

KELLOGG

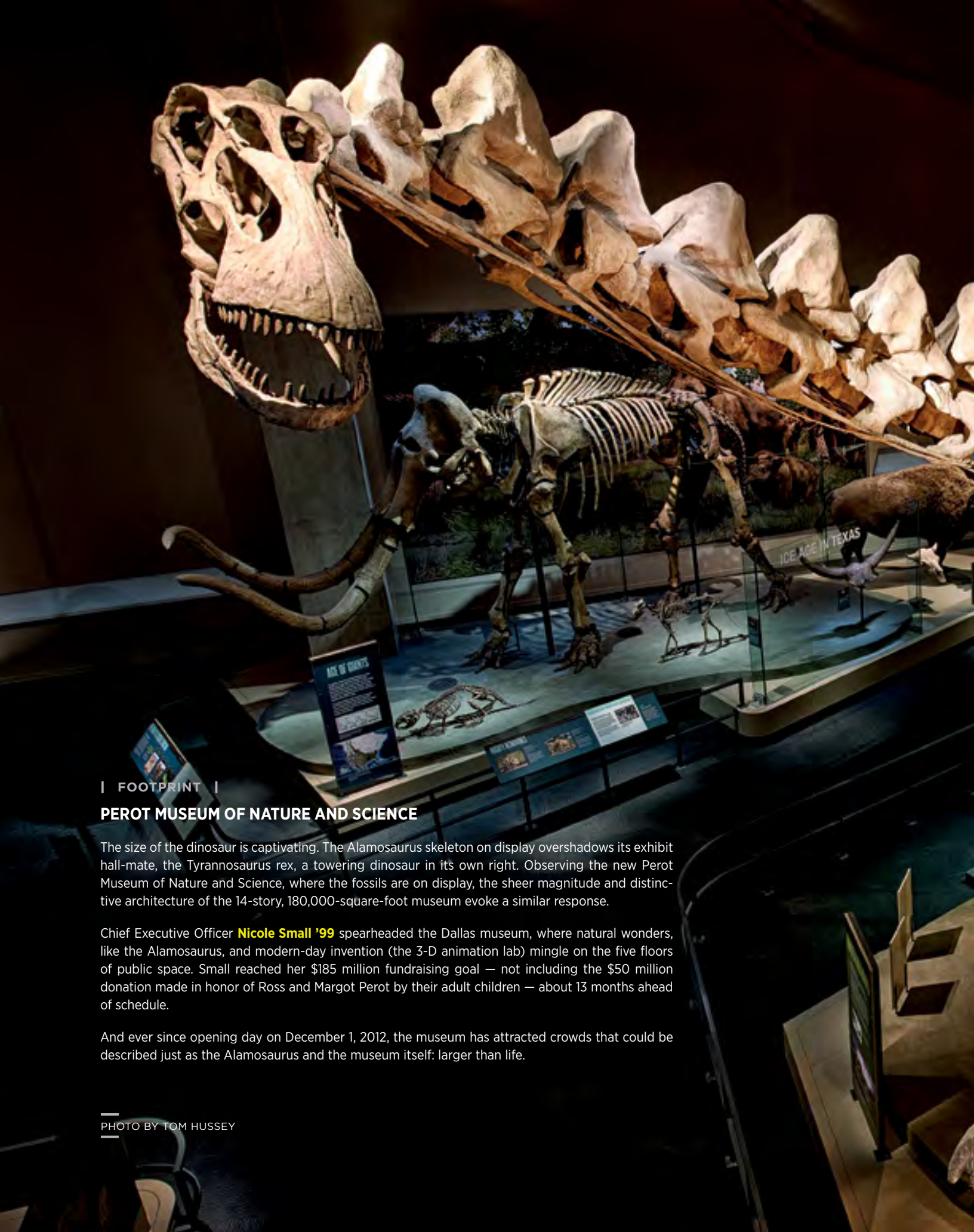
- 16 THE CONSUMER-FOCUSED ENTERPRISE**
Why the customer matters now, more than ever
- 34 HIGH-SPEED SOCIAL IMPACT**
Helping others at the speed of 'click'
- 18 THE ALPHA CO-WORKERS**
How to make your meetings more democratic

Summer 2013 VOL. 20 ISSUE 2

Think you're too small
for big data?

THINK AGAIN.





| FOOTPRINT |

PEROT MUSEUM OF NATURE AND SCIENCE

The size of the dinosaur is captivating. The Alamosaurus skeleton on display overshadows its exhibit hall-mate, the Tyrannosaurus rex, a towering dinosaur in its own right. Observing the new Perot Museum of Nature and Science, where the fossils are on display, the sheer magnitude and distinctive architecture of the 14-story, 180,000-square-foot museum evoke a similar response.

Chief Executive Officer **Nicole Small '99** spearheaded the Dallas museum, where natural wonders, like the Alamosaurus, and modern-day invention (the 3-D animation lab) mingle on the five floors of public space. Small reached her \$185 million fundraising goal — not including the \$50 million donation made in honor of Ross and Margot Perot by their adult children — about 13 months ahead of schedule.

And ever since opening day on December 1, 2012, the museum has attracted crowds that could be described just as the Alamosaurus and the museum itself: larger than life.

PHOTO BY TOM HUSSEY



MARKETS & CUSTOMERS

A consumer-focused framework is redefining markets and how companies should function by shining the spotlight on you, the unique customer. From big data analytics to customized communications, business leaders and corporations want to know: What do you think?

COVER STORY

28 **Think You're Too Small for Big Data? Think Again.**

It has transformed online commerce. Now middle-market companies and startups are mining big data for business growth.

COVER ILLUSTRATION BY THIRST

33 **Micro Answers to Macro Trends**

Lab42 gets to the heart of how data can work for businesses

16 **You are the Center of the Universe**

Greg Carpenter explains how empowered customers are reshaping the modern corporation



INSIDE: GREATER CHINA

- 21** **Rewriting the News, One Animation at a Time**
Cassian Cheung '78 modernizes news delivery with the help of animation and an inventive brand

The Big Business of Shoe Style

D:Fuse steps out into the Chinese market with original shoe designs

A Montessori Movement

Vivien Wang '99 is building one of the leading early education programs in China

HKUST and Kellogg Mark Anniversary



THE ASK

- 5** **Tailored to Your Tastes**
How customer preference is shaping online commerce

FEATURE

- 34** **High-Speed Social Impact**
Kellogg alumni build online organizations that meet medical and financial needs

BRAVE THINKERS

- | | | | |
|-----------|-------------------------------|-----------|-------------------------------|
| 10 | Dinesh Ganesarajah '11 | 12 | Ashleigh Patterson '12 |
| 26 | Leslie Flagg '91 | 38 | Bryan Lee '12 |



HEADLINES

- 6** **Jan Eberly is Back**
The U.S. Treasury's chief economist returns to teach macroeconomic policy at Kellogg
- 8** **A New Digital Direction**
Tim Simonds '98 returns to Kellogg as chief marketing and engagement officer

RESEARCH INITIATIVES

- 14** **Wired Entrepreneurs**
New Kellogg course teaches students how to manage technical teams

MY IDEA

- 76** **The Pivot Point**
Spark Devices evolves, trading in the Socket for the Core

41 ALUMNI WIRE



Kellogg School of Management
2001 Sheridan Road
Evanston, IL 60208-2001
P: 847.491.3300
KelloggMagazine@kellogg.northwestern.edu

Dean
Sally Blount

Global Chief Marketing and
Engagement Officer
Tim Simonds

Senior Director,
Marketing & Communications
Margaret Douglas

Director, Content Strategy
Mary-Jo Lipman

Associate Director, Design
Lindsay Anderson

Editor
Marissa Monson

Kellogg Magazine Lead Designer
Kay Meyer

Senior Graphic Designer
Carol Forsythe

Photo Editor
Rebekah Raleigh

Web Manager
Andrew Walker

Editorial Coordinator
Peter Jurmu

Printing: **Royle Printing**

©2013 Northwestern University. All rights reserved.
Publications Agreement No. 40031786.

Postmaster: Send address changes to:
Northwestern University, 633 Clark Street,
Evanston, IL 60208-1114

Kellogg (USPS 009-272) is published by Northwestern
University/Kellogg School of Management, 633 Clark
Street, Evanston, IL 60208-1114, and is issued twice
during the year: once in July (Spring/Summer), and
November (Fall/Winter).



NORTHWESTERN
UNIVERSITY

WELCOME TO YOUR NEW KELLOGG MAGAZINE

I'll admit that it seems almost quaint — in a time of digital innovation — to make a big deal about a publication that reaches an audience through the venerable medium of ink and paper. But we didn't just re-create your magazine in a vacuum. We did it as part of a commitment to catalyze a network of 55,000 alumni who are living rewarding lives all over the world.

This isn't just a chronicle of what happens in Evanston, Illinois. Your new magazine is part of the larger ecosystem of people and ideas that is the Kellogg community. What happens here, at Kellogg's Northwestern campus, is just a small part of that story. We're committed to exploring the whole story. It's about the world. It's about you.

Of course, our magazine will keep you up-to-date about what's happening with your school. You'll see stories about Kellogg's new thought leadership strategy and news about faculty research. You'll also see robust stories about alumni and the lives they lead.

And we're not stopping with the magazine.

Our approach to alumni relations is to strengthen the value of the network by increasing and enriching the connections that alumni have with one another. Consider this magazine a down payment on the long-term investment Kellogg is making in the vitality of our community.

Paul Gediman
Senior Director of Alumni & Donor Relations

TAILORED TO YOUR TASTES

How customer preference is shaping online commerce

DAVID CHOOKASZIAN & STEVEN SZARONOS

Most online retailers work from the same model: You see something you like, click on it, type in your credit card number, and hope for the best. But lately a growing number of web-based shops are adding value for the customer — whether that means shifting the burden of choice away from the buyer or crafting products that are made to their specifications.

David Chookaszian '13, with his father and brother as partners, founded the online boutique Urban Offering in 2011 to provide men with custom-made clothing without a trip to the tailor. **Rishi Prabhu '11** and **Steven Szaronos '11** started sending their Boxes of Awesome — handpicked monthly deliveries of high-end men's specialty goods — through their site, Bespoke Post, that same year.



DAVID CHOOKASZIAN '13
CO-FOUNDER, URBAN OFFERING

Before starting Urban Offering with his brother and father, David was a business analyst.

CHOOKASZIAN ON WHAT MAKES THEIR CUSTOMERS UNIQUE:

“Our customer is a person who wants to look sharp and well-dressed, and wants to be noticed as looking nice, but who doesn't have the need to stand out or know all the latest trends.

Online specialty subscription and buy-before-you-try services seem to be becoming more popular. Why do you think people are interested?

Szaronos: We started the company because we had a pretty simple insight, which is that guys hate shopping — but they do like to buy things. We hand-select unique boxed packages of full-sized products and send them to guys once a month. Our customer gets a unique, new experience or set of products delivered to his door. If he doesn't like it, he can always skip it. Either way, he can just sit back and relax.

Chookaszian: People are very comfortable with purchasing online. I think that comes from having a history of positive experiences. Over the past 10 or 12 years, the technology has improved and people have become accustomed to that different way of decision-making.

How do you manage buyers' expectations about your products, especially in the digital space?

S: Photography is really important. If you're not going to see the boxes in person, we're going to show you a lot of big images at different angles. We also like to tell the story of the items and why we chose them.

C: We try to make sure that our new customers understand that [making a custom garment] is a complex process. We tell them that it may not be perfect in the first fitting, but that's normal and the benefits outweigh the frustrations. For any customer, if the garment doesn't fit or he isn't satisfied, we'll pay for additional tailoring or he can return it.

Without face-to-face interaction, how are you getting to know your customer?

S: Through the site, we already collect a lot of information based on where people live, what they're opting into, and what they're opting out of. But we're starting to focus more on learning about our members through personality profile questions like, 'What magazine would you pick up when you're at the dentist's office?' The idea is that over time, when customers log in to the site, we'll already know a little bit about what they're interested in. And when we select boxes for them, or when we curate a new box for the month, it will feel like a dead-on hit.

C: To an extent, we do have that kind of interaction with our customers. So even though I'd say that, at this point, we aren't very sophisticated at learning more about them through the online channel, we can continue to have a very strong in-person presence.

Interviews condensed and edited for clarity.



STEVEN SZARONOS '11
CO-FOUNDER, BESPOKE POST

Before attending Kellogg in 2009, Steven worked as a strategic project manager for Callaway Golf.

SZARONOS ON WHAT MAKES THEIR CUSTOMERS UNIQUE:

“Our guys are typically 25 to 40 years old. They're starting to settle down a little bit, and they like to have nice things. They don't buy for replenishment — they won't purchase just any pair of jeans...

BY LENA SINGER ILLUSTRATION BY NICOLE LEGAULT



PHOTO BY JEFF SCIORTINO

JAN EBERLY IS BACK

THE U.S. TREASURY'S CHIEF ECONOMIST RETURNS TO TEACH
MACROECONOMIC POLICY AT KELLOGG

In the midst of the country's worst financial crisis in decades, **Jan Eberly**, professor of finance, served two years as assistant secretary for economic policy and chief economist of the U.S. Department of the Treasury. There, she managed a team of 30 macro- and micro-economists, analyzing and advising on policies to address the key issues, including employment, healthcare, housing and education. Having recently returned to Kellogg, Eberly talks about lessons learned and how she plans to apply them to her research and in the classroom.

K: What was the most interesting policy you worked on?

JE: The policy world is pretty rich now. Following the financial crisis, there's been a lot of focus on the housing market. We've done a fair amount of work on large issues like refinancing and loan restructuring and loan modification programs to support the improvement in the market. All of it was very satisfying, and you could read the front page of The New York Times and see the issues we were working on. Then, there were other topics that weren't on the public radar but made a substantive difference for struggling homeowners.

K: Do you have plans to do follow-up research on any policies you helped implement to see how they fare?

JE: Yes, there's a number of cases — I think housing is a good example — where there had been research but the market changed so much that there are many new questions as well as old questions that need to be re-examined with new data. Having worked on it from a policy level, I would be interested to do research in that area. Also, credit policy is very interesting to me. Obviously, credit played a big role in the housing boom and housing collapse, but there are credit issues beyond housing as well, particularly in monetary and budget policy.

K: Based on this experience, do you see a need for change in how we educate business leaders?

JE: We shouldn't underestimate how important a role business leaders can have in economic issues. Many business leaders transcend their primary interest to have a conversation about the national interest and public policy issues. And when they do that, they can be very effective and help shape a conversation about the public good. So as we're training business leaders, I think preparing people to play that role and give them the tools to think about national economic issues is valuable to the student — but also a public service.

BY J. ALAN BRENNAN



Read the full interview
with Jan Eberly.

BUSINESS IS BUZZING

KELLOGG COMMUNITY MEMBERS VISIT THE NASDAQ TO COMMEND THEIR SUCCESS AND RING THE BELL

Whether announcing an initial public offering (Kayak) or acknowledging innovations (Chicago Innovation Awards, NuMat Technologies), the Kellogg community made an impression at the Nasdaq Stock Market this year.

Steve Hafner '97, co-founder and CEO of Kayak, the popular online travel websites, commemorated an initial public offering by ringing the opening bell alongside the company's co-founder Paul English on July 20, 2012.

Tabrez Ebrahim '13, chief operations officer of NuMat Technologies, a clean technology startup, commemorated the company's success in the 2012 Global Venture Labs Investment Competition by ringing the Nasdaq closing bell on July 26, 2012.

Ebrahim rang the bell alongside Co-Founder **Christopher Wilmer** and Venture Labs Director **Rob Adams**. Co-Founders **Omar Farha** and **Ben Hernandez '13** did not attend the ceremonies.

Chicago Innovation Awards co-founders and recipients participated in the closing bell ceremony for the Nasdaq on Feb. 25, 2013. The occasion honored the event co-founders, **Dan Miller** and **Tom Kuczmarski**, along with the 2012 award winners. Organizations connected to Kellogg that took part in the event include BrightTag (**Mike Sands '96**, president and CEO), NuMat Technologies (**Ben Hernandez '13**, CEO and **Tabrez Ebrahim '13**, COO) and Northwestern Global Health Foundation (**Daniel Diermeier**, chair and IBM professor of regulation and competitive practice).

MARK OF ACHIEVEMENT

Students do great things while studying at Kellogg, but we don't need to tell you that. From esteemed awards to spirited competitions, here are just a few of the remarkable student achievements accomplished in 2013.

NUVENTION STUDENTS WIN GLOBAL COMPETITION



RICE BUSINESS PLAN COMPETITION
AND INTERNATIONAL INVESTING
CHALLENGE

A team of Kellogg and Northwestern students is developing technology for lithium-ion batteries that could last 10 times longer and charge 10 times faster. Their innovative work — which began in a NUvention course and continues at their tech startup SiNode — earned the grand prize at this year's Rice Business Plan Competition. The prize combined grants from several contributing organizations, including the U.S. Department of Energy, for a grand total of \$911,400. The SiNode team included Kellogg students **Samir Mayekar**, **Nishit Metha** and **Guy Peterson**.

MCCORMICK SCHOLARS ANNOUNCED

Varun Jain and **Jessica Lane** have been named the Kellogg School of Management's McCormick Scholars for 2013-2014. Funded through the Chicago-based McCormick Foundation, the scholars program honors students planning careers in media management. Jain previously worked a senior manager, marketing and initiatives at Mint and LiveMint.com. Lane worked as an interactive marketing specialist at Turner Entertainment.

KELLOGG TEAM EARNS TOP PRIZE AT INTERNATIONAL INVESTING CHALLENGE ►

The third annual competition challenged students to propose and defend a sustainable investment strategy that supports progress on global impact issues. The winning team, Outcomes Innovation Capital, included Kellogg students **William "BJ" Bronston**, **Rebecca Johnson**, **Ratula "Milly" Shome** and **Nikki Tyler**. The team won first place for its outcomes-based security to address the diabetes epidemic in the United States.





PHOTO BY JEFF SCORTINO

A NEW DIGITAL DIRECTION

TIM SIMONDS '98 RETURNS TO KELLOGG AS CHIEF MARKETING AND ENGAGEMENT OFFICER

Tim Simonds '98, chief marketing and engagement officer, has made his name in marketing by taking good brands — such as United Airlines and Olay — and making them great again. By enhancing the customer experience and driving engagement, Simonds has successfully led marketing teams — using a data-driven approach — at General Electric, United Airlines and Procter & Gamble. Now, Simonds has the opportunity to channel his experience into supporting his alma mater. He has returned to Kellogg to do a job that he considers an honor and a challenge: marketing at a school traditionally known for marketing.

Here, Simonds discusses three key marketing themes on his mind for Kellogg's future:

Driving brand

Clarify the key reasons why students, corporations and faculty choose Kellogg. Then, build on these key themes to develop an overall brand strategy that will enhance Kellogg's reputation even further.

Transforming digital

Create a forward-thinking digital experience that engages stakeholders at all key touchpoints. For example, prospective students have three critical points of interaction: exploring educational opportunities at Kellogg; applying for the MBA program that fits their career and life goals; and committing to attend Kellogg. In the first 90 days, Simonds overhauled Kellogg's homepage and enhanced the school's social footprint.

Deepening engagement

Promote lifelong learning opportunities for alumni, business leaders and practitioners — both offline and online — with the overarching goal of increasing engagement with the school. Offline, by building on the momentum from thought leadership events, such as "Rethinking 'Shareholder Value' and the Purpose of the Corporation," a conference jointly sponsored by Kellogg and the Aspen Institute Business and Society Program. Online, by helping develop faculty thought leadership and groundbreaking research into practitioner-focused content that can be applied directly to organizations and businesses.

RECOGNITION: WITH GRATITUDE

KELLOGG ALUMNI AND FACULTY HONORED FOR OUTSTANDING SERVICE

MATT MCCALL '91

Distinguished Alumni Service Award

Recognizing graduates who have made significant investments in shaping Kellogg's strategy, culture and brand

Matt McCall's desire to dig deeper and learn how things really work led him to become one of the first graduates from Kellogg's MMM Program.

Today, McCall '91 is a partner at venture capital firm New World Ventures. And he credits Kellogg with setting him up for success. "Kellogg has this incredible rich array ... of resources, of people, of networks," he says.

MATT FELDMAN '86

The Wade Fetzer Award

Recognizing outstanding dedication and loyalty in support of the school's alumni body

Matt Feldman '86 has used the skills he developed at Kellogg to analyze and fix broken businesses for the Continental Illinois National Bank and Trust Company of Chicago, as well as in his current role as

president and CEO of Federal Home Loan Bank of Chicago.

"What I ended up getting in addition to an excellent education was a lifelong connection to the school and a whole host of really close friends," he says. As current chair of the Kellogg Alumni Council of North America, Feldman has found friends and colleagues throughout the Kellogg community.

PHIL KOTLER

The Schaffner Award

Honoring Kellogg leaders who have made significant contributions to society and, through their professional achievements, have exemplified Kellogg's culture

Marketing has changed a lot in the last half-century, and Phil Kotler, the Kellogg School's S.C. Johnson & Son Professor of International Marketing, has played no small role in the evolution of the subject.

Kotler is an award-winning researcher who has published more than 100 articles in leading marketing journals and more than 50 books, including the just-published "Market Your Way to Growth: 8 Ways to Win."



Alumni, faculty and guests attended the With Gratitude celebration on May 2 at Trump International Tower to recognize outstanding contributions to Kellogg.

KELLOGG LAUNCHES MASTER OF SCIENCE PROGRAM

To help Northwestern graduates stand out in a crowded job market and better handle challenges in the workplace, Kellogg created the M.S. in Management Studies (MSMS) degree.

The new nine-month program, taught by Kellogg faculty and open to graduating NU seniors, enhances professional marketability by teaching core business skills and providing a dedicated career adviser for enrolled students.

Designed to build upon a liberal arts undergraduate education, the Russell Fellows Program was named in memory of Jim Russell, a 1935 alumnus of Northwestern's School of Commerce, now the Kellogg School.

The inaugural class begins in July.

30
STUDENTS

HAVE ENROLLED IN THE
INAUGURAL MSMS PROGRAM



“I see myself as a serial entrepreneur. If I can get this business to \$30 or \$40 million in revenue, after that point I don’t see myself as a CEO. That type of business is a different challenge.

The matchmaker

ENTREPRENEUR DINESH GANESARAJAH '11 BUILT A BUSINESS OUT OF CONNECTING ACADEMIC RESEARCH AND COMPANIES LOOKING FOR THEIR NEXT BIG IDEA

Dinesh Ganesarajah '11 spent six months after graduation in a Kellogg conference room cold-calling potential clients for his scouting startup. His main goal: Build enough in initial sales to seed the business and start hiring.

He put \$200,000 on the books.

Today, Ganesarajah sits in PreScouter's downtown Evanston offices managing nine U.S. employees and 32 contractors in the Philippines who serve the research needs of the company's 31 clients. His annual sales are approaching seven figures. The business's fast financial success surprises even him.

"It's quite startling how big we are now versus a year ago," says Ganesarajah, the founder and managing director.

PreScouter helps corporations find new inventions by bridging the gap between academia and industry. For example, if Hershey's wanted to create a zero-calorie chocolate bar, PreScouter could help it find ingredients and chemistries to make that possible, Ganesarajah says.

Governments worldwide spend more than \$100 billion each year funding academic research. Recognizing the potential for commercializing this research, PreScouter provides such companies as Domtar, Evonik and Reckitt Benckiser with targeted insights.

"What I really wanted to do was start my own company and

be an entrepreneur," Ganesarajah says. "At Northwestern, I noticed there was a lot of work being done in the research labs, but not a lot of it was getting out into the real world. I could see there was this big gap."

Having spent his career building businesses for other people — first as an operations manager at online gambling company OpenBet Technologies and later as a portfolio manager at BBC — Ganesarajah wanted to build something for himself, and he saw Kellogg as the place to gain the skills to do so.

The McCormick Scholars Program at Kellogg granted Ganesarajah \$25,000 to help him get PreScouter off the ground. In a pivotal conversation with fellow alumnus and venture capitalist **Matt McCall '91**, McCall introduced Ganesarajah to **Zach Kaplan**, an entrepreneur whose company, Inventables, had sold R&D materials to labs. Kaplan provided insights into sales and building a sales model.

Watching PreScouter evolve from an idea into a successful company has been gratifying for Ganesarajah. He has a vision for its future, one that doesn't necessarily involve him.

"I see myself as a serial entrepreneur," he says. "If I can get this business to \$30 or \$40 million in revenue, after that point, I don't see myself as a CEO. That type of business is a different challenge." ❧

BY SARA LANGEN PHOTO BY JEFF SCIORTINO



“The challenge is to maintain that speed of innovation and add people to our team who truly understand the impact we can have.”

Braking for value

ASHLEIGH PATTERSON '12 SLOWED EXPANSION AT HER ALTERNATIVE FUEL COMPANY TO FOCUS ON RESEARCH AND QUALITY

For Ashleigh Patterson '12 and the alternative energy industry as a whole, the message is clear: Evolve or get guzzled by the competition.

When Patterson and her father Ian, a well-regarded innovator in the alternative fuels space, founded Viridis Technologies in 2006, the Toronto-based firm marketed its alternative energy dispensers in emerging markets across Southeast Asia. While Viridis captured early success, limited safety standards inspired a range of copycat competitors whose shortcuts and careless workmanship weakened Viridis' profitability and eroded its core business.

Viridis responded by doubling down in research and development, demonstration, and deployment on a key product that would differentiate the company from its competitors. The firm developed intelligent fueling technology using radio-frequency identification and cloud-based applications that restrict refueling to authorized vehicles, a move that reduces explosions caused by fueling substandard natural gas vehicles.

"We patented the new product and hibernated, reducing our staff and production capacity, with confidence that our investment in intelligent fueling would pay off," Patterson says.

Viridis emerged from hibernation last January with the opening of an Ohio factory manufacturing its core dispensers. Though Viridis is starting lean and heightening personnel and capacity only

as demand increases, the new facility can produce up to 1,000 dispensers annually.

More importantly, the factory's opening underscores Viridis' potential to transform the swelling U.S. alternative fuels marketplace, one long lacking critical infrastructure. With eight intelligent fueling demonstration projects on the 2013 calendar, Patterson knows the challenge will be quickly commercializing its products – particularly as deep-pocketed competition, led by General Electric, intensifies investment in the dispenser marketplace.

"By having readily available product that meets the most stringent safety standards while offering advanced features similar to gasoline pumps, we are poised to become a dominant player," says Patterson, who was named to Forbes Magazine's 30 under 30: Energy list in 2011.

Nimble and possessing key industry contacts, Patterson says Viridis will continue assessing marketplace demand, production costs, government support and the qualifications of local partners as it pursues growth. She sees rich opportunities for Viridis to create game-changing innovations that shake the alternative fuels world.

"The challenge is to maintain that speed of innovation and add people to our team who truly understand the impact we can have," Patterson says. ❧

BY DANIEL P. SMITH PHOTO BY ALAN MAUDIE



WIRED ENTREPRENEURS

NEW KELLOGG COURSE TEACHES STUDENTS HOW TO MANAGE TECHNICAL TEAMS

BY MARISSA MONSON PHOTO BY JEFF SCIORTINO



10 NEW COURSES ADDED IN
ENTREPRENEURIAL STUDIES

“...the demand for technical education by business schools is now really important.”

JEFF COHEN

Chief Instructor, The Starter League

▲ From left: The Starter League’s Co-Founder Mike McGee, Chief Instructor Jeff Cohen and Co-Founder Neal Sales-Griffin with Linda Darragh, executive director of the Kellogg Innovation and Entrepreneurship Initiative at The Starter League headquarters in 1871 — a Chicago-based, shared space for digital startups.

When it came time for would-be entrepreneurs to hire on-campus web developers for building a minimum viable product, **Linda Darragh** noticed a problem: The developers’ calendars were often booked solid.

“They are in such high demand these days,” says Darragh, executive director of the Kellogg Innovation and Entrepreneurship Initiative (KIEI). Attuned to the students’ need, she “realized there were some real issues around programming.”

The technology barrier was inconvenient, but it also broached a larger topic: Technology influences industry. No matter what position of management MBA students pursue, without technology literacy, they will have a difficult time managing a technical team.

Darragh detected a clear opportunity.

“I think this whole idea of becoming tech-enabled and understanding the technology becomes really critical,” she says.

Darragh queried her contacts in Chicago’s burgeoning tech start-up scene. The result was a new type of collaboration: a course offered by The Starter League, a beginner-focused software school that teaches how to code, design and launch web applications.

The course, coupled with a KIEI-hosted workshop on building templated websites, has put Kellogg on a pioneering path of entrepreneurship education by enhancing the technology skill level of its students.

“When [students] know they can help build, it actually spurs more innovation,” says **Jeff Cohen**, chief instructor at The Starter League.

Cohen, who teaches the new Kellogg course, says he isn’t expecting students to go from zero to programmer during the 12-week course. What the class will do is give entrepreneurs an “initial immersion into computer programming that is beginner-focused and isn’t intimidating.”

Most students won’t become web developers, but they will probably manage developers. If The Starter League can help improve the working relationship between developer and entrepreneur, that business will have a better chance of succeeding, Cohen says.

The class will incorporate project management tools, including AgileZen, and the programming language Ruby on Rails. Cohen also gives students an insider perspective on what a web developer’s job is like and what the challenges will be when they try to grow their teams.

Founded by Northwestern graduates **Neal Sales-Griffin** and **Mike McGee**, The Starter League was a natural fit for Kellogg. As a start-up effort, and a tech startup at that, Cohen says, enabling people to start their own company is the business The Starter League wants to be in.

And, according to the numbers, so do Kellogg students. Of the 90 courses offered during the spring quarter, The Starter League class was ranked 16th in the number of bids received — high demand for a first-time offering.

“What’s been clear is that the demand for technical education by business schools is now really important,” Cohen says. “Anyone who thinks they will be involved in a startup without coding literacy simply won’t survive.” ❧

KELLOGG INNOVATION AND ENTREPRENEURSHIP INITIATIVE: All businesses face the challenge of needing to continually find new ways to create value. This initiative helps business leaders — from startups to large corporations — discover new ideas and turn them into valuable goods and services.

Then

TRADITIONAL
MARKETING APPROACH



PPLACE

PPRODUCT

PPROMOTION

PPRICE

TRANSFORMATION OF
THE GLOBAL MARKET
PLACE

GEOPOLITICAL
CHANGE

LIBERALIZED
MARKETS

POLITICAL
REFORMS

TECHNOLOGICAL
CHANGE

ONLINE &
DIGITAL

PROLIFERATION
OF MEDIA

YOU ARE THE CENTER OF THE UNIVERSE

GREG CARPENTER EXPLAINS HOW EMPOWERED CUSTOMERS ARE
RESHAPING THE MODERN CORPORATION

Don Draper's struggle in *Mad Men*'s sixth season to adjust to business and cultural shifts of the late 1960s seems quaint compared to what marketers face now. Companies today must manage an ongoing dialogue with customers, who are enabled by new technology and across geographies. New devices and the dizzying speed of technological advancements are driving the activity.

To get a sense of how companies are adjusting to this

environment, Greg Carpenter, faculty director for the Kellogg Markets and Customers Initiative and professor of marketing strategy, conducted in-depth qualitative research with chief marketing officers and other top executives across a range of industries. Here, Carpenter discusses some initial findings, highlights the rise of the consumer-focused enterprise and explains why the customer is now at the center of the corporate universe.

Now

CONSUMER-FOCUSED
ENTERPRISE

PRODUCT
SYSTEMS

ACCESS AND
AVAILABILITY

PUBLIC
ENGAGEMENT

REVENUE
MODEL

YOU ARE
HERE



K: What factors have driven the evolution of the modern business environment?

GC: For marketing, the past 40 years have brought unprecedented change in two different areas. First, political reforms have increased the reliance on markets, expanding consumer choice and creating massive wealth. Consider that in 1975, China's GDP was just one-tenth that of the United States. Now, of course, China is on its way to becoming the world's largest economy, and other emerging countries are seeing similar developments of their economies and the rise of a strong middle class. Second, technology has ushered in the digital age, which has empowered consumers across the globe as never before. Combined with greater choice and wealth, technology has produced an information revolution that has shifted the balance of power to favor consumers. For example, retailers are now at the mercy of consumers with smartphones comparing prices for everything imaginable.

K: What effect have these developments had on how companies approach marketing?

GC: It's become exponentially more complex. Consumers enjoy expanded choice and unlimited information, which they share relentlessly. Disruptive innovation, amplified by interactive media, has accelerated the pace of competition. And now companies must operate in truly global markets against

multinational and local rivals. The implications for marketing, product development and business strategy are profound. For example, it took Apple more than 20 years to sell 50 million Mac computers. With the iPad, they crossed that threshold in just two years. So the marketing challenge has never been more daunting, but businesses that get it right can reap incredible returns. Doing so, however, requires fundamentally new approaches to leadership and strategy development.

K: Explain the concept of the consumer-focused enterprise.

GC: It really refers to a new model of management that infuses the consumer into every core process of the organization. Traditionally, the customer perspective was isolated in one function — marketing. As the speed of competition has increased, the traditional approach has proved too slow, too expensive and insufficiently responsive to customers. To create more nimble organizations, executives are changing everything from how they engage with consumers to the development of senior executives. The customer perspective has simply become too important to be relegated to one function. Indeed, it is increasingly central to the leadership of the firm, strategy and customer engagement.

This change will reshape how organizations are led, allowing them to be more agile and innovative. For those of us who are passionate about customers, it's a fascinating time. κ

KELLOGG MARKETS AND CUSTOMERS INITIATIVE: Anticipating and meeting customers' needs is essential in today's economy. This initiative will generate and disseminate knowledge to help business leaders create and reinvent markets through greater customer insight and focus.

ALPHA CO-WORKERS: MAKE WAY FOR DEMOCRACY

LEIGH THOMPSON'S LATEST BOOK OFFERS A NEW APPROACH
TO CREATIVE PARTICIPATION

What's Thompson reading in her free time?

Spark: The Revolutionary New Science of Exercise and the Brain

by John Ratey and Eric
Hagerman (*Little, Brown and
Company, Jan 2008*)

When Callings are Calling: Crafting Work and Leisure in Pursuit of Answered Occupational Callings

by Justin M. Berg, Adam M.
Grant and V. Johnson
(*Organization Science, 2010*)

Quiet: The Power of Introverts in a World That Can't Stop Talking

by Susan Cain
(*Broadway, Jan 2013*)



Most teamwork in the office involves a few people leading the charge, while the rest of us listen and nod — or nod off. But, according to Leigh Thompson, with a little forced democracy, it doesn't have to be that way.

In today's Collaboration Economy, the ability to create meaningful partnerships isn't just a bonus — it's essential to progress. Thompson, professor of dispute resolution and organizations, contends that teams can be extremely effective, but “before we can have teams start to work on something, we have to set the stage for them to be working with the best idea.”

Otherwise, teams don't stand a chance against the inherent creativity of individuals working independently. In her book *Creative Conspiracy: The New Rules of Breakthrough Collaboration*, Thompson posits that collaboration is most effective when it is conscious, well mapped out and shared with others.

How do you apply Thompson's theories to your very real, very hectic workplace? First, think of a typical meeting on a typical day at the office.

“Nobody listens,” Thompson says. “People drift off. Certain people dominate the meeting. Someone finally starts checking their personal email.”

To combat this predictable team experience, Thompson suggests the idea of forced democracy in the workplace. “It shouldn't be just the charismatic, alpha-dominant people who take over things,” she says.

To apply forced democracy to your team, Thompson proposes “nominal group technique.” Using this method, team members perform solo on a task before pooling the output in the group.

As Thompson notes, you need to know “when to go to the cave and when to go to the commons.” The cave, in this case, is equivalent to shutting your office door and working alone, or possibly engaging in “brainwriting.”

During brainwriting, team members simultaneously write down their ideas instead of saying them aloud. Without this level of structure and anonymity, Thompson asserts, “people self-censor.” To apply this to your next meeting, try passing out index cards and having everyone brainwrite ideas for a set number of minutes. Then, collect the cards and post them on the wall anonymously to avoid self-censoring. Pick the best ideas and go from there.

Thompson's book culls several creative myths to determine how to make teams truly effective and how to enhance a team's creativity rather than suppress it.

“I'm trying to get my leaders and my managers to be much more thoughtful about how they're running their meeting,” Thompson says. “Every minute we spend together is a very scarce resource.” κ

Harvard Business Review Press published “Creative Conspiracy” in January 2013.



BY MAGGIE LAUBSCHER

SHANE GREENSTEIN TALKS WIKIPEDIA AND THE ETIQUETTE OF WORKING TOGETHER ONLINE

SG: A lot of the lessons carry over, particularly the importance of etiquette and clear expression of your stance — knowing how to be critical but polite and respectful at the same time. Those lessons that Kellogg is known for retain their value. There are certain kinds of communication that simply can't be replicated online, so finding that boundary is the interesting question. ⌘

KELLOGG ARCHITECTURES OF COLLABORATION INITIATIVE: Technological change and globalization enable people and resources to be organized in new ways across time and space. This initiative helps business leaders manage within and across organizations.

UPENDING CONVENTIONAL WISDOM

KELLOGG FACULTY MEMBERS LOOK AT HOW SOCIALLY RESPONSIBLE INVESTMENTS BY COMPANIES AFFECT STOCK PRICES. THE RESULTS MAY SURPRISE YOU.

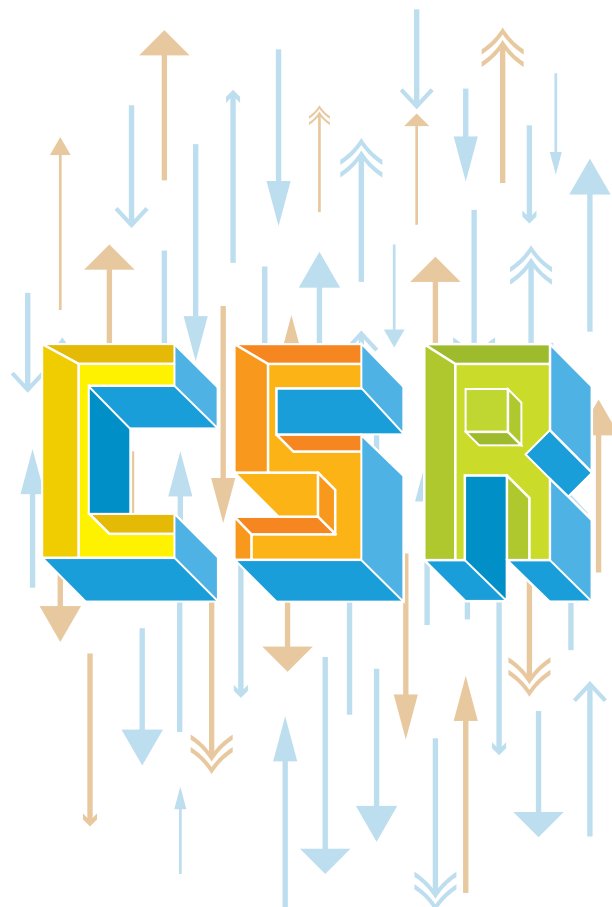
Over the past decade, global companies have increasingly embraced corporate social responsibility (CSR). Indeed, 57 percent of Fortune 500 companies issued corporate accountability reports in 2011, up from 20 percent the previous year.

Of course, these investments are often far from altruistic: Executives expect a positive return for integrating CSR into their mission. The philosophy that doing well by doing good has become conventional wisdom. However, recent analysis by Kellogg upends many widely held beliefs about the impact of CSR and suggests that executives would do well to re-examine their CSR strategy.

Kellogg faculty members **Thomas Lys**, **James Naughton** and **Clare Wang** conducted research to determine whether CSR expenditures actually delivered positive financial returns for companies. They sought to address two primary issues: Is CSR associated with improved financial performance? If so, does CSR spending lead to improved financial performance, or does the anticipation of improved financial performance lead to CSR expenditures?

To explore the link between CSR expenditures and financial performance, the team collected information on CSR activities for hundreds of companies from 2002 to 2010 across a number of industries. While Lys's team found that CSR investments didn't deliver better financial performance, investors responded favorably to companies that spent significant CSR dollars. The reason: Analysts assume that only companies doing well financially could afford to make outside investments in areas, such as CSR, that weren't core to the business.

These findings contradict the current school of thought, which holds that CSR expenditures create value by being mutually beneficial to the company (through better performance) and society. Instead, the team's research found that CSR expenditures typically reduce shareholder value. The reason the stock market



sometimes reacts positively to CSR activities is because when a company chooses to invest in CSR, investors interpret it as a signal that executives expect higher future earnings. So while executives may believe that CSR creates goodwill among consumers and regulators — and it may do so in targeted circumstances — the research by Lys, Naughton and Wang indicates that from the perspective of investors, these expenditures do not make a sufficient contribution to the bottom line to justify their capital costs. ❧

KELLOGG PUBLIC-PRIVATE INITIATIVE: Business leaders must increasingly balance their traditional role as manager with the emerging role of public advocate. This initiative creates and disseminates knowledge that helps leaders capitalize on new opportunities and navigate increasingly complex and powerful public stakeholders — from regulators to policy makers to consumer citizens.



GREATER CHINA

To do business in Greater China today is to evoke a moment in time. **Kasper Leschly '03** compares its commercial landscape to that of a late 19th century America during the bustling Industrial Age, an era brimming with untapped markets and abundant potential. Leschly is one among many in the Kellogg community who are making names for themselves in the region.

Leschly and **Thomas Heyerdahl Poppe '03** developed a distinct shoe style for the Chinese fashion market. Today, their company boasts more than 200 stores in 50 cities. **Vivien Wang '99** recognized an unfilled niche in China's preschool market. She now manages a Montessori program that is on track to support 50 campuses by year-end. Even the news media is transforming itself: **Cassian Cheung '78** oversees Next Media Ltd., a media powerhouse constantly evolving to keep pace with the technology habits of its readers. Kellogg School entered into a new type of curriculum collaboration with the **Hong Kong University of Science & Technology**. This year, the global program marks its 15th year and an esteemed reputation.

A single thread links these Kellogg leaders: An instinct to seize the opportunity that is Greater China's growing economy.

BY PATRICIA RIEDMAN YEAGER



REWRITING THE NEWS, ONE ANIMATION AT A TIME

CASSIAN CHEUNG '78 MODERNIZES NEWS DELIVERY
WITH THE HELP OF ANIMATION AND AN INVENTIVE BRAND

In 2008, Next Media Ltd., like many media companies, was struggling with how to expand its mission beyond print into digital.

"We were at a crossroads," says Cassian Cheung '78, CEO and executive director of Next Media, which publishes popular Chinese-language newspapers, magazines and websites in Hong Kong and Taiwan, including Apple Daily. At that time, he says, Next founder **Jimmy Lai** had a realization: He was watching a TV newscast when it dawned on him that it would make more sense to show the story instead of talk about it.

Next Media set about realizing Lai's vision, developing technology that would enable the company to quickly produce realistic animation for its online news segments.

"We had lots of obstacles," Cheung says of the broadband and technology hurdles, but now the company can turn around a 30- to 60-second animated news clip in about 90 minutes. For instance, its segment on Tiger Woods' now-infamous car accident, he says,

"went viral all over the world; within a week, we got millions and millions of views."

Today, Next Media is the largest print media company in Hong Kong, with nearly 4,000 employees and a strong following in Taiwan. In Hong Kong, where seven out of 10 mobile news viewers watch Apple Daily online, it is considered the second-largest television company in the market. The animated news has spiked Next Media's daily downloads and clicks to 20 million a day from 2 million a day before they were rolled out.

Expanding Next Media's audience is one of the biggest challenges for Cheung, who previously ran Wal-Mart China as president from 2002 to 2005. Instead of daily sales reports, he now studies daily traffic reports, figuring out new ways to grow Next Media's online community and how to monetize content through fun advertising sponsorships, such as animated interactive games.

Other media outlets are noticing Next Media's traction. It has

1,013

KELLOGG ALUMNI IN
GREATER CHINA



“Disruptive, that’s
part of the DNA
of the brand.

CASSIAN CHEUNG '78

CEO and Executive Director,
Next Media Ltd.



What's next for Cassian Cheung and
Next Media? Watch our exclusive video.

a syndication deal with Reuters and a distribution foothold in the U.S. It also recently struck a deal with Northwestern’s Medill School of Journalism to educate students about animated news, which Cheung, who is also an adjunct professor at Hong Kong University of Science and Technology, says is harder than it looks. “We spent a year developing models,” he says, verifying the accuracy of everything from car models to the side of the street on which a car drives. “You have to show it as close to real as possible.”

And while censors block Next Media in mainland China, there are plenty of other growth opportunities in Asia. The company currently has a pilot program in Japan, where Cheung says newscasts are predominantly anchors reading the news.

“We’re certainly going to be disruptive in those markets,” he says. “Disruptive, that’s part of the DNA of the brand.” K

HKUST and Kellogg mark anniversary

About 17 years ago, a partnership was formed bringing together the minds from Hong Kong University of Science and Technology Business School and Kellogg School of Management, by way of an Executive MBA Program. The global network of top-tier programs now includes partnerships in Tel Aviv, Toronto, Düsseldorf and Miami.

HKUST and Kellogg have built what has become a world-renowned program among international business school collaborations. This year marks the 15th anniversary of the graduating class.

“With this partnership, the program draws senior executives from all over the world to take part in a truly excellent executive MBA program,” says **Judy Au**, program director for the Kellogg-HKUST collaboration.

As with any dynamic collaboration, there are countless factors at work to create a successful partnership. For **Paul Christensen**, associate dean of global programs, a key factor is the quality connection between faculty members and their students.

“The faculty on both sides of this program are among the best of the best,” he says. “The quality of the students themselves that we’re able to attract — because we’re doing things right in the classroom — is just outstanding, and it shows in their career trajectories after they’ve graduated.”

BY ANGIE JAIME



BEIJING & SHANGHAI

A MONTESSORI MOVEMENT

VIVIEN WANG '99 IS BUILDING ONE OF THE LEADING EARLY EDUCATION PROGRAMS IN CHINA

As managing director of Etonkids International Educational Group, a bilingual Montessori school she founded in Beijing, Vivien Wang '99 leads one of China's top early childhood educational providers.

It seems a natural evolution for Wang. As the daughter of two professors, she grew up on a Chinese university campus. She left China in 1990 to work in Singapore and then the United States, where she earned her degree from Kellogg.

After several stints at technology startups and as a Merrill Lynch investment strategist, Wang says, "I learned I wasn't passionate about technology, and I was passionate about education."

Opportunity awaited her in China, where early childhood education "was very underdeveloped" and dominated by small, family-owned preschools, she says.

In 2002, with the backing of Sequoia Capital, Wang set about establishing Etonkids, a Montessori school for children ages 18 months to 6 years old. The school focuses on The Etonkids' Three C's: creativity, character and culture. Different programs and levels of English immersion cater to expatriate families, local families and a mix of the two family types.

To assure quality, Wang refuses to franchise and established

Etonkids Montessori Teacher Training Academy, the only indigenous American Montessori Society-affiliated teaching credential program.

Wang says the Montessori teaching method, which involves mixed ages learning together with an emphasis on creativity, appeals to one-child Chinese parents.

"Parents are eager to invest in their child's education," she says. "They like the Montessori concept; it helps children become independent and effective problem solvers."

Etonkids has further expansion plans, with a school set to open next year in Hong Kong. Wang is also planning to open bilingual kindergartens in the U.S. West Coast, which will double as a gateway for attracting native English-speaking teachers to the program in China.

Parents now line up to get their children into Etonkids' coveted programs. By the end of the year, 50 campuses will be open in 12 cities across China, with an enrollment of 5,000 students.

"I grew up in striking poverty," she adds. "As an entrepreneur, I'm always prepared for the worst, but while staying positive and expecting the best." ❧



“What we’ve done here, we couldn’t do back home.”

THOMAS HEYERDAHL POPPE '03

Co-Founder, D: Fuse

THE BIG BUSINESS OF SHOE STYLE

D:FUSE STEPS OUT INTO THE CHINESE MARKET WITH ORIGINAL SHOE DESIGNS

Kasper Leschly '03 couldn't wait to get back to China.

After graduating from high school in northern Denmark, he had backpacked throughout Southeast Asia, worked at several sales jobs including IKEA in China and was fluent in Chinese. Meanwhile, **Thomas Heyerdahl Poppe '03**, a native of Norway, had quit his job at McKinsey & Company and was eyeing a startup idea in Germany.

By the time the Kellogg classmates came together in Stockholm in 2006, Leschly was already lining up financing for a startup in China. They considered many concepts, including bakeries, eye-wear and Heyerdahl Poppe's passion: shoes. Then, they toured department stores in China and found “it was not very exciting,” Heyerdahl Poppe says. “That was it as far as the market research.”

Fast forward to October 2007, and Leschly and Heyerdahl Poppe had established Beijing-based D:Fuse. The brand of Scandinavian “street design” shoes opened 40 stores within department stores in 15 cities across China, and had 80,000 shoes for sale.

Today, the company has grown to 200 stores in 50 cities across East Asia, with 1,000 employees. Department store-based locations have made expansion easier, Heyerdahl Poppe says, because D:Fuse hasn't had to deal with as many landlords. At the same time, this setup can be a constant drain, as Leschly — who handles sales and crisscrosses China negotiating with stores — says it's the hardest part of his job.

Meanwhile, Heyerdahl Poppe oversees the wholesale side of the business and works with the brand's shoe designers, who comb the globe looking for hot trends. They then choose a handful of styles to highlight in the semi-annual collections.

All the designers have spent time living in China, he says, so they know what appeals to Chinese shoppers. With no advertising budget, D:Fuse's marketing consists of catalogs, blogs (including one written by its designers) and public relations, which has led to successive magazine product placements.

D:Fuse's pace continues unabated. In July 2011, Chinese retailer Saturday purchased 80 percent of the company, keeping it an independent unit. The buyout, Heyerdahl Poppe says, will give both companies efficiencies of scale and more leverage with stores.

“We want to own the Scandinavian space” in China, Heyerdahl Poppe says. “What we've done here, we couldn't do back home,” he adds. “The size of the market, the development of the market and willingness of people to work here — it's totally different from back home.”

“It's kind of like the U.S. in the late 19th century,” Leschly says. “You feel like history is being written around you, and all the changes are vivid.”



118

ALUMNI CLUB MEMBERS IN
BEIJING

211

ALUMNI CLUB MEMBERS IN
SHANGHAI



“I’m like a translator ... There is information on all sides that can’t be shared with the others, and I help the sectors understand each other’s actions.

The translator

LESLIE FLAGG '91 WORKS IN EMERGING MARKETS TO CLOSE THE INFORMATION GAP BETWEEN SECTORS

Leslie Flagg '91 last saw a fellow Kellogg alumnus in Helmand Province, the opium-rich region of southern Afghanistan that was the site of more casualties than almost any other in the recent war. Among the things the graduates did not have in common, she says, was that "he was a lieutenant colonel in the U.S. Marines, and I was a civilian."

Flagg, now based in Washington D.C., was in Helmand Province as a private enterprise officer for the U.S. Agency for International Development (USAID), which provides educational, health, governance, humanitarian and economic assistance to developing and war-torn countries.

One of her projects was to help Helmand's Afghan National Police (ANP) officers receive their salaries on time and in full. Prior to the assignment, Helmand's police officers were paid in cash. "You can imagine what happens when you're in a cash system," Flagg says.

Flagg and her colleagues expanded the ANP's national pilot program to Helmand. Called M-Paisa, the mobile money transfer system is a secure and reliable alternative to cash payments. Using this system, officers were paid via mobile phones, each equipped with an officer's unique identification number and data card. Part of the military's effort to build Afghan security, the project required the support of the Afghan government and a private sector

telecommunications partner, Roshan, to provide the phones and related technology.

As a USAID officer, Flagg was a liaison between the groups.

"I'm like a translator," she says. "There is information on all sides that can't be shared with the others, and I help the sectors understand each other's actions."

Flagg returned to the United States in September 2012 and continues to work for USAID in Washington. For her next assignment, she hopes to be stationed in Pakistan or another country in the Next Eleven — 11 developing nations that economists believe could become the world's largest economies by the end of this century.

Prior to her assignment in Afghanistan, Flagg was a USAID private enterprise officer in Nigeria — another N-11 country — where she worked on a team that organized thousands of small-scale rice farmers in a large-scale production, processing and marketing partnership with the private sector.

In countries like Afghanistan, Nigeria and Pakistan, she explains, "It's not just the resources [the development community] bring into the government, it's the capacity to build and connect to other parts of the world. The whole agenda is to work yourself out of a job." ❧

BY LENA SINGER PHOTO BY KEVIN MANNING

IT HAS TRANSFORMED ONLINE
COMMERCE. NOW MIDDLE-MARKET
COMPANIES AND STARTUPS ARE MINING
BIG DATA FOR BUSINESS GROWTH

BY GLENN JEFFERS ILLUSTRATION BY THIRST



Think you're too small for big data?

THINK AGAIN.



Every time a finger presses down on a mouse button or a track pad or the surface of a smart phone; every time a link is highlighted and a processor whirls in compliance; every time a new page opens containing an ad or a product, maybe both — that click is recorded.

Imagine that click, which indicates likes, dislikes, preferences and partialities, grouped together with personal information from your social media page, your tweets and posts, keywords in your web-based email, and your phone's GPS sensor (hey, you're the one who posted on Foursquare). Now, imagine all that information grouped together with that of every person with a Facebook or Twitter page, Amazon account or on a Groupon mailing list.

If you can, you're beginning to understand the exponentially growing ball of empirical information now commonly known as "big data."

At its core, big data is the raw information people provide every day via sensor information, digital media, transaction purchases and even web searches, says **Florian Zettelmeyer**, the Nancy L. Ertle Professor of Marketing at the Kellogg School of Management. That information gets parsed out to data centers and stored in digital warehouses, where it waits to be used in targeting consumer audiences and predicting behavior. "There's a lot of it," Zettelmeyer says. "And it has all of these implications for computing."

But as big as you think big data is, it's actually bigger.

According to ViaWest, a Colorado-based data center and managed services provider, we create 2.5 quintillion (or 2.5×10^{18}) bytes of data daily. That's "we" as in Earthlings. By comparison, that's like filling up 57.5 billion 32GB iPads every day.

Many have seen big data impact their everyday lives, from targeted ads in Gmail to a list of suggested items on Amazon. But now, smaller companies are beginning to apply this model, lopping off small chunks of this amorphous data.

Sharon Herd was fed up. A native of Georgia, Herd spent years training new owners on how to run franchises such as Carvel Ice Cream, Schlotzsky's and Cinnabon. It was her turn. In 2007, she left the corporate world and opened Tropic Tan, a tanning salon in Kennesaw, Ga. about 25 miles north of Atlanta. For years, Herd saw steady growth in her business. And in February 2012, she saw an opportunity to move to a bigger location, buy more tanning beds and upgrade her website.

First, she went to her local bank. But despite her job experience, a strong credit score and a husband with a landscaping business, Herd was denied. Next, she tried for a merchant cash advance, which provides small businesses with a lump-sum advance that's repaid through future credit card sales. But the interest was too high, Herd says, and the application process was tedious to a fault. "They wanted 12 months of history," says Herd, 43. "I had to pull all of my records. They wanted me to change credit card companies. I had this sickening feeling that I was making the worst decision of my life." ➔

⇒ On her computer late one night, Herd looked up On Deck Capital, a New York-based lending company, which specializes in small-business loans. She had used On Deck before and received a \$5,000 loan to help with startup costs. And rather than use her personal credit score or submit her to a lengthy application process, Herd knew On Deck used big data.

To qualify for an On Deck loan, business owners must first log onto the company's website and create a business profile. That profile links to data sources including online banking, accounting and merchant processing. On Deck then combines that information with social, tax, industry and firmographic (location, number of employees, etc.) data to create what it calls the "On Deck Score."

With that score, On Deck can determine within days not only if a business is eligible for a loan, but also how much it can receive. Part of the expediency comes from the fact that On Deck supplies short-term loans of up to 18 months that range between \$5,000 and \$150,000. Another factor: Most banks lack an effective way to analyze small businesses for loans and fall back to treating them like individual borrowers, says **Andrea Gellert '96**, senior vice president of marketing for On Deck. "They treat a loan application for \$30,000 the same way they would treat a loan application for \$2 million," she says. "Because they can't put the same kind of resources into a smaller loan as they would a larger loan, they've started to use personal credit as a proxy for business credit."

With a more accurate way to determine a business's viability, On Deck has become a go-to lender for small businesses in need of quick cash. The company, started in 2006 by entrepreneur Mitch Jacobs, has grown as well, providing more than \$400 million in small-business loans at a time when banks are still leery about lending. Last year, Inc. Magazine added On Deck to its list of the 500 fastest-growing companies in the country. As for Herd, she received a loan of \$14,000, moved to the larger location, bought the additional tanning beds and upgraded her website. Within a month, she had nearly 100 new customers. "They have done everything they said they were going to do," Herd says. "When I'm looking to expand again, I'll call them."

But using big data can become expensive quickly. Though advances in technology have helped drive down the cost of front-end tools including sensors and GPS tracking chips, storage and analytics can be pricey. "You have to have the storage space and the know-how," says **PJ Lamberson**, a senior lecturer in the management and organizations department at Kellogg. "The real challenge is to realize how much of an actual benefit you're going to get. You can go through a data-mining exercise and that may not be much better than using a simpler model."

A venture-backed company, On Deck offset its costs by partnering with credit-reporting agency Equifax to develop the On Deck Score. Gellert acknowledges that building this kind of technology and expertise can be daunting for some businesses, but whatever expense the company incurs is worth it to stay ahead of its competition. "We're light years ahead in terms of synthesizing and understanding this information," she says. "We're pioneers in this space."

It helps that On Deck models for business viability. Making big data operational, especially for marketing purposes, is tougher. While the speed of processing enormous chunks of data has greatly improved, businesses still struggle with analyzing that information and using it to predict consumer behavior. They can monitor an observed behavior — clicks leading to a purchase, for instance — but identifying why a consumer wanted that purchase in the first place is trickier to uncover, Zettelmeyer says.

Take, for example, Oreo. There's a model that can predict how many boxes of the popular cookie a store will sell given such variables as money spent on advertising, unit price, a competing store's price, etc. Now, turn to Oreo's official Facebook page, which has more than 32 million "likes." Can those "likes" translate into actual purchases? If so, how? Is that something you can model out?

"A lot of our psychological understanding of what makes consumers behave is not terribly well developed for measuring and predicting behaviors that we're not able to track," Zettelmeyer says.

The solution might be as easy as simplifying the model, says Lamberson, especially when it comes to small business. Rather than spend money tracking amorphous data that may or may not help, small businesses can use models that require a few well-established data points. "You can use a scaled-down model that's accessible to anyone with a laptop," he says. "If you are a mom-and-pop, you can easily keep track of sales and promotions and then run a regression and a relatively simple algorithm or model."

For Adaptly, a New York-based firm that manages ad campaigns over various social media platforms, the solution is using more accurate data. Adaptly uses first-party data, information generated directly from consumers (in this case, social media users), to design its cross-platform ad campaigns instead of third-party data, which comes from cookies across the Internet. That first-party information is about 98 percent accurate as opposed to about 15 percent from third-party data, says **Nikhil Sethi**, co-founder of Adaptly and a 2010 McCormick School of Engineering and Applied Science graduate.

Using analytics, Sethi can draw on that first-party data to custom-build a target audience that already has expressed interest in a specific product or pursuit via tweet, post or message. "There's no real guesswork going on," Sethi says. "If I have a brand and I realize ⇒

"THE REAL CHALLENGE IS TO REALIZE HOW MUCH OF AN ACTUAL BENEFIT YOU'RE GOING TO GET. YOU CAN GO THROUGH A DATA-MINING EXERCISE AND THAT MAY NOT BE MUCH BETTER THAN USING A SIMPLER MODEL."

PJ LAMBERSON

Senior Lecturer in Management and Organizations, Kellogg School of Management



Embracing a big data mindset

FLORIAN ZETTELMEYER DISCUSSES
HOW COMPANIES OF ANY SIZE
CAN GET MORE FROM THEIR DATA

When industry observers discuss big data, the focus is typically on the magnitude involved: the huge volumes of data being generated every day or the computing power required to turn information into insight. It's no wonder that some middle-market companies have determined that harnessing big data is beyond their reach.

As with many emerging business trends, technology is a vital component — but it's not the only factor.

Companies that seek to extract value from their data simply by investing in more computing power will be missing the opportunity, says Florian Zettelmeyer, professor of marketing and an expert in data analytics. Instead, executives must understand that the obstacles they face in generating more customer insights arise not from the increasing amount of data but from shortcomings in their approach to data analytics.

Before the big data era, companies such as Reader's Digest and Capital One developed successful business models by using data analytics to drive effective customer segmentation. What do these businesses have in common with the Amazons and Facebooks of the world?

Zettelmeyer says it's the “big data mindset” — essentially, the pursuit of a deeper understanding of customer behavior through data analytics. The big data mindset encompasses four elements:

1. **DESIGN MARKETING PROCESSES WITH DATA IN MIND.** By designing all marketing processes with measurement in mind, companies can ensure they have access to relevant information when they need it.
2. **ENGAGE IN RESEARCH AND DEVELOPMENT EVERYWHERE.** Companies that promote a culture of testing throughout the organization can gain tremendous insight into consumer trends and user behavior.
3. **USE PREDICTIVE ANALYTICS.** Businesses are increasingly able to identify customer patterns and generate targeted offers, often before customers are even aware they have a need.
4. **CHALLENGE CONVENTIONAL WISDOM.** Since data analytics can provide definitive answers, there's no excuse for using the status quo as a default.

Companies such as Amazon and Facebook are high-profile examples of companies reimagining what's possible with big data. However, Zettelmeyer is quick to point out that having access to hundreds of millions of customer records isn't a prerequisite for companies. The big data mindset can drive insight whether a company tracks information on tens of millions of customers or has just a few hard drives of data.

⇒ that my consumer set is related to people who like rock music, if I were in advertising, I would design a campaign that would target groups of people who like rock music.”

“But with social [media], with integrations to applications like Spotify,” he says, “I can get first-person data not just on what genre they listen to but specific titles and specific artists, a specific type of data, and build a much better analysis of who that person is and what they’re doing and the best way to reach them.”

That formula has worked for Adaptly. What started as an NUvention course project, an interdisciplinary partnership between Northwestern schools including Kellogg, has grown to a 70-employee company that’s amassed more than \$13 million in venture capital and clients ranging from Showtime Networks to Kraft Foods Group. Sethi still contends with problems like storage and analytics — “I can’t take a Facebook data set and use it for ESPN,” he says — but he believes first-person data is key to filtering out the vital information from the glut. “It creates an identity that’s more reflective of who you are.”

The technology will catch up with the data, Zettelmeyer says, rendering issues like analytics and shortage moot and bringing down its expense. It will make big data more accessible to businesses of all sizes. ❧



The Application of Data

KELLOGG EXPANDS ANALYTICS COURSES AND TRAINS MANAGERS TO INTERPRET BIG DATA

Kellogg has established a strong reputation in data analytics — a recognition of the importance of analytics to the next wave of executives in the 21st century business environment. But according to Florian Zettelmeyer, professor of marketing, there is still work to be done in figuring out how to diffuse analytics competence across all areas of an organization.

“We’re moving into a world where managers have to be conversant in analytics and in information technology, he said. “We at Kellogg have thought very hard about how to train the next generation of managers in analytics.”

The Kellogg curriculum is constantly developing to keep pace with the marketplace. Here, we preview a sampling of courses Kellogg offers around the ever-evolving subject of data analytics.

COURSE: **Customer Analytics**

PROFESSOR: **Florian Zettelmeyer**

DETAILS: Firms are increasingly obtaining data not just about purchase decisions, but also about individual consumers’ pre- and post-purchase behavior. But few firms have the managerial and data analytics expertise to act intelligently on such data. For the key marketing problems in customer acquisition, development and retention, Zettelmeyer’s hands-on course introduces sophisticated data analytics techniques tailored to those problems, including predictive analytics and large-scale testing. Students apply each technique to a large consumer-level database, learning how to target consumers individually and how to derive customer insights.

COURSE: **Digital Marketing and Commerce**

PROFESSOR: **Richard E. Wilson**

DETAILS: Students gain hands-on experience in digital marketing and e-commerce by developing competing business strategies around brand position, product mix, user experience, store design, and pricing and promotion optimization. Real-world enterprise technology is used to build live online stores shopped by real consumers. Online customer analytics and data reporting are used to adjust strategies across shopping cycles. Senior e-commerce professionals from companies such as Target, IBM, Sears, OfficeMax, Google and Walgreens provide mentoring and coaching.

COURSE: **Retail Analytics, Pricing and Promotion**

PROFESSOR: **Eric Anderson**

DETAILS: How does a “sale” sign change customer behavior? How has the Internet changed customer price sensitivity? How has expansion of retail stores, factory stores and the Internet changed customer behavior? Eric Anderson’s data-driven course seeks to answer these questions and provides a cohesive framework for studying consumer behavior. Most of the data is from real-world managerial problems, and students learn how to make informed pricing and retailing decisions using data.

COURSE: **Social Dynamics and Network Analytics (Social-DNA)**

PROFESSOR: **PJ Lamberson**

DETAILS: To help students meet the challenges presented by a world of unparalleled connectedness, Social-DNA provides an in-depth introduction to the emerging fields of social dynamics, network science and big data analytics. PJ Lamberson covers both theory and applications of social dynamics using hands-on interactive models, data collection and analysis. The course tackles subjects including: social networks, tipping points, crowdsourcing and open innovation.



Micro answers to macro trends

LAB42 GETS TO THE HEART OF HOW DATA CAN WORK FOR BUSINESSES

BY LENA SINGER

“BIG data is great for identifying macro trends, but there’s also a need for micro answers,” says **Gauri Sharma ’09**, chief executive officer of the Chicago-based custom market research company Lab42. “That’s where we come in.”

Businesses — from Fortune 500 companies to MBA students and other small-scale entrepreneurs — approach Lab42 with questions ranging from, “Would this product appeal to our target demographic?” to “Is there a market for my business idea?” The startup, which was launched in 2010 by the venture capital firm and startup foundry Sandbox Industries, not only helps refine those questions but also looks to its “publishing partners” to efficiently and inexpensively test them.

Lab42 seeks out these confidential partners — including shopping sites, gaming sites and blogs — to gain an in with the types of people attracted to them or their social media components. “There may be a gaming site, let’s say, that we know targets men over 40,” Sharma says. “We proactively make a relationship with that [site] to make sure we’re able to tap into that demographic.”

Potential respondents are enticed to take Lab42’s surveys with virtual currency or online credits, but first they have to create a profile through Twitter or Facebook. The profiles help Lab42 determine whether a person really hits key demographics or psychographics and promote accurate matches to future surveys.

Altogether, it aids Lab42’s relatively small team (the startup has 10 employees, soon to be 12) in managing quick turnaround times, which can be as short as two or three days. According to Sharma, that type of schedule is what attracts some of the company’s biggest clients, many of which have their own research teams. “It can be five or six months before [a business or marketing group] can get research because their own research departments are spread so thin,” Sharma says. “We enable them to do the research quickly and get the insights they want.”

Lab42 saves clients money, in part, by asking pointed questions to pools of online volunteers that have already been vetted as relevant — rather than creating focus groups or searching for answers in large piles of data. The company also helps their clients avoid making expensive mistakes. Sharma cites a recent client that reported saving thousands of dollars for abandoning a plan to upgrade one of its existing product’s packaging.

“They anticipated that a fancier-looking product would sell better,” Sharma says, “but our research proved otherwise.”

High Speed Social Impact

**KELLOGG ALUMNI BUILD ONLINE ORGANIZATIONS THAT MEET
MEDICAL AND FINANCIAL NEEDS**



2005
Ben Munoz starts
at Kellogg.

BY ED FINKEL PHOTOGRAPHY BY TIEGAN NEARY INFOGRAPHIC BY INFOGR8

A brain aneurysm during the summer between his first and second years at Kellogg changed **Ben Munoz**'s life in an instant — and forever.

Now a medical student at Baylor University, a career change inspired by his ordeal, Munoz '07 was surprised by the lack of online communities to connect people facing similar health challenges. So, with help from classmate **Scott Orn** '07, he started his own.

Called Ben's Friends, the duo's website started with about 10 people in December 2007 and now has 4,500 members spanning 33 conditions rare enough that the patients might have a hard time finding a fellow sufferer in their immediate offline community.

"After I started the website to help myself, I realized I had done so much to help patients, I wanted to do more," Munoz says, referring to both the expansion of the website and his own decision to attend medical school.

"The response was phenomenal; it was clearly something people needed. I get so many amazing, joyous emails from people in a really tough spot," adds Orn, who has a day job at Lighthouse Capital Partners in California. "We were smart enough not to screw it up."

Megan Kashner '03, founder and CEO of Benevolent, saw a different kind of need that might be met similarly through Web 2.0 architecture.

Benevolent's website, benevolent.net, connects small-dollar angel investors with low-income adults who lack personal or family resources, but who have goals that need funding and relationships with community-based nonprofits that can vouch for their honesty and motivation.

A former executive director at Taproot Foundation, a national nonprofit that encourages professionals to do pro bono work, Kashner paired her Kellogg MBA with an earlier degree in social work.

"A lot of people look at big social trends and macro-level solutions. I've always looked at the individual level: What is it going to take to get this person to the next step in their life?" she says. Regarding conceiving Benevolent, she says, "I realized, 'Wait a minute; these challenges that low-income adults face, with the way people want to give today and the way technology connects people today, we can build a solution.'"

That solution was a crowd-funding platform on which potential donors read the stories of people, recommended to the website by local nonprofit agencies, who are seeking money for a specific purpose. Started in Chicago, the website received grants in December that are enabling expansion to Detroit, Charlotte and Silicon Valley.

One website member named Aurora, for example, is seeking to raise \$775 so she could become certified in phlebotomy and move onward from her current career as a certified nursing assistant. Her "validator" was Annie of Erie Elementary Charter School in Chicago.

"Annie, who in the past would have had to say to Aurora, 'I'm so sorry; we don't have any funds to help you do that,' now gets to say to Aurora, 'Let's try Benevolent,'" Kashner says. If the \$775 is raised, it's sent to the charter school. "The money is never cash," she says. "The nonprofit is paying to help their own client."

That architecture has helped Benevolent scale up since the website doesn't need to verify each person's needs. "It allows us to say to potential donors that their dollars are helping with something



2006

Ben suffers a stroke caused by AVM and is unable to find a support group of fellow AVM stroke survivors.



2007

Returns to Kellogg after neurosurgery. Creates AVMSurvivors.org to ensure others don't have to suffer alone. Dozens join in the first two months.



2008

Munoz' friend Scott Orn sees power of online support, and they create two more sites, LivingWithTN.org and LivingWithAtaxia.org, all encompassed under BensFriends.org.



1,000

2009
AVMSurvivors.org passes 1,000 members. Fourth site, ALDSupport.org, launched.



7,000

2010
New friends join the team to help Ben achieve his mission. New communities, money raised, newsletter and blog launched, more members supported. BensFriends.org passes 20 communities and 7,000 total members.

that someone would not otherwise have been able to do,” Kashner says. “Case managers turn to Benevolent when donor dollars are the only way this is going to get achieved.”

Launched in 2011, Benevolent is currently funded through grants plus a 10.25 percent processing fee taken out of each transaction that’s added to what the client actually needs. “Our goal is not to be dependent on grant funds. A sustainable revenue model is the holy grail for any social effort,” Kashner says.

She figures they raised \$100,000 the first year, spent about \$30,000 and leveraged another \$340,000 in volunteer and pro bono resources. The Knight Foundation, which learned about the website when Kashner spoke at the White House in November, has funded two of the three expansion cities.

Munoz and Orn found a similarly creative solution that has helped them scale up on a modest budget. After seeing the interest in the initial community around brain aneurysms, which was formed to meet Munoz’s own desire to connect with fellow patients and feel less isolated, Orn suggested to Munoz that they try a couple more.

“He has a really good sense for connecting the dots,” Munoz says of his partner. “He said, ‘It’s changed your life; why don’t you see if you can create the same thing for somebody else?’”

The second community was created for an excruciatingly painful facial nerve disorder called trigeminal neuralgia, of which an estimated half of sufferers commit suicide within four years of diagnosis.

One anecdote of the website’s impact came from a community member named Sarah, who blogged a poem on the one-year anniversary of a near-suicide attempt, Munoz says. She expressed that she felt better knowing “somebody is going through the same thing as you,” he says, adding that she also appreciated the information and referrals.

The pair spent “a lot of long hours” moderating communities at the beginning, then realized to make the concept scalable they needed to find volunteers willing to do so.

“Those 100-plus moderators are what help us scale up off of such a tiny budget,” Munoz says.

With about 50,000 visitors and 500,000 page views a month, Ben’s Friends operates on a budget of \$20,000, he says, which comes through a combination of advertising and donations. They raised about \$22,000 last year through the Indiegogo crowd-funding platform, more than half of that through 110 donors in the 2007 class at Kellogg, Orn says.

They plan to incorporate as a 501(c)(3) nonprofit in the very near future and apply for grants, which might lead to one full-time salaried position. “The main focus is on keeping costs low – impact without infrastructure,” Munoz says. “That’s our business model: to let the revenue take care of itself and operate on a shoestring. ... We think we can go a long way without a lot of overhead.”


“We never wanted to become one of those nonprofits that have massive overhead and have to spend half of their time raising money,” Munoz adds. “We thought of it as a little software startup ... in a garage eating Ramen noodles and peanut butter. How do we do it cheaper? How do we automate?”

Unlike a software startup, however, Orn says they don’t see Ben’s Friends as a moneymaking venture. “There’s a reason this thing didn’t exist: because it’s hard to make money doing it,” he says. “The people are fragmented, on disability. There isn’t a lot of financial opportunity.”

But there are other rewards, Orn says. “It’s been an incredible life journey,” he says. “It’s not going to be something that we ever make any money off of; it’s just a cool thing that exists in the world.” κ

 14,000**2011**

Featured in or partners with:
Tales of the Revolution,
NPR, Extol, Pay It Forward,
Brown Alumni Mag,
Disability Digest.
BensFriends.org reaches
25 communities and passes
14,000 total members.

 25,000**2012**

Partners with Advocacy for
Patients with Chronic Illness,
Friends of Treasure and Rare
Disease Day. Successful
fundraiser through Indigogo.
Passes 30 communities and
25,000 members.

 50,000**2013**

BensFriends.org has 50,000
visitors, 500,000 page views
per month. Operates on a
budget of \$20,000.

**2011**

Benevolent idea formed by
long-time nonprofit leader
Megan Kashner in February.
A Chicago-area pilot launches
in December.

**2012**

Benevolent begins working
with nonprofits outside
Chicago, starting with PATH
(People Assisting The
Homeless) in Los Angeles.
Megan speaks at the White
House Forum for
Philanthropic Innovation in
Washington, D.C.

**2013**

The Knight Foundation and
the Fisher Family award
Benevolent \$285,000 in grant
funds to expand into three
more communities: Silicon
Valley, Detroit, and Charlotte,
N.C. Community Engagement
Managers begin work on the
expansion in April.



“Tomatoes are just the market entry strategy and testing ground for our impact model.

Linking the food chain

BRYAN LEE '12 CONNECTS RURAL INDIAN FARMERS WITH SOURCES TO HELP MONETIZE THEIR CROPS

During a summer 2011 fellowship in rural India, **Bryan Lee '12** listened to dozens of farmers share stories detailing agriculture's hardscrabble life.

"It struck me that this group of people — as many as 200 million of India's rural poor — had little hope for a better future," Lee says.

Their personal stories moved Lee to act.

Soon after returning stateside, Lee founded Kisan First, an organization seeking to reduce rural poverty by providing farmers with greater ownership within the food value chain. The upstart organization increases and stabilizes its farmers' incomes by installing the infrastructure — specifically, small-scale processing units — necessary to process crops into higher-value products and sell those yields in urban markets. These moves minimize unpredictable weather and market demand risks.

"By giving farmers more ownership in the value chain, we are helping them hedge these risks by decreasing the portion of their incomes that is harvest-related and linking them to a larger network that can cross-subsidize these risks," Lee says.

Little over one year into its existence, Kisan First has finished its initial product development stage, acquired customers and launched manufacturing. The organization currently is working with tomato farmers in the western Indian state of Maharashtra and

selling processed tomato products to restaurants in Mumbai.

Lee looks to expand Kisan First's work to additional crops and markets, though he believes the organization's core competency will eventually swing to marketing and product development.

"Tomatoes are just the market entry strategy and testing ground for our impact model," Lee says.

With Kisan First generating interest from investors and like-minded social enterprises, Lee admits a struggle in balancing entrepreneurial fervor with manageable growth.

"There have been times when our desire to follow up with all potential leads ... has kept us away from doing what is most crucial for us at this point: moving the pilot forward," Lee says.

While Kisan First plans to continue entering niche markets with few reputable rivals, Lee knows that emerging competition will challenge his organization's growth potential.

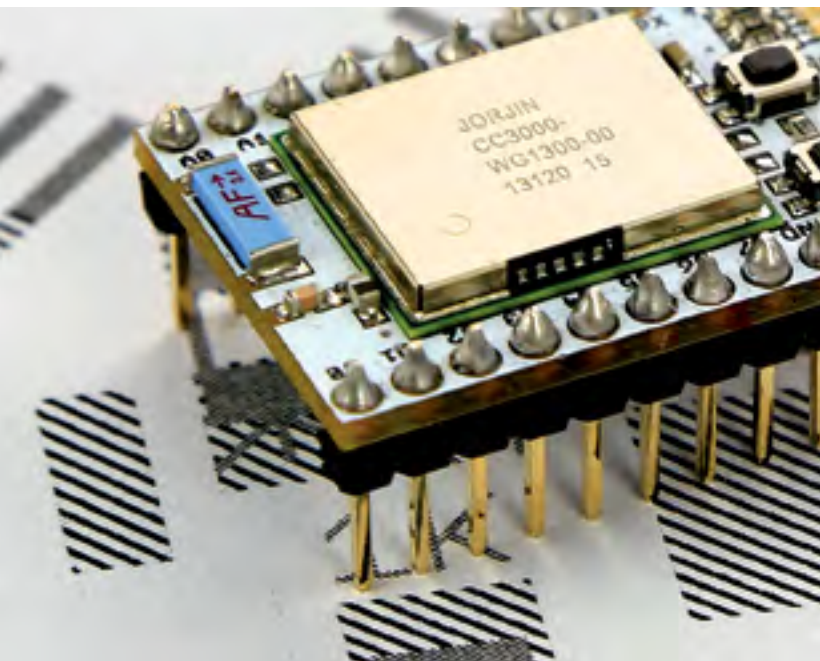
"Our ability to defend our customer base against companies with potentially more resources and more experience will be crucial," he says.

To that end, Lee has developed strong ties to credible, farmer-centric agricultural agencies throughout India. Within the next five years, he hopes Kisan First can secure buy-in from more than 10,000 farmers. **K**

BY DANIEL P. SMITH PHOTO BY GURU DUTT

THE PIVOT POINT

SPARK DEVICES EVOLVES, TRADING IN THE SOCKET FOR THE CORE



“This isn’t just a platform for hobbyists and engineers. This is a platform for any connected product, even ones sold on the shelf at Target or Best Buy.

ZACH SUPALLA '12

▼ Spark Devices CEO Zach Supalla (left) and CTO Zachary Crockett (right)



Shifting from consumer products to development kits was not part of **Zach Supalla's** initial plan for Spark Devices, his upstart tech company.

“In the start-up world, people talk about the ‘pivot,’” Supalla '12 says, “which is the recognition that a certain business plan just isn’t going to work, and a sudden change to try something new.”

Despite some initial buzz, Supalla came to a realization with his team’s first attempt at manufacturing a viable product, the Spark Socket – it just wasn’t going to work.

The Spark Devices team had just arrived in Shenzhen, China, to join a hardware incubator when they recognized that fundraising efforts wouldn’t bring in enough money to begin manufacturing the Socket, a dynamic device that used wireless Internet and user preferences to adjust lighting. Supalla scrapped his plan for development and offered up the Socket’s hardware designs and software open source for anyone interested in continuing the project.

A new – and perhaps better – idea developed out of the Spark Socket: the Spark Core.

“The most important thing,” Supalla says, “was for us to be able to move quickly. It helped a lot that most of the development work we did for the Socket applied directly to the Core.”

The Spark Core uses the same Wi-Fi module as the Socket.

Freed from the Socket’s particular function, the Core allows developers – both hobbyists and makers – to implement wireless connectivity in their own products, and to update essential software with ease for both developer and user.

“This isn’t just a platform for hobbyists and engineers,” Supalla says. “This is a platform for any connected product, even ones sold on the shelf at Target or Best Buy.”

The Core received more funding in 72 hours on Kickstarter than the Socket did during its entire 30-day campaign. At press time, Spark Devices had raised more than 56 times its initial goal and is rolling out additional Core features.

“Our vision is quite large,” Supalla says. “I see a lot of potential in Internet-connected products across a wide array of industries, and I would like to make that happen.”

Eric Buttermann contributed to this report.

BY PETER JURMU

INTELLECTUAL PROPERTY VALUES ARE STILL GOING UP.

INCREASE YOURS WITH KELLOGG EXECUTIVE EDUCATION.

Add immediate value in the workplace by refreshing your skills with Kellogg Executive Education. With over 35 courses, taught by our most accomplished faculty, you'll be able to maintain your edge throughout every stage of your career. Upcoming courses include:

Creating & Leading a Culture of Innovation	Sep. 18, 2013 – Sep. 20, 2013
Merger Week	Oct. 13, 2013 – Oct. 18, 2013
The Soul of Leadership	Oct. 28, 2013 – Oct. 30, 2013
The Customer Focused Organization	Nov. 11, 2013 – Nov. 14, 2013

Executive Education can not only help you achieve your personal objectives, but your company's leadership goals as well. More information about partnering with Kellogg to create a custom program for your organization, as well as our full course list, can be found at kellogg.northwestern.edu/execed.



THINK BRAVELY

