says Puchner. In addition to the dance-lecturer search, they are partnering with the Committee on Studies of Women, Gender, and Sexuality to appoint a College Fellow in a three-year postdoctoral position, and with the English department to find a theater scholar. The concentration also plans to have between four and six visiting lecturers—"artists from New York or elsewhere," Puchner says—come and teach each year. Even TDM's physical presence has enlarged, securing dedicated rehearsal space in Hilles Library.

"We're in a laissez-faire, 'Let's *learn* some stuff' phase," says concentrator Aislinn Brophy '17, president of the Harvard-Radcliffe Dramatic Club. "Which is not to say it's not rigorous, but it's a little more, 'Well, what do *you* want to do? Let's try things out! Give us your feedback! Tell us what's working!'" The faculty feels the same way about their students: Puchner says, with a broad smile, "They are game for anything." —SOPHIA NGUYEN

CS50's Expanding Global Reach

During the first lecture of "Introduction to Computer Science I," best known as CS50, McKay professor of the practice of computer science David Malan invites volunteers to the front of the auditorium to make peanut-butter-and-jelly sandwiches. Students in the audience shout out instructions that Malan compiles into a sandwich-making algorithm. By the end of the exercise, it's obvious the algorithm isn't precise enough to teach a computer how to make a sandwich: one volunteer's sandwich is a pile of bread covered by a pool of jelly. Malan calls the demonstration a "ridiculous example" that illustrates a rudimentary principle—that "computers are actually pretty dumb. They can only do literally what they are told."

That example sticks with a lot of students: CS50 is Harvard's largest undergraduate class, and, as of this year, Yale's, too (see **harvardmag.com/cs50yale-15**). The online version, which has recorded some 700,000 registrants this year, towers over the other HarvardX courses. Even as critics have focused on the software industry's involvement in computer-science education, Malan's instructional reach is on the verge of reaching another huge audience: American high-school students.

Angela Yakes, who teaches CS50's curriculum in a rural high school in Cedarville, Ohio, believes examples like the sandwich-making exercise help her students grasp abstract concepts in computer science. "Those kinds of ideas were really eye-opening," she said; now every time the students "want to try something and it's not working, they'll say, 'Think back to the peanut-butter-and-jelly-sandwich.'"

Yakes is one of 40 teachers participating in a pilot of CS50 AP, an adaptation of the curriculum for high-school classrooms that will satisfy the requirements for Advanced Placement Computer Sci-

University People

Humanities Leaders

Cogan University Professor **Stephen Greenblatt**, acclaimed for his Shakespeare scholarship (see "The Mysterious Mr. Shakespeare," September-October 2004, page 54) and his Pulitzer Prize-winning book on Lucretius's *De rerum natura* (see "Swerves," July-August 2011, page 8), has won the Holberg Prize, conferred by Norway for academic work in the arts, humanities, social sciences, law, and theology. The prize, perhaps the leading honor for humanities scholarship, comes with an award of 4.5 million kroner (about $525,000). Greenblatt is now working on a book about the story of Adam and Eve.... Burden professor of photography **Robin Kelsey**, chair of the department of history of art and architecture, has been appointed dean of arts and humanities within the Faculty of Arts and Sciences, effective July 1. Kelsey, profiled in "From Daguerreotype to Photoshop" (January-February 2009, page 42), succeeds Rothenberg professor of Romance languages and literatures and of comparative literature **Diana Sorensen**.

STEPHANIE MITCHELL/HPAC

Signal Scientists

Cook professor of radiation oncology **Rakesh K. Jain** has been awarded the National Medal of Science....Wallace professor of applied physics **Federico Capasso** (see "Thinking Small," January-February 2005, page 50) and **Alfred Cho** have been awarded the American Academy of Arts and Sciences Rumford Prize, one of the nation's oldest scientific awards, in honor of their invention, at Bell Laboratories, of the quantum cascade laser....Iacocca professor of medicine **C. Ronald Kahn** and Loeb professor of chemistry **Stuart L. Schreiber** were each named co-winners of a 2016 Wolf Prize, for work pertaining to diabetes and to gene regulation, respectively....Mangelsdorf professor of molecular and cellular biology and of chemistry and chemical biology **Erin**

DECANAL DEBUT: Kay Family professor of public health and professor of global health and population Michelle A. Williams, holder of master's and doctoral degrees from the Harvard T. H. Chan School of Public Health, has been appointed dean, effective in July. She succeeds Julio Frenk, who departed last summer to become president of the University of Miami. Williams, chair of the department of epidemiology, has conducted research on maternal and infant mortality and health around the world, and is faculty director of two Harvard Clinical and Translational Science Center programs, drawing together public-health and medical expertise. She will become the first African-American leader of one of Harvard's faculties. An in-depth profile appears at harvardmag.com/williams-16.

ence Principles, a new course debuting this fall. With support from Microsoft, one of CS50's corporate partners, Malan's staff provides curriculum materials, teacher training, and online updates to participating schools (about half are public, four of them charter, the rest private). Microsoft hosted training boot camps for teachers at its headquarters last summer, and offers scholarships for teachers to take CS50 online through Harvard Extension School. The pilot has reached 1,500 students this year, Malan said. CS50 staff declined to provide a full list of schools participating, but a limited sample suggests that they (like AP courses generally) serve higher-income communities.

