make small clusters of bets on companies that are working in those portfolios, but we do it only in the places that UNICEF works, so in emerging economies or developing economies," says Fabian. "One of the nice things about having [190] country offices is that we also include China, India, and Brazil. It's not only the super low-income countries, but we have some powerhouses as well."

When placing these bets, Fabian's team invests in a variety of companies in different countries working on the same technology—the goal being to connect these organizations and develop solutions more efficiently. One catch: all technologies that UNICEF invests in must be open source.

THE FUTURE OF OPEN SOURCE

"I think open source is the single biggest idea of our generation," says Fabian. "Most of the work that we invest in is pretty early stage and pretty infrastructure-level work... We can help companies go faster and advance their work by connecting them to other companies working on the same stuff in different markets... Any research we do, any collaborations we do, have to be public domain. Otherwise, we get locked into a place where we're working with a proprietary company on a proprietary piece of tech to save kids' lives... That company goes out of business, and you're totally screwed..."

But Fabian emphasizes that open source and for-profit success are not incompatible.

"Say you're going to take two years to get to profit," he says. "We can help you accelerate that to nine months by connecting you to other folks working on it. Then we can give you a better base intellectual property stack. Then, when you go for your second or third round of investment, you're in a much healthier place."

One arena in which UNICEF is currently investing is drones and unmanned aerial vehicles (UAVs). Drone technology fits the venture team's goals, as an emerging industry that will impact information gathering and reporting after emergencies. Drones can quickly and safely fly into dangerous areas after disasters and collect information on the whereabouts of survivors; where the damage is the worst; and what areas need supplies first. In 2016, the consulting firm PwC estimated that the emerging global market for business services using drones is valued at over $127 billion. According to Fabian, it's a "sweet spot between what we consider big corporate interests and the interests of UNICEF."

To foster relationships with companies working on drone technology, UNICEF invested $100,000 to help set up a UAV testing corridor at Kasungu Airfield in Malawi.

"We can then go to industry—into big aviation, to startups, to groups working on control systems—and we can say, 'Hey, you can have access to this, but you've got to be testing against problems that mean something to us,'" says Fabian. "It's a total business proposition. We're not trying to say, 'Hey, do charity.' We're saying, 'If you can come to Malawi and test your work, you'll be able to prove out new use cases for your equipment. We can use that to grow your customer base... But, when you go there, you've got to do a few things. One, you've got to train a bunch of Malawian engineers. You have to go to the university and give a week of lectures. You've got to make sure that anything that you test, the outputs are public domain ... And you have to be a partner of ours in some way. You have to help our work moving forward."

UNICEF Ventures has also been active in data science, with the goal of bringing corporations together to study human movement and stave off fast-spreading diseases.

"We try to de-risk the space enough for

Innovation Fund Investments

ILHASOFT: UNICEF has invested $90,000 in Ilhasoft, a Brazil-based company working on an intelligent, interactive robot called "Push." Push's web platform enables users to talk to the robot, ask questions, and seek information interactively. This solution aims to address the growing market for chatbots, and solve challenges such as quick language translation.

mPOWER: mPower has developed the "Open Smart Register Platform," a digital platform that aims to improve data collection and efficiency for frontline workers providing reproductive health and child services. UNICEF has invested $98,000 in the Bangladesh-based company, and during the first six months of investment, the company has improved on current vaccination behaviors, formed government partnerships, and developed interactive visualizations based on testing results.

SAYCEL: SayCel provides communications solutions for poor rural communities in Nicaragua. With a $99,000 investmnet from UNICEF, the team is working to improve cellular networks in rural regions. SayCel will increase infrastructure by installing low-cost technology and training local governments to maintain their own networks.

EKITABU: This Kenya-based company is developing a cross-platform e-reading app that provides better educational access for children with disabilities. With a $35,000 investment, eKitabu's app reads ebooks aloud for children with vision impairment. For the deaf or hard of hearing, the app also includes videos with sign language.

UNICEF, because any big organization is super risk-averse," Fabian says. "It's the fundamental unifying factor among everybody. Then we try to create platforms where we get out of the way... Drones will not be something that 'came out of Ventures.' It will just be like, 'In 2018, of course you use a drone to get real-time imagery anywhere in the world, and here's some companies that you can do it with.'"

BUILDING THE RIGHT TEAM

Fabian says that building a strong team is one key to keeping tabs on emerging technologies that may benefit the organization. And sometimes that involves changing your team composition to reflect changes in technology.

"My job is to help the teams that we have do their work well," says Fabian. "We're able to bring in the most incredible people I've ever worked with to work on these problems... We don't hire people who want to come in and be 20 years in one place. Our agreement is, you come in, work with us on these incredible problems, and we'll put you wherever you want."

Fabian says that the structure of his team changes significantly almost every 18 months, both from an employee and organizational standpoint.

"You can't be preparing for a world that's coming if you're stuck in something that was. That means that we hire a group people who are very different from the normal UN folks," he says. "We try to pick different competencies and backgrounds. We tend to work in a very different style. We try to maintain the connection among a group of people on a project until that project can find a home somewhere. Then, we help those people go where they want to go, whether it's stay with the project or move somewhere else [in the organization.]"

Fabian says that he is also working to change some of the human resources and internal systems at UNICEF as a whole.

"I think that I've seen a huge change in the last six years in the organization, in [terms of] the type of people that are being hired, in the way that people are talking about things, and in the general demeanor of staff towards the future," he says. "We've been working with our human resources guys to...pay interns. Shocker. We weren't allowed to do that before, but if you can't pay interns, you just get a bunch of wealthy kids who don't really need that opportunity anyway. If you're paying people, you open that up a lot."

'THE WORD INNOVATION IS THE STUPIDEST WORD EVER'

Fabian says it's difficult to measure success in innovation, as different parts of the organization have different goals and approaches. Plus, he says "the word innovation is the stupidest word ever."

"It just means everything and nothing," Fabian says. "And so people try to say, 'Well, what are your metrics for innovation?' I'm like, 'There aren't any.' [Innovation is] not one thing."

And Fabian says that the term "ideas" can be just as hazy.

"I hate ideas as much I hate the word innovation, because they're the worst," he says. "The idea is nothing, and it's all the rest of the stuff that you have to do after you have it to make anything."

Fabian says that his group is careful to make sure that not all "ideas" and "innovation" are seen as emanating from UNICEF's headquarters in New York. Rather, 88 percent of UNICEF's resources are allocated to the country offices.

