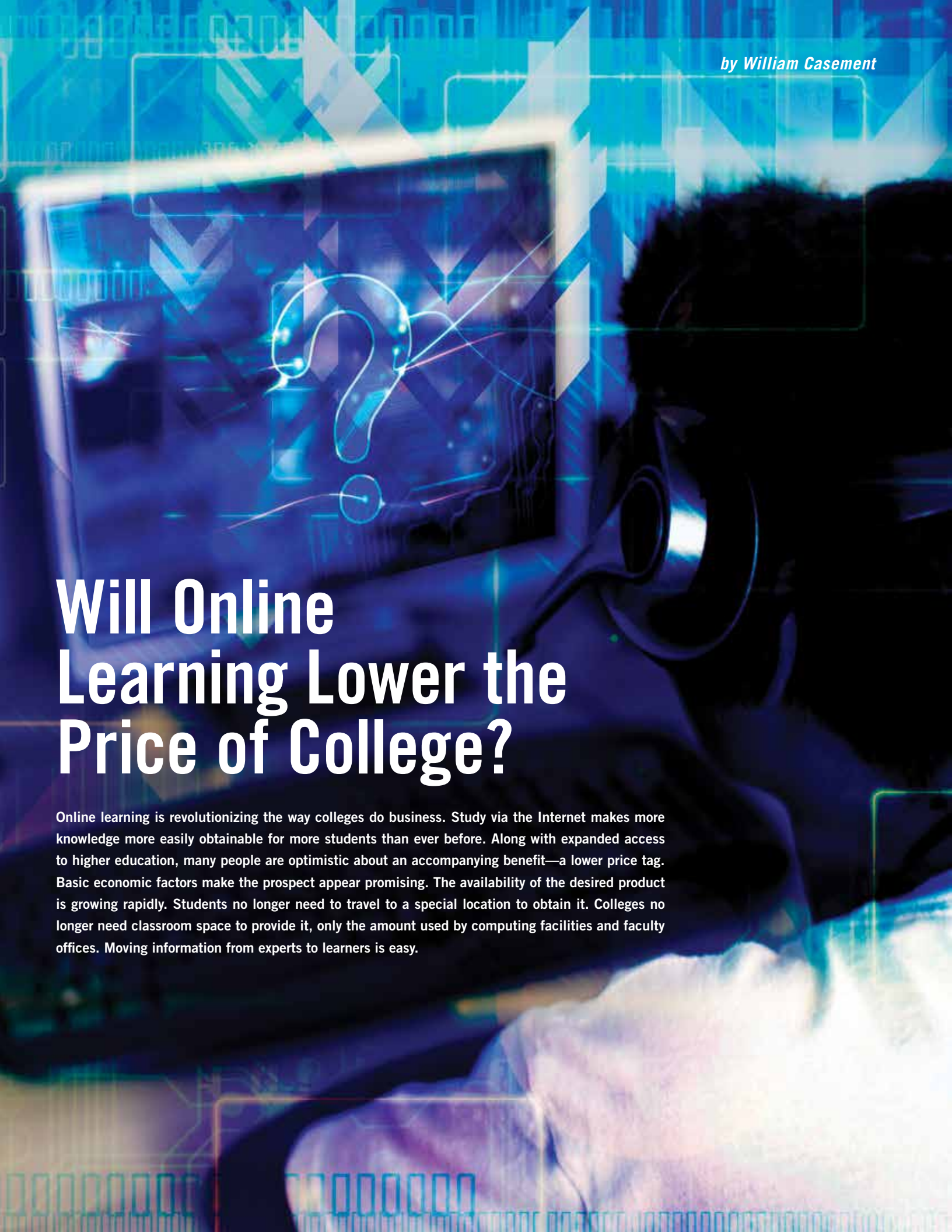

by William Casement

Will Online Learning Lower the Price of College?