David Malan

ROSE LINCOLN/HPAC

Malan's teaching style complements the goals of AP CS Principles, which is meant to offer high-school students a broad and accessible introduction to the field. The College Board's existing AP Computer Science A course focuses on programming in Java, while AP CS Principles is language-

CURATOR-IN-CHIEF. Martha Tedeschi, who has spent her professional career at the Art Institute of Chicago, will become Cabot director of the Harvard Art Museums in July, succeeding Thomas W. Lentz, who stepped down last summer. (The Art Institute's Modern Wing, like the renovated Harvard complex, was conceived by Renzo Piano.) Now Tedeschi, who has most recently been the Chicago museum's deputy director for art and research (managing conservation, publications, libraries, academic programs, and archives), can focus on the educational use of the integrated Harvard collections and facilities, developing the curatorial staff, and outreach. A graduate of Brown, the University of Michigan, and Northwestern, she specializes in British and American art, with a focus on printmaking. Read a full report at harvardmag.com/tedeschi-16.

COURTESY OF ART INSTITUTE OF CHICAGO/HPAC

O'Shea has been named president of the Howard Hughes Medical Institute, the leading private funder of medical research. O'Shea, an HHMI investigator since 2000 and chief scientific officer since 2013, is the institute's first female president....Mallinckrodt professor of physics and of applied physics **David A. Weitz** has been elected to the National Academy of Engineering.

M.D.s on the Move

Professor of medicine and of epidemiology **Paula A. Johnson** '80, M.D. '84, M.P.H. '85, has been appointed president of Wellesley College, effective this summer; she will be the first African-American leader of that institution. **Laurie H. Glimcher** '72, M.D. '76, who held professorial positions at the medical and public-health schools before becoming dean of the Medical College at Weill Cornell Medicine, will return to Boston next January to become president and CEO of Dana-Farber Cancer Institute. And **Deborah Prothrow-Stith**, M.D. '79, former professor of public health practice, has been appointed dean of the College of Medicine at Charles R. Drew University of Medicine and Science, in Los Angeles.

Yesterday's News

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

1911 The *Bulletin* notes that *A Lawyer's Recollections,* by George Torrey, A.B. 1859, LL.B. 1861, reveals that in his day the only requirement for an LL.B. was that the candidate enter his name as a student at the Law School and pay his term fees.

1916 Newly planted elms in the College Yard are restoring greenness to a "blinding wilderness," observes a *Bulletin* editorialist, applauding a decision to "check an increasing disturbance of the academic peace" by closing certain roads in the Yard against "the menace and noisiness of the automobile."

1936 Dedication exercises for the Old Yard's restored College pump are held, 35 years after it was blown up by a secret undergraduate society, the Med. Fac. Senior College alumnus Henry Munroe Rogers '62 takes the first drink.

1946 Phi Beta Kappa poet W.H. Auden describes a university in which undergraduates with "nerves that never flinched at slaughter/Are shot to pieces by the shorter/Poems of Donne" and "Professors back from secret missions/ Resume their proper eruditions,/Though some regret it."

1976 The Adams House Raft Race draws more than 25 entries from Harvard, Radcliffe, and Cambridge public schools to the Charles. The Collegium Musicum's craft finishes first, its crew singing as they paddle. (Many contestants sink early.)

1991 Under a consent decree, all eight Ivy League colleges agree to abandon shared guidelines for undergraduate financial aid, given a Justice Department contention that such cooperation violates antitrust laws.

2001 A 21-day "living-wage" sit-in at Massachusetts Hall, apparently the longest such protest in Harvard history to that date, ends on May 8, after negotiations in which the University agrees to freeze further outsourcing of jobs and accelerate a contract renegotiation with the union for its custodial workers.