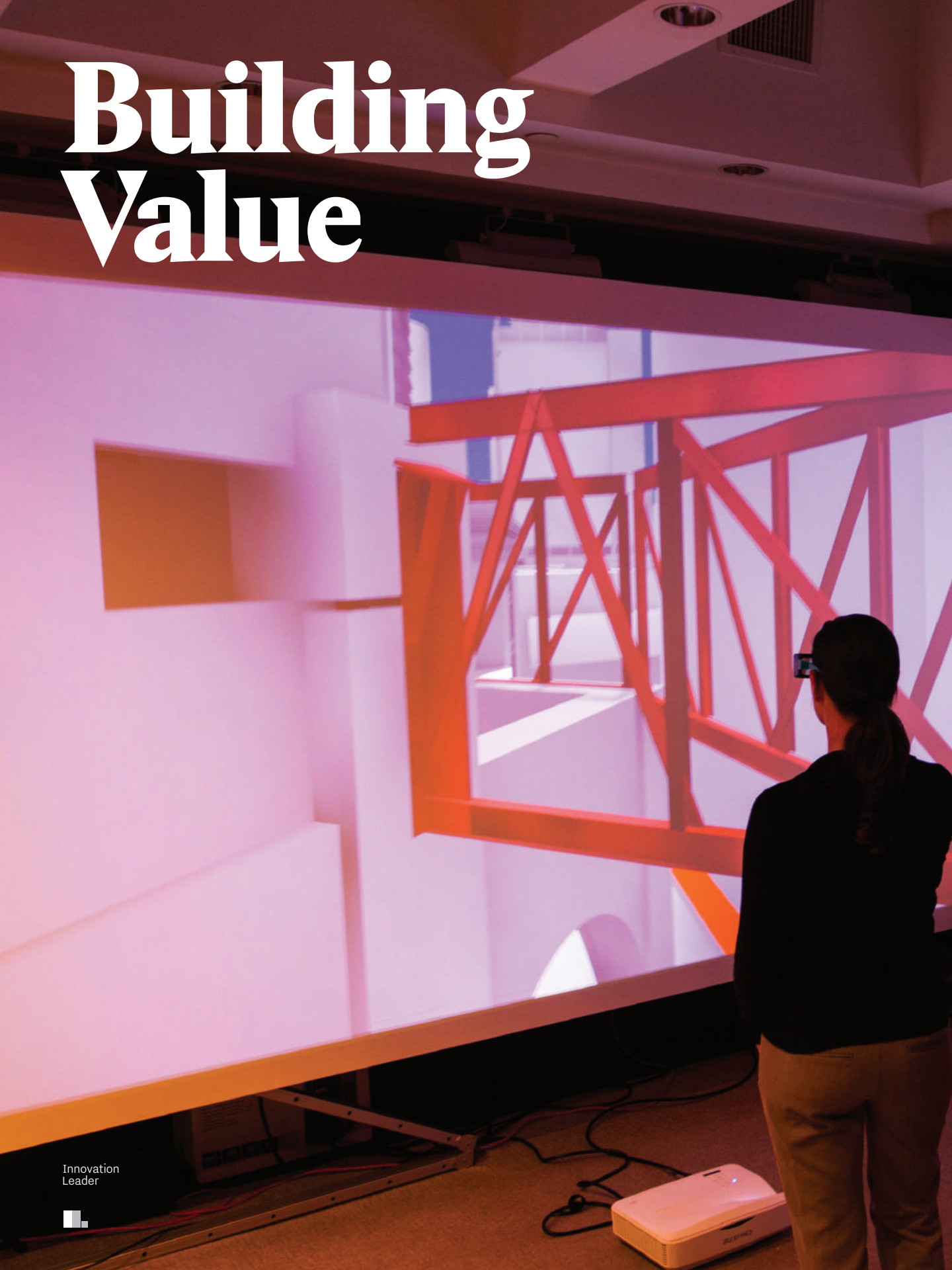
"A few years ago, we did a bunch of analysis, and all this stuff is based on data," he says. "What we found is that anybody [in most organizations] can find $10,000 to do something. And you can find time in your weekend or the afternoon. Anybody can get to that point... What they can't do is find the $30,000 to $100,000 to get it to a point where it is actually generating data for the office [and so] it should go bigger."

To address this issue, Fabian's team made it possible for staff members in the country offices to apply to the venture fund through an internal channel. This way, his team can co-fund a project that needs help moving forward.

"We will co-fund with their country office the work that they're doing, [but] it has to be based on UNICEF's principles," he says. "It de-risks for the office their ability to invest in their staff. It also puts the responsibility for failure on us. Anybody can say, 'Well, yeah. Of course that didn't work, because the innovation guys in New York are idiots.'"

And when projects do fail, Fabian says it's an opportunity for communication and transparency. "We fail all the time," Fabian says. "Ninety-five percent of our stuff just doesn't work. If we were just letting that not be captured [and communicated via our website], then it would be a loss of time. At least this way, if we get hit by a bus tomorrow, there's some record of the work that was done." ●

Building Value



Innovation Leader

SUFFOLK CONSTRUCTION EMBRACES ‘ACTIVE VISUALIZATION’

INTERVIEW BY PATRICIA RIEDMAN YEAGER

PHOTOGRAPHS BY JASON GROW

Suffolk Construction
Boston

When the $2.9 billion construction company Suffolk held the groundbreaking for a new addition at its Roxbury, Mass., headquarters last year, it opted not to arm the dignitaries attending the event with ceremonial shovels. Instead, it handed out virtual reality headsets and remotes. As Boston Mayor Martin Walsh and a group of Suffolk executives turned over a few spades of virtual dirt, a digital rendering of the addition rose from the ground, displayed on giant monitors around a tent for all to see. ¶ It was all part of what has been called one of the first virtual ground-breakings, orchestrated by Suffolk and Theia Interactive, a San Francisco-based virtual reality firm. ¶ "The point of a ground-breaking is to gain awareness and to help people understand what you're doing, to build some enthusiasm around the effort and to make sure the community and everyone else around is engaged," says Chris Mayer, Executive VP and Chief Innovation Officer at Suffolk, one of the country's largest privately-held companies. "By doing it virtually, we basically super-sized all three of these objectives, and we were able to utilize technology that will ultimately enable us to build a better building; it's looking to make sure what we're delivering is value and not just sizzle."

Innovation Leader

Chief Innovation Officer Chris Mayer in the CAVE, a collaborative virtual reality environment.

A NETWORK OF 'SMART LABS'

Two years ago, Mayer arrived at Suffolk with the mandate to build and sustain a centralized innovation function. He started an Innovation Council within Suffolk, comprising 10 executives from across disciplines and regions.

This year, the Council will get a boost, as Suffolk is about to open several Smart Labs to identify, test, and pilot new technologies that the company believes will impact the construction industry. These units will be housed at several offices, including New York, San Francisco, Los Angeles, and Miami. Mayer, who reports to Suffolk Chief Financial Officer Mike Azarela, now has a dedicated team of nine individuals reporting to him.

"We'll have space specifically designed to showcase our innovative capabilities and build better communication across the organization," Mayer says, adding that each lab will be designed with wall-sized collaboration displays, virtual reality environments, augmented reality glasses, and other tools to enable project teams and outside partners to try out new technologies and workflow solutions. "These Smart Labs will have the resources to focus beyond the near-term horizon," Mayer says.

Pulling in ideas from across the organization is key. "As you can imagine," he adds, "the job wouldn't [work] if it was, 'Let me sit here and think about all the innovations we should be focused on.' It's really creating the framework for the ideas that other folks in the organization are surfacing—to help support those and amplify those, and then to help extend those across the organization."

"There are people across the entire organization who have great ideas, or the best vantage points on things to really be impactful."

One big focus for Suffolk is its "Build Smart" initiative, which aims to deliver projects more predictably and efficiently—in other words, on time and on budget.

