

## SECTION B:

**Key Trends**

**O**NE OF THE FOREMOST DEVELOPMENTS IN American higher education over the past 25 years has been the increased use of educational technologies at both public and private institutions. Over the same period, however, state funding for public higher education declined sharply, while private colleges and universities faced increased competition and rising costs. Thus, economic uncertainty and budgetary pressure provide both the context of and the catalyst for the virtual revolution of the late 1990s, where college administrators embraced technology as a way to control costs and broaden access. Other key actors in this process include corporate leaders and outside investors, who poured money into this growing and increasingly lucrative market and gained much greater influence over higher education in the process.

**The Cost Conundrum**

Over the past 25 years, higher education leaders faced steadily escalating costs. At private colleges and universities, administrators responded by raising tuition; from 1978 to 2002, tuition and fees at private four-year colleges and universities increased by 135 percent, in constant dollars (College Board, 8). At the nation's public colleges and universities, administrators faced the combined effects of rising costs and declining state funding. Since 1980, the share of state funds devoted to higher education dropped from 44 percent to 32 percent (Selingo, 1). These developments posed a unique dilemma for public college administrators. On one hand, state legislators and governors wanted greater performance out of higher education, meaning expanded access

and higher quality while maintaining affordability. On the other hand, they devoted a decreasing share of state resources to pay for it. In fiscal year 2003, "states appropriated \$7.35 per \$1,000 of state personal income from their tax funds"; this percentage "was the weakest state investment effort since 1967" (Mortenson, 1). Expressed another way, in 1980, the share of state revenues appropriated to higher education was 9.8 percent. By 2000, this figure had fallen to 6.9 percent (Selingo, 9). By the early 1990s, it was no wonder, given the decline in state support, rising costs and a national recession, that college and university administrators were aggressively seeking new revenue sources and cost saving on campuses.

**Administrative vs. Faculty Imperatives in Distance Education**

Faced with recurring financial pressures, college and university administrators embraced a new version of an old idea – distance education (DE) – as a means of reducing costs, gaining an edge over competing institutions and increasing access to new student populations. The history of DE, or off-site education, traces its roots to correspondence schools and includes audio and video courses. The newest manifestation of DE, developed by technology-minded faculty members who consider computers and the Internet as important innovations, is asynchronous, computer-mediated "distance" courses. For faculty members, the primary goals are to gain access to new student populations and to adapt pedagogy to meet the needs of increasingly technologically sophisticated students. Beginning in the 1980s, these early faculty innovators began to integrate a wide variety of instructional technologies into on-site courses and programs: computer simula-

tions, chat rooms, virtual bulletin boards, electronic papers and email. With the advent of a nationwide computer network known as the Internet, faculty members began to develop asynchronous, computer-mediated courses and programs, meaning students could “attend” classes anytime, anywhere they could access the Internet, thus freeing them from the traditional college campus and course schedule.

By the mid-1990s, corporate and university leaders began to envision a new and expanded role for computer-mediated DE, one that would increase student access (primarily among older, nontraditional students) and greatly reduce fixed costs (primarily labor costs) on most campuses. Some went so far as to predict that the new information technologies would actually destroy the brick-and-mortar campus. The lynchpin of this transformation or “new paradigm” for higher education was the virtual – or totally online – university. At the Virtual U., self-interested faculty would no longer deliver outdated lectures to passive students. Instead, Web-based “instructional management systems” would deliver course content directly to students, and the role of faculty would shift from teacher to facilitator. In the words of one widely circulated aphorism, distance learning would transform the primary role of faculty from “sage on the stage” to “guide on the side.”

A Coopers and Lybrand Learning Partnership Roundtable report outlined one version of the virtual university. In 1997, analysts from Coopers and Lybrand assembled 35 representatives from public and private universities and higher education associations, corporate leaders and federal policy makers to discuss the effects of the Internet on higher education. In what was presented as “a message to today’s higher education leaders,” the reports’ authors explained:

New learning technologies can transform the way knowledge is packaged, delivered, accessed, acquired and measured, altering higher education’s core production and delivery processes. Students will demand flexible, targeted, accessible learning methods, potentially altering higher education’s traditional role .... Relying

on technology rather than bricks and mortar, nontraditional competitors will give colleges and universities a run for their money.... (Transformation, 1)