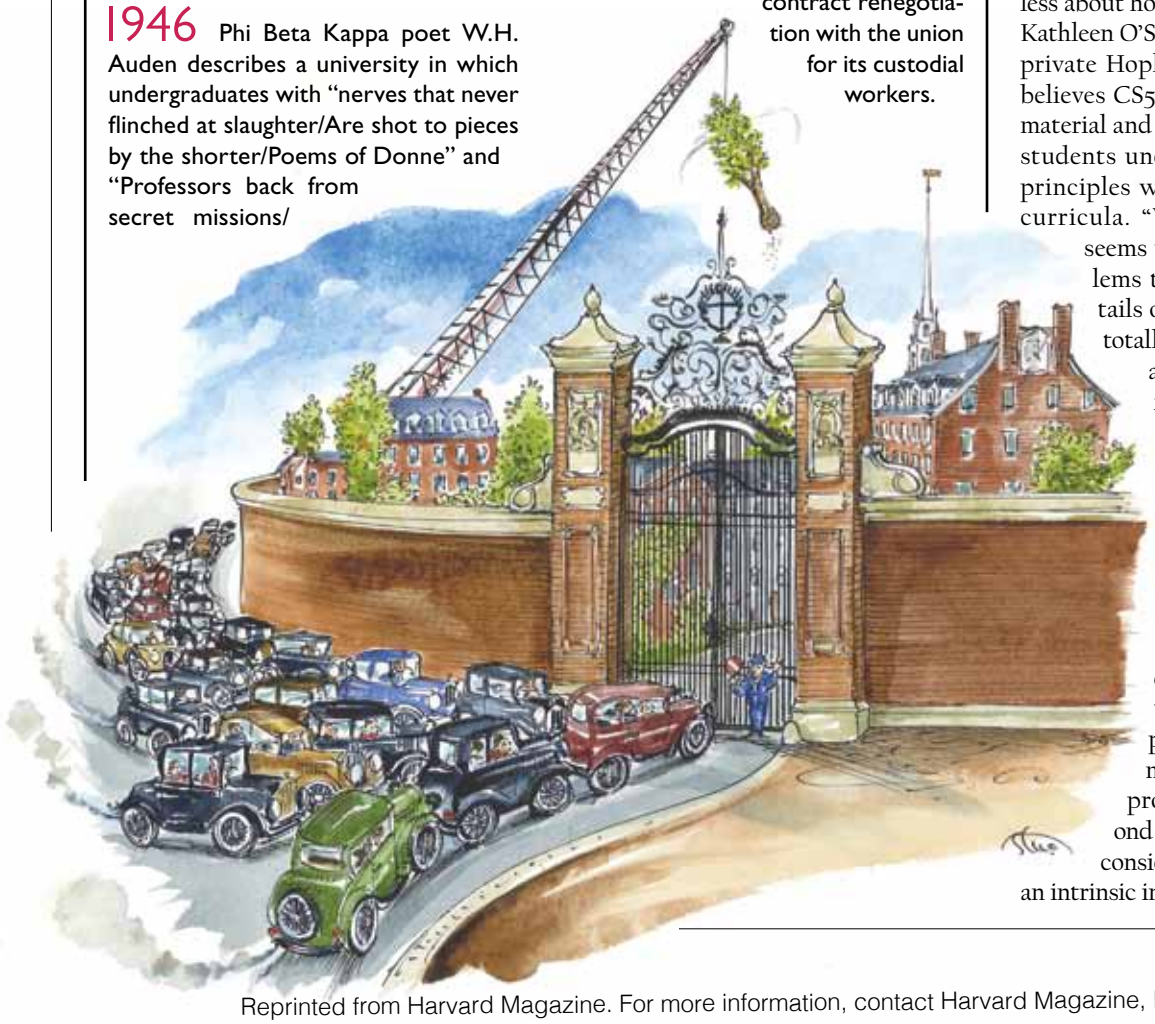

Illustration by Mark Steele

agnostic. The course also asks students to answer questions about the global impact of computing. The decision to focus on the big ideas of computer science in the new course was informed by research suggesting that K-12 students were intimidated by computer science and had narrow ideas about what the field is and what kind of people can succeed in it, said Lien Diaz, the director of the College Board's entire AP program. The new curriculum aims to convey "the excitement that's built around what you can do with programming," Diaz explained, and to draw in more women and minority students, who are underrepresented in computer science. "I believe that is what David Malan tries to do," she said. The College Board expects to endorse CS50's curriculum, as well as curricula developed by other universities and private companies, all as teaching options for AP CS Principles.

But CS50's AP curriculum is hardly watered down. The course teaches C, an old and notoriously opaque programming language, while some of the other introductory curricula opt for high-level languages that are easier to use, but teach students less about how computer processes work. Kathleen O'Shaughnessey, a teacher at the private Hopkins School in New Haven, believes CS50's combination of rigorous material and encouraging pedagogy helps students understand computer-science principles with more depth than other curricula. "What Malan's curriculum seems to do so well is create problems that reveal easy-to-miss details of computer science without totally alienating the less comfortable students," she said. "It feels much more empowering than how my own C education at Yale went." Diaz agreed that CS50's curriculum involves more serious programming than other curricula developed for AP CS Principles.

