

for example, it announced a multiyear partnership with Agilent Technologies; the company will support the development of tools and technologies in three platform areas: Biomaterials Evolution, Programmable Nanomaterials, and Biomimetic Microsystems.

"I think this is a terrific opportunity for Harvard," Wyss says. He believes that other universities are already seeking to replicate the institute's approach, both in bringing disciplines together and in emphasizing commercial applications of its work. For Ingber, the excitement clearly lies in having such resources and expertise in one place, in order to move projects forward quickly. He says that faculty members have been drawn to the Wyss because of the promise of accelerating their work, taking on riskier projects, and seeing them move more quickly beyond the laboratory into the real world.

~COURTNEY HUMPHRIES

The Public's "Hard Problems"

A YEAR AGO, prominent social scientists gathered at Harvard to highlight what they saw as the most pressing problems in their disciplines. Asked to choose problems that were either very urgent, very difficult, or both, these 12 eminent thinkers formulated a list of nearly three dozen "hard problems in the social sciences," then put the problems to the public for a vote (see "Hard Problems" in the Social Sciences," July-August 2010, page 60). The subsequent online forum also solicited suggestions of important problems that hadn't made the scholars' list, and 10 of the problems submitted by the public—including world peace, improving relations between Islam and the West, and defining humans' purpose—were also thrown into the voting mix.

The level of public interest and attention surprised even the organizers. The project's website attracted 7,000 visitors per month last April and May; a Facebook page drew 11,000 fans; and more than 500 people voted in the poll to decide which problems were *truly* the most urgent and most difficult.

As conscientious social scientists, the organizers subjected the poll results to

Yesterday's News

From the pages of the *Harvard Alumni Bulletin* and *Harvard Magazine*

1921 The Commencement audience witnesses for the first time a "considerable group" of women standing to be declared graduates of a relatively new department of the University, the School of Education.

1936 The United States Senate has approved a bill providing for a series of Harvard Tercentenary postage stamps as the University continues to prepare for its forthcoming anniversary.

1961 College diplomas are printed in English for the first time, rather than engraved in Latin, provoking protest from students and alumni. President Pusey compensates by conferring the degree in Latin for the first time since 1895.

1971 What is believed to be the first campus drug raid carried out by Cambridge police occurs after a potted marijuana plant is sighted on a dormitory windowsill.

1971 Susan Cochran '73, manager of the ski team, becomes the first Radcliffe student to win a Harvard H.

1986 Professor Walter J. Kaiser, marshal of Harvard's Phi Beta Kappa chapter, instructs his charges to enter Memorial Hall "boustrophedonically." Brandishing his silver-tipped baton, he adds, "I should tell you that *Life* magazine will be taking pictures of the procession. So do make a

special effort to look intelligent." (Classics professor emeritus Mason Hammond informs bemused nonclassicists that *boustrophedonic* is a Greek term meaning "as the oxen turn at the end of a plowed furrow.")

1991 Derek Bok leaves office and donates his 1969 red, semi-automatic, sun-roofed VW bug, with 45,718 miles on it, to the Phillips Brooks House Association. PBH ultimately decides to auction off the car.

1991 The new head of University Dining Services, Michael P. Berry, impresses undergraduates with such culinary initiatives as themed dinners, more vegetarian options, and environmental awareness: "Cereal now comes in bulk dispensers instead of wasteful 'snack packs.'" A grateful senior class honors him with a picture of themselves.

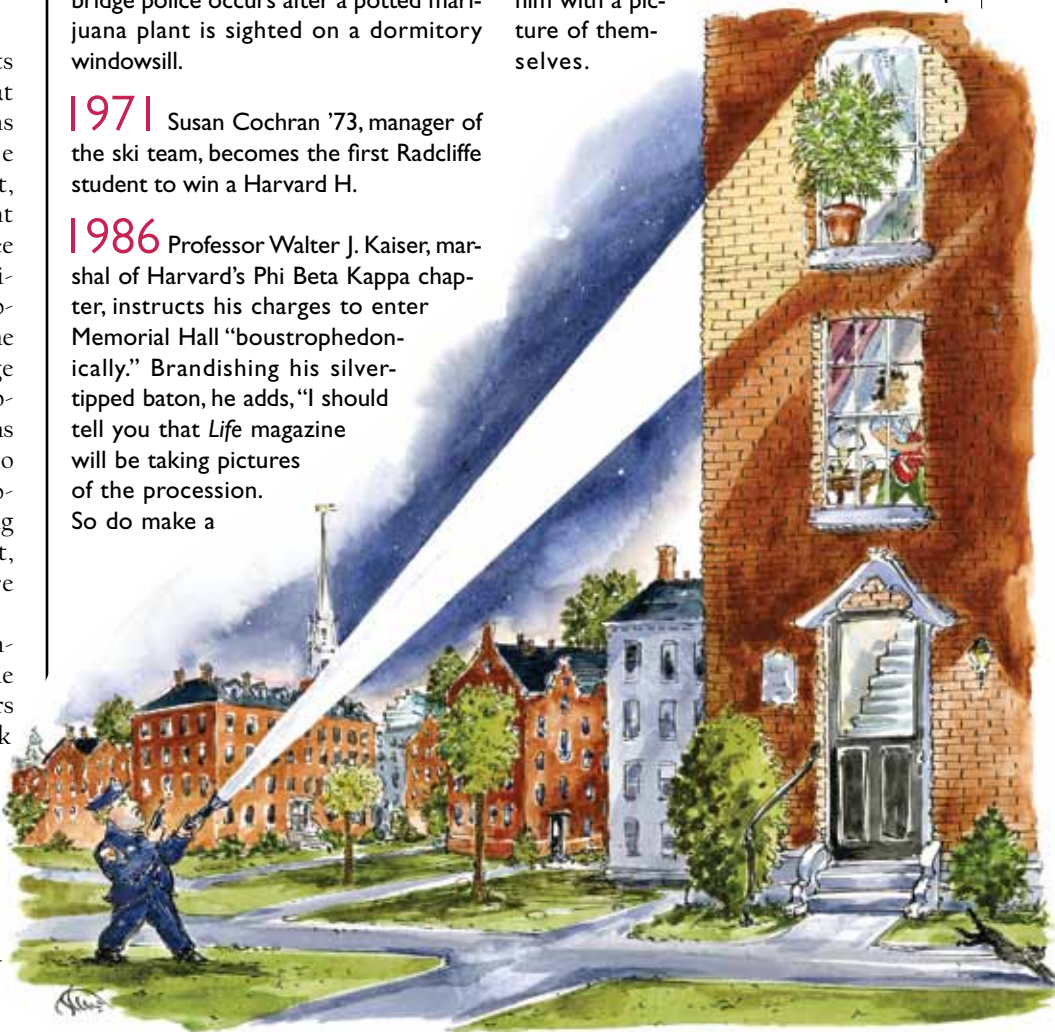


Illustration by Mark Steele

rigorous analysis, parsing the responses in numerous ways—and the problems submitted by the public scored well. “I thought it was fascinating to see the disconnect between what the academics thought were important problems and what the non-academics thought,” says Stephen M. Kosslyn, one of the organizers. (Formerly Lindsley professor of psychology and dean of social science within the Faculty of Arts and Sciences [FAS], he now directs the Center for Advanced Study in the Behavioral Sciences at Stanford.)

Once the poll had closed, John Muresianu ’74, Ph.D. ’82, then a fellow at the Berkman Center for Internet and Society, analyzed the results using both traditional measures (such as overall high score and how many voters gave a high score for each problem) and the less-orthodox “Zec score,” an algorithm he designed based on the assertion by symposium presenter Richard Zeckhauser, Ramsey professor of political economy, that in deciding which problems social scientists should address first, extreme difficulty should actually count *against* a problem. (Problems whose solutions seem very unlikely “might be fun to talk about” hypothetically, Zeckhauser says, but it would be foolish to funnel resources into work on them.) Thus, even though the public ranked world peace the most important problem, and the second most difficult, it dropped to fourth place in importance when Muresianu calculated the “Zec score” because of its difficulty. Sustainable development, ranked second in importance by the public, fell all the way out of the top 10 for the same reason. (See harvardmag.com/hard-problems to see how 10 problems ranked on different scales.)