"ACTIVE VISUALIZATION"

Since last year's virtual ground-breaking, active visualization has been a big emphasis for the team—creating new ways to envision projects in their finished state, whether using augmented or virtual reality. The company currently has virtual reality "CAVES" in three of its offices. A CAVE, or collaborative virtual environment, is a 6-foot high, 10-foot wide space that comes together via a screen on two connecting sides. Clients walk in the room, don virtual reality headgear or simply look at the screens, and immerse themselves in a model of a building they're planning. "It's a way for you to better understand the space and interact with people in the 'physical' setting," Mayer says. It's not meant to replace other kinds of models, but rather to add another dimension, illuminating how a space feels. Virtual reality helps with things such as realizing how complete a space is, and helping to answer, "Do you have all the necessary components? How are you effectively communicating with other people about it?"

Suffolk creates its CAVE environments by obtaining CAD 3D design files from the architect, and then layering on plumbing, electrical, and other infrastructure layers. It then renders a view with the right amount of information to help a client understand a space. In one instance, Mayer says, it was particularly helpful when they took a client through a space virtually and she suddenly noticed the engineer had put the fire alarm displays in the middle of the wall; the client wanted them moved for aesthetic reasons. While it was on the plans all along, seeing it in a virtual environment really grabbed her attention, and saved Suffolk from having to make costly changes further along in the project.

The first project designed using the CAVE was a $500 million new building for Brigham and Women's Hospital in Boston.

ENHANCING SITE SAFETY

Mayer says the company is also starting to experiment with VR to build a safety training application, part of a safety effort that works toward a goal of being "incident and injury free," or IIF. With the prototype app, workers navigate around a virtual job site to help them visualize standard-sized railings; holes over a certain diameter that need to be covered; or how workers would be able to make their way through a space with a flashlight in the event of a power loss.

"We're really focused on putting safety ahead of everything else—everyone comes to work and goes home safe—that's the commitment," Mayer says.

Some additional things the company is testing include perimeter cameras on job sites to keep track of people as they enter or leave, as well as other types of monitoring

technologies that rely on RFID chips embedded in workers' ID badges. Suffolk wants to know "who's on and who's off the job site, and where they are on a job site," Mayer says. "If there's ever a situation, we know who's accounted for, where people are. So everybody is safe."

Monitoring machinery also fits into this safety initiative, as a way to keep people safe as they interact with and near the equipment, but also to keep the machines secure. Mayer says that Suffolk wants to track things such as, "what machinery is where on site, what is it doing? Who's in proximity of that machinery? What is scheduled that day to go in that area?"

HACKATHONS AND GATHERING IDEAS

Mayer realizes that the best ideas often come from people out in the field. "One discounts ideas coming from anywhere in the organization at one's own peril," he says. "There are people across the entire organization who have great ideas, or the best vantage points on things to really be impactful."

Right now, Suffolk doesn't use any software to funnel or winnow ideas, but it does use its intranet to solicit them. It's an informal process, Mayer says.

But he says there are a few caveats: "You really want ideas to come from people who are passionate, but also from those who have enough experience to be able to characterize the true benefits of implementing certain technologies or processes."

Suffolk also has meetings of something it calls the iClub, a voluntary group, in which people gather to discuss different topics that interest them. For instance, some people are interested in emerging technology, while others might show up just to discuss something specific, like job site data capture.

Suffolk experimented with a hackathon targeting a specific topic late last year and was pleased with the results, Mayer says. He says that he's leaning toward narrowing the focus of future hackathons to generate more actionable outcomes.

Mayer says potential areas to explore include:

- Examining how to do "reality capture" (gathering data about a construction project as it proceeds) to increase the quality and efficiency of a construction project.
- Looking at the process flow that Suffolk currently has, and rethinking how it handles materials or manages information and activities on job sites.
- Exploring how Suffolk can use big data capabilities to differentiate itself and improve safety, quality, and performance.

UNLOCKING THE VALUE

How does Mayer see his innovation unit affecting the company and its clients?

The innovation group's mission is intertwined with the company's Build Smart initiative, and finding ways to improve and maintain client relationships. Mayer says his ultimate goal "is to help transform the construction experience."

That means not only for Suffolk's clients, but for its 1,200 employees and partners as well.

"Just saying that we're going to roll out new technology on a job isn't enough," he says. "It's in the R&D or piloting phase that we can unlock the true value we're going to get out of it, assuming that the real win is to take what we've learned and identify how to scale it across the entire organization. Then it becomes what we do. Ultimately, with enough of those, it becomes who we are." ●

Boston Mayor Martin J. Walsh and Christopher Mayer of Suffolk Construction look on at a "virtual groundbreaking" in 2016.

What is CO-INNOVATION — and how do you make it happen?

By Alex Goryachev
CISCO

Innovation in today's disruptive digital economy can come from anyone and anywhere—inside and outside any enterprise. This means companies must fire up and fuel co-innovation like never before across all functions, grade levels, geographies, partners and customers within, without, and among their four walls. I firmly believe companies that don't embrace this accelerated pace of change with a more holistic view of hyper co-innovation will perish or become irrelevant.

A century ago, the average life expectancy of a firm in the Fortune 500 was about 75 years, according to Deloitte. Today, corporate extinctions average fewer than 15 years and their lifespans continue to decline. Further, Gartner predicts that only 30 percent of digital innovation strategies will be successful in the coming years. The clarion call is loud, clear, and urgent: Widen the aperture of co-innovation, and converge best practices inside and out.

Here is my three-point plan:

Build an external ecosystem of partners
First, companies must disrupt themselves from the outside. This may be contrary to conventional innovation wisdom that suggests you begin internally, but it's critical to let the outside in if you expect to adapt to digital change. This means organizations must abandon traditions of solely developing solutions in-house, whether it's the R&D, engineering or product development group. Leading-edge digitization in any

market sector requires companies to build and rely more on a strong and inter-connected ecosystem of partners to co-develop solutions. No single company today can do it all alone.

One of the best ways to cultivate this ecosystem is to set up working labs at locations strategic to your business. At Cisco, we have nine Innovation Centers worldwide, each bringing together local entrepreneurs, programmers, startups, accelerators, government, academia, and customers to co-develop either customized solutions or game-changing concepts that can scale globally.

Each hub focuses on solutions most germane to its region, but each is also connected to all the others, creating a multiplier effect where problem-solving and best practices are shared. From these incubation centers, we co-develop and monetize myriad leading-edge solutions we could not have done on our own.

Public innovation challenges—whether local or global—also help to stimulate introductions, interactions, and relationships with your partner community. Challenges not only help to identify and nurture novel ideas, but also strengthen critical relationships with innovators who have special expertise in your own markets.

Ignite a culture of innovation company-wide

Second, bust up your business unit silos internally by opening up innovation challenges company-wide for *every* employee. I started Cisco's internal program company-wide because of pressure from turned-on employees who wanted to enter the external challenge, but weren't allowed to do so. There's clearly a yearning from employees to want to be part of something bigger that also taps into their own passions.

At many companies, innovation programs have been isolated within the domains of R&D, engineers, product managers, or individual departments. These programs are still critical, of course, but in today's world of constant reinvention, it's imperative to think outside your silo by unleashing the passions and inner entrepreneurs of every single employee. Remember, innovation can come from anywhere and anyone.

Big companies in particular have launched plenty of innovation bombs or implosions for many reasons: one-time events that fizzle out; lack of C-Suite commitment; hierarchical cultures; aversion to risk and experimentation; scarce resources; unclear goals and processes; poor follow-through on new ideas—the list goes on. Perhaps the biggest breakdown is the inability of innovation activists to enlist collaborators to drive disruptive thinking across all business units.

