e-learning’s Impact on the Campus Bottom Line
The potential exists for the university to experience a new level of relevancy and community that it hasn’t seen since the days when the GI Bill brought a massive influx of enrollment. The catalyst: the Internet.

EDITOR’S NOTE: “The promise of the Internet is one that will likely sustain the traditional campus model, rather than transform it into something foreign or new.”

That’s the perspective of Matthew Serbin Pittinsky, founder and chairman of Blackboard Inc., a provider of e-education systems worldwide. Pittinsky can testify to the evolution of incremental Web-based changes he has witnessed taking place at the 2,700 institutions served by his firm.

And yet, Pittinsky believes that e-learning harkens academe back to a time when campuses were 24/7 living-learning environments. While e-learning will accelerate change in higher education by broadening access to new forms of programs and changing the nature of their delivery, that’s only part of the picture. In a new book, The Wired Tower: Perspectives on the Impact of the Internet on Higher Education (Financial Times Prentice Hall), Pittinsky outlines four key drivers of change in higher education well underway prior to the advent of e-learning. Because of the Internet, however, these forces now take on new meaning for campuses across the country.

1. A renewed focus on learning and learners. The Internet can play an important role as a solution to the instructional challenges of faculty training, course evaluation, teaching styles, and analysis of learning outcomes.

2. The movement of technology from the back office to the front office. Moving beyond general ledger and student records systems, course management systems, Web portals, and transaction systems can now provide a student-centric focus by bringing a host of education services online.

3. The search for new funding sources. As traditional campuses look to become more entrepreneurial in an age of decreased state funding, the electronic delivery of education opens possibilities for providing lucrative extension, certificate, and executive education programs to offset the low- or no-profit margins of most undergraduate programs.

4. The pressure and opportunity to serve new enrollments. In the transition to a knowledge-based economy, more people are seeking advanced education more frequently. Web-based education provides universities an opportunity to serve these new markets.

In the following interview with Pittinsky, you’ll learn more about his views related to the implications of these key change drivers. Then read on for adaptations of excerpts from two chapters of The Wired Tower, for which Pittinsky served as editor. In the first excerpt, Arthur Levine, president of Columbia University’s Teacher College, speaks of how the forces reshaping higher education can revitalize its historic mission. A second excerpt by Neil Postman—author, social critic, and chair of the Department of Culture and Communication at New York University—provides a healthy dose of skepticism with six questions we all would do well to ask when considering the adoption of any new technology. The Wired Tower is an outcome of Pittinsky’s studies at Columbia University Teacher’s College, where he is currently a Ph.D. candidate in the Sociology of Education program.

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he initial characterization of the Internet as spawning cyber-universities that would replace traditional institutions of higher education has not happened—and won’t, says Blackboard Inc. founder and chairman Matthew Serbin Pittinsky. “The reality is that the Internet is augmenting and enriching academic and campus life at colleges and universities in huge ways. In the process, e-learning is actually reinforcing the traditional academic values of higher education that focus on the whole person.” According to Pittinsky, the reason e-learning has risen to the top of the higher education agenda is because of its potential to improve instructional approaches, expand the support of technology outside of the back office, open new revenue sources, and serve new markets at a time of great demand.

Students have already begun driving changes in the daily business of education—from applying for admission, registering for classes, and ordering books online, to using their student ID cards to purchase athletic tickets and parking permits. These transactions involve how to do more with less in the context of a greater competitive environment for enrollment, says Pittinsky. “When I visit institutions, I emphasize the importance of course management and student e-commerce portals in light of the role they play in student retention,” he says. “When we make learning and all the processes connected to learning as convenient as possible for students, we’re more likely to see repeat customers.”

But the Internet is likewise helping campuses large and small to reinvent themselves as learning environments where classroom instruction isn’t the total experience and where communication that is both student- and faculty-driven can occur in a 24/7 time frame, says Pittinsky. And that’s especially important in light of today’s changing student demographics and the evolving educational needs of those students.

**Foster Long-Term Relationships With Learners**

Colleges and universities will miss out on some golden opportunities if they focus solely on serving traditional students who seek traditional two- and four-year degrees. From Pittinsky’s experience, education is already becoming much more custom built based on the needs of the student, and it will continue down that path. “While students may attend a main campus in pursuit of a degree, that’s not to say they won’t also take courses from any number of educational providers to round out their learning as they see fit,” says Pittinsky.

Likewise, institutions cannot afford to consider graduates as gone from the educational nest. “We’re going to see a lot more of what is already happening—students choosing and requiring additional education throughout their careers.” The implication: Institutions that rethink their mission in terms of the lifelong learning needs of their alumni will edge ahead when it comes to securing repeat business.