Online learning is revolutionizing the way colleges do business. Study via the Internet makes more knowledge more easily obtainable for more students than ever before. Along with expanded access to higher education, many people are optimistic about an accompanying benefit—a lower price tag. Basic economic factors make the prospect appear promising. The availability of the desired product is growing rapidly. Students no longer need to travel to a special location to obtain it. Colleges no longer need classroom space to provide it, only the amount used by computing facilities and faculty offices. Moving information from experts to learners is easy.

For an analog of what colleges are beginning to experience, enthusiasts point to the new operating model the Internet has brought to music publishing, with book publishing not far behind. The old middle step in the industry is eliminated or greatly reduced, so it's easier, faster and cheaper for consumers to get what they want. Higher education isn't far behind either, the refrain goes, with bold futurists predicting the end of college as we know it:

> "The push and pull of academic exchange will take place mainly in interactive online spaces, occupied by a new generation of tablet-toting, hyper-connected youth who already spend much of their lives online. Universities will extend their reach to students around the world… All of this will be on offer, too, at a fraction of the cost of a traditional college education."[1]

This mindset is a combination of business acumen, optimism and forward-thinking. It offers relief from the burden of college expenses, but is the message sound? The price students pay includes tuition, fees, books, room, and board. Room is eliminated for those living at home, saving about $5,000 to $6,000 per year, and some fees may not apply to students who don't set foot on campus. Still, the main outlay remains—tuition. It's the elephant in the room that, over 30 years, has grown by 400 percent (twice the inflation of health care),[2] and at name-brand private colleges today it tips the scale at $40,000 to $45,000. The hope is that this core cost of higher education can be offered through technology for far less. Will it happen? For all of the power the digital revolution holds for advancing higher learning, there are reasons to be skeptical about its capacity to reduce the price students pay.

It Hasn't Happened Yet

How far the transformation from traditional to virtual classrooms will go remains to be seen, but it's well underway—in 2011, 87 percent of institutions offered at least some courses online and 32 percent of college students took at least one online course.[3] What hasn't happened is a reduction in the bills students receive when they sign up for online classes. In fact, at many schools they pay more. In the Minnesota State College and University system, for instance, all but four institutions charge greater tuition (19 percent on average) for online than for traditional instruction,[4] while in the Texas A&M system there is a special technology fee of up to $150 per online course.[5] A 2012 survey by the Adult College Completion Network found 64 percent of colleges charging the same for online study as for the traditional model, with seven percent charging less and 29 percent more for online classes.[6] The predicted effect of technology on tuition simply isn't happening. It's possible that relief will come in time, that as colleges find ways to lower their costs by operating online then tuition will be reduced. But shouldn't we be seeing indications of it by now?

Will Savings be Passed to Students?

So far, it seems that if colleges are saving money from online courses, they're not passing the benefit along to students. Some instructional programs readily admit they operate this way—law schools and graduate business programs, for example, are treated as money-makers, with profits drawn off for other uses. And the complaint is often heard that the big bump in tuition over the past couple of decades, which now leaves two-thirds of bachelor's degree graduates with an average of $25,000 debt[7], goes towards such functions as research, public service activities, and sports teams as well as to fund academics. It isn't a stretch to suspect the proceeds from online programs would be treated likewise.

The financial operations of higher education institutions are complex and opaque. Besides tuition, there are other sources of revenue from state governments, the federal government, corporations, philanthropists, alumni donations, sports, property rentals and sales, and on-campus hotels. Many of the funds from these sources are earmarked to be spent in certain ways. But that's not the case with tuition, which is drawn into an amorphous enterprise where offering courses and awarding degrees is only a part of it and the mechanics of budgeting reflect this condition.

Confusion Over How Much Online Instruction Costs Colleges

Many higher education administrators bristle at the public's impression that employing online technology reduces instructional costs, although they realize it's hard to make the case against savings when economic advantages are clear in other industries. Kennesaw State University (GA) devotes a web page to explaining why their online courses carry an e-tuition surcharge of $100 per credit hour:

> "KSU subscribes to the Quality Matters (QM) program, a faculty-centered, peer review process that certifies the quality of online courses… to train and certify faculty in the development and teaching of online courses. Each online course is peer-reviewed by a team of three faculty members… based on national standards of best practices and instructional design principles. With the help of e-tuition, the Distance Learning Center was established 2010… investment in technology infrastructure, instructional technology resources and student support resources (DLC helpdesk, ITS student helpdesk training and virtual labs…)"[8]

In other words, computer hardware and software have to be accounted for, along with training faculty to teach online and having them develop new courses or adapt existing ones to that format. Students need cybersupport services, especially if they are never physically on campus. Faculty still instruct—they present material, respond to students, monitor projects, grade writing assignments,

and give quizzes and tests. They work the same amount when online as in a face-to-face setting, and their salaries aren't any less. If anything, the costly technology plus the same cost for a professor means that online instruction is *more* expensive for colleges to offer—so there are no savings to pass on.

Opposing this rationale as old-school and unimaginative, some experts say that cost savings are indeed possible. A 2013 study headed by William Bowen, an economist and leading higher education analyst, compared traditional statistics courses to ones using a hybrid or blended approach where instruction is done partially online. The findings estimate that for instructor compensation alone (without figuring in reduction of space used) the hybrid model saved 36 percent to 57 percent over traditional courses enrolling about 40 students per section, and 19 percent over the large-lecture model. The savings are created by "shifting away from time spent by expensive professors toward both computer-guided instruction that saves on staffing and time spent by less-expensive staff in Q and A sessions."[9]

If savings can be gained through blended courses, we can expect the fully online model to be even more economical. Carol Twigg, president and CEO of the National Center for Academic Transformation, suggests an array of strategies that can be used. Again instructional labor is key, with courses designed by academic teams and "tutoring" done by adjuncts who cost much less than full-time faculty. Further, software can be developed that delivers content and relieves faculty of that task. Communication in general, instead of always being funneled through an instructor, can take the form of student-to-student interaction. Assessment, too, the other main function for faculty, can be computer based—software can be designed to grade both assignments and tests.[10]

The case for online instruction as cheaper for colleges is as sensible as the case that claims the opposite. They are based on different conceptions of the format of an Internet course. The cost-saving approach diverges from the type of course that duplicates in cyberspace what a traditional course does on campus, and transfers much of the role of the professor to automation and to students communicating among themselves. So, yes, an online model can be a cost saver for colleges—if they not only shift from the traditional bricks-and-mortar model of teaching to using the Internet, but also commit to utilizing that technology much differently.

Savings Versus Effectiveness

If online courses can be offered at cheaper prices than traditional ones, will they draw substantial enrollments? Many people believe the online experience is inferior to the traditional model of learning. If that attitude persists, students may steer clear of online courses even if the tuition is less. Colleges then may limit online offerings, and they may not feel the force that online courses, if they were accepted as academically comparable, could exert to keep tuition for traditional courses in check.

A 2011 study by the Pew Research Center showed that only 29 percent of the general public think virtual classrooms offer a comparable quality of learning to their physical counterparts. Among people who have taken a course online, the figure is 39 percent. College presidents come in at 51 percent,[11] but according to another major study done in the same year, only 30 percent of chief academic officers say their faculty "accept the value and legitimacy of online education."[12] These numbers are far from a ringing endorsement for the online revolution.

One main concern is that students who lack strong academic backgrounds are at a disadvantage online. This point is supported by a comprehensive study of community college systems (in two states) that shows students failing or dropping out of online courses at nearly twice the rate of traditional courses—so their GPAs are lower, and they are less likely to complete their degrees.[13] Other concerns extend to four-year colleges and include the well-prepared. All online students, it's feared, lose out on a sense of genuine intellectual community—the bond of personal relationships that occurs in traditional classrooms between instructor and student, and between students. In practical terms, the absence of oral communication may mean that questions go unasked—and, even if they are asked, responses may take hours longer. Further, in terms of preparation for the work world, students don't develop the "people skills" employers value.

Written communication, too, is problematic. Online instructors can assign and grade writing as easily as in traditional courses, but what about working with students to improve? Mark Bauerlein, professor of English at Emory University (GA) and author of the bestselling book *The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future*, concedes that subjects relying on the transfer of information could be taught fruitfully in a virtual format; however, writing—a skill—is best taught in person.

> "The best occasions happen in the office. A student brings in a rough draft, hands you a copy, and the session begins... "Look at that verb… Student ponders, tries out a few… The session continues for another 20 minutes, tackling diction, transitions, modifiers, etc.… To do the same thing online would take two hours! Each query, comment, suggestion, and rejoinder would have to go into print… This amounts to revision by correspondence, a slow and exhausting process."[14]

Critical thinking also raises a concern. Online courses are distrusted for promoting its development as well as traditional ones, because they lack the immediate feedback of give-and-take intellectual discussion. Humanities and social science courses, such as philosophy and sociology, are often cited as examples.

Supporters of online learning believe the skepticism is an overreaction fueled by a fear of change, and that research can prove the online format is as good as the traditional one (if not better). So far, many formal studies have been done, but with mixed results. The findings about community college students clearly favor face-to-face learning, but this conclusion is limited to students attending two-year schools. The Bowen group, that identified a strong cost savings potential in a hybrid approach to teaching statistics, drew its data from public universities, and also measured learning outcomes. There was no appreciable difference in outcomes between hybrid and traditional courses. Another carefully controlled trial had a substantially different outcome; it looked at a basic macroeconomics course at a public university and found that online students averaged a full letter grade less than those in the traditional sections.[15]

In comparing the effectiveness of online learning with traditional learning, it makes sense to be careful about drawing a broad conclusion. The future may give us a more definitive picture, but for now, we can only safely say that online courses may work well for some students and in some subjects.

With individual studies creating a confusing picture, what can a comprehensive overview of the research tell us? In 2009 the US Department of Education published a meta-analysis of online learning that many people hoped would confirm its quality.[16] At first glance it does that impressively—more than a thousand empirical studies were considered and online learning comes out as modestly more effective than learning face-to-face. However, reading further into the document, we find that only 99 studies actually compare these two learning models, and only 45 analyze the data the study was actually looking for. A few of them focus on K-12 learners, while others target community colleges, four-year colleges, graduate school programs and professional training. With these complications, the meta-study loses its initial force. Further, the conclusion comes with a major caveat:

> "Online and face-to-face conditions generally differed on multiple dimensions, including the amount of time the learners spent on task. The advantages observed for online learning conditions therefore may be the product of aspects of those treatment conditions other than the instrumental medium per se."

In comparing the effectiveness of online learning with traditional learning, it makes sense to be careful about drawing a broad conclusion. The future may give us a more definitive picture, but for now, we can only safely say that online courses may work well for some students and in some subjects. This haziness suggests that we should be very cautious about predicting how popular online learning may be with the consumers of higher education—even if it carries a cheaper price tag.

Will MOOCs be a Game-Changer?

Over the last couple of years Massive Open Online Courses (MOOCs) have taken higher education by storm. Sponsored by prestigious universities, they are capable of enrollments running to tens and even hundreds of thousands each, and students from anywhere can take them free of charge. Harvard (MA), Stanford (CA), Princeton (NJ) Universities, Massachusetts Institute of Technology (MIT), the University of Virginia, and many more schools provide instruction via talented professors lecturing to the masses, with students conversing in chat rooms. Progress is monitored by quizzes scored electronically, along with online final exams. The institutions teaching MOOCs don't recognize them for college credit toward a degree. They say their intention, instead, is to make the knowledge they possess accessible to as many people as possible, and to have a testing ground for techniques that could be applied to blended learning for their own students and anyone else. Other colleges, however, are beginning to accept MOOCs for transfer credit, looking to keep up with the times and searching for a financial gain.

As they become credit-bearing, MOOCs hold the promise of saving students considerable amounts of money. Taken for credit, MOOCs aren't free, but the charge for them is still much less than for on-campus courses. San Jose State University (CA), for example, plans for students to take MOOCs taught by professors at other schools, or blended courses that rely heavily on MOOCs, and charge $150 per course compared with the normal rate of $450 to $750.[17]

The financial picture for college budgets is also rosy. MOOC producers may have high start-up costs, but as the courses are offered repeatedly, costs are reduced and may be more than offset by charging modest tuition. Further revenue may come from deals with textbook companies, and with employers or recruitment agencies wanting to buy the names of students who perform well. Colleges that don't produce MOOCs, but allow their students to use them for transfer credit, save on faculty salaries because they will teach fewer courses and need fewer professors.

MOOCs augur grand financial possibilities for college budgets and for students, but they also have drawbacks. Their effectiveness has yet to be tested. The dropout rate is about 90 percent.[18] That figure is mostly for courses that don't carry college credit (although certificates of completion may be available), but we still don't know what it will be when credit is installed. Even if the dropout

rate improves dramatically, MOOCs face the same questions about effectiveness that lead to skepticism about other online courses: are less prepared students at a disadvantage; how well is writing taught to the masses via computers; how well is critical thinking taught; and how are oral communication skills taught without having students face professors and other students in physical space? Add to the list the major difficulty of grading tens of thousands of papers and tests and monitoring dishonesty. Technological innovations are available to police potential cheaters on tests, including webcam proctoring by companies with names like Proctor U and Kryterion, and palm-vein scans and keystroke pattern recognition to determine personal identity, but how reliable will these means be when dealing with tech-savvy students? How much will their operating cost increase the price of tuition?

As the novelty of the new courses wears off, professors with these uncertainties are beginning to push back against MOOCs. The Amherst College (MA) faculty voted down an invitation to design and teach MOOCs, the American University (DC) administration announced it will move slowly and in careful consultation with the faculty senate in developing a policy on MOOCs, and the philosophy department at San Jose State resoundingly rejected using a Harvard-taught MOOC to replace some of their teaching. MOOC supporters say reluctance is to be expected from faculty confronting a way of teaching that renders some of them obsolete, and that the effectiveness of the new way simply needs a chance to prove itself. However, this opinion isn't shared by the MOOC professors themselves—they surprisingly harbor their own doubts.

A survey by the *Chronicle of Higher Education* of 100 people who teach MOOCs found that only 28 percent of them believe their courses are worthy of credit at their home institutions. Even fewer—24 percent—say MOOCs will reduce the price of attending their institution significantly (35 percent say not at all, 40 percent say marginally), although when it comes to the prospect of price reduction at colleges in general, 45 percent say yes, significantly.[19] Taken together these responses back up a prediction by some critics that recognizing MOOCs for credit will lead to a two-tier system in which the inexpensive and qualitatively inferior massive online option is on the bottom, and on top are the higher quality offerings represented by on-campus courses along with their small-enrollment online counterparts.

The die is already cast, with prestigious institutions teaching MOOCs they won't give their own students credit for, while schools they export the courses to do just that. Online learning can align with prestige, but the MOOC model, cheaper by virtue of its massive nature, will be branded as second rate. Prominent schools are now banding together under the name 2U to offer small-enrollment online courses (20 students per class, face-to-face interaction through cyberspace, frequent communication with professors) for full tuition, open to students from other institutions who apply under a selective admission policy. Emory, Notre Dame University (IN), the University of North Carolina, Boston College (MA), and Washington University (MO) are leading the way in a project that may define the divide between high-end online coursework and MOOCs.

The Bottom Line

Optimism about online learning reducing the price of college is premature. So far, the charge for most virtual courses equals or exceeds the charge for traditional ones. Many students and professors are skeptical about the effectiveness of the online option, and research remains inconclusive. The advancement of MOOCs to credit-bearing status will change the game by introducing significantly lower prices, but the downside is that the massive courses are unproven learning tools. Their presence in the degree-granting arena will promote stratification within online learning as colleges sort out matters of academic quality, institutional prestige and financial incentives.

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