Recruiting qualified teachers continues to be a barrier to implementing K-12 computer-science education on a mass scale. Computer-science professionals considering second careers have little incentive to consider teaching unless they have an intrinsic interest in the field: said Yakes,

who left a job in IT to become a teacher, "I could be making twice as much, at least, as what I'm making now." Meanwhile, some states lack programs to train education students to become computer-science teachers, and even teachers with computer-science training, like O'Shaughnessey, can have qualms. "I had a computer-science degree and honestly found [the CS50 curriculum] intimidating," she admitted, before adding, "It would be a shame if teachers didn't take on this curriculum because it's too hard for them, rather than too hard for their students."

Teachers interviewed for this story said they welcome the software industry's involvement in computer-science education, as long as corporations don't influence what's in the curriculum. Yakes said CS50's partnership with Microsoft motivates her students and opens them to new intellectual and career opportunities, but "I definitely don't want Microsoft telling me *what* I should be teaching in my course." Malan has said that Microsoft isn't involved in developing the curriculum: "They've been involved in bringing people together, the running of the workshops, and so forth. But the curriculum remains the same [as it was a few years ago]."

The line sometimes appears fuzzy: for example, a CS50 AP blog post last summer indicated that Microsoft interns had created some of the course materials. Corporate partnerships might also influence students in subtler ways. When CS50 hosted a hackathon for high-school students in New York City (similar to the course hackathons for undergraduates), for example, O'Shaughnessey said her students "had a blast. They got to meet real professionals, and asked this woman from Microsoft great questions about what she does for a living. They left with Microsoft stickers and bags and stuff." Such events may prime students to imagine jobs for themselves at proprietary software companies, rather than other careers involving computer science—academic research, for example, or data journalism, or public service. And to the extent that affluent schools are more likely to take on CS50 than disadvantaged schools, already privileged students are those most likely to benefit from the private sector's resource-sharing. "I do wonder about the opportunities for less privileged kids," said Andrew Judkis, a teacher at a magnet school in New Jersey. "Without some major efforts, they're going to be left even further behind."

But there's a pragmatic argument for inviting the software industry into classrooms. At the moment, O'Shaughnessey stressed, most schools don't believe they have the resources to expose students to computer science before college. The private sector does. Bridging that divide is a national priority—but in the short term, turning private interests away on principle, she said, "doesn't make any sense."

—MARINA BOLOTNIKOVA

Larry Summers Reflects

In the decade since Lawrence H. Summers departed Massachusetts Hall, the former Harvard president, now Eliot University Professor, took a sabbatical; resumed teaching; joined President Barack Obama's administration to help secure recovery from the recession; and then re-engaged as a teacher, economics scholar, and participant in high-level policy discussions around the globe. *Harvard Magazine* visited Summers at his Kennedy School office for a reflective conversation about these activities and some of the ideas that interest him now. The complete transcript appears at **harvardmag.com/summers-16**; highlights follow.

Lawrence H. Summers

• On the economic crisis: The economic statistics were, by almost any measure, worse in the fall of 2008 and the winter of 2009 than they had been in the fall of 1929 and the winter of 1930. And we were able to produce an outcome that, while unsatisfactory in many respects, was infinitely better than the outcome that played out in the early 1930s—or the outcome that has played out in Europe and in Japan.

• On higher education's role—and challenges: I still think what I thought throughout my time as Harvard president—that universities have never had a greater opportunity to transform the world, because the world is ever more driven by ideas. It's ever more driven by personal connections that cross boundaries of nations, of class, and of ethnicity. And the older I get, the more I realize that the ways in which people think and act are products of the experiences they had when they were young. So I'm ever more convinced of the importance of universities.

At the same time, I hold to the conviction that I expressed in my inaugural speech as Harvard president and my valedictory speech that the greatest threat to universities in general—and to Harvard in particular—is complacency, and an excessive attachment to tradition. One of my wife's colleagues put it very well when he said Harvard will have to choose in the years ahead between its commitment to preeminence and its commitment to doing things in its traditional ways. I've always been clearly on one side of that—respecting tradition, but focusing on the future.

• On technology and distance learning: I think Harvard has the potential to multiply its impact on the world threefold or fivefold or tenfold, through reaching the entire planet with the knowledge that is here and the capacity to teach and impart knowledge that is here, in a way that would have been unimaginable when I was a graduate student here in the 1970s or when I was on the faculty in the 1980s. Any student, anywhere, could have substantially the experience of taking Harvard's great courses and increasingly benefiting from the interactions that make this such a great place....

Distance education and the use of the Internet are perhaps the most important things that are going to be disruptive in higher education.

• On today's economic situation: Let me talk about...the macroeconomic and analytic research I've done on the idea of secu-

Photographs by Jim Harrison