The Coopers and Lybrand report offered the transformation of the healthcare industry in the 1990s as a fitting analogy for the changes required in higher education. “Examining the role of physicians in the past and present,” the reports’ authors explained, “may portend a changing role for faculty.” What was needed in higher education, in other words, was something like an EMO – an educational maintenance organization – that would reduce costs and limit the power of individual faculty members. As they explained:

Faculty members could answer to HMO-like entities. Corporations could buy education on behalf of their employees and their families from knowledge companies that operate very much like HMOs. The HMOs would contract with content providers (in this case faculty members) and distribute the education they provide. (Transformation, 3-4)

The National Learning Infrastructure Initiative (NLII)\* constituted a more complete vision of the virtual university. In 1994, a coalition of technology corporations, private colleges and universities, public university systems and higher education organizations known as Educom (now Educause) created the NLII. Briefly, the NLII’s architects sought to increase student access through the Internet. DE courses, the argument went, would reduce the need for faculty interaction, providing students with greater independence while facilitating their ability to work on collaborative projects with peers. Instead of semesters, students would study at their own pace without regard to academic calendars, fixed class meetings or a traditional curriculum. Instead of lectures, students would pursue their studies via new instructional courseware. This software would break down complex subjects into individual components or modules, better suited to students’ individual preferences.

According to Carol Twigg, former vice president of Educause, the NLII’s “student-centered curricula” envisioned a vastly different role for higher



For a full understanding of the NLII, visit: [www.educause.edu/nlii](http://www.educause.edu/nlii).

education faculty. Rather than teaching on a fixed schedule, faculty members would facilitate computer-mediated interactions with students. Instead of creating their own courses, the faculty's responsibilities would be "unbundled" or "disaggregated"\* into a series of discrete steps, each performed by individual specialists. In their 1996 report, "The Virtual University," Twigg and co-author Diana Oblinger observe:

[At the virtual university], the many roles previously combined in a single faculty member are now disaggregated. Faculty may specialize as developers of courses and courseware wherein they move from being content experts to being a combination of content expert, learning-process design expert, and process-implementation manager; as presenters of that material; as expert assessors of learning and competencies; as advisors; or as specialists in other evolving roles. (18)

Another important advantage of the new faculty role would be greatly reduced labor costs. As Massy and Zemsky, early DE advocates, explain:

Workstations don't get tenure, and delegations are less likely to wait on the provost when particular equipment items are "laid off." The "retraining" of IT equipment (for example, reprogramming), while not inexpensive, is easier and more predictable than training a tenured professor. (7)

For American higher education, the implications of the NLII and other blueprints for the virtual university were far-reaching. The nearly exclusive reliance on part-time faculty, accelerating a trend already well under way at most brick-and-mortar institutions, along with the use of "disaggregated" faculty, meant greater managerial control over teaching and the curriculum. A greater reliance on sophisticated software and increasingly complex technology presupposed a much more influential role for corporations on college and university campuses. And the shifting focus from traditional courses to shorter and interchangeable course "modules" and building blocks blurred the distinction between higher education and corporate training.\*

As college and university administrators pressed the case for DE as a way to reduce costs, encour-

aged by corporate representatives eager to gain a larger slice of the lucrative higher education market, the number of DE courses and programs and the use of course management software expanded rapidly. As Gordon Winston, director of the Williams College Project on the Economics of Higher Education, argues, colleges and universities are engaged in a "positional arms race," one that surely will increase in magnitude as they increase investment in DE facilities and courses. (19-22) Data provided by the U.S. Department of Education show that "the percentage of 2- and 4-year degree-granting institutions offering DE courses rose from 33 to 44 percent between 1995 and 1997, and the number of such courses nearly doubled." By the 1999-2000 academic year, almost 8 percent of all undergraduates participated in DE classes, 9 percent at public two-year colleges. For graduate and first-professional students, the total of DE participation reached 10 percent by 1999-2000, with higher participation rates at public institutions. Among master's students at public institutions, the figure was 13.9 percent; at private institutions the figure was 9.5 percent. DE participation rates were lower for Ph.D. and Ed.D. students: 5.9 percent. (Sikora and Carroll, 8, 14-16) In 2001, Dun and Bradstreet estimated that American colleges would allocate "a record \$3.3 billion for administrative and academic hardware and software," an increase of 13 percent from the previous year. (Olsen, 2001, 1)