A company-wide innovation program often means disrupting your entire culture—from top to bottom—encouraging employees across ALL functions, grades, and geographies to team up, disrupt, and co-innovate together. The goal is to transform the culture by empowering and encouraging employees everywhere to think and act more like entrepreneurs in a startup. Once it's in your culture's DNA, co-innovation will become the gift that keeps on giving.

As we approach our company's third annual company-wide challenge, the results of last year's challenge have been exhilarating. More than 53 percent of our workforce from 89 countries and all Cisco organizations participated in some way. They either formed venture teams or joined them, submitted venture ideas, commented or voted on innovations, or logged onto and joined our new "Always On" innovation site, The Hub. Nearly 800 ventures were submitted by about 1,600 employees, 62 percent of whom were on teams.

A dozen winners and non-winners from the first year's program continue to move their venture ideas toward monetization, with the help of more than 200 mentors and 20 executives providing them with seed funding. Most importantly, the program continues to gain momentum company-wide, with high and inspired engagement levels at the same time we're beginning to reap the rewards of our first disruption two years ago.

Converge and synergize innovation best practices inside and out

Bring the outside in and the inside out by inviting leaders from your ecosystem to help guide venture teams, conduct workshops on lean startup methodologies, and allow employees to work alongside partners at innovation centers or contact customers to validate their ideas.

By collaborating more closely, employees across the workforce spectrum, external partners, and customers can share fresh ideas, learn how their unique talents can contribute to better business outcomes, and re-energize themselves. This is how it works in Silicon Valley—co-innovation is not a political game; it is a team sport where each player has a specific role.

This is hyper co-innovation at its best. I have always found it ironic that people in large companies sometimes think it would be better to work in a startup, yet people in startups strive to become the next Fortune 100 success story. I have worked in both environments. To me, working in an environment of hyper co-innovation is the best of all worlds for enterprises and their customers.

FOLLOW ALEX ON TWITTER: @AGORYACHALEX.
LEARN ABOUT CISCO AT CISCO.COM.

Solutions, Not Just Products

Innovation Leader

A NEW LAB HELPS MEDICAL DEVICE GIANT MEDTRONIC SHIFT ITS THINKING

STORY BY SCOTT KIRSNER

PHOTOGRAPHS BY CHRISTINE ALTENHOFEN-SONNER

Before Medtronic's Applied Innovation Lab existed in bricks-and-mortar form, it was constructed out of cardboard. ¶ "We ordered 40 sheets of four-by-eight cardboard," explains Brian Bechard, a Technical Fellow at Medtronic. "Everything we wanted in the space was put together in cardboard first, before we created CAD drawings and then the physical environment." ¶ To create a new space for prototyping the future of healthcare experiences at home and in hospitals, why not start out with a cardboard prototype? ¶ The Applied Innovation Lab opened its doors in September 2015, with a goal of helping Medtronic evolve from being simply a maker of medical devices like pacemakers and stents to one that is thinking more broadly about improving health and patient outcomes. In the two years since it opened, there has hardly been a quiet moment at the lab — and there has been so much demand from different groups in the company that Bechard and the rest of the team at the lab have had to create screening criteria for what they will work on.

About 90 percent of projects at the lab involve collaboration with business unit teams from around Medtronic.

THE LAB'S FOCUS

The seven-person team that operates out of the lab sits under Medtronic Chief Information Officer Michael Hedges. Team members have backgrounds in design thinking, business strategy, engineering, and clinical research, explains Scott Mark, a former Director of Healthcare Innovation at the company.

Explaining the motivation behind creating the lab, Mark says that in the years since Omar Ishrak became CEO of Medtronic in 2011, "we've increased our focus on patient outcomes. Omar has focused us on understanding economic value in what we do, and on being more of a solutions-oriented company, not just a medical device company." Mark made the case that creating a place to practice human-centered design would be a way to help Medtronic's various businesses move in that new solution-oriented direction.

"It put a really heavy onus on us, from the beginning, to deliver what the business units would see as meaningful value," explains Mark. "We didn't want to just be a space, or to just be workshop facilitators, providing a transient opportunity for people to think differently. We wanted to build up a robust internal consulting capability, with hard deliverables as an output, so that teams could bring something back and continue working on it in their business."

A centerpiece of the 2,200-square foot space is a 360-degree video projection screen that drops from the ceiling. The team often goes out and uses GoPro cameras to gather footage from different healthcare environments—like a hypertension clinic in Ghana, or an emergency room in Los Angeles—which allows the lab to immerse people in what feels like a realistic patient experience. "It's very different from putting on virtual reality goggles," says Bechard. "You can ask questions, and have it be social. You're there with 10 of your peers, and you're all looking at the same thing."

The innovation team that created the lab knew they didn't want to create a showcase for cutting-edge technology or a "tour stop," in Bechard's words. "This is a working space, a team space. There's always activity in it, and things up on the whiteboard—pictures, or itineraries for upcoming visits in the field."

HOW THEY WORK

Much of the work that happens in the lab is less about creating prototypes of new medical devices or new apps for doctors, but rather experience design and solution design. One example involves helping medical professionals manage patients with hypertension and heart failure in emerging markets—using tablets, mobile phones, and in-person interactions. Storyboards are a commonly used tool for mapping out the patient journey and his or her interactions with the healthcare system.

"Everything we build at the lab is a sacrificial concept," explains Bechard. "There

are going to be flaws and things that aren't right. What we're doing is looking for a reaction—someone who says, 'It needs to be more of this, or less of that.' We want to have honest dialogue. But the idea is that we don't spend months and hundreds of thousands of dollars developing a beautiful prototype that looks like it is commercially ready." Instead, the Applied Innovation Lab aims for "crude and rapid prototypes."

Initially, the lab worked on a roughly equal mix of its own projects and projects for different business units around Medtronic. But in its two years of existence, the balance has shifted dramatically. "Today, only about 10 percent of our time is devoted to our internal projects," Bechard says. The other 90 percent involve collaboration with a business unit team, which can often involve insurance companies, technology vendors, and other outside partners.

Some teams may be resident in the lab for two months or more to flesh out a concept and gather data from the market; others might come in for a more focused day-and-a-half session.

The lab crew also holds regular "office hours," when teams from around the company can drop by, and get advice or recommendations on projects. "That's one way to distribute our impact around the organization," Bechard says.

It's key, he adds, that the lab works closely with business units and "speaks the language of the business...so that our credibility is built up over time. They are focused on keeping the engine running—and we're trying to provide value in ways that may not have been explored before."

There isn't an insular attitude at the lab of "let's do something and then throw it over the wall to the business," Bechard says.

GOING GLOBAL

As the lab has begun getting involved in projects outside of the US, it has also expanded its team to include seven "extended team members" in regions like Asia-Pacific and Europe. In addition to a weekly team meeting in Mounds View, Minn., where the lab is based, "we've just begun to do a monthly call with the extended team members, highlighting specific projects in places like Singapore and China," Bechard says. Knitting together a geographically-distributed innovation group, he adds, "doesn't happen by itself; you have to be deliberate about it."

As an example of how the lab is working with constituencies around Medtronic and around the world, Bechard brings up a project that started with the company's minimally-invasive therapies group, based in Boulder, Colo. "They came to us to think through market readiness for a new patient monitoring solution, and they needed a first launch site or testbed," Bechard says. "This was a solution that was potentially disruptive to our current mature markets, and so they told us that they wanted to look at emerging markets." Two markets they wanted to examine were India and China. Bechard was the project leader at the lab, "and we had extended team members in Shanghai," he says, "and the main business sponsor in Boulder. The group that was local to the Chinese market let us go into the field and talk to anesthesiologists—walk into the NICUs and PACUs [neonatal intensive care units and post-anesthesia care units] to better understand the jobs to be done and the needs there."

At any given time, the lab tends to be juggling between 30 and 40 different projects. But since it opened in 2015, a queue of other projects has built up, all vetted by the team as "a good match for our capabilities," Bechard says.

So the lab has been honing its criteria around what kinds of projects it chooses to work on. "We always emphasize that we want to be involved very early — at Phase 0 or Phase 1, helping to develop the challenge statement and getting everyone pointed in the same direction," Bechard says. Projects need to be relevant to the lab crew's expertise and skill set. "We are also trying to focus on funded and supported projects within businesses," he explains, as opposed to pet projects of a single employee or "science fair"-type explorations.

"We didn't want to just be a space, or to just be workshop facilitators, providing a transient opportunity for people to think differently."

Bechard and his colleagues know they're only two years into a long journey.

"We talk all the time about putting the patient or end-user at the center of our process, and developing empathy and understanding of how they work, and their needs," he says. But in doing anything new, he says, "you've got to be mindful of the corporate culture. We can be very qualitative at times, and it can be very quantitative, and market research driven. So we're chipping away at this piece by piece. It takes time to turn the ship, to develop trust, and to bring in new mindsets." ●

Guidance

4

Fall
2017

Is Innovation on the Agenda?

COLUMBIA BUSINESS SCHOOL PROFESSOR RITA MCGRATH ON METRICS, INNOVATION MATURITY, AND 'ORGANIZATIONAL DEBT'

INTERVIEW BY KELSEY ALPAIO

How often is innovation the highest-priority issue at your company? ¶ In many organizations, it happens once a quarter when the innovation council convenes, or once a year when the employee idea competition rolls around. ¶ Rita McGrath says it ought to happen at every meeting. ¶ "If you believe innovation is important, it should be in position one, two, or three on the agenda of every meeting that you have," she says. ¶ McGrath is a professor at Columbia Business School and author of the book *The End of Competitive Advantage: How to Keep Your Strategy Moving as Fast as Your Business*. In an interview with Innovation Leader, McGrath talks about measuring inputs and outcomes, "organizational debt," and innovation maturity.

'THE END OF COMPETITIVE ADVANTAGE'

[There was] a very core idea in strategy that what you wanted as a strategist was to find a competitive advantage that would last a long, long time. That's called a sustainable competitive advantage.

That's great if you can find one. But what we're seeing is—as entry barriers come down, and it's harder and harder to insulate and protect a business—that you're dealing instead with temporary advantages. The advantage is created, you have a time to exploit it for a while, and then it goes on the decline.

There are six elements of what I call a "New Playbook for Strategy":

1 Instead of change being the weird thing and stability the normal thing, you want to flip that around so that change becomes more than just an interruption. It becomes the way that we do things, so that we're constantly moving forward in a more agile way.

2 We need to get much better at disengaging. By the time an advantage has lost its power, you want to be able to pull the resources out of it so that you can reintroduce them into something else.

3 You need to be able to move resources around the organization in a pretty rapid way. The dilemma is [that] means that somebody's got to give up resources for somebody else to get them. There's always this political tussling that happens. The research suggests that if you don't have that process in place, [your] resources will go into defending an existing advantage rather than inventing something that's new.

"Very often, what will happen is that the investment intended to drive growth just gets sucked back into the core business..."

4 Innovation really has to be a proficiency. More than just getting ideas, more than episodically. What you see a lot is you'll have an important person say, "Well, you, you, and you go do a skunkworks ..." But it's not a consistent organizational process. It's dependent on one person or a single champion, and often it comes and goes. That's no way to build a reliable, repeatable process.

5 Leaders need to be taking in different kinds of information. One of the big leadership challenges is, how do you make sure that data from the outside get incorporated in your decision-making? Don't be afraid to shift direction if you need to.

6 A lot of this has huge implications for careers, and how people find their way and find their jobs. The argument I make is we're all entrepreneurial now, and we're all needing to prepare ourselves for the next investment, for the next gig...That's new. For a lot of us, we used to think that the company is taking care of us or planning our careers. It was all about the hierarchy, and we're moving to a world where that's just not the model any longer.

PAY ATTENTION TO MORE THAN IDEATION

It starts with your agenda, and I mean that incredibly literally. If you believe innovation is important, it should be in position one, two, or three on the agenda of every meeting that you have...Even if you just start the meeting by touching base quickly on something having to do with innovation.

I think the second big thing you want to look at are your metrics. Are you measuring the inputs of getting the ideas? Are you measuring the process—how the ideas go through your pipeline—and are you measuring the outputs?

One of the biggest dilemmas is that companies tend to focus on just getting the ideas, having that ideation stuff going on, whereas there are actually three processes. There's getting ideas, then there's bringing them to life, and then there's accelerating them so that they actually join your parent company in a meaningful way. We tend to focus too much on the ideation part.

The third [thing] is just making it really clear that you expect people to be delivering innovation as much as you expect them to be delivering anything else.

It's also super important to separate out the investment that's destined for growth and innovation from the investment that's just everyday business as usual. Very often what will happen is the investment intended to drive growth just gets sucked back into the core business.

MEASURING INPUTS, THROUGHPUTS, AND OUTCOMES

You want to measure supply as well as demand of innovations. You need metrics that measure the inputs—where are the ideas?—

you need metrics that measure the throughputs, and then you need metrics that measure the outcomes.

On the input side, it would be things like how many people were trained, how many ideas went through the funnel, how many things got vetted, how long did all this take?

On the throughput side, you want to look at how many innovations made it to what stage. You might want to look at the total sum of learning that you had, [and] where did that get distributed?

On the outcomes, typical measures would be things like, how many of the offerings we have on the market are new within the last two or three years? How fresh is our book of business? How old is our oldest item in the product line?

You want to measure what comes in, how it gets managed, and then what goes out. What a lot of firms do is they'll just measure the outputs—they'll have a number. 3M famously [wanted to] have 20 percent of all products be new within the last few years.

Or they'll just measure the inputs: "We had 75 million great ideas, we trained 27 people," that kind of thing. You really want the complete gestalt of measuring the whole system all the way through.

Organizations also respond to stories. At 3M, for instance, they'll tell great stories about innovations that didn't succeed in the marketplace—but nonetheless they really honor the people who introduced them, innovated them, who were championing them. I think organizational stories are really critical.

The same applies in reverse. If you have a lot of stories about how so-and-so took a risk on innovation, it didn't work out, and it killed his career, those stories also get around.

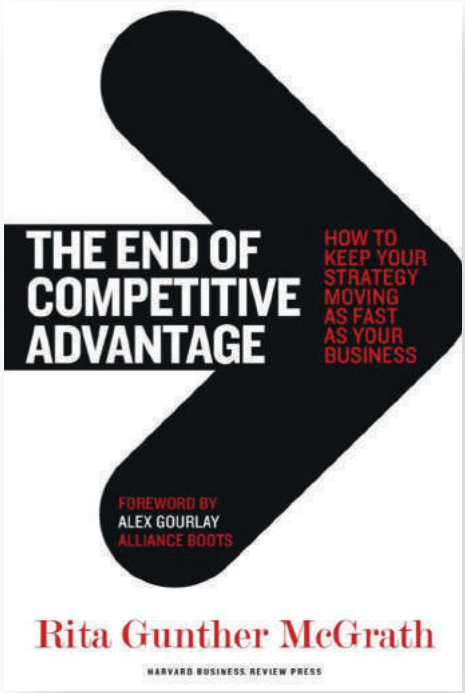
[At the manufacturing firm] Emerson Electric, you have full stories about how the CEO went into a towering rage because these two projects didn't get the support they needed, so they stalled. Or we missed a market opportunity because somebody wasn't thinking [far] ahead enough about the customer. Those kinds of stories, they motivate people.

TECHNICAL AND ORGANIZATIONAL DEBT

New ventures go through phases. At the ideation stage, what you need are people who are very good at listening to customer pain points; who are good at marrying the art of the possible with what that customer's pain is; who understand technology; who understand where things are going.

All the way through that incubation process, those people make a lot of sense. When you get to acceleration, which is the entry into the marke ...that's where you need a different skill set.

You have a couple of different things that happen at that stage. The first thing is that you have to deal with technical debt. Technical debt's very well understood by technology people. What it means is that in the early stages, you don't build incredibly rich, complex software; you build kludgy little prototypes and things that kind of work, and maybe they don't.



Eventually, what you have to do is... they call it refactoring. You have to now build robust systems. It has to have all the cybercrime protection. That's expensive. It takes time.

You also have what you might think of as organizational debt. In the early stages, we're all one big happy family. Who cares about titles [and reporting] lines? But when you have to scale, you need a Vice President of Operations. You need a person who's going to direct sales. You need to change the team.

You can almost think of it like refactoring the team. The bright, blank sheet of paper, the "this would be so cool" kind of guys, are probably not the guys you want running your supply chain.

One organization I work with a lot is out in Silicon Valley. They're called Mach49, and they have a very interesting system, where they'll take your venture into their incubator for 12 weeks. They spend the first four weeks talking to customers, really understanding customer pain points. They spend the middle period doing prototyping...Then the last four weeks you're building the business plan.

When the company that sponsors these teams and the executives come back to the incubator, they can say, "Yes, we want to invest. We want to take it to the next level. We want to continue to develop it." Or, "At this point we're not interested. We don't think

you've come up with anything we can really get behind." It's kind of a forcing function.

The other thing that happens in big companies is [that] everybody's busy. Unless you have time to pull people out of their jobs and focus on this [new thing], the day job always gets the attention. You need some kind of forcing function to bring these things up to scale. [For example], time until a pitch day. A time-limited period in the incubator is another one. Commitments to have something to show by a certain date. They're all examples of things that focus people's attention.

The other thing that is really important is you can't overload people too much, because when everything's a priority, nothing's a priority. It's very easy to get lost in the swamp at that point.

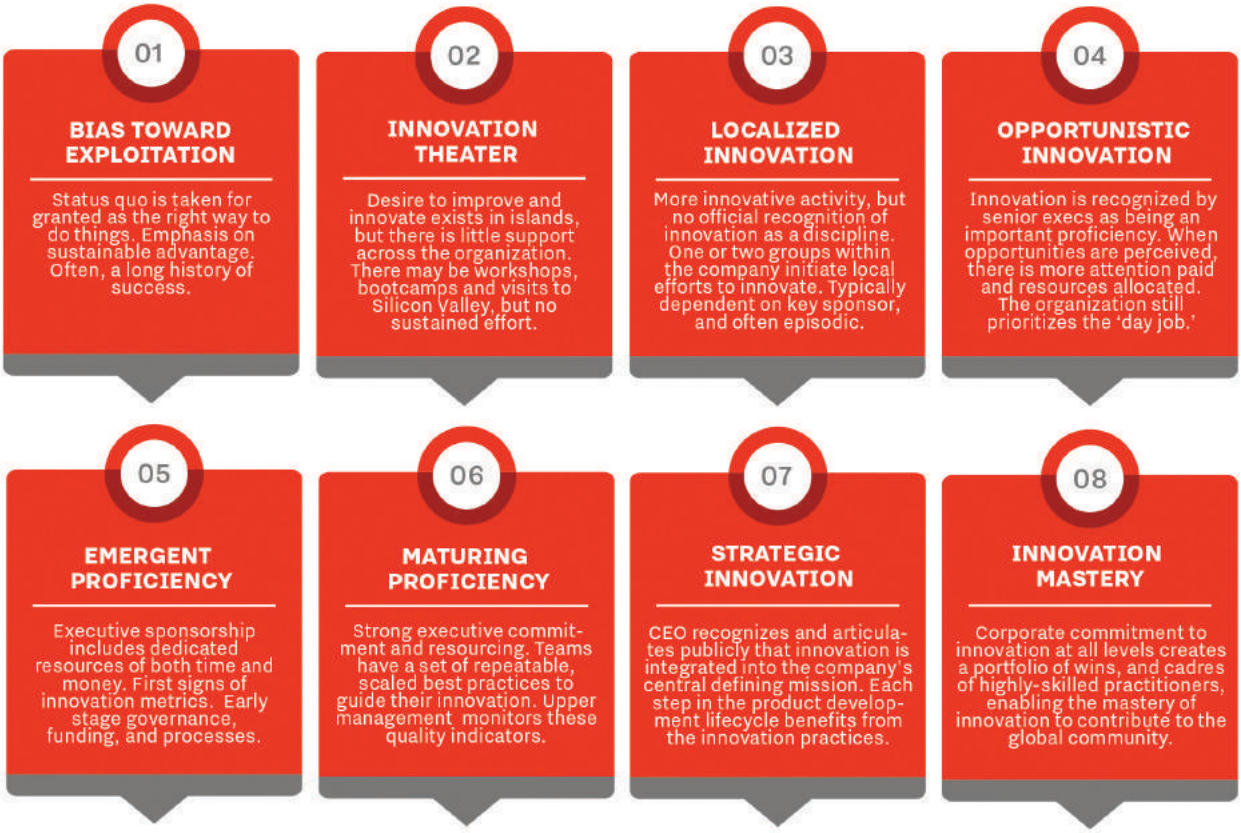
BUILDING YOUR TOOLBOX

What I do think we're seeing is the emergence of a set of best practices and best tools that people can put in their tool box and utilize. Corporations are inching more towards real proficiency in innovation.

I'm working on a program I'm calling an Innovation Maturity Index, which is basically one to eight. If you're at a one, you're not even aware that you need innovation. There's no process in place. Then as you move through the various stages, eventually you get to a place where it's robust, there are processes, there's technologies around it, people are trained, people understand what they're trying to do, and it happens without the senior person pushing all the time.

Companies that are very high level would be Amazon, of course, companies like Royal DSM, which is a Dutch-based materials maker. Aetna, which has really transformed its business. There are some good examples of companies that have become much more mature in terms of their innovation procedures. ●

RITA MCGRATH: INNOVATION MATURITY SCALE



INNOVATION LEADER is proud to have a Strategic Partner program that features some of the top innovation advisory, consulting, software, services, and design firms in the world. These partners have co-hosted events with us, collaborated on research, co-hosted webcasts, provided templates and tools for our members, and more. For more information on these firms, select "Innovation Firms" under InnovationLeader.com's Resources menu.

Cspace.com
@CSpaceGlobal

C Space is a customer agency. It connects the world's best-known brands—like Walmart, Samsung, AB InBev, Mars, and more—with customers to inform and shape strategy development and drive business growth. By building ongoing relationships with customers, brands can stay relevant, deliver superior experiences, and build loyalty.

Digitalscientists.com
@digitalscience

We are a software innovation lab—an integrated team of designers and developers using the latest frameworks and tools to deliver awesome new software products. We partner with forward-thinking businesses to create mobile apps, websites, ecommerce stores and internet of things (IoT) applications. Established in 2007, we are proud to call metro Atlanta home. We believe in taking a "design thinking" approach to solving complex problems for users.

doblin.com
@doblinglobal

Doblin, a member of Deloitte Consulting LLP, helps companies anticipate and seize new business opportunities. Balancing strategy with exploration, discipline with creativity, and practicality with ambition, we help companies untangle gnarly problems and develop viable solutions with lasting impact.

EurekaRanch.com
@Innov8Engineer

The Eureka!Ranch is an innovation systems company. We teach courses, lead projects, and develop tools that ignite innovation within people and organizations.

ezassi.com
@eZassiTM

eZassi is an industry leader and first in the area of open innovation management software. Beginning in 2004, eZassi started the innovation journey through invention. With several inventions under the eZassi umbrella the identification of the open innovation software need developed and transformed into what it is today—a powerful, unique and flexible open innovation management software product.

Idea-point.com
@ideapointboston

ideaPoint software enables global enterprises to capitalize on breakthrough ideas at any stage of development, accelerating innovation and driving growth, all within one secure, easy to use tool. Through ideaPoint, companies can secure strategic partnerships and manage critical requests, initiatives and alliances, such as Mergers & Acquisitions, R&D Collaborations and Business Development & Licensing opportunities. Teams can source, evaluate, invest in, track and manage dynamic growth opportunities within a unified, secure system which provides best practice guidance while remaining completely and easily configurable to your unique processes and proprietary methodologies.

Ideascale.com
@ideascale

IdeaScale is an innovation management platform that uses crowdsourcing to help you find and develop the next big thing. Our mission is to provide superior open innovation software in order to transform every business' product, process, or structure.

imaginatik.com
@imaginatik

Imaginatik is the world's first full-service innovation firm. We are an advisory, software, and analytics provider devoted to making innovation a sustainable practice within the modern enterprise. We've been named a World Economic Forum Technology Pioneer, and Forrester Research has cited our Innovation Central software platform as a Leader in Innovation Management Solutions in both 2013 and 2016.

innosight.com
@innosightteam

Innosight is a growth strategy firm focused on helping organizations design and create the future, instead of being disrupted by it. We work with clients across a range of industries to build new growth ventures, develop innovation capabilities, and accelerate organizational change.

Innovation360group.com / ideation360.com
@innosurvey / @ideation360

At Innovation360 we help clients improve their innovation capabilities and value propositions. We offer evidence-based assessments based on our global innovation database and primary research. Our recommendations help clients build the sustainable innovation capabilities they need to execute their growth strategies. Our ideation platform, ideation360, is a global platform for ideation and exploration. It enables organizations to innovate by collecting, organizing, selecting and testing ideas from all of their employees, customers and partners.

theinovogroup.com
@TheInovoGroup

The Inovo Group is an innovation consulting firm helping technology-driven companies succeed at strategic innovation. We guide clients as they create surprising and potentially disruptive innovations that use technology for differentiation and competitive advantage. As we work together, clients use our proven innovation process to discover and pursue opportunities, gain new competencies and transform business models, organizations and cultures.

nasongroup.co
@nasongroup

The Nason Group provides consumer-centered innovation to help you meet people where they are! We help you think about consumer-centered innovation as a lifestyle vs. a job. Our approach contributes to the building of a culture supportive of keeping the consumer at the center of your business.

movestheneedle.com
@MovesTheNeedle

Our mission is to transform organizations to continuously innovate by empowering people to discover and create new value for their customers. Co-founded by Brant Cooper, author of *The Lean Entrepreneur*, Moves the Needle helps ignite entrepreneurial action, empowering employees to discover and create new value.

nottinghamspirk.com
@NottinghamSpirk

For over 44 years, Nottingham Spirk has developed hundreds of patented products that have generated $50 billion in sales for Fortune 500 companies. The firm offers a full-service Vertical Innovation™ process—from market research, user testing, product design and development, mechanical, electrical and software engineering, to prototyping and support for full commercialization.

patsnap

PatSnap.com
@patsnap

PatSnap helps business leaders make better informed decisions about their innovation strategy by harnessing intellectual property analytics. Thousands of companies use PatSnap to analyze tech trends, drive innovation, automate competitor intelligence and maximize return on R&D. With advanced neural networks and data science techniques, we read, analyze and correlate millions of documents from across the globe every day. Then we add the information you need to make the right decisions, from chemical structures and clinical trials, to financial reports and litigation records.

sopheon.com
@sopheon

Sopheon's Accolade® software, services and best practices provide end-to-end decision support and process automation for the entire innovation management, new product development and strategic initiative lifecycles. The end result is business agility and increased performance of innovation investments required for long-term relevance in a fast-changing market. For the first time, businesses can access a single source of the truth across strategic innovation planning, roadmapping, idea and concept development, process and program management, portfolio optimization, resource capacity planning and in-market management.

spigit.com
@spigit

Spigit is the #1 ideation management platform, and enables you to harness the collective intelligence of your employees, customers and partners to solve today's problems, maximize tomorrow's opportunities and accelerate innovation.

strategos.com
@StrategosTeam

Strategos is a strategy and innovation consultancy founded by a group of talented professionals and Professor Gary Hamel. For over 20 years, we have helped clients across the globe developing game changing strategies, identifying opportunities for growth and embedding innovation at the heart of their organization. Our approaches, methods and tools enable a creative and systemic approach to strategy and innovation that have been time tested and proven to deliver results.

Venture2.com
@venture2inc

Venture2 is a growth and innovation consulting firm with a unique ability to bridge strategy, capability-building and organizational transformation. Our clients include some of the world's leading corporations across a variety of industries. They rely on Venture2's specialized innovation and business process expertise, entrepreneurial methods and connections, and unparalleled implementation experience to deliver sustainable growth.

How Can You Identify THREATS & OPPORTUNITIES Using IP Data?

By Timi Olotu
PATSNAP

Mergers and acquisitions aren't an end unto themselves—companies rarely (if ever) acquire another company just because it'll look good in the trophy cabinet.

Every M&A deal happens because a company wants something and it thinks that buying another company will lead to the desired outcome. This article explains how the acquiring company can use intellectual property (IP) data to:

1. Identify threats and opportunities to its *ultimate goal*, once it has legally and financially attached itself to another entity.

2. Make *better decisions* about how to navigate these threats and opportunities, to arrive at its desired destination.

I used the PatSnap platform—which uses AI neural networks to find and visualize patterns within billions of IP data points—to run analyses covering two mergers and acquisitions:

1. **Hewlett Packard Enterprise's** (HPE) acquisition of Niara (February 2017)

2. **Palo Alto Networks'** (PANW) acquisition of LightCyber (February 2017)

Hewlett Packard Enterprise (HPE) acquires Niara…but to what end?

Why would HPE—a multinational focused on cloud computing, Internet of Things (IoT) and analytics—buy the four-year-old cybersecurity start-up Niara?

In the year prior to this acquisition, HPE had been stepping up its activity in the IoT space—even partnering with GE to connect industrial machinery to the Internet. Unless HPE wants lawsuits, leaked documents, and renegade windmills, its investment in cybersecurity is only natural.

And why Niara? Well, it's one of the successful pioneers of "breach (or behavioral) analytics."

Breach analytics software works by establishing a baseline of normal behavior within a network, then using machine learning algorithms to identify even slight variations in baseline behavior (as signals of possible attacks). This makes it possible to spot long-term cyber-attack strategies which normally fly under the radar of traditional measures.

But if top-notch cybersecurity for IoT is HPE's #1 priority, what are the threats and opportunities that could impact the achievement of that goal?

1. Patents that are close to Niara's on the IP landscape could be obstacles to future development.

2. Companies filing patents that cite Niara's IP could be partners or sources of inspiration.

Although breach analytics (and even cybersecurity) is a budding industry, HPE must not be complacent to the dangers in its technology space—it's not all white space and endless freedom to operate.

When I constructed an IP landscape, based on patents which are most closely related to breach analytics, I found Niara already has close company. There are two technologies for which patents have been filed, which are in areas uncomfortably close to Niara's:

- A patent filed by Intralinks, covering "Systems and Methods of Secure Data Exchange"—which is close to Niara's "System, Apparatus and Method for Prioritizing the Storage of Content Based on a Threat Index."

- A patent filed by Verizon, covering "Method and System for Providing Behavioral Bi-directional Authentication"—which is close to Niara's "System, Apparatus and Method for Anonymizing Data Prior to Threat Detection Analysis."

The landscape doesn't look too crowded now, but it's clear that the world of software is fast-moving. And as HPE supercharges Niara's technology, it must watch this landscape (to which it is so new) like a hawk.

Palo Alto Networks (PANW) acquires LightCyber…but to what end?

My research suggests Palo Alto Networks (PANW) made this acquisition because it needed to raise the value of its stock and neutralize competitor threats.

PANW shed nearly 30 percent of its value in 2016, partly due to a rise in competition.

The Motley Fool reported in August 2016 that although PANW looked like a great stock, it was actually down more than 20 percent thanks to differences between non-GAAP (adjusted) and GAAP (unadjusted) earnings.

Palo Alto Networks sells firewalls and threat detection products and services—established cybersecurity tools.

Which leads me to LightCyber—a company which uses behavior-based profiling to accurately and efficiently detect active cyberattacks.

LightCyber investor Shlomo Kramer was also an early investor in and board member of Palo Alto Networks. He commented that LightCyber is the answer to a problem for which there is a big market, thanks to "their ability to detect slow and low type of attacks, sophisticated attacks using machine learning behavioral analysis of the traffic…"

It's likely Kramer pitched LightCyber as the solution to PANW's falling stock and decelerating growth.

Mission almost accomplished. There are just two more things Palo Alto Networks might need to do:

1. Keep an eye on the main innovators and patent filers within cybersecurity.

2. Maximize the commercial potential of LightCyber's intellectual property portfolio.

PANW has just entered a new but promising market—but is PANW aware of the companies with the most similar patent portfolios to LightCyber?

If PANW's goal is to increase its commercial value, then it might want to identify LightCyber's most promising inventions and the patents protecting them, then double down on both.

TIMI OLOTU IS HEAD OF CONTENT AT PATSNAP (WWW.PATSNAP.COM). FOLLOW US ON TWITTER: @PATSNAP.

SEPTEMBER/NOVEMBER/DECEMBER

THE UNDERGROUND

BOSTON, NEW YORK, AND LOS ANGELES

The Innovation Leader Underground is a small roundtable series for selected senior executives working in innovation, strategy, and R&D. It's all about helping you solve problems and move your initiatives forward. By creating a confidential and off-the-record space, and facilitating highly-participatory conversations, we're empowering executives to share recommendations, insights, and guidance with one another.

WWW.INNOVATIONLEADER.COM/UNDERGROUND

SEPTEMBER 13-14

BUSINESS INNOVATION FACTORY SUMMIT

PROVIDENCE, RI

Brings together 500 people in a historic theater to hear 15-minute stories of transformation. Speakers include Walt Mossberg, Alexander Osterwalder, Sophie Wade, and David Macaulay.

WWW.BUSINESSINNOVATIONFACTORY.COM/SUMMIT

OCTOBER 10-12

INNOVATION LEADER TEACH-IN

BOSTON, MA

Our biggest annual gathering offers site visits to MIT labs and corporate innovation spaces run by John Hancock and Autodesk, as well as two days of small group sessions led by execs from Walmart, Pepsi, ESPN, Hyatt, Royal Caribbean, Bayer, American Greetings, Anthem, and more. According to one of our 2016 Teach-In attendees: "Better than any innovation conference I've been to."

WWW.INNOVATIONLEADER.COM/TEACH

TO LEARN MORE AND SEE A FULL LIST OF UPCOMING EVENTS, VISIT WWW.INNOVATION-LEADER.COM/EVENTS

OCTOBER 30-NOVEMBER 5

LEAN STARTUP WEEK

SAN FRANCISCO, CA

A week of sessions focused on implementing the Lean Startup methodology beyond the startup phase—to scale—in enterprise, in government, in nonprofits, and in areas you'd least expect it. The 2017 Lean Startup Week is themed around "The Startup Way," Eric Ries' upcoming book, which focuses on making entrepreneurship a fundamental discipline of every enterprise.

2017.LEANSTARTUP.CO/

DECEMBER 6-7

INNOVATION LEADER FIELD STUDY

LOS ANGELES, CA

The latest in Innovation Leader's series of Field Study learning expeditions takes 50 participants to tech, media, and aerospace innovation labs around Los Angeles. From a 2017 Field Study attendee: "The Field Study was a fantastic experience! There was a ton of practical learning for novices and experts alike."

WWW.INNOVATIONLEADER.COM/LA2017

MARCH 25-28, 2018

ISPIM INNOVATION FORUM

BOSTON, MA

The International Society for Professional Innovation Management brings researchers, managers, executives, and consultants with a passion for innovation management to the ISPIM Innovation Forum in Boston. This year's theme: "The Innovation Game: Base Hits, Not Home Runs." Includes a social event at Fenway Park.

WWW.ISPIM-INNOVATION-FORUM.COM

Teams are stuck in silos and can't deliver on strategy. They aren't as nimble or innovative as their competition. Company culture won't support the strategic initiatives.

LOOK FAMILIAR?
IT DOESN'T HAVE TO.

XPLANE®
www.xplane.com

INNOVATION LEADER
EVENTS

You won't find the usual PowerPoints or panels at our events. Instead, we create in-depth, interactive experiences for corporate leaders. We take you inside the most innovative places in the world, connect you with your peers to share best practices, and help you deliver impact.

BOSTON *Oct. 2017*	**NEW YORK** *Nov. 2017*	**LOS ANGELES** *Dec. 2017*
PHILADELPHIA *Jan. 2018*	**SAN FRANCISCO** *Feb. 2018*	**SEATTLE** *March 2018*
SAN FRANCISCO *March 2018*	**NEW YORK** *April 2018*	**CLEVELAND** *June 2018*

For more details about Innovation Leader events, visit innovationleader.com/events