$1-TRILLION in student debt—and the worst job market in years.

12th Rank of United States in college degrees held by 25- to 34-year olds. Down from No. 1.

Increase in number of new students enrolled in for-profit colleges. 236%

41 MILLION Visitors to the Khan Academy over the last 18 months.

160K Participants in Prof. Sebastian Thrun's free TED-Ed course on artificial intelligence.

INNOVATE YOUR WAY OUT OF THAT

By ANN KIRCHNER
Innovation in Higher Education?

By ANN KIRSCHNER

You can hardly mention higher education today without hearing the word "innovation," or its under-studies "change," "transformation." Last summer the National Governors Association opened its meeting with a plenary session on higher education, innovation, and economic growth. We have journals galore (Innovative Higher Education, Journal of the International Council for Innovation in Higher Education, etc.), more conferences on "innovation" and higher education than I can count, and reports about innovation in teaching, research, university business models, technology; you name it. Even the U.S. Chamber of Commerce recently weighed in with "College 2.0: Transforming Higher Education Through Greater Innovation."

It reminds me of the old joke.

Q. How many academics does it take to change a light bulb?
A. Change? Change? Who said anything about CHANGE?

But there is nothing funny about the need for innovation and the resistance to change. When I re-engaged with higher education after a 20-year absence in the private sector, I felt like Rip Van Winkle. The generations were different, but the landscape remained the same. During my long self-exile, I worked primarily in media and technology businesses, including with Pathom, an interactive knowledge network in partnership with Columbia University and other institutions here and abroad. I thought then that the shift to a global, technology-based knowledge society, as well as competition from international and for-profit institutions, would force innovation.

That was 10 years ago.

I was right that the shifts and competition would create a new playing field for higher education, but the pace of change is much different. Those are gross generalities, of course, as you can find helpful signs everywhere, but when observed from the 20,000-foot level, the basic building blocks of higher education — its priorities, governance, instructional design, and cost structure — have hardly budged.

Even major higher-education projects and government initiatives are just playing around the margins. Take the international-exchange activity in education. Some institutions have indeed begun ambitious expansions with overseas branch campuses or partnerships, but they are merely transporting the old model to new physical space abroad. Or technology. Although e-learning has been around for nearly 20 years, technology in and out of the classroom is at the discretion of the professor, with rare institutional support or enthusiasm. Online learning has about as much credibility on some campuses as global warming at a Tea Party rally. Above the only thing within academia that has moved rapidly is tuition.


Most of the books are written by insiders, i.e., academics in varying disciplines, from economics to political science to business management and the humanities. And most of their conclusions are surprisingly consistent, especially about the ways in which academic culture strangles innovation and reform. Love and respect for our educational mission do not deter these writers from identifying the greatest hurdle to overcome in higher education: inertia.

As Taylor, a philosopher of religion at Columbia University, argues, until colleges accept the need to change, they have little incentive to overcome their natural inclination to stay the same. The reverence for tradition that sends graduating seniors walking out through the gate they entered as freshmen can permeate an institution’s entire world view: Honoring the past is a hedge against whatever barbarians are assaulting it in the present. For Taylor, inertia has turned into a crisis because tenure and traditional departments stifle the sharing of ideas. You might expect such talk from a writer like Rosen, chairman and chief executive of Kaplan Inc. But you will find similar sentiments in

College leaders need to move beyond talking about transformation before it’s too late.
almost every one of the excellent essays in Reinventing Higher Education. Wildslev et al. remind us of the disheartening realities like Ernest Boyer and Derek Bok rang the alarm bell in decades past.

We have been warned.

Leaping like Spider-Man over all the small talk about change are Christensen and Eyring. In his wildly read 1997 book The Innovator’s Dilemma, Christensen, a professor at the Harvard Business School, argued that when a mainstream organization encounters a "disruptive technology," place your bet on the upstart. Market dominance and a history of loyal customers deleter the big company into complacency and a false sense of invincibility. I saw his theory played out in real life during my years in media, when three network broadcasters ruled the airwaves until new technologies—cable, satellite, home video, and the Internet—shaved their market share into slivers.

Now Christensen and his co-author Eyring, an administrator at Brigham Young University-Idaho, write that higher education is next in line for transformation. Universities have been protected by the prestige of their brands and the lack of any real competition. But online learning is that catalytic technology du jour; they argue, and universities will be committing "slow institutional suicide" if they fail to revolutionize their classroom-based models of instruction.

Before Christensen’s "disruptive technology," there was the notion, from Intel’s Andrew S. Grove, of a "strategic inflection point," the critical moment when an organization confronts a huge change and must, virtually overnight, adapt or fail. Whichever formulation you prefer, there is no getting around the fact that higher education must navigate an unprecedented series of threats, challenges, and opportunities.

Most people resist change. Most organizations resist change. The hard-working and deeply committed administrators and faculty of our colleges are not unique in seeking ways to make progress, while still preserving the status quo. The status quo, however, is already disintegrating. Higher education is facing a future that looks terrifyingly like the American tragedy known as our elementary and secondary schools.

The sky is indeed falling. Once No. 1 in college degrees held by 25- to 34-year-olds, by 2010 the United States was 12th among 16 developed nations. Graduation rates (except for the handful of students at our most selective institutions) lag; tuitions rise, while the unemployment rate is at record highs for recent college graduates. Imagine, $1-trillion in student debt—and then our graduates enter the worst job market in years. Meanwhile, Academically Adrift, a controversial but oft-quoted 2011 study by Richard Arum and Josipa Roksa, demonstrates that after four years, about a third of students have not significantly improved their writing, critical thinking, or analytical thinking.

Higher education is hardly to blame for the collapse of the economy, but we should be held accountable for our inability to control costs, to keep adequate graduation rates, and our students’ lack of preparedness for the modern work force.

IDEAS ARE EVERYWHERE, and innovation, technology, and accountability are their critical components. But they require tough choices and thick skins to survive the attack of the antibodies against change. Some university constituents hear the dreaded word "productivity" as a euphemism for higher classes or just more classes taught on the backs of already overworked, underpaid adjuncts. In defense of the university, they head to the ramparts to demand increased state financing and cuts in administrator salaries, as if those were the only solutions.

I am often struck by how critics of university reform evoke "privatization" and "corporatization" as the twin demons that threaten to destroy the fabric of higher education. It would indeed be a sad world if the lofty goals of creating and transferring knowledge were reduced to the rhetoric and mechanics of the marketplace. However, surely we can learn something from the way commercial enterprises are driven to continual improvement by competition, consumer demand, and responsibility to their stakeholders. Students and their families, as well as taxpayers, legislators, and donors, pay dearly for the services of the university. There is nothing shameful or anti-intellectual or soulless in acknowledging that we are accountable to them.

Competition is growing, especially from the for-profit sector of higher education. The New York Times recently noted that from 1998 to 2008, enrollment in public and private universities went up less than 25 percent. Enrollment in for-profit colleges went up 256 percent. The federal government estimates that 7,500 for-profits enroll some 670,000 students each year in degree programs. There will continue to be serious concerns about academic rigor, recruiting, and the use of financial aid. But for-profits are not going away, nor is their challenge to traditional higher education. (I write with a continuing position in both sectors, as a board member of the Apollo Group and a dean at the City University of New York. We all have work ahead of us.)

Public financing for higher education is not likely to increase anytime soon. Stability is about the best we can expect from our state budgets. That reality makes it crucially important to consider new approaches—like streamlining pathways to degrees, redesigning models of instruction, competency-based programs, better advising, shrinking down or consolidating underperforming programs, and more comprehensive and efficient support services focused solely on getting students to graduation. Many of those were put forth in a recent McKinsey & Company study, "Winning by Degrees," of strategies to expand enrollments and increase graduations. I saw little reaction to its extremely practical strategies. Perhaps McKinsey’s recommendations, couched in consultant-speak phrases like "reduce nonproductive credits," strike the academic ear so harshly that the truth of the message simply doesn’t get through.

But even if the strategies were deemed worthy, putting them into effect would have to survive the slow death by the decentralized decision making that is a fact of life in higher education. No wonder most presidents focus more of their time on fund raising and burnishing the prestige of their brand than on the dangerous work of reinventing the university.

Where is the enlightened university leader to find the courage and backbone to explore those avenues or find ones of her or his own? Not from alumni, who are enthusiastic cheerleaders but usually prefer everything to be the way it was when they were young. Not from accreditation agencies, which are the watchdogs of the status quo (remember their cousins, the financial ratings companies). And not from trustees, who are loving guardians but shun the role of agent provocateur (except perhaps in politically volatile states, a situation with its own problems).

A recent study, "Still on the Sidelines," by Public Agenda (an whose board of directors I also serve) shows that most university trustees believe their role is to support the administration in solving short-term challenges, rather than to engage with broader issues of higher-education reform. In fact, most respondents consider the biggest challenges to the university to be external, especially declining state support and poorly prepared students, as opposed to any internal problems, such as obsolete models of education or unresponsive systems of governance.