One critical way to establish long-term loyalty among alums is by fostering a relationship that supports their career goals. As Pittinsky argues, employers are increasingly interested not only in verifying whether a student graduated with a particular degree or earned all As, but also about the achievements behind the grades and what that student has since accomplished. Because of the universal access and
interconnectivity the Internet affords, institutions now have an ability to provide students with personalized online portfolios, essentially becoming a repository of information about a graduate’s academic performance while in attendance as well as his or her career accomplishments.

Focus on Mini-Transformations
Where Pittinsky sees real transformation in the student-faculty and alumni-institution relationships is within the collection of profound “small” ideas taking shape on campuses. He knows of one professor at a school of education who every month conducts an online session with colleagues from across the country—most of whom are authors of written materials included in the professor’s course readings. Students are not only afforded the opportunity to tackle questions with original authors, in the process they also gain a sense of being inaugurated into a profession because of a direct association with the movers and shakers in that field, says Pittinsky.

In another example, rather than launching a new school of information technology only at its main campus, Penn State has instead developed a core online curriculum that faculty at local campuses can customize. This more decentralized approach maintains a high consistency of quality while providing greater reach and allowing individual campuses to make adaptations that are most relevant to their constituencies.

This new era of electronic interaction spawned by the Internet also increases the value of the student-faculty relationship by economizing time, says Pittinsky. For instance, a professor who provides a pop quiz online can gauge how well students understood a particular reading assignment and can then tailor a lecture to address what students most need to learn. Conversely, a student can submit a follow-up question to a lecture or activity and receive a response well before the next formal class period.

Find Your Internet Niche
Whether offering full-blown distance education or using the Internet to augment classroom instruction, the yardstick for any e-learning venture should be the institution’s mission, says Pittinsky. First and foremost, understand that taking your curriculum online won’t reinvent your institution. E-learning is an extension of your existing institution, so focus first on your known strengths and goals. Then ask the questions. Do you want to reach on-campus students who can’t graduate on time because there aren’t enough seats? Do you want to collaborate with key business partners to customize a continuing education program for their employees? You have to ask many of the same questions you would for any new business plan, says Pittinsky: What are we good at? Who are we serving? Where is the need? What gaps exist between that need and what we provide?

From a program development standpoint, think niche. There really isn’t the need for 100 different biology 101 courses online, but programs that fill a unique niche—such as American University’s campaign management program—stand a better chance of success, says Pittinsky.

Seek Institutional Competitiveness
The changes taking place in higher education today will increasingly play out within an electronic context. As Pittinsky notes, business officers are well aware of the growing number of highly profitable Internet-based executive development programs on the market today. They also understand how critical such programs are to subsidizing other important programs that are not profitable. That’s all the more reason that colleges and universities must focus on institutional competitiveness, says Pittinsky, and evaluate the economics of their institutions in comparison to the practices of their competitors.

Once upon a time, a frenzy emerged within the corporate world when it seemed that dot-coms might put all the brick-and-mortars out of business. A similar frenzy has taken shape within higher education, but to no avail, says Pittinsky. At the same time, while the continuing advancement of the Internet does not signal the demise of the traditional campus, institutions must rethink their mission in light of the Web, which holds the power and the promise of bringing new meaning and services to all aspects of college and university life.

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How Technology Can Revitalize Historic Mission

BY ARTHUR LEVINE

Following is an adaptation of an excerpt from "Higher Education: A Revolution Externally, Evolution Internally" in The Wired Tower.

Whether the Internet’s impact on higher education will be transformative or evolutionary is a timely question. Yet, this question must be considered in light of several key forces shaping a revolution of higher education. Namely, that our economy has shifted from an industrial to an information base; that the demographics of higher education have changed; that new technologies are likely to have a profound influence on higher education; that the private sector is investing in higher education at a greater rate than ever before; and that there is a growing convergence between knowledge-producing organizations—publishers, television, libraries, museums, concert halls, and universities.

The Coming Revolution

As a result of these key forces, a number of dramatic changes are well underway. In the coming years, higher education providers will become even more numerous and more diverse. We should expect new brand names and a new hierarchy of quality in higher education institutions. Likewise, higher education is becoming more individualized; students, not institutions, will set the educational agenda. The focus of higher education is shifting from teaching to learning. And, faculty members will become increasingly independent of colleges and universities. The names of world-class professors will probably be far more important than the institution for which they work. Greater power by faculty will surely mean changes in institutional governance.

What does all this portend?