As foot soldiers in the virtual revolution, higher education faculty had mixed reactions to DE. Many faculty members embraced the use of technology while simultaneously raising questions regarding quality issues and intellectual property rights. Other important faculty concerns included being required to participate in DE, the availability of faculty training and technical support, and the revision of promotion and tenure guidelines to include new pedagogical issues. Following the rapid expansion of DE, faculty unions and other organizations quickly joined these debates. Taking the lead was the American Federation of Teachers (AFT), which issued a series of research reports designed to offer faculty members the tools they needed to reassert educa-



**Disaggregation:** the process whereby course design, teaching, advising and assessment are divided among multiple faculty members.



A complete description of these developments is available in AFT's publication *The Virtual Revolution: Trends in the Expansion of Distance Education*.

tional quality and high standards within the headlong rush to expand DE. In 1996, the AFT published *Teaming Up with Technology*, which advocated that faculty unions take a more active role in DE implementation. In 2000, the AFT released *Distance Education: Guidelines for Good Practice*, which drew upon a nationwide survey of DE practitioners to promulgate 14 standards designed to foster high quality in DE courses and programs. Next came *A Virtual Revolution: Trends in the Expansion of DE*, published by the AFT in 2001, which took a critical look at the role of corporate and for-profit providers in the rapid growth of DE. In 2002, AFT published *Intellectual Property Issues for Higher Education Unions: A Primer*, written by AFT counsel David Strom.

Other faculty unions and organizations also vigorously joined the DE debate. In 1995, the National Education Association (NEA) released *Information Technology: A Road to the Future*, which was updated in 2001, designed as a guide for higher education faculty and staff. The NEA issued *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education*, which was prepared by the Institute for Higher Education Policy, in 2000. The American Association of University Professors (AAUP) put forth its *Statement on Distance Learning* in 1999. AAUP's statement was designed to address new technology uses in education and assess the responsibility of boards, administrators and academics in establishing guidelines for distance learning technology. In 2000, AAUP released a second report entitled *Distance Learning and Intellectual Property Rights*. Other notable examples of the many reports issued during this period include a series of reports issued by the Council for Higher Education Accreditation (CHEA) beginning in 1999 entitled *Quality Assurance and Distance Learning*; *Teaching at an Internet Distance: The Pedagogy of Online Teaching and Learning*, released by the University of Illinois Faculty Seminar in 1999; the *American Council on Education's Developing a Distance Learning Policy for 21st Century Learning*, released in 2000; and *Institutional Approaches to Distance Learning: Affirmation of Principles*, published by Stanford's Academic Council Committee on Research in 2001.\*

## The Different Faces of the Virtual Revolution

By the late 1990s, most American colleges and universities were involved in varying degrees with some form of online DE. With the convergence of corporate and university investment, higher education leaders created entirely new institutions or made changes to both traditional and corporate universities. Among the new forms of higher education institutions created during this period were totally online virtual colleges and universities, corporate-university joint efforts to provide course management software and related hardware, and corporate-university joint ventures devoted to computer-mediated online DE.

**Traditional Colleges and Universities**—Over the past decade, as we have seen, traditional colleges and universities nationwide experienced steady growth, first, in the use of technology in existing courses and, second, in the creation of online DE courses and programs. With the expansion of online DE, most states responded by creating some form of centralized consortia to coordinate and list courses available from different campuses, from community colleges to large public universities. Of the many state consortia, only the Tennessee Board of Regents Online Degree Program and UMass Online offer separate degrees based solely on DE courses. (Twigg and Heterick, 4) The other notable recent development at existing institutions was the creation of a number of well-publicized for-profit spin-offs. Faced with a lack of student demand and the growing recognition that DE was much more expensive than originally estimated, administrators shut down many of these institutions in recent months.\* This list of casualties includes Virtual Temple, e-Cornell, NYU Online, the SUNY Buffalo Online MBA, and University of Maryland University College, the nation's only public for-profit DE spin-off.

**Corporate Universities**—With a history that dates to the early 20th century, the primary mission of corporate universities has been to provide corporate training. With the advent of online DE, corporate universities expanded the number of asynchronous training programs delivered via



DE publications online at: [www.nea.org](http://www.nea.org)  
[www.aaup.org](http://www.aaup.org)  
[www.chea.org](http://www.chea.org)  
[www.acenet.edu](http://www.acenet.edu)



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the Internet, and their leaders ventured onto terrain traditionally relegated to not-for-profit colleges and universities. The great advantage of DE for corporate trainers was that it reduced travel and lodging costs, the primary expenses of training programs. More recently, employee dissatisfaction with asynchronous training classes have led corporate leaders to embrace blended learning\*, which combines classroom teaching and online components in the same training (see the section on Pedagogical Issues below).

**Virtual Universities**—Virtual universities are entirely online, lacking brick-and-mortar campuses. While they currently claim only a small percentage of the total DE enrollment, virtual universities have introduced some of the most far-reaching changes in American higher education. In response, they have also generated some of the greatest controversies, primarily because of their faculty and curricular models, many of which are similar to the NLII. The undoubted leader in this category is the University of Phoenix, best known for its rapidly growing—and profitable—division known as Phoenix Online. Similar to Phoenix Online is Jones International University, which was accredited by the North Central Association of Colleges and Schools' Higher Learning Commission in 1999, making it the first fully accredited entirely virtual university in the United States. (Mendels, 1) Other notable examples of virtual universities include Western Governors University, a privately owned university that offers degrees based upon competency-based education, and Capella University, a private virtual university with faculty and curricular policies more in line with existing brick-and-mortar institutions.

**Corporate-University Joint Ventures**—This sector includes many of the most highly publicized new DE institutions, many of which have also been shut down. Many well-known private universities created for-profit corporate-university joint ventures in late 1990s, only to scale them back or shut them down completely because of investor dissatisfaction and a lack of student demand. Perhaps the most notable example of failure among the corporate-university joint ven-

tures is Fathom, sponsored by Columbia University, which was shut down in March 2003 following months of low demand. By contrast, a number of the corporations that develop and market course management software or DE platforms, often in conjunction with major universities, have profited handsomely—and have expanded almost exponentially—because of the rapid growth of DE. The best known of these course management system vendors is undoubtedly Blackboard, which had revenues of \$69.2 million in 2002, an increase of 49 percent over the previous year. (USAToday.com, 1)

### The Current State of Distance Education

As we survey the terrain today, it is clear that the overheated rhetoric of the early days of DE is long gone. In its place is a new set of concerns that focus on broadly integrating DE into the higher education curriculum. Rather than cost savings, for example, campus leaders today are more concerned with determining the actual costs of DE courses, programs and support services, especially given the disruptions that entail from redesigning entire courses and programs because of DE. American higher education has indeed been transformed by the expansion of DE, although some analysts question whether a “virtual revolution” has really occurred. As Kenneth C. Green, founding director of the Campus Computing Project, argues:

There was no computer revolution in higher education or in education in the mid-1980s; rather, over the past two decades, technology has slowly migrated into instructional activities, scholarship, and institutional operations. (43) \*

Investment in DE has also slowed from the frenetic pace of the late 1990s (see Olsen, 2003). In fact, in some quarters we find a sense of pessimism regarding DE investment, especially with “e-learning” outside of higher education. As Jason Pontin explains in Red Herring magazine:

...of the \$2.7 billion invested in e-learning in 2000, an inordinate sum is gone. Most of the e-learning companies founded in the last three years have failed. In particular, the attempt to use the Internet to reform American



**Blended learning:** courses taught partially on site and partially at a distance (now typically employing the Internet).



“There was no computer revolution in higher education . . . rather, over the past two decades, technology has slowly migrated into instructional activities, scholarship and institutional operations.”

education from kindergarten through the 12th grade has been ruinously expensive and fruitless. (1)

In higher education, however, the consensus is that DE is here to stay. In the next section of this report, we will examine how higher education has been transformed by DE and what this portends for the future by examining four trends: access, cost, quality and pedagogical issues.

#### **Access: Who is Actually Taking DE Courses?**

The promise of greatly increased access to new student populations expressed in the early DE literature has not materialized. In fact, the vast majority of students taking online DE classes are actually enrolled in traditional brick-and-mortar campuses. \* (Heterick and Twigg, 4) In other words, the vast majority of students taking DE courses—courses designed to be accessed off site—actually either live on campus or commute to a campus for some of their coursework. Some institutions specializing in online DE, like the University of Phoenix or eArmy University, have achieved remarkable enrollment growth in online programs, but these gains tend to be concentrated in niche markets. (Carnevale and Olson, 1-3) The kind of student targeted by Phoenix and by a number of institutions offering online MBAs are older, returning students who work full time and come from more stable economic and domestic situations. Phoenix Online's 60,000 students can afford online DE programs that are both more flexible and costly because they are a means to better jobs and a higher standard of living. Phoenix, in fact, requires that its students be employed full time in order to register for its online courses. In the case of eArmy, its enrollment, which currently stands at 30,000, is limited to active duty U.S. Army personnel or those on active duty in the National Guard or reserves (for enrollment figures, see Mayadas, 7).

For others—including minority students, those of limited means, students who live in rural areas and the disabled—the problems of the digital divide still stand as a barrier to DE access. According to a recent report by the Corporation for Public Broadcasting, the percentage of children from low-income families who have computers at home and have Internet access has

improved in recent years. Certain ethnic and income groups remain far enough behind, however, particularly in the case of Internet access from home, that Lee Francis, vice president of the Educational Testing Service, calls this persisting problem "a cause for concern." (Sullivan, 1) Francis's assessment of the digital divide is confirmed in data from the U.S. Commerce Department data for 2001. According to these figures, 79.8 percent of households with a bachelor's degree or more had computers and 75.2 percent had Internet access, while in households with education levels equating less than a high school graduate, only 44.2 had computer access and only 33.9 had access to the Internet. (Households, 1)

One of the largest remaining gaps involves broadband access. A February 2003 report from UCLA, called *Surveying the Digital Future*, notes that 70 percent of Americans used the Internet in 2002 and 60 percent of computer users had Internet access in their homes. This was a considerable increase over the 2000 data, which found that 46.9 percent of computer users had Internet access from home. But broadband access is much more limited. According to the UCLA survey, only 17 percent of American households had broadband access in 2002 (cited in Heterick and Twigg, 3). Broadband access is particularly important for DE students given the increasing complexity of software and course management systems currently used to deliver DE courses. Unlike dial-up Internet connections, broadband access can also be expected to expand more slowly because it is delivered via cable.

A profile of DE students in 2000 looks like this: approximately 1.5 million out of a total of 19 million post secondary students are enrolled in DE courses. For these students, the Internet (60 percent) is the primary method of delivery. DE students tend to be older, to attend classes part time, and to have full-time jobs. The majority of DE students are female, have higher incomes, are predominantly nonminority and married, and attend two-year public institutions. The choice of majors among students enrolled in DE programs closely corresponds to the distribution of majors among non-DE students. Among undergradu-



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ates in exclusively DE programs, the most popular majors are business (21 percent) and the humanities (13 percent). For graduate students in exclusively DE programs, the most popular majors are education (24 percent) and business (19 percent). (Ashby, 5-9)

### **Cost: Have Institutions Saved Money with Distance Education?\***

When computer-mediated asynchronous DE courses were first proposed, DE advocates argued that significant cost savings would accrue as expensive academic labor was replaced with technology. Today, few people make this argument. The consensus in the literature is that these early assumptions were premature. As Robert E. Myers, executive vice president of University of Maryland University College, explained in a 2001 Chronicle of Higher Education article entitled *Is Anyone Making Money on Distance Education?*

... I think we are finding that as people become more sophisticated and knowledgeable about the online-education space, there are fewer and fewer people out there that you have to disabuse of the myth that online is cheaper. (Carr, 1)

Similarly, Geoffrey R. Stone, former provost of the University of Chicago, listed the statement "Investing in IT will save the university money" as the first of "eight things a former provost no longer believes about IT." (62)

By 2001, the main question in the DE literature had shifted to calculating the actual costs of DE programs. Most analysts agree this calculation is quite complicated. The problem is that college and university investment in instructional technology is "generally not preceded, accompanied or followed by systematic evaluation." (Finkelstein and Scholz, 9) Why? One reason is that spending on IT/DE is decentralized. Another factor is that calculating these costs is a complex proposition. Academic managers, for example, must consider a broad range of expenses to get a complete accounting of the cost of DE courses. Brian M. Morgan, assistant professor of integrated science and technology at Marshall University, identifies six major cost areas that must be considered: technology-specific costs, support per-

sonnