Three mantras, taken from both the Internet economy and the consensual wisdom of academic life, seem appropriate for framing discussion about the impact of the Internet on higher education.

Not surprisingly, the first widely cited mantra is that “the Internet changes everything.” Of course, in this instance the less cited but still critical explanation as to just why the Internet just might change everything (or at least some things or even many things) is that in the Internet economy, there are few precedents for anything. In academe and elsewhere, precedent serves as the filter for both understanding and decision making. The absence of immediate, consensual precedents points to what Spanish philosopher Jose Ortega y Gasset described as the concept of generations: The truths of the past are not readily passed on to the next generation. Also, the punditry surrounding the impact of the Internet across all sectors of the economy focuses on the tension between the “old” and “new” economy—firms and organizations that have or have not acknowledged the Internet as a catalyst for change in the ways they operate.
Second, there is the old Chinese greeting or curse: “Be careful what you wish for, as it may come true.” Academe’s great wishes for the past 30 years—increased access, lifelong learning, and information technology—are indeed coming true. However, across all sectors of the academic community, students, faculty, administrators, and information technology (IT) personnel experience daily and often painful lessons about just how ill-prepared the campus community is for the convergence of these forces as higher education begins the 21st century (Green 1999, 2001).

Finally, there is the mantra (or consensual wisdom) of the Internet as an electronic community, an expanding online universe that fosters connection and convergence and provides access to an endless array of content and services (e.g., Brown and Duguid 2000).

These mantras and others help frame discussions about the Internet in academe. But the continuing quest for the “new, new” thing in the Internet economy seems to foster an unfortunate willingness to ignore, or perhaps dismiss, past experience and insight. Indeed, in its own way the Internet has contributed to if not aggravated an already short memory in academe, as many in both the campus and the surrounding policy community seem to pay little attention to or have little interest in either the history or the historical literature of higher education.

Content, of course, is perceived to be the king of the Internet. The growing literature on academic libraries and digital information resources typically includes some focus on the challenges of digital dissemination (see, for example, Hawkins and Battin 1998). But this literature often seems to miss or perhaps ignore the link between dissemination and collegiality, the link between content and community, and perhaps most importantly, the role of infrastructure, which adds value to content by making it accessible. If the Internet does change everything (or at least many things), then it also has important consequences for collegiality and dissemination that warrant our attention.

Collegiality is a core value in academe. Admittedly, many faculty are mindful of Henry Kissinger’s quip that the reason faculty meetings are so vicious is because the stakes are so small. But the individual exasperation with faculty meetings and other aspects of academic life notwithstanding, collegiality is a building block of the academic enterprise, and dissemination—sharing ideas and work—is a key tenet of collegiality. Does the Internet affect collegiality? To paraphrase Samuel Morris, what have we wrought?

Additionally, from a policy perspective, the Internet raises important questions about markets and productivity: Issues concerning the market role of dot-com and dot-edu providers, distance learning, and technology and productivity will not go away.

**Cosmopolitans and Locals in Cyberspace**

Over 40 years ago sociologist Alvin Gouldner explored the characteristics of latent organizational identities, focusing on academe. Gouldner’s literature review identified the importance of “three variables in analyzing latent organizational identities:

1. loyalty to the employing organization;
2. commitment to specialized or professional skills; and
3. reference group orientations” (Gouldner 1957, 290).
Gouldner’s review led him to describe two latent organizational identities:

1. **Cosmopolitans** “are low on loyalty to the employing organization, high on commitment to specialized role skills, and likely to use an outer reference group orientation.”

2. **Locals** “are individuals whose loyalty to the employing organization is high, have a low commitment to specialized role skills, and are likely to use an inner reference group orientation” (p. 290).

Gouldner saw colleges as an interesting environment for the application of this conceptual model. “In colleges,” wrote Gouldner, “groups distinguish between ‘insiders’ and ‘outsiders,’ sometimes using such informal indices as to whether or not individuals orient themselves to certain ‘schools of thought’ or people, share familiarity with a prestigious literature, or utilize certain styles of research” (p. 292).

It’s easy to simplify and extend Gouldner’s characteristics of cosmopolitans and locals in academe. For example, in campus communities, cosmopolitans identify with their disciplines over their institutions. While they may work at Acme College, they are, first and foremost, biologists, Chaucer scholars, economists, mathematicians, psychologists, sociologists, and zoologists. In contrast, while locals may teach these subjects, they identify themselves as Acme faculty ahead of their disciplinary affiliation. Cosmopolitans are more likely to work in universities and other elite institutions; in contrast, locals may be employed in teaching institutions, including community colleges. Cosmopolitans are more interested in research than locals, who would focus more on teaching, student contact, and committee work.

Gouldner’s work (1957, 1958) confirms and extends his typology. Benefiting from perfect hindsight, plus four additional decades of research on faculty and academic culture, one might add that Gouldner’s data collection and statistical analysis serves to confirm the consensual wisdom about various aspects of academic culture and personalities. Indeed, as with other conceptual models, these terms provide almost immediate recognition and meaning, even without reading Gouldner’s original research.

Examples of Gouldner’s cosmopolitans and locals are readily apparent in the dot-com culture. Recent articles in *The New York Times*, *The Wall Street Journal*, and IT industry publications such as *Fast Company* and *The Industry Standard* describe a new generation of highly skilled, aggressively pursued IT professionals whose loyalty to a firm is highly correlated with the price of their stock options six months after the initial public offering. (Securities and Exchange Commission regulations prohibit corporate insiders from selling their stock during the “lock-up” period—for six months after the initial public offering.) In this context, cosmopolitans represent the “new economy” while locals—loyal to the organization, less committed to skill enhancement and specialized roles—are becoming icons of the old economy.

Gouldner’s descriptions also apply to institutions. Research universities such as Harvard, Yale, Michigan, Berkeley, and UCLA, along with selective liberal arts colleges such as Macalester and Williams (among others), might be cited as examples of cosmopolitan institutions—even, perhaps, as communities of cosmopolitans. In contrast, Manatee Junior College (Florida), Towson University (Maryland), and even the University of Phoenix can be accurately characterized as local institutions—perhaps even as academic communities of locals, despite their large numbers of part-time faculty.

There is no question that the soft academic labor market of the past three decades has converted many an aspiring cosmopolitan into a local. College teaching is both a profession (“a calling,” to use the lexicon of the professions) and a recruited career. Individual experience as well as Alexander Astin’s data profiling of the career aspirations of freshmen over the past 35 years confirm that few students enter college planning to become professors. Unlike doctors, lawyers, high school teachers, and cops, there are
few television programs that provide a role model for the life of a college professor. Rather, most who go on to graduate study as a step towards a faculty appointment have been directly or indirectly recruited by professors eager to lead their prized students into an academic career.

Yet thousands of graduate students who trained at the nation’s elite (“cosmopolitan”) universities are now employed at “local” institutions. While many observers believe that this has improved some metric of faculty quality for local institutions, it also reflects, at best, an adequate career option for the individuals who pursued graduate degrees hoping for a faculty appointment at a research university but who now find themselves at teaching institutions.

Indeed, thinking back just two decades ago to the hundreds of humanities Ph.D.s who were channeled into short-term, MBA-like summer training programs to prepare them for a life outside academe, it is apparent that today’s “young locals” have options and opportunities in academe that were not available to an earlier generation of aspiring academics. While they are unhappy with some of their employment options, the Internet and the World Wide Web provide today’s locals with access to a wide range of scholarly content not available to their peers as recently as 5, let alone 15, years ago.

**Virtual Visitors**

The old, pre-Internet era collegiality had strict if informal rules governing how and when faculty might visit their colleague’s classrooms. Indeed, despite the continuing discussion about the importance of improving undergraduate instruction across all institutional sectors, the fact remains that few faculty ever observe their colleagues as teachers. Most of what we claim to know about our peers as teachers comes from the statements of our students, our review of student evaluations, and our personal assessment of student preparation in prerequisite courses taught by our colleagues. To paraphrase the courtroom queries of attorneys, few of us have direct knowledge about our colleagues in their classrooms.

Yet the Internet now makes portions of my classroom readily accessible to my peers. These are virtual visitors to the classroom. My departmental colleagues can visit the course syllabus posted on my Web site anytime—and without my knowledge. Moreover, faculty from other institutions can also visit my Web site and, perhaps, clone my syllabus. Departmental peers who would not take the time to read a folder of course outlines during the review and promotion process can easily scan a colleague’s syllabus from a computer at their home or campus office.

Is this uninvited viewing a benefit? Do I really want my colleagues visiting my Web page and reviewing my syllabus? Or is this a violation of the unspoken détente in which we all have our own classroom space and privacy?

Moreover, what about faculty from other institutions who visit the Web page for my course and clone my syllabus? Is the professor at a comprehensive institution or community college who “borrows” some ideas for restructuring a course from a cosmopolitan at a research university obligated to acknowledge the source? Should the university restrict access to the course syllabus posted on a campus server to prevent this from happening? These are important and difficult questions, particularly given the rising tension on some campuses between faculty and administrators about who owns the course syllabus.

**Intellectual Property: Mine, Yours, and Ours**

Thousands of college students used to routinely transfer digital music across the Internet via Napster, a habit generating significant press coverage. The Napster phenomenon provided simply one more uncomfortable reminder of a wide range of intellectual property issues that pose continuing and significant challenges for the
education community. Admittedly, tweed-jacketed academics concerned about the rampant copying of their journal articles and book chapters are probably less photogenic, less interesting (and perhaps less sympathetic) characters than pierced and tattooed rock stars bemoaning the loss of control over the distribution of their music and lost royalties. But in the end, the user behavior—copying printed texts or copying digital tracks—is similar.

Across all levels of education, teachers routinely caution students not to copy content, regardless of the source, whether it be *The World Book* from home, journal articles, old books from the campus library, or digital books from the Internet. Beyond unauthorized duplication, however, there is little question that plagiarism is a major sin in the education community.

Despite concerns about protecting intellectual property—unauthorized duplication and plagiarism notwithstanding—the campus community seems to accept, at least implicitly, some level of copying—let’s call it *collegial copying*—to support teaching and instruction. The public copy machines in school and college libraries reflect a general acceptance among students and faculty—among those who consume content and those who produce it—that some level of copying is acceptable.

But without question, copying other people’s work and claiming it as your own is the original sin in academe. Does the Web unintentionally foster this kind of behavior? My own experience suggests that the Web may foster a new kind of plagiarism—part sin of omission, part sin of commission. The ease with which content can be clipped and transferred from one Web page to another, from a Web site to a PowerPoint presentation, or from one digital document to a second inevitably will create problems for some academics at some point in their careers (Green 2000).

### The Productivity Conundrum

Ambiguous notions of *quality* and *productivity* cast a long shadow over both public and private conversations about the role of information technology at all levels of education and in all sectors of the campus community. This is not surprising, given the great aspirations among many—teachers and college professors, school principals and college administrators, parents and public officials—for what technology might/could/should do to enhance teaching and learning.

Quality, of course, has long been an ambiguous and difficult term in conversations about higher education. More than 30 years ago, Robert Persig’s *Zen and the Art of Motorcycle Maintenance* echoed publicly the concern (and the complaint) of many in academe. Searching for an absolute measure of quality, painfully conscious of his own experiences as both graduate student and young faculty member, Persig in portions of his journal and travelogue actually screams at us, asking “What the hell is quality?” What are the real and true attributes of quality in higher education? Is it found only among the elite institutions? If so, what does that suggest about the learning experience at “other” colleges and universities?

We are fortunate that we can turn to our colleagues in economics to help resolve any potential ambiguity regarding the definition of productivity. While productivity may be a new concept for most in academe, at least in the context of institutional values and priorities, it is a core
concept for our colleagues who study the dismal science.

Economists seem to agree that there are three components of productivity: cost, quality, and quantity. They also seem to agree (to the extent they agree on anything) that there are three circumstances under which productivity increases:

1. The cost of production declines while quality remains constant (i.e., it costs less to produce each widget).
2. The cost of production is stable while quality improves (i.e., each widget costs the same to produce but the firm produces a better widget).
3. The cost of production declines and the quality improves (i.e., the firm produces better widgets and it costs less to do so).

Admittedly, most college professors do not think of themselves as widget producers; nor do most view their departments or institutions as widget factories. We are academics, ergo we teach and we are engaged in scholarship. Production models of and manufacturing metaphors for education generally are offensive to most college faculty.

But in the emerging new world order of higher education, it is increasingly clear that costs—college costs, operating costs, and "production" costs—really do matter. And in the emerging new world order of higher education, some of the new conversations about the benefits of technology often migrate into some discussion about the link between technology and productivity. Casting a shadow over these discussions is the fact that under traditional economic models, investments in technology are supposed to improve productivity, which means that quality goes up and costs come down.

Certainly, elements of these issues are at play today on college campuses and in public policy discussions. One example comes from the January 1998 report of the National Commission on the Cost of Higher Education. The commission identified productivity as a top priority for American colleges and universities. While not explicitly citing technology as a potential solution for some of the productivity challenges confronting higher education, the language of the commission’s recommendations points in that direction:

The Commission recommends the creation of a national effort led by institutions of higher education, the philanthropic community, and others to study and consider alternative approaches to collegiate instruction which might improve productivity and efficiency. The Commission believes significant gains in productivity and efficiency can be made through the basic way institutions deliver most instruction, i.e., faculty members meeting with groups of students at regularly scheduled times and places. It also believes that alternative approaches to collegiate instruction deserve further study. Such a study should consider ways to focus on the results of student learning regardless of time spent in the traditional classroom setting.

In this context, state initiatives such as the Michigan Virtual University and the Western Governors University reflect, in part, an assumption that technology can be used to expand educational access and reduce educational costs. State officials hope to offer more opportunities for more potential learners by investing in bits and bytes (content and technology) rather than mortar and bricks as a new form of infrastructure for higher education. Concurrently, faculty across all types of colleges argue that technology is part of the new infrastructure that enhances the quality of content available to their students—gathered by both wandering the stacks and surfing the Web. Investments in technology are essential to support student and faculty access to online resources, and likewise, to enhance the quality of teaching, learning, and scholarship.

Herein lies the conundrum: Who decides which definition of productivity should apply in institutional and public policy discussions about productivity in higher education? Cost-conscious administrators and public officials might support technology because of the potential to reduce costs—most often labor (i.e., faculty) and other direct operating costs. In contrast, faculty might argue that
the appropriate perspective is one that leaves funding constant but focuses on quality—that is, technology as the catalyst to enhance how and what students learn.

Must we choose between one and the other, between definitions of productivity that focus exclusively on costs and those that focus on quality? Unfortunately, this is where the conversation about productivity begins to get personal and also begins to look like our public and private conversations about quality. Our colleagues in economics may be able to define productivity, but they cannot tell us which definition is most appropriate under what circumstances.

It is indeed a conundrum. Like the old Miller Lite beer commercials (tastes great; less filling) we are, perhaps, destined to argue about productivity in terms of quantity (reduced costs) versus quality (enhanced content and instruction). We each will search for evidence that supports the perspective we endorse: Some will focus on the potential of technology to reduce the costs of education, while others will emphasize the potential of technology to enhance the quality of teaching and learning and to provide an expansive definition of scholarship.

The corporate quest to document the link between productivity and investments in information technology is informative. Between 1982 and 1997, U.S. corporations invested billions to acquire desktop computers and software, install networks, and train personnel. Yet during this same period, economists could not find any definitive link between these corporate investments and enhanced corporate productivity. Only after 1997, 15 years after corporations began purchasing their first IBM PCs, did the evidence documenting a link between technology and productivity begin to emerge. The quest to document productivity required a critical mass of installed technology as well as new kinds of data and new metrics.

The continuing campus debates about “instructional productivity” and campuses’ investments in information technology promise to make for engaging faculty meetings and offer some interesting academic theater. But it is questionable whether they really contribute to good institutional or public policy. Be assured, however, that these issues, joined at the hip, will cast a significant and continuing shadow over our discussions about the appropriate role of technology across all levels of education in the coming years.

The Dilemma of Distance and Distributed Learning

The evolution of American higher education has been an organic process: Over time new institutions have emerged to assume new roles and functions, reflecting the changing nature of American society and the nation’s changing demands for higher education. Much like the evolution of cells in an organism, the core cells often split and assume specialized functions. Throughout the 360-year history of the American college and university, new kinds of colleges—specialized cells—have emerged as derivatives of an existing and often dominant enterprise, expanding the definition, the mission, and the clientele of the educational and social institution we know as American higher education. Without question, we have come a long way from the day, circa 1636, when 10 young men took a longboat across the Charles River from Boston to Cambridge to become the first students at the college that would become Harvard.

This abridged history lesson reminds us that American higher education continually evolves. As we enter the 21st century we are witnessing a significant evolutionary event in American higher education, one that has consequences for all institutional sectors of the academic enterprise. That is, the emergence of distance learning and distributed education, a phenomenon fostered to a large degree by the three convergence issues cited above: increased access, lifelong learning, and information technology.

Distance learning is not new to the academic enterprise. Its roots are found in the agricultural extension programs begun by the land grant universities in the years fol-
lowing the Civil War. Moreover, many institutions today engage in various forms of distance learning ranging from extension programs in metropolitan areas (e.g., UCLA) to degree programs serving farm families in the Midwest (e.g., St. Mary’s-of-the-Woods College in Indiana).

Technology transforms traditional notions of distance education into various formats for distributed learning. Definitional boundaries shift, as do the locales and demographic characteristics of the learners. The population involved in distance and distributed learning now ranges from residential students taking extra classes online to adults who do “class work” from homes, hotel rooms, and corporate offices.

Additionally, the potential market for distributed learning is expanding. Some colleges, for example, may wish to purchase distributed learning courses developed by other institutions or commercial providers to supplement current offerings. These institutional arrangements may solve the problem of the “last German professor” at a liberal arts college or may provide a new course on electronic commerce for the undergraduate business students attending a small, rural state university.

But the real tension in distance and distributed learning is not about institutional arrangements to share curriculum. Rather, it involves the larger market for distance and distributed learning among the rising tide of adults as lifelong learners who want courses, certificates, and degrees—as well as convenience—as part of their educational experience. Moreover, the tension is fostered by an assumption of potentially easy money on the part of some state and campus officials and by entrepreneurs in a seemingly exploding number of for-profit firms entering the distance/distributed/online learning market. Indeed, there is a growing eureka! feeling on campuses and among many Internet start-ups that the distance and distributed learning market will be easy and very profitable. The specter of potential profits excites some and concerns others (Green 1997). Admittedly, the demise of many dot-coms over the last year, including those in the education sector, has tempered some of these expectations. But the continuing growth (and success) of the University of Phoenix, the potential for overseas markets, and the prospects for corporate clientele continue to foster great aspirations among education entrepreneurs, both on campus and in the corporate sector.

The infusion of information technology into distance learning, however, creates a dilemma for many academic programs and institutions. The instructional mission of higher education historically centers on content, context, and certification (Green 1999). Understandably, many in the campus community are concerned that convenience supplants context in the expanding world of distance and distributed learning.

Consider, too, the widely cited New Yorker cartoon: “On the Internet no one knows you are a beagle.” If so, then how does one differentiate the context of an Internet educational experience from Harvard, Chicago, Michigan, Berkeley, or the University of Phoenix? Absent logos and color schemes (part of what the technology community calls the “user interface”), where is the context of a college education delivered over the Web? What happens when state systems build instructional cartels for distance learning, assigning different individual campuses in the state responsibility for developing the online offering in astronomy, psychology, and economics?

Concerns about context are also colored by what some view as the uninformed assumptions of many public officials that online education will add sufficient and inexpensive capacity to serve the growing demand for higher education. Stated simply, additional capacity on
campuses or in cyberspace will not come easily and will not be cheap (Green 1997).

**Connecting the Dots**

What lies ahead for the many sectors of higher education? What consequences will the Internet and other technologies have for institutional missions, mandates, and market opportunities across various segments of the increasingly heterogeneous American higher education enterprise? An extreme view of the future has been offered by management sage Peter Drucker:

> Universities won’t survive…higher education is in deep crisis. Already we are beginning to deliver more lectures off-campus via satellite or two-way video at a fraction of the cost [of traditional courses]. The college campus won’t survive as a residential institution. Today’s [college] buildings are hopelessly unsuited and totally unneeded. (Drucker 1997)

Of course, conversations about the “current crisis” in higher education will always elicit strong response. Whether the current crisis, as cited by Drucker, is deeper than others (past, present, or perceived) is open to debate. We can also debate what role, if any, technology plays in this actual or perceived crisis.

Research universities and residential colleges will not vanish in the next two, three, or even four decades. With all due respect to Drucker, the simple proof, of course, is to ask where he would like his great-grandchildren to attend college when they spend their trust fund money. The best guess is that he would likely cite the kinds of institutions where he has held faculty appointments—such as Bennington, New York University, and the Claremont Colleges, as opposed to Western Governors University, UNext, or Jones.

For all practical purposes, the market segmentation in American higher education today was institutionalized as public policy by the 1960 California Master Plan: three types of colleges—research universities, state colleges, and community colleges—each with a distinct mission and clientele. While there has been some mission drift in California and elsewhere over the past four decades, the 1960 definitions continue to define market segmentation (as well as student options and opportunities) in higher education.

That model, while still dominant, does not fully address the needs of all the potential learners in our nation today. In stark contrast to 1960, five of every 11 students in U.S. colleges and universities today are over age 25; traditional (full-time, 18- to 22-year-old) students represent barely one-fourth of total headcount enrollment. A growing portion of today’s clientele for higher education—over 25, employed, and often already possessing one college degree—expect content, convenience, and certification, all at reasonable cost.

In this changing context, both nature and markets abhor a vacuum. Does the Internet help both traditional providers and new entrants fill the vacuum in higher education today? Perhaps; indeed, probably. The new entrepreneurial mentality among some institutional leaders as well as the unprecedented (if recently tempered) aggressiveness of dot-com providers makes the education market increasingly interesting.

Cisco Systems Chairman John Chambers describes education as “the killer app” of the Internet. Time will tell, as we have taken but the first steps of the journey that involves the evolving role of the Internet in education. In the end, however, it may be that the Internet-enhanced offerings of traditional institutions and new entrants simply serve to connect the “dots” that mark the vacuum in the offerings of the three major sectors that define American higher education today.
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