Kosslyn thinks the disconnect between scholars and the public may be partly a matter of phrasing: the public sees the forest (world peace), while scholars examine individual trees, breaking the problem down into constituent parts (e.g., the distinct roles of religion, politics, or the availability of food and water in contributing to violence). One way “to bridge the gap” and foster a better understanding of what social scientists do, says Jennifer Shephard of the FAS social science dean’s office, who helped coordinate the original event, “is to have more conversations where the public is involved and scientists explain their research in a way that’s accessible.”

THE IDEA for the “hard problems” symposium and follow-up originally came from Nick Nash ’00. As an undergraduate chemistry and physics concentrator, he was inspired by “Hilbert’s problems”: a list of 23 hard problems in mathematics assembled by mathematician David Hilbert in 1900. Eleven decades later, 10 of those problems had been solved; four had been classified as unsolvable; and all but two of the rest had been partially solved. Nash—now a vice-president at General Atlantic, an investment firm based in Greenwich,

The public sees the forest (world peace), while scholars examine individual trees.

Connecticut, began to wonder whether a similar list of problems could be assembled for the social sciences, for possible solution during the coming century.

Nash secured funding for the project through the Indira Foundation; he, Kosslyn, and Shephard coordinated the April 2010 symposium and the online poll and discussion that followed. They drew attention to the discussion through press releases and

Facebook ads, targeting users in countries and regions that were underrepresented among poll respondents. The response, says Nash, was thrilling: “We’d post a problem and ask,

‘What do you think?’ We’d have a woman in India opine, followed by a man in Nigeria, and then a teenager in Brazil would respond. What a fascinating way to get the whole world humming and buzzing about ideas.”

A parallel but independent effort by the National Science Foundation may indicate that the time is indeed ripe for aligning academic efforts (and public funding for them) with public priorities. The foundation’s general call last August for “decadal-scale ideas” on directions for research in the social, behavioral, and economic sciences drew 252 white papers from scholars (the abstracts are now viewable online). The NSF sometimes finds itself “stuck in this year-by-year budget cycle,” explains assistant director Myron Gutmann. “I wanted to ask, ‘What are the big ideas we can be working on 10 years from now?’ so we really make a good investment in planning for them.” The agency will review the submissions and announce priorities in the summer.



Visit harvardmag.com/hard-problems to read about the original “Hard Problems” symposium and find links to websites to learn more.

Beyond Ramen Noodles

ON A MONDAY NIGHT in late March, dozens of graduate students stand around a brightly lit lounge where tables are covered with many different kinds of pies. The conversation is warm and animated; professor of public policy and management Jennifer Lerner, of the Harvard Kennedy School, chats with students from the Divinity School, Law School, and Graduate School of Arts and Sciences (GSAS). They avidly sample blueberry and chocolate-pudding pies, along with several types of quiches. No one seems stressed out. In fact, everyone looks...happy.

Lerner, faculty director of one of two apartment complexes in the Graduate Commons Program (GCP), observes, “The stereotype of the Harvard grad student is someone working until all hours, sitting alone in his or her apartment or lab, eating ramen noodles. This allows little op-

portunity for interdisciplinary or social exchange.” But the Grad Commons students—surrounded by lively company from around the University—are both well fed and social. “Student success is partly driven by well-being, balance, and social connection,” she adds, “and so we want to build and broaden well-being as an end in itself.” Eight decades after the College was transformed by the creation of residential Houses, with faculty and academic advisers as residents, something similar is taking root for Harvard’s large population of graduate and professional-school students.

In 2001, then-president Neil Rudenstine, the Harvard Corporation, and the deans of the graduate and professional schools formally acknowledged the need to expand the available graduate housing on Harvard’s campus. Allan Brandt, now dean of GSAS, recalls, “Some of our peer institutions had moved more aggressively in developing graduate housing, so we had