COLLEGES in CRISIS

Disruptive change comes to American higher education

by Clayton M. Christensen *and* Michael B. Horn

America's colleges and universities, for years the envy of the world and still a comfort to citizens concerned with the performance of the country's public elementary and secondary schools, are beginning to lose their relative luster. Surveys of the American public and of more than 1,000 college and university presidents, conducted this past spring by the Pew Research Center in association with the *Chronicle of Higher Education,* revealed significant concerns not only about the costs of such education, but also about its direction and goals.

Despite a long track record of serving increasing numbers of students during the past half-century, graduation rates have stagnated. A higher proportion of America's 55- to 64-year-old citizens hold postsecondary degrees than in any other country—39 percent—but America ranks only tenth in the same category for its citizens aged 25 to 34 (at 40 percent). And *none* of America's higher-education institutions have *ever* served a large percentage of its citizens—many from low-income, African-American, and Hispanic families.

Indeed, the quality of America's colleges and universities has been judged historically not by the numbers of people the institutions have been able to educate well, regardless of background, but by their own *selectivity*, as seen in the quality and preparedness of the students they have admitted. Those institutions that educated the smartest students, as measured by standardized tests, also moved up in the arms race for money, graduate students, and significant research projects, which in turn fueled their prestige still further, as faculty members at such schools are rewarded for the quality of research, not for their teaching.

More fundamentally, the business model that has characterized American higher education is at—or even past—its breaking point. Many institutions are increasingly beset by financial difficulties, and the meltdown since 2008 is but a shadow of what is to come. Undergraduate tuition has risen dramatically: at a 6.3 percent annual clip for nearly the last three decades—even faster than the much-decried 4.9 percent annual cost increases plaguing the healthcare industry. The full increase in the price of higher education has actually been hidden from many students and families over the years because gifts from alumni, earnings from private university endowments, subsidies from state tax revenues for public universities, and federal subsidies for students have been used to mitigate some costs. But universities are exhausting these mechanisms.

Endowments that took decades to build were devastated in 2008. During the past 15 years, state-supported schools have been shifting the burden of tuition to students and their families, who were initially shielded from the consequences because, as noted, aid had increased so rapidly that the net price to students fell, on average. But those offsetting government dollars have not kept up of late. State universities, feeling the budget crunch, have resorted to all sorts of devices to try to stay afloat—including cutting back the number of students they enroll at the very time the country needs more of its population educated. Severe government budget crises have only exacerbated the trend of shifting the costs of higher education to students and their families, a shift that is likely to become far more intense in the future because of the enormous obligations that federal, state, and local governments face in funding the pension and healthcare costs of their current and retired employees—as well as aging baby boomers. Indeed, for several years now, state spending has not kept up on a per student basis, and this past year, for the first time, state spending on higher education decreased absolutely. News from Arizona, California, and Texas portends even bigger cuts going forward.

In the aggregate, this multipronged crisis calls for the United States to rethink how it views its institutions of higher education. Since World War II, the country's dominant higher education policies have focused almost exclusively on expanding *access*: enabling more students to afford higher education, regardless of its total cost. Today, changing circumstances mandate that we shift that focus to making a *quality* postsecondary education *affordable*. Inherent in that shift is a new definition of quality from the perspective of *students*—ensuring that the education is valuable to them as they seek to improve their lives and thus improve the country's fortunes, too. If a postsecondary education is fundamentally affordable—meaning lower in *cost* to provide, not just the *price* to pay—this will also address the question of how to extend access to higher education of some sort.

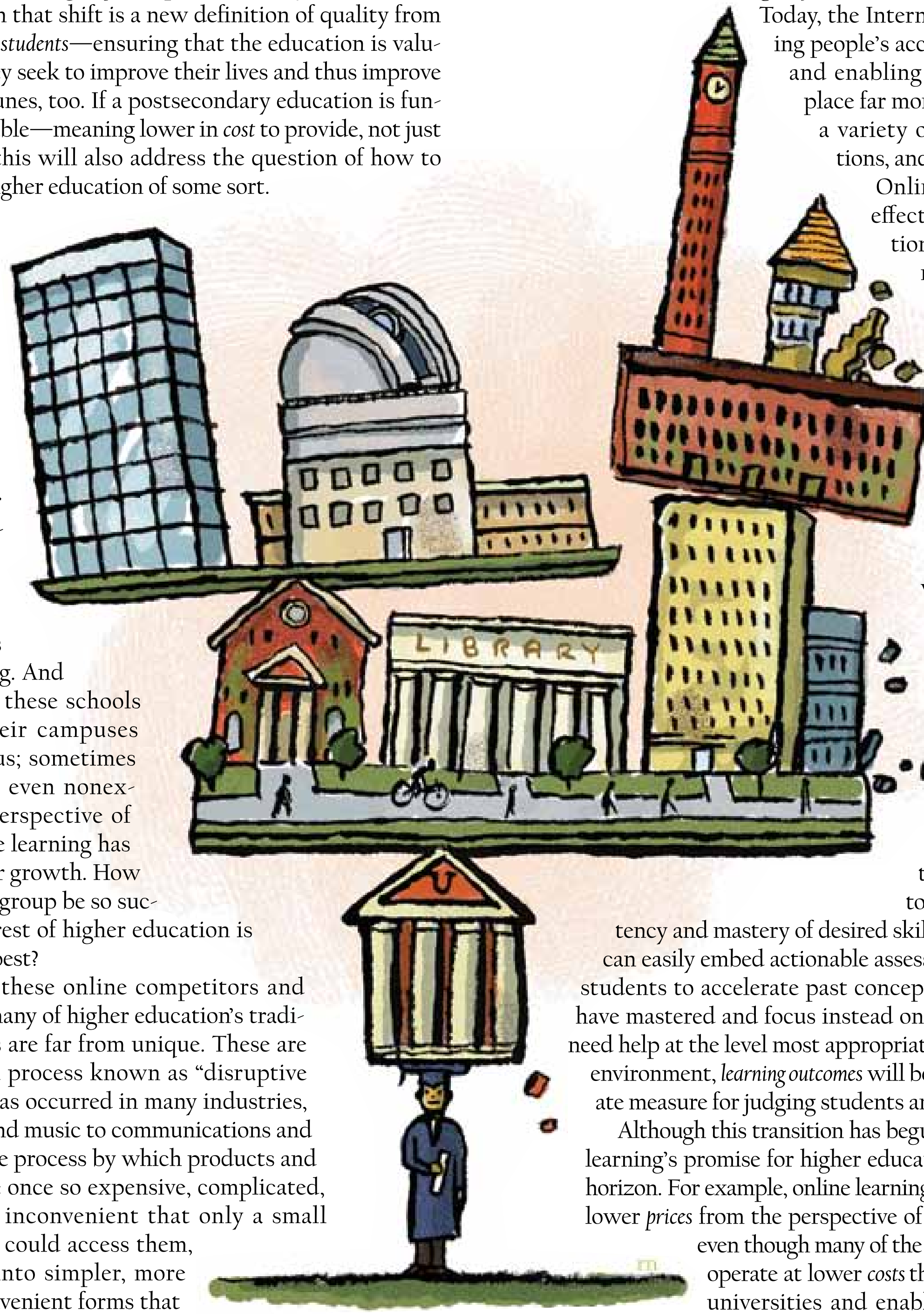
A Thriving, Disruptive Innovation

Just at the moment when these challenges to established higher education have arisen and compounded, another group of universities has arisen whose financial health is strong and enrollments have been booming. And yet the brands of these schools are weak and their campuses far from glamorous; sometimes the campuses are even nonexistent from the perspective of students, as online learning has largely driven their growth. How could this upstart group be so successful when the rest of higher education is treading water at best?

The success of these online competitors and the crisis among many of higher education's traditional institutions are far from unique. These are familiar steps in a process known as "disruptive innovation" that has occurred in many industries, from accounting and music to communications and computers. It is the process by which products and services that were once so expensive, complicated, inaccessible, and inconvenient that only a small fraction of people could access them, are transformed into simpler, more accessible and convenient forms that are also, ultimately, lower in cost. We are seeing it happen more rapidly than one could have imagined in higher education, as online learning has exploded: roughly 10 percent of students took at least one online course in 2003, 25 percent in 2008, and nearly 30 percent in the fall of 2009.

What is exciting about this emerging reinvention it that it has significant potential to help address the challenges facing American higher education by creating an opportunity to rethink its value proposition—its cost and quality.

When America's traditional universities arose, knowledge was scarce, which meant that research and teaching had to be coupled tightly. That is no longer the case. Today, the Internet is democratizing people's access to knowledge and enabling learning to take place far more conveniently in a variety of contexts, locations, and times.



Online education can effect the transformation not only of curriculum but also of learning itself. Judging it by the metrics used to govern the old system is both inappropriate and limiting (as is true of all disruptive innovations). Online learning allows education to escape from the focus on credit hours logged and "seat time" in classrooms to new standards that tie progress to students' competency and mastery of desired skills. Online courses can easily embed actionable assessments that allow students to accelerate past concepts and skills they have mastered and focus instead on where they most need help at the level most appropriate for them. In this environment, *learning outcomes* will be a more appropriate measure for judging students and institutions.

Although this transition has begun, much of online learning's promise for higher education is still on the horizon. For example, online learning has not yet led to lower *prices* from the perspective of many students—even though many of the online universities operate at lower *costs* than the traditional universities and enable students to fit

Illustrations by Robert Neubecker

But cost increases and an increasingly broken business model—reliance on ever-rising tuition, endowment income, and research funding, on expensive campuses with large support staffs—plague much of higher education.

coursework around existing jobs or other responsibilities. To date, moreover, significant portions of online learning have not taken advantage of this new medium to personalize instruction and create new, dynamic and individualized learning pathways within a course for students.

This is not static, however. Disruptive innovations typically begin simply, as they aim to capture markets by offering people whose alternative is literally nothing at all (that is, current nonconsumers) a stripped-down product or service that may well appear primitive as judged by the old performance metrics. But disruptive innovations predictably improve year by year and ultimately transform the world as people in the mainstream migrate to the new products or services because they are delighted with a solution that they find simpler, more accessible and convenient, and lower in cost. Over time, continuing waves of disruption progressively reinvent the market.

The emerging online universities fit the pattern of a disruptive innovation for higher education. Not only did they get their start as simple products and services, they started by serving those who were overlooked by or could not access the typical colleges and universities—by making education far more convenient. Now online learning is beginning to improve and serve more demanding customers. But this transition is still early, and the country's higher-education policies have incentivized little of this transformational behavior: government policies have continued to emphasize access to a higher education regardless of quality and true cost, which has held back the evolution.

This suggests a clear path forward for policymakers and stakeholders looking to reinvent American higher education—to realize real gains in cost and in student learning of essential skills. Their goals should be to embrace the disruptive innovation, to focus on new measures to judge its quality, and to encourage innovation driven by improving student outcomes and lowering overall costs. Over time, such policies will advance the rate at which the new education technology and business paradigm can better serve American citizens and the economy as a whole.

A Threatened Sector

But what then of the existing institutions of higher education that have served America for so long? Typically, the existing and established players in a sector do not survive battles of disruptive innovation; upstart companies utilizing the disruption upend them. Rather than recognize these disruptive innovations as exciting new opportunities, the established players characteristically regard them as mere sideshows to their core operations. Predictably, the majority of universities have taken this same defensive stance and so have done little to adopt this disruptive innovation and to reinvent themselves.

This stance exposes an even more significant problem that is forcing many American universities outside the top institutions to the brink of collapse. Although some traditional universities have used online learning as a sustaining innovation—in effect disrupting their individual classes—almost none have used it to change their business model in any significant way. Whenever we have seen a disruptive innovation reinvent a sector, change has resulted from the *joint* action of a new technology and an accompanying new business model. But cost increases and an increasingly broken business model—reliance on ever-rising tuition, more endowment income or government support, and research funding, all wrapped up in expensive physical campuses with large support staffs—continue to plague much of higher education.

Examining the traditional universities through the lens of innovation, we see that a muddled business model is causing the industry's ruinous cost increases. For decades now, these institutions have offered multiple, concurrent value propositions: knowledge creation (research), knowledge proliferation and learning (teaching), and preparation for life and ca-

DISRUPTING HARVARD?