Degrees will wither in importance. Today, the meaning of a degree varies in content and quality, depending on the college. In essence, we offer thousands of different degrees, even if they are called by the same name. A degree now signifies a period of successful college attendance; the class rank indicates the relative success of the student; and the name of the college marks the quality of the degree.

However, with the change in emphasis from institutional process to educational outcomes, degrees will become far less meaningful. A transcript of each student’s competencies, including the specific information that the student knows or the skills that he or she can perform, will be far more desirable.

Dollars will follow the students more than the educators. With the growth in educational providers and the emphasis on outcomes, public and private financial supporters will increasingly invest in the educational consumer rather than the expanding grab bag of organizations that offer collegiate instruction. It’s quite possible that federal and state aid that currently supports institutions of higher education will be transferred directly to students.

Such a trend will add to the enormous questions about how we ensure standards of quality among the increasing number of new providers. It will also require us to ask how academic freedom, which demands institutional autonomy, can be preserved when colleges are forced to be as market-driven and consumer-oriented as most commercial organizations are today. How can institutions remain economically viable when financial support shifts more to consumers, faculty members grow more independent, and degrees fade in importance?

In the early years of the Industrial Revolution, the Yale Report of 1828 asked whether the needs of a changing society required either major or minor changes in higher education. The report concluded that it had asked the wrong question. The right question was, “What is the purpose of higher education?”

All of the questions that I’ve raised have their deepest roots in
that fundamental question. Once more faced with a society in motion, we must not only ask that question again, but must actively pursue answers, if our colleges and universities are to retain their vitality in a dramatically different world.

The Coming Evolution
Understanding the fundamental mission of our nation’s diverse colleges and universities is the key to mapping where in this continuum between “brick” and “click” institutions will land. Surely we do not want all U.S. higher education institutions to morph into click and brick-and-click entities. There is no need for 3,600 institutions to provide online courses. Many people are going to want a traditional campus experience, both students and their parents who have waited 18 years for them to leave home, among others. My greatest fear is that in years to come this experience will be available to only the most affluent and best and brightest in the nation. The rest will be forced into cheaper click education.

In any case, traditional colleges face two very real dangers. It could also provide examples of economies that higher education could adopt without reducing quality. Government might also use the competition between new and traditional providers to encourage such changes. Incentives for addressing the weaknesses could be powerful levers for action in critical areas such as improving the status of undergraduate education in research universities. So can disincentives and accountability measures that do not infringe upon the principle of academic freedom in the university.

Having said this, one of the greatest risks we face as a nation in the growth of new educational providers is the unbundling of the teaching, research, and service functions. Other organizations do engage in research, but we must remember the university is the home to most of the basic and much of the applied research that the future of our country and the well being of the world depend upon.

With regard to the preservation of knowledge, we must know that the university’s function as a repository of knowledge is essential if there is to be a continuing neutral social critic for our society. With regard to the transmission of knowledge, we cannot forget that the university is the one educator that provides students with more than a market-driven education. It provides an education focusing not simply on the wants of the individual, but on the needs of the society—preparation for membership in a democratic society.

And, with regard to the application of knowledge, the university is committed to the ethic of service to society in a way that no other social institution is or can be. Neither the for-profit sector, nor non-profit knowledge organizations have the capacity or the desire to fill this role. With regard to all of these activities combined, we need to recognize that their unbundling would be a disaster not only for the university, but also for society.

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Six Critical Questions in the Face of Technological Change

BY NEIL POSTMAN

Following is an adaptation of an excerpt from “Questioning Media” in The Wired Tower.

Like the brain itself, every technology has an inherent bias, has both unique technical limitations and possibilities. That is to say, every technology has embedded in its physical form a predisposition to it being used in certain ways and not others, and only those who know nothing of the history of technology believe that a technology is entirely neutral or adaptable. We do not always have to go in exactly the direction that a technology leads us toward going. We have obligations to ourselves that may supersede our obligations to any technology.

As I see them, or at least intend them to be seen, these questions are not the questions of radicals, liberals, conservatives, or any other politics. While the answers to these questions are important, they will vary according to the answerer. If, for example, you are in the business of selling technology to educators, the answers may be different from those of a teacher or parent. The journey is in the asking.

1. What problem gets solved by this new technology? This question needs to be asked because there are technologies that are not solutions to any problem that a normal person would regard as significant. A good example concerns a question raised some years ago as to whether or not the U.S. government should subsidize the manufacture of a supersonic jet. Both the British and French already had built SSTs, and a serious debate ensued in the halls of Congress and elsewhere as to whether or not we should have one of our own. And so the question was asked, “What is the problem to which the supersonic jet is the solution?” The answer, it turned out, was that it takes six hours to go from New York to London in a 747; with a supersonic jet, it could be done in three. Most Americans, I am happy to say, did not think that was a sufficiently serious problem to warrant such a heavy investment. Besides, some Americans asked, “What would we do with the three hours we saved?” Their answer: “We’d probably watch television.” And so the suggestion was made that we put TV sets on the 747 and thereby save billions of dollars.

