

IMPACT

JUNE 2017



INVESTING IN INTELLECTUAL AMBITION

See the difference HBS faculty
research is making



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DEVELOPING INSIGHT THAT HAS POWER IN PRACTICE

The commitment to research that influences pedagogy, theory, and practice is inherent to HBS's identity. The first field study, conducted in 1911 under the School's Bureau of Business Research, comprised a comparative examination of the costs of operating a retail shoe business. The resulting report helped companies devise strategies to manage inventories, increase profits, and cut waste.

Though much has changed over the ensuing century, the drive remains the same. "We aspire to be both rigorous and relevant," says **Jan Rivkin**, the Bruce V. Rauner Professor of Business Administration and senior associate dean for research. "That's the promise of HBS. The world's problems are becoming increasingly complex and don't lend themselves to one type of research. Our faculty employ constantly evolving methodologies to address topics of critical importance."

The digital transformation of society has led faculty members to explore research questions in innovative ways using data mining, people analytics, crowdsourced solutions, and other modes of investigation. Additionally, more than 30 faculty members are engaged in ambitious field experiments, often facilitated by HBS's network of global research centers and offices.

Interest in field research is rising. For example, **Raffaella Sadun**, the Thomas S. Murphy Associate Professor of Business Administration, interviewed managers at some 10,000 organizations in 20 countries to examine why management practices differ across nations, industries, and companies.

HBS faculty also work hand in hand with organizations in the field to find solutions to complex problems, often with actionable results. Among them is **Robert S. Kaplan**, senior fellow and the Marvin Bower Professor of Leadership Development, Emeritus, who has collaborated with 100-plus health care centers to develop value-based accounting to help lower costs of health care delivery.

The ability of faculty members to study these and other business issues that are both relevant and resonate with their intellectual passions, unencumbered by the need to apply for grants, is a rarity in academia. Providing this opportunity and ensuring the School remains a leader in research that influences practice is a top priority. Donor support of pathbreaking research through the HBS Fund for Leadership and Innovation plays a critical role in making it possible for HBS faculty to deepen their understanding of global business practice.

"Without support for research, we wouldn't have the insight to educate leaders who make a difference in the world. It enables us to tap into new methodologies and develop ideas that have power in practice. HBS has an ambitious intellectual agenda, and I believe, in many ways, the most exciting years of research at the School lie ahead."

Jan Rivkin, the Bruce V. Rauner Professor of Business Administration and senior associate dean for research

Research at Work: Crowdsourcing Challenge

Harvard Business School, in conjunction with its partners, hosted a series of challenges to develop algorithms for faster DNA sequence alignment and to improve analysis of gene expression data.

DNA SEQUENCING 1 CHALLENGE

THE CHALLENGE

This first contest of the DNA series used crowdsourcing to determine an algorithm to break data bottlenecks and speed up DNA sequencing. Researchers use genomic information to gain a better understanding of diseases and to more efficiently diagnose and treat patients.

THE PROCESS

Members of the **Topcoder** community—a leading online crowd platform that administers contests in computer programming—were invited to register for the challenge, and a chance to win a \$20,000 prize. Ninety-six competitors embarked on the three-week challenge.

THE PARTNERS

- **Crowd Innovation Lab at Harvard University:** Researches how teams and crowds are organized to perform tasks and functions, headed by HBS professor **Karim R. Lakhani**.
- **Broad Institute of MIT and Harvard:** Founded in 2004 to seize the opportunities that arose from the Human Genome Project.
- **Robert and Myra Kraft Family Foundation**

THE RESEARCH TAKEAWAY

Crowdsourcing and crowd principles can be integrated with the academic research enterprise to open the research process across scientific disciplines with beneficial outcomes.

THE RESULTS

Algorithm Performance



ADDRESSING BUSINESS AND SOCIETAL CHALLENGES

A Finger on the Pulse of the Financial System

What if it were possible to accurately predict and maybe even prevent the next global financial crisis? Harvard's Behavioral Finance and Financial Stability (BFFS) Project, conceived at HBS and launched in July 2016, aims to do just that.

An interdisciplinary initiative involving more than 20 scholars from HBS, Harvard Kennedy School, Harvard Law School, and the Department of Economics, the BFFS Project is led by **Robin Greenwood**, the George Gund Professor of Finance and Banking at HBS.