As the creators of new knowledge, faculty should be in the vanguard of change, and sometimes they are. But they are also fierce guardians of the status quo. Hacker and Dreifus identify "the Professorial Campus" as representative of a fundamental misalignment between faculty incentives and institutional goals. Faculty are rewarded as individual performers for their research and their contribution to their field, but have no incentives for institutional loyalty or accountability for student

Higher education faces a future that looks terrifyingly like our disintegrating schools.
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success. How many faculty even know the graduation rates of their colleges, or consider it their problem? Scholarly ac-
tivity tends to distance professors from undergraduate teaching and learning, as the former Harvard College dean
Harry R. Lewis has argued in his 2006 Excellence Without a Soul: How a Great University Forgot Education. In fact, the
reward for good faculty behavior is less contact with students—tenure equals less teaching.

We have changed too little in how we prepare fledgling college professors to become great teachers. While there are
many excellent faculty-led efforts, and others supported by important institu-
tions like the Carnegie Foundation for the Advancement of Teaching, partici-
pation in them is inordinately rare from the same small circles. "People
who like this sort of thing," as Abraham Lincoln supposedly said, "will find it
just the sort of thing they like." Imagine if improvements in outcomes through

choosing courses are already worthy al-
ternatives to the classroom. In fact, a
2009 U.S. Department of Education study demonstrated that elementary
and secondary students who took all or part of a class online did better on average than those taking the same
course through traditional face-to-
face instruction.

Online courses are an important component of higher education's pro-
ductivity tool kit, one of the few that
offers an intellectually rigorous, mea-
surable, and fiscally responsible way to
serve more students while making better use of physical space. We could
have tremendous impact by shifting first-year, entry-level courses wholly or
mostly online, developed cooperatively but taught locally. Sounds radical, but
it's a pretty old idea, put forth by Carol
A. Twigg in 1999, and validated by trial
programs over five years with 30 two-
and four-year institutions. Her research
documented that when institutions re-
designed their large lecture courses,

for advising our students and tracking
their progress, and then moving rapidly at all levels of the system to adopt
new technologies that demonstrate im-
proved outcomes (e.g., mobile apps, tab-
llet-based e-textbooks, and game-based
learning). Ph.D. candidates should be
encouraged to pursue alternatives to
the traditional burnt offerings of schol-
ar monographs and books. In some
graduate school somewhere, a diligent
student is probably creating the 2012
equivalent of my own doctoral thesis on
"The Return to Paradise Hall: Orphans in Victorian Literature." Instead of one
more unread thesis, the English depart-
ment of my dream school might want to
approve a George Eliot app, an in-
teractive timeline, a digital repository of manuscipts, an online concordance of
Middlemarch, or a Google mash-up of
real and fictional settings in Victorian
fiction—which could then become great
textbooks and undergraduate courses.

Many worthy projects in the digi-
tal academy are indeed moving in that
direction. In the generally bleaker picture for Ph.D.s in the humanities, some
digitally savvy humans are pierc-
ing the gloom by finding posi-
tions in departments that specifically prize fac-
ility with technology. At my university, we have a cadre of
"instructional technology fellows" who are doctoral
students assigned to work with faculty and students on

retention and learning outcomes im-
proved, and costs went down. It is akin
to hospitals discovering that cleanliness reduces bacteria and saves lives.

However, it is easier to wash your
hands than it is to design a first-rate
online course. It takes a different skill
from classroom teaching, and it is more
expensive than chalk. It can be accom-
plished by faculty working in teams or in conjunction with experienced in-
stitutional designers who understand how to create large-scale projects like
MOOC's huge, open online courses, which have been pioneered by Stan-
ford and other universities. Either way, most faculty will need help in becom-
ing students again. While more-ef-
ective teaching should be its own reward, a major professional development effort
would provide a new opportunity to re-
align institutional and faculty goals. A radical expression would be to change
the rules of tenure to require faculty to
teach online or otherwise demonstrate their facility with 21st-century method-
ologies, as virtually every other employ-
er now requires of their work force.

Widespread adoption of online cours-
es is not some distant future that can

RUNNING like a vein of
gold through much of
the recent writing on
change in higher edu-
cation is the comfort-
ting theme that uni-
versities are more important than ever, since society needs educated citizens
more than ever. Only we can issue an
accredited degree, the precious entry
ticket to the knowledge economy.

We will not have that advantage
forever. The value of the diploma is symbolic, backed not by gold but by
the graduate's sense of its worth and the employer's willingness to accept it
as the currency of competency. Some-
times symbolism is simply too expen-
sive.

