

Yesterday's News

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

1913 The class of '14 votes almost unanimously for the installation of electric lights in the senior dorms, suggesting the \$3,000 cost be covered by a \$6 term-bill charge against sophomores and juniors.

1948 British constitutional historian Helen Maud Cam becomes the first woman granted tenure as a full professor in the Faculty of Arts and Sciences.

1953 Harvard University Press publishes *Flying Saucers*, by Paine professor of practical astronomy Donald H. Menzel. Warning that the "exploitation of the minds of the American public, feeding them fiction in the guise of fact under the protection of a free press," could start a serious panic, he analyzes and debunks assorted alleged UFO sightings.

1958 The University stages a discreet fundraising event, "Harvard's Day," drawing 2,600 alumni and wives to Cambridge and reaching others with "The Case for the College," an hour-long program carried on 197 CBS radio stations, Armed Forces Radio Service, Voice of America, and WCJB of Quito, Ecuador. Participants include Robert Frost '01, Leonard Bernstein '39, John F. Kennedy '40, and Tom Lehrer '47.

1963 A \$72,000 Xerox Copyflo is installed in Widener only after a 12-man crew hoists the huge, steel-frame machine up by crane, swings it over the library's roof, lowers it to D-level of the inner courtyard, and pushes it through a window. (The formerly off-site machine had produced an eight-fold increase in reproductions, including copies of books printed on deteriorating stock.)

1973 A proposal to reform the College calendar would bring freshmen to Cambridge before Labor Day, end first semester before Christmas, and end second semester in mid May. (Faculty members reject it.)

1983 A sampling of statistics from the College admissions office reveals 12,450 applications received for the class of 1987—down 6.5 percent from the previous year; a 14.5 percent drop in applicants from New York City; and a 20 percent increase in applicants from Texas, Oklahoma, Mississippi, and Kansas.

1998 Diana L. Eck, professor of comparative religion and Indian studies, and Episcopal minister Dorothy A. Austin become the first same-sex couple named to lead a Harvard House (Lowell).

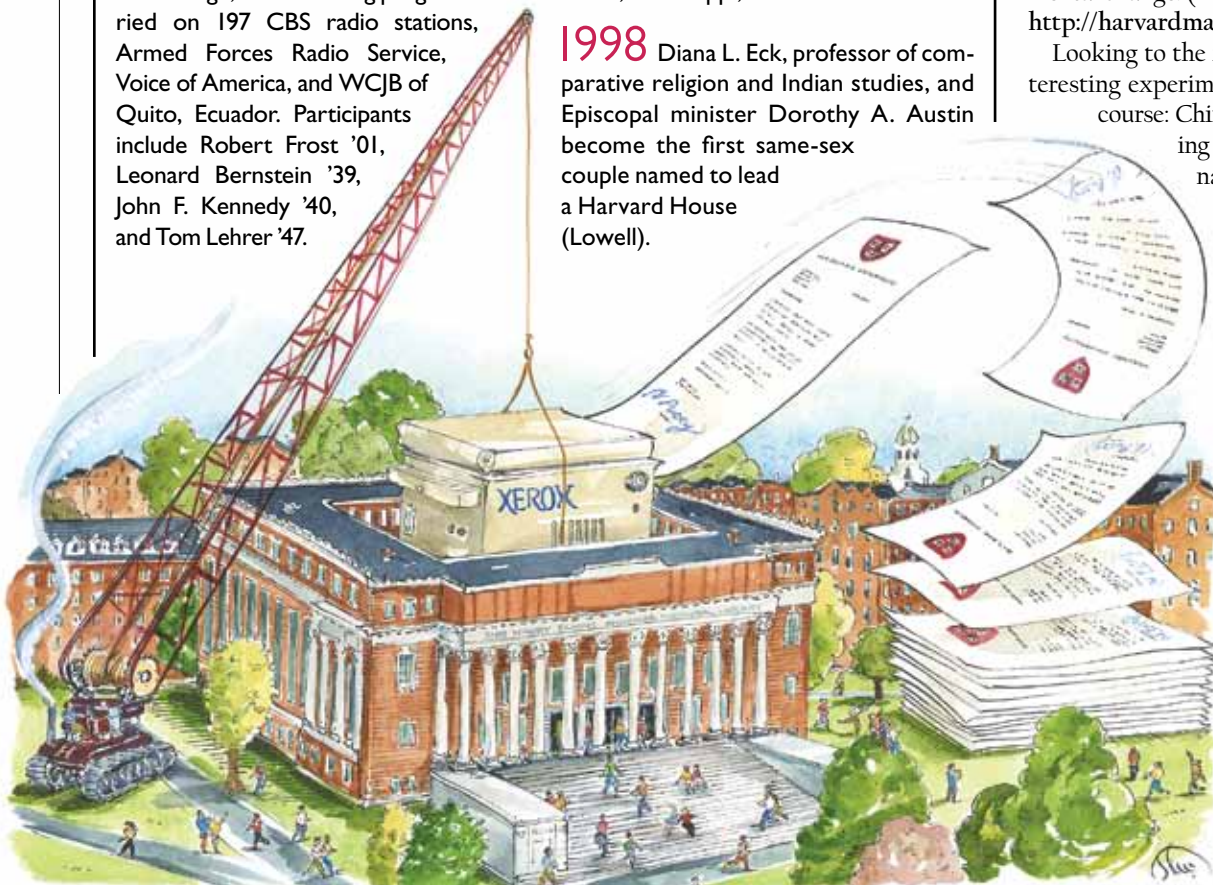
Online Evolution Accelerates

THE EVOLUTION of technologically enabled teaching and learning—through the Harvard-MIT edX partnership, and for-profit ventures including Coursera and Udacity—accelerated nationwide in late 2012 and in the new year. As public attention focused on free, advanced-level massive open online courses (MOOCs), other discussions emerged in academia about applications to and implications for much more tailored and entry-level instruction. Herewith, some highlights.

- edX: The Second Season...and Beyond. The University-MIT venture unveiled humanities and other courses for the virtual spring "semester," broadening from the initial focus on quantitative fields. They include versions of Bass professor of government Michael J. Sandel's "Justice," Jones professor of Classical Greek literature Gregory Nagy's long-running overview of the hero in ancient Greek civilization (both previously offered in recorded-lecture formats), and a limited-enrollment "Copyright" course taught by WilmerHale professor of intellectual property law William Fisher. There is also a public-health course on global environmental change. (Read a detailed account at <http://harvardmag.com/harvardx>.)

Looking to the future, a particularly interesting experiment emerged in a spring course: Chinese History 185, "Creat-

ing ChinaX—Teaching China's History Online," led by Carswell professor of East Asian languages and civilizations Peter K. Bol. He has a revealing cohort of associates: Yu Wen, head teaching fellow for curriculum; Ian Miller, "HarvardX technology leader"; and Ren Wei, "art historical development" (graduate students in history, history and East Asian languages, and the history of art and architecture, respectively). The goal is "creating modules for ChinaX," the bilingual, online version of



a General Education survey of Chinese history.

After an initial overview of the history, the students will pick a period and a topic (Song dynasty paintings, say) and, following “labs”—instead of sections—in video-editing software, design, sound, geographic information systems (GIS), and so on, will be involved in “producing videos, creating structures for content development, choosing texts and images for online discussion and mark-up, and participating in debates and discussions that will be shown to a worldwide online audience” for the new course. Readings include books on Chinese history and art and *Classroom Assessment Techniques: A Handbook for College Teachers*. Bol, a faculty pioneer in historical databases, GIS, and use of digitized resources in research and classes (and a member of the HarvardX faculty committee), is making the new pedagogy itself a teaching subject. The result will flow back into the next iteration of the Gen Ed survey course on campus, too.

• **HarvardX: The Website.** University edX engagements are detailed at <http://harvardx.harvard.edu>. The website lists the Harvard members of the edX board (provost Alan Garber, executive vice president Katie Lapp, Faculty of Arts and Sciences dean Michael D. Smith, and chief information officer Anne Margulies—who succeeds Graduate School of Education dean Kathleen McCartney, recently named president of Smith College); its faculty director (Rob Lue, professor of the practice of molecular and cellular biology and past dean of the summer school); and its director of research—a key position, since edX aims at assessing the effectiveness of innovations in teaching and learning (Andrew Ho, assistant professor of education).

Ho outlines some initial research objectives: finding out who the several thousand students who *completed* early MOOCs are (among the hundred thousand or more who registered) and how students use the many learning choices presented to them in a online courses whose pace they may control; conducting learning assessments; and exploring how to assure integrity among online learners.

HarvardX conducted “Town Hall” meetings for faculty members in January and February, at which Lue, members of the course-development team, and professors who have offered an edX course discussed options for developing online

content (either full courses or shorter, single-topic “modules”) using the technology platform, and for conducting related evaluations. A technology-focused teaching “bootcamp,” also offered in January, with support from HarvardX and the Harvard Initiative for Learning and Teaching, equipped doctoral students to use “video, social media, online curation, technology-enabled feedback, and annotation software” in their spring courses.

• **The Faculty: Anxieties and Aspirations.** Sharing hands-on experience with the edX platform is critical; not all faculty members have embraced online education as it has speedily unfolded since last May and been explained to date. Although edX and HarvardX explicitly emphasize applications on campus, “flipped classrooms,” and enhancements throughout the education system, the website describes edX as “a not-for-profit enterprise dedicated to Massive Open Online Courses.” To professors steeped in seminars, tutorials, and humanistic disciplines where learning assessments are qualitative, the MOOC model can seem a repudiation of proven means of teaching and mentorship.

The Faculty of Arts and Sciences (FAS) devoted its December meeting to an especially robust discussion of these issues with Lue and Dean Smith. The intent was to clarify edX’s aims—not only to extend

teaching *beyond* campus, but to use its tools to deepen learning and engagement *within* the classroom—principally by hearing questions. There were many. Professor of German Peter Burgard worried that the focus on massive, distance audiences was completely at odds with Harvard’s focus on enhancing close student-faculty interactions. Francke professor of German art and culture Jeffrey F. Hamburger asked about the development of online assessments of student work in nonquantitative courses. Saltonstall professor of history Charles Maier was concerned that focusing on online lecture courses might jeopardize small, discussion-based classes. Several speakers worried about free classes undercutting the University’s tuition-based model, and about funding for edX (Harvard and MIT have each pledged \$30 million of support). Professor of Romance languages and literatures Virginie Greene worried that the proliferation of individual courses gave short shrift to thoughtful *sequences* of learning.

In response, the professors were told that edX is explicitly meant to extend teaching broadly, for those who are interested, *and* to devise techniques to improve on-campus, class-based learning in *all* disciplines and formats. Part of its experimental nature is to devise tools, such as online laboratories for science classes, but also qualitative assessments of coursework—including, for

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instance, the caliber of computer scientists' programming. Students in MOOCs seem to be self-assembling into small discussion groups, online and off. No one has figured out a sustainable business model yet, but it is nascent. Harvard's funding commitment is tied to grants and philanthropy. And online assessments of learning promise fertile ground for researchers to determine what sequence of material and courses best promotes student mastery of a subject.

Others at the meeting were enthusiastic about the experiment. Moncher professor of physics and of astronomy Chris Stubbs asked if online courses might help undergraduates enhance their skills before they matriculate. (The College already has online, pre-enrollment placement exams for writing, mathematics, foreign languages, and the sciences; and Harvard Business School has had its diverse entering M.B.A. students pass online tutorials to master accounting and finance skills required in the curriculum.) Professor of molecular and cellular biology Rachele Gaudet hoped that partnerships might make it possible to offer virtual courses in subjects too specialized for any one institution to support.