Could the new learning technologies, combined with new higher education models, disrupt the most selective, elite institutions—like Harvard?

Institutions that derive their value from being selective, rather than from serving people in volume, tend to be more immune from disruption. For example, when previously great companies such as Digital Equipment Corporation and RCA's consumer electronics powered by vacuum tubes (television sets, for instance) were displaced, they proved vulnerable because their customers fled en masse to disruptive innovations: the personal computer and Sony's consumer electronics powered by the transistor. Harvard College, on the other hand, fits squarely into a description of a luxury service whose value is derived from the fact that it only serves a limited few.

But the process of disruptive innovation has spelled the decline of many dominant and successful organizations. Harvard might not be different—or not so different that it can readily escape a serious decline. It suffers from many of the same challenges plaguing many nonselective institutions of higher education: conflated business models that have led to continually rising costs and tuition increases over the years, and improvements dependent on continuing alumni gifts and endowment performance that have allowed the College to remain affordable through such mechanisms as financial aid.

Institutions like Harvard Business School might be particularly vulnerable. Consider the different reasons or jobs for which people might "hire" business education. Some need help with a relatively specific business problem or question; others want to learn how to be a great general manager; many need a credential to obtain their next promotion; still others want help switching careers. And still more people "hire" business education for the brand and connections of a prestigious alumni network.

The fundamental shift in the business education market began with the solving of that first job—helping employees with a relatively specific business problem or question—through the advent of in-house corporate universities. And, as disruptors do, corporate universities are both improving and expanding to serve people outside of their companies in some cases. Business schools may not feel it yet, but the corporate university is beginning to take on the second and third jobs we listed for which people hire business education—learning to be great general managers and attaining the credentials necessary for a promotion.

The corporations that created these universities have historically been the source for the majority of clients enrolled in traditional executive-education programs at business schools, often the cash cows of such institutions. With an education option now readily available at the corporate universities, however, employers are less and less eager to send potential executive-education students to a traditional business school program. Already many business schools are seeing declining executive-education enrollments.

The spillover effect could be devastating to faculty research and the M.B.A. program itself. For example, as the executive-education funds that subsidize the M.B.A. program dry up, the cost of the traditional business degree would have to increase even faster than it does today. Even more students might then have to find their business educations through other means, such as part-time M.B.A. programs and, increasingly, online programs that have far lower opportunity costs (students can enroll while continuing their jobs) and tuition prices students can justify given the salaries they will likely make. In this context, an M.B.A. from Harvard just might not have the same return on investment—or elite cachet.

reers. They have as a result become extraordinarily complex—some might say confused—institutions where significant overhead costs take resources away from research and teaching. A typical state university today, for example, is the equivalent of a three-way merger of the consulting firm McKinsey—focused on diagnosing and solving unstructured problems; the manufacturing operations of Whirlpool—which uses established processes to add value to things that are incomplete or broken; and Northwestern Mutual Life Insurance Company—in which participants exchange things to derive value: fundamentally different and incompatible business models all housed within the same organization. Meanwhile, rival organizations using online learning in a new business model focused exclusively on teaching and learning, not research—and focused on highly structured programs targeted at preparation for careers—have benefited from a significant cost advantage and have been able to grow rapidly.

This is a hopeful story for America, and there is even a potential silver lining for many of the existing institutions of higher education, too. Our studies reveal that incumbents sometimes survive and thrive amid disruption—in every case, because they are able to create independent divisions, unfettered by their existing operations, which can use the disruption inside a new business model that reinvents what they do.

It is not easy to effect such internal change, but creating the space and autonomy for these new models to thrive and grow outside the interests of the traditional groups is the ultimate test of and key challenge for leaders in all sectors. It is the test that now confronts the leaders of many of the existing institutions of higher education that seek to train the future leaders of America.

Clayton M. Christensen, M.B.A. '79, D.B.A. '92, is Cizik professor of business administration at Harvard Business School. Michael B. Horn, M.B.A. '06, is the co-founder and executive director for education of Innosight Institute, a nonprofit think tank devoted to applying the theories of disruptive innovation to problems in the social sector. Christensen and Horn are the coauthors, with Curtis W. Johnson, of Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns.