Online Evolution

HarvardX and other institutions continue to create new massive open online courses (MOOCs; see the current list at harvardx.harvard.edu/modules-courses). But with hundreds of offerings available on edX, Coursera, and emerging platforms (such as the Business School’s HBX; see harvardmag.com/hbx-14), emphasis is now shifting to research on applications and assessments.

As reported, HarvardX’s review of first-year MOOC enrollments revealed apparently vast online interest in signing up for courses (perhaps reflecting the ease of registration), but rapid attrition (see “Harvard Measures Its MOOCs,” May-June, page 22). A Chronicle of Higher Education review of those data, published in mid June, reiterated the key finding that about half the registrants viewed none of the course content; of those who examined any content, “half looked at 11 percent of the course chapters or less.”

The Chronicle also reemphasized that the Harvard- and MIT-based MOOCs tend to attract students who already have college degrees, rather than earlier-stage learners. This is less a surprise (given the course requirements) than a useful reminder that many introductory, skills, or even remedial courses might issue better from public universities serving a broader student body. That might also hold true for international students in countries with little higher-education infrastructure or access, an intended audience for the online courses. That in turn raises questions about the “massiveness” of many MOOCs emanating from elite institutions.

These broad findings do not mean the first HarvardX courses—deliberately diverse in content, and driven by professors’ desire to experiment with the technology—have no relevance. Nor do they imply that other approaches are pointless.

One promising avenue is the “blended” or “flipped” course, in which content such as recorded lectures is made available to students, like a multimedia textbook, before they meet with teachers in the classroom. Gordon McKay professor of computer science Harry R. Lewis described how he reengineered a course this way, with low-tech recordings costing a tiny fraction of the tens to hundreds of thousands of dollars invested in a full-scale HarvardX offering, in “Reinventing the Classroom” (September-October 2012, page 54).

Such courses appeal for two very different reasons. They may deepen learning, if class time formerly spent on lecturing is used instead to grapple with difficult concepts or work through problem sets with fellow students. They can also be an avenue toward efficiency and economy as more students, in effect, share a lecturer.

Harvard, which has predicated its $30-million edX investment on the presumed benefits for in-class education on campus, has begun evaluating blended courses that draw on MOOC material. Two reports in late July—by the Bok Center for Teaching and Learning (its director, Rob Lue, is also faculty director of HarvardX) and researchers at the Graduate School of Education (one of whom co-chairs research for HarvardX)—examined four courses, each previously offered in a traditional, residential format. Most had then been developed for fully online,
MOOC presentation, and are now being taught in a blended version.

The Bok Center report, as summarized by HarvardX, focuses on implementation of the blended format, not its educational impact. Students found the online materials interesting and engaging, but reported some improvement in how they were prepared for class. They valued the flexibility of the online materials afforded in pacing their learning, but emphasized the continued importance of in-person discussion sections (which were eliminated in three courses to accommodate online learning time; students wanted sections reinstated). Finally, students used the online material to cut corners, “causing some to integrate the materials in less-than-meaningful ways”—suggesting the need for faculty members to clarify expectations for students in blended courses. The education-school researchers attempted to probe the learning effects of blended teaching; based on exam scores, they found no “significant impact.”

Findings from a far more ambitious attempt to assess learning and possible pedagogical efficiencies in blended classes were also released in July. In “Interactive Online Learning on Campus,” Ithaka S+R researchers detailed the use of hybrid courses (principally made available free of charge by Coursera) at the University of Maryland. Comparing blended with conventional sections of the same course, the study found ways to “enhance productivity in higher education by reducing costs without compromising student outcomes.” Across disciplines and student subgroups, those in hybrid sections “did as well or slightly better than students in the traditional sections in terms of pass rates and learning assessments.” The productivity gains weren’t free, however; in routine use, Coursera and other MOOC vendors would charge for course content, and Maryland professors reported working 150 to 175 hours to adapt the outside MOOCs to their classes. Moreover, “students in the hybrid sections reported considerably lower satisfaction...Many indicated that they would prefer to have more face-to-face time with instructors.” These results, requiring improved course design and delivery, might well be expected in such experiments; but in the meantime the suggestion of significant cost savings, with no sacrifice of learning, may carry the day in much of U.S. higher education. (Lawrence S. Bacow, a member of the Harvard Corporation and senior adviser to Ithaka, is credited for helping to shape the research.)

Indeed, the Chronicle’s 2014 survey of 350 four-year college presidents, published as The Innovative University, found that 81 percent expect “hybrid courses that have both face-to-face and online components” to have a positive effect on higher education—but the largest positive score among seven, mostly technological, innovations. But 52 percent expect MOOCs to have the most negative impact (only 2 percent viewed them positively). Addressing the annual meeting of the National Association of College and University Business Officers in Seattle in July, Bill Gates ’77, L.L.D. ’07, who champions MOOCs and education technology, also propounded a more nuanced vision. He called most current MOOCs “mediocre,” of use only for “the most motivated students,” but predicted that improved versions, used as enriched textbooks, would in the near future provide huge opportunities for remedial math, writing instruction, and entry-level courses in general. (The Bill & Melinda Gates Foundation, which Gates runs, funded the Ithaka study, part of its larger investment in research on MOOCs.)

In the meantime, that future is arriving, outside the conventional boundaries of higher education. During the summer, Starbucks announced that its employee tuition-reimbursement program would shift toward degree-focused programs offered online by Arizona State University. And Udacity (like Coursera a for-profit online venture, which previously partnered with Georgia Tech and AT&T for a low-cost, online computer-science master’s degree, has now joined AT&T to offer a “NanoDegree”: basic programming skills required to qualify for an entry-level data-analyst or app-design job at the company. Each innovation is far from the ivy-covered halls of selective academia—but each is an interesting and possibly large-scale application of the new learning technologies to underserved populations not now enrolled in programs on the country’s campuses.

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THE UNDERGRADUATE

“Charlie Parker, Who Played the Saxophone”

by NOAH PISNER ’14

I kept my spelling tests from third grade. My mother says this was an eight-year old’s effort to catalogue his vocabulary, and quotes me, apocryphally: How else will I know which words I know? There are 22, hole-punched in a binder, on the cover of which red gel pen hardened in tall, uneven letters: dictionary. (Did my teacher tell me to write this?) In all the tests I misspelled only one word. A red-ink correction tells me that word was passion. I wrote passing.

“Don’t so be so glum!” my mother said when I rediscovered the error. “Maybe this doesn’t mean you’ve passed up your passion”—I was staring unhappily into my oatmeal—but rather that your passion is in letting things pass!”

We had been clearing out my old projects from the basement, something I always said I would not do until school was over, which—as of the end of May—it was. Early in the process, I had come across a set of note cards from an oral report I was assigned to do on Charlie Parker for Black History Month in 1997. In preparing the report, I realized, I never listened to a Parker song. Silly as it sounds, it didn’t occur to my teacher or parents to play one for me. Instead I spent the time reading a Parker biography, weeping over how he spent so much of his life fighting morphine addiction and mental illness. I was seven and had never heard the