"There has long been a significant collaboration on finance research throughout the University on a one-off basis," says Greenwood, who worked with fellow HBS finance professor **Malcolm Baker** and Harvard economics professor Andrei Shleifer to get the project off the ground. "Historically our group has been pretty fluid, though, and we decided it would be worthwhile to formalize the relationships and work on channeling the keen interest many of us have in financial stability."

There is consensus within the group that financial instability often follows periods when institutions, policy makers, and investors have underestimated risks. These errors in perception are visible in the run-up to past financial crises. "If beliefs and expectations can be measured in real time," says Greenwood, "it would be easier to anticipate financial vulnerability and take measures to prevent future crises."

BFFS Project research focuses on five areas: regulation and monetary policy; measuring bubbles; extrapolation and neglected risks; the size and structure of the financial sector; and governance, incentives, and culture. A database of financial stability

and investor sentiment measures is published in real time on an ongoing basis on the BFFS Project website, which makes the data accessible to outside researchers, practitioners, and the public.

Greenwood notes that "on the website you can click on a country and immediately see the probability that a given sector within that country is currently experiencing a bubble." For users seeking a longer-term perspective, the BFFS Project site also includes a historical database of banking, stock market, and currency crises in more than 60 countries since 1800.

In addition to regular meetings among the Harvard-based scholars, the project organizes occasional conferences and invites renowned researchers, policy makers, and financial market executives to meet with BFFS faculty to promote the productive exchange of ideas.

"We began by mobilizing Harvard research around the realities of how markets, individuals, and institutions behave," says Greenwood. "Ultimately though, we want the research to have broad real-world impact. Harvard scholars are leaders in this field. The BFFS Project is helping us disseminate knowledge that could help prevent a lot of economic misery."

Learn more by visiting alumni.hbs.edu/BFFSproject.

"If beliefs and expectations can be measured in real time, it would be easier to anticipate financial vulnerability and take measures to prevent future crises."

Robin Greenwood, the George Gund Professor of Finance and Banking





“The digital transformation enables us to re-engineer and re-architect organizations and consider innovative ways to create and capture value. Technology is helping us amass more data, faster and cheaper, so that we can make better decisions in real time and micro-targeted to a consumer or a patient.”

Karim R. Lakhani, professor of business administration

Drawing on the Crowd for Innovative Problem-Solving

Long before HBS professor **Karim R. Lakhani** used crowdsourcing to develop pioneering research on the science of innovation, his experiences working at General Electric and the Boston Consulting Group piqued his curiosity about how such companies could involve thousands of participants in complex problem-solving challenges.

“I became a professor to understand why communities, like those that create open-source software, were innovating. It did not correlate with my intuition about the best ways to incentivize innovation and organize people,” says Lakhani, who believes the digital transformation of business and society is changing not only how we work and live, but also how we tackle the toughest issues.

Lakhani oversees the Crowd Innovation Lab, a Harvard University initiative focused on crowdsourcing. He conducts field experiments using online networks of external problem solvers organized in two categories: competitions and collaborative communities. His work has an impact both on practice, by helping partners solve difficult innovation dilemmas, and on theory, by optimizing design parameters needed to engineer solutions.

Working with NASA and Topcoder, a leading online crowd platform, Lakhani developed the NASA Tournament Lab to create contests that improve computer codes and data analytics solutions. With Harvard Medical School researchers, he designed a competition to break data bottlenecks and speed up DNA sequencing. Recently, Lakhani collaborated with the Broad Institute of MIT and Harvard to further genomic research, developing a contest that aimed to improve the benchmark algorithm set by Broad scientists, which it did, 14 times faster (see page 21).

Lakhani explains that when structuring an experiment, he has to decide between a competition and a collaborative community, the number of participants needed, and what incentives to provide. In most instances, he recommends that “an organization’s internal problem solvers should define the parameters of a challenge rather than attempt to solve it, encourage diverse ideas through a contest, and then switch to a community model where people can assess the different approaches and collaborate on refining the best solution.”

Interactions with a variety of crowds—including students and executives in his classrooms, fellow researchers, and the HBS alumni community—inform Lakhani’s work. He draws on the insights he gains from those participating in his Executive Education courses and shares them with students in his MBA elective Digital Innovation and Transformation. And as cofounder of HBS’s Digital Initiative, he brings together faculty, students, alumni, and practitioners to exchange ideas about the digital transformation of business.

Lakhani also plans to collaborate with scholars from Harvard Medical School and the Harvard John A. Paulson School of Engineering and Applied Sciences in developing a new Innovation Science Lab to examine innovation at the juncture of business and science. “We’re at the beginning stages of a re-architecting of our companies and economies based on digital technologies—notably artificial intelligence and machine learning,” he says. “With this new lab we will continue to explore ideas at the forefront of research.”

LEFT: RUSS CAMPBELL; ABOVE: DANA MAXSON

POWERED BY THE HBS FUND



NEW VIDEO SERIES SHOWCASES FACULTY RESEARCH

HBS has rolled out a new video series that captures the intellectual passion and rigor of six members of the School's faculty in pursuit of new ideas and insights. The series includes five two-minute videos highlighting individual research projects, plus a six-minute video that puts this work in the larger context of the School's efforts to educate leaders and influence business practice worldwide.

Visit alumni.hbs.edu/facultyresearch to watch:

- **Professor Jan Rivkin** talk about his passion for case writing and the origin of his case on LEGO's return from bankruptcy.
- **Associate Professor Raffaella Sadun** discuss how she uses data to explore the impact of information technology investment on organizational productivity.
- **Professor Emeritus Robert S. Kaplan** explain how he uses action research to lower the cost of health care.
- **Professors Francesca Gino and Michael Norton** discuss their interdisciplinary research on how rituals can predict and improve team performance.
- **Professor Mihir Desai** talk about his research and his testimony before Congress on international tax reform.



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To learn more, visit alumni.hbs.edu/hbsfund or contact Eric Stoddard, director of annual and reunion giving, at estoddard@hbs.edu or 617-495-6881.



THE EVOLVING HBS CAMPUS

In April, the School held a "topping off" ceremony for Klarman Hall, a new convening center being built on the southeastern corner of the HBS campus. The ceremony of raising the highest steel beam traditionally marks the halfway point of a building's construction. Slated to open in fall 2018, Klarman Hall will be home to lectures, conferences, performances, as well as many other purposes, and will accommodate up to 1,000 guests.

The building is made possible by a generous gift from Beth and Seth Klarman (MBA 1982), who took part in the ceremony.

Pictured, from left: Cliff Gayley and architect William Rawn of William Rawn Associates; Dean Nitin Nohria; Beth Klarman; Seth Klarman; and Richard Walsh, president and CEO of Walsh Brothers, the project construction management firm.

LEFT: SUSAN YOUNG



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ALUMNI CONNECTIONS



Recent HBS Alumni Events on Campus and Beyond

In April, the Boston Women's Leadership Accelerator event was held on the HBS campus to connect HBS alumnae in a new way around important topics and issues. The event was organized by local HBS alumnae with support from the School.

- 1 Some of the more than 150 attendees during one of the many sessions held on the HBS campus.
- 2 Jane Brock-Wilson (MBA 1983) and Kimberly Clouse (MBA 1997).

Young Alumni Networking Receptions

- 3 Alumni from the MBA Classes of 2012–2016, as well as some newly admitted students, at the Ainsworth Midtown in New York City in April.
- 4 Alumni from the MBA Classes of 2002–2016 at the Wilshire Restaurant in Santa Monica, CA, in March.

Finalists in the New Venture Competition were on the HBS campus in April to give their pitches to a panel of judges. This is the 20th year of the annual competition.

- 5 Vera Makarov (MBA 2010) was the grand prize winner in the alumni track for her on-demand jobs platform, Apli.
- 6 (L to R) Professor William Sahlman (MBA 1975) interviewed founders of the New Venture Competition: Alison Berkley Wagonfeld (MBA 1996), David Rosenblatt (MBA 1997), Jennifer Scott Fonstad (MBA 1997), John Iannuccillo (MBA 1997), and Susan Wolf Ditkoff (MBA 2001).

To learn about upcoming events, please visit alumni.hbs.edu/events.

“FROM ITS VERY FOUNDING, THOUGHT LEADERSHIP HAS BEEN AS IMPORTANT TO THE MISSION OF HARVARD BUSINESS SCHOOL AS ITS EDUCATIONAL PROGRAMS. TODAY, HBS FACULTY MEMBERS ARE CONTINUING THIS INTELLECTUAL AMBITION.”

Nitin Nohria, Dean of the Faculty