The ultimate threat to universities could come from the disintegration of the
degree, as students take advantage
of the growing availability of open-
source learning networks to present evidence of competency to prospective
employers. It is already true that more
than one-third of college students at-
tend multiple colleges, cobbling to-
gether credits from various places. The infrastructure to facilitate the creation
of a personalized degree is not yet in
place; students still end up with the last
institution's name on the diploma. The
transfer process is often a nightmare, as one faculty committee may reject
a course taken elsewhere, even if the
course is taken from another fully ac-
credited institution—sometimes even from an institution within the same
university system. Some students have already begun "testing" and stan-
derizing their majors to 1a Europe's Bo-
logna model. But an even more radical
change is on the drawing board, cour-
tesy of entrepreneurs who will force our
crazy quilt of half-hearted articulation agreements to give way to an interna-
tional network of course and credit ex-
changes.

Open-source courseware from traditional universities is already widely available. The Massachusetts
Institute of Technology has been the one to watch here; after follow-
ing early forays like Fathom into open-
enrollment e-learning, MITx

The only thing
within academe that has
moved rapidly is tuition.

*teaching became a significant factor in
the tenure process, and if faculty were
required to attend professional-develop-
ment training.

Technology provides ways for great
teachers to refresh their own scholar-
ship and pedagogy and bridges the gap
between how our students experience their
college curriculum and how they
learn everything else. Nearly one-third
of all college students have chosen to
take at least one online course. When
they graduate, they will find online
learning already fully integrated into
the workplace. Many professional-certifi-
cation programs—for doctors, lawyers,
and accountants, for instance—have
moved online, as have options for high-
end master's degrees at globally focused institutions such as John Hopkins's
Bloomberg School of Public Health.

Following Christensen's predic-
tion, online courses are getting better
the time. If you play video games, you
will have no problem fantasizing that
we could someday get to the point
where online courses have a smidgen of
the immersive power of, say, Sky-
rim. But even in their still rudimen-
tary state, and despite a selection bias (students sufficiently motivated
at attempt self-paced online courses),

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will soon offer paying customers a certification of competency in various fields. (Perhaps bowing to internal consistencies, MIT apparently does not plan to offer the certificate in its own name. Too bad.) MIT is just one of many open-courseware sites: You can study Shakespearean comedy from the University of Washington, and economy from Yale University, and physics from Utah State University.

Some of the most interesting work begins in the academy but grows beyond it. "Scale" is not an academic value—but it should be. Most measures of prestige in higher education are based on exclusivity: the more prestigious the college, the larger the percentage of applicants it turns away. Consider the nonprofit Khan Academy, with its library of more than 3,000 education videos and materials, where I finally learned just a little about calculus. In the last 18 months, Khan had 41 million visits in the United States alone. It is using the vast data from that audience to improve its platform and grow still larger. TED, the nonprofit devoted to spreading ideas, just launched TED-Ed, which uses university faculty from around the world to create compelling videos on everything from "How vast is the universe?" to "How pandemics spread." Call it Khan Academy for grown-ups. The Stanford University professor Sebastian Thrun's free course in artificial intelligence drew 160,000 students in more than 190 countries. No surprise, the venture capitalists have come a-calling, and they are backing educational startups like Udemy and Udacity.

All of those are signposts to a future where competency-based credentials may someday compete with a degree. At this point, if you are affiliated with an Ivy League institution, you'll be tempted to guffaw, harrumph, and otherwise dismiss the idea that anyone would ever abandon your institution for such ridiculous new pathways to learning. You're probably right. Most institutions are not so lucky. How long will it take for change to affect higher education in major ways? Just my crystal ball, but I would expect that institutions without significant endowments will be forced to change by 2020. By 2025, the places left untouched will be few and far between.

Here's the saddest fact of all: It is those leading private institutions that should be using their endowments and moral authority to invest in new approaches and to proselytize for experimentation and change, motivated not by survival but by the privilege of securing the future of American higher education. The stakes are high. "So let me put colleges and universities on notice," President Obama said in his recent State of the Union address. "If you can't stop tuition from going up, the funding you get from taxpayers will go down." Because of the academy's inability to police itself and improve graduation rates, and because student debt is an expedient political issue, the Obama administration recently threatened to tie colleges' eligibility for campus-based aid programs to institutions' success in improving affordability and value for students.

Whether the president's threat is fair or not, it will not transform higher education. Change only happens on the ground. Despite all the reasons to be gloomy, however, there is room for optimism. The American university, the place where new ideas are born and lives are transformed, will eventually focus that lens of innovation upon itself. It's just a matter of time.

Ann Kirschen is university dean of William E. Macaulay Honors College at the City University of New York and author of Sala's Gift: My Mother's Holocaust Story (Free Press, 2006).