2. Whose problem is it? In the case of the SST, the problem of getting to London faster than a 747 could was largely a problem for movie stars, rock musicians, and corporate executives. Hardly a problem that most Americans would regard as worth solving if it would cost them a lot of money. But this question needs to be applied to any technology. Most technologies do solve some problem, but the problem may not be everybody’s problem, or even most people’s problem. We need to be very careful in determining who will benefit from a technology and who will pay for it. They are not always the same people, particularly in the field of education, where the interests of donors, boards, instructors, and students can vary quite dramatically.

3. What new problems are created after solving an old problem? Let’s say we have found a technological solution to a problem that most people have. For instance, antibiotics have certainly solved some significant problems for almost all people, but in doing so have resulted in the weakening of what we call our immune systems. In America, television has solved several important problems, but in solving them, it has changed the nature of political discourse, has led to a serious decline in literacy, and has even made the traditional process of socializing children difficult, if not impossible.

It is doubtful that we can think of any single important technology that did not generate new problems as a result of its having solved an old problem. Of course, it is sometimes very difficult to know what new problems will arise as a result of a technological solution. Had Gutenberg foreseen that his printing press with movable type would lead to the breakup of the Holy Roman Empire, he surely would have saved his old wine press to make wine and not books.

In a technological society like ours, we can no longer afford to move into the future with our eyes tightly closed. We need to speculate in an open-eyed way about negative possibilities. To produce responsible answers requires knowledge of the history of technology and of technology’s social effects and the principles governing technological change.

4. Who and what might be harmed by a technological solution? Let’s take schoolteachers as an example of losers
who are deluded into thinking they are winners. It is clear to me that we need more teachers, and that we ought to pay more to those we have. But school authorities are resistant to hiring more teachers and to paying them more and complain continuously about a shortage of funds. The fact is that school authorities are now preparing to spend, in the aggregate, billions of dollars to wire schools to accommodate computer technology, and for reasons that are by no means clear. To my knowledge, there does not exist any compelling evidence that PCs or any other manifestation of computer technology can do for children what good, well-paid, unburdened teachers can do. Nor is there any evidence whatsoever that children in wired classrooms do any better than children who aren’t. So where is the outcry from teachers? They are losers in this deal, and serious losers.

5. What changes are gained and lost with new technologies? I feel sure that most will agree that no matter what new media come into our lives, language will remain our most indispensable medium, and it’s always a serious matter when new meanings arise or old ones are lost. Think, for example, of how the words community and conversation are now employed by those who use the Internet, especially for e-learning. Or think of how television has changed the meaning of the word public or the phrase political debate or participatory democracy.

To use the term distance learning to refer to students and a teacher sending e-mail messages to each other may have some value, but it obscures the fact that the active reading of a book is the best example of distance learning possible, for reading not only triumphs over the limitations of space and co-presence, but of time as well. Of particular interest, I should think, is the effect technology has had on such essential words as truth, law, intelligence, and fact. But to get at these changes, one has to do some historical study—for example, to learn how writing changed the meaning of truth and law, or how the printing press altered the meaning of intelligence.

I am not saying that we ought to resist language change, only that we be aware of how it occurs, and why, and what sorts of attitudes language change promotes.

6. Who and what acquire power as a result of technological change? This question needs to be asked because the transformation of a technology into a medium always results in a realignment of economic and political power. A new medium creates new jobs and makes old ones obsolete. A new medium gives prominence to certain kinds of skills and subordinates others.

This fact has always been understood by intelligent entrepreneurs who see opportunities emerging from the creation of new media. That is why media entrepreneurs are the most radical force in a culture. They are interested in maximizing profits of new media and do not give much thought to large-scale cultural effects.

I might add that sometimes media entrepreneurs will lie to the public about cultural effects in order to keep the public mind calm. For example, media entrepreneurs tell the public that, in the long run, computers will increase the number of jobs available. The simple fact is that computers do what people are accustomed to doing and can do it faster and cheaper. Morse, Bell, Edison, Sarnoff, Disney—these men created the 20th century, as Bill Gates and others are creating the 21st. I do not know if much can be done to moderate the cultural changes that media entrepreneurs will enforce, but citizens at least ought to know what is happening and keep an attentive eye on such people.

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