• **The Broader Context.** Far beyond University Hall, interest in online learning is spreading fast—particularly among large public university systems that have

suffered significant funding cuts even as student demand has risen, required courses are over-enrolled, and students struggle to pay higher tuitions.

In January, California governor Jerry Brown proposed spending \$10 million per year on entry-level general-education courses. edX president Anant Agarwal and leaders of Udacity and Coursera made presentations to the University of California regents about possible collaborations. San Jose State University signed an agreement with Udacity to pilot three such courses in mathematics—free online, or available at reduced cost for credit. A regents' briefing paper began, "Online education is an idea whose time has come"; the group discussed aiming to have UC students take 10 percent of their classes online by 2016. The State University of New York's chancellor, Nancy L. Zimpher, emphasized in her 2013 state of the university address a strong commitment to "a full scale-up of Open SUNY"—aiming within three years to enroll 100,000 degree-seekers in the program, "making us the largest public online provider of education in the nation."

Selective universities are also interested, for academic reasons. Yale's faculty committee on online education, reporting in December to the dean of the college, went so far as to recommend experimenting

with online, *for-credit* courses in diverse subjects for enrolled undergraduates, beginning next fall.

The forces driving such interest received weighty validation from William G. Bowen, president emeritus of Princeton and of the Andrew W. Mellon Foundation, a distinguished analyst of higher education, in his Tanner Lectures at Stanford last October. (He cited as a collaborator Lawrence S. Bacow, president emeritus of Tufts, chancellor emeritus of MIT, now a member of the Harvard Corporation). Addressing costs and productivity in the sector, Bowen concluded that despite changes in information technology, "relatively little has happened with respect to classroom teaching—until quite recently." A firm proponent of "minds rubbing against minds" as students and teachers interact, he nonetheless now felt that "we are only at the beginning of the kind of re-engineering that could in time transform important parts—but only parts—of how we teach and how students learn."

"I am today a convert," Bowen said. "I have come to believe that 'now is the time'—that advances in technology 'have combined with changing mindsets to suggest that online learning, in many of its manifestations, can lead to good learning outcomes at lower cost.'" The evolution is on—in technology, teaching, and mindsets.

A Corporation Report

TWO YEARS after the Harvard Corporation enacted sweeping governance reforms in December 2010, Senior Fellow Robert D. Reischauer '63 and his colleagues Nannerl O. Keohane, LL.D. '93, and William F. Lee '72 offered a briefing on how its work has

changed. The reforms involved expanding the senior governing board's membership; creating standing committees to oversee finances, facilities and capital planning, governance, and alumni affairs and development; and attempting to focus more attention on strategic issues.

Reischauer, who chairs the committee on

governance, said the overhauled Corporation—with 13 members, up from seven—has "surpassed our greatest expectations," thanks to new expertise and internal committees providing deeper coverage of critical matters. Reischauer said each committee had yielded higher-quality analysis than the Corporation had been able to muster previously—in part because of the "deep expertise" of non-Corporation committee members (an innovation created by the 2010 reform measures).

Keohane, past president of Wellesley and of Duke—where she was deeply engaged in buildings and facilities issues—said she had been "struck by how superficial our consideration of major capital projects had been" when these were jammed into the Corporation's overall agenda, without expert vetting. The process since the reforms, she said, had become "exemplary." Lee, who serves on the facilities and capital-planning committee with Keohane, noted that the committees

Corporation Changes

At its early-December meeting, the Harvard Corporation announced that Patricia A. King, J.D. '69, Waterhouse professor of law, medicine, ethics, and public policy at Georgetown Law Center, and a member of the University's senior governing board since 2006, would step down by year-end, for family reasons. On



Patricia A. King

February 4, the election of her successor was announced: James W. Breyer, M.B.A. '87, a partner of Accel Partners, the Palo Alto-based venture-capital firm (famously, an early investor in Facebook). He is the first of a new generation of fellows, and brings expertise in technology-focused venture financing, from a firm with unusually broad global reach. Breyer joins the Corporation as of July 1. For a full report, see <http://harvardmag.com/breyer>.



James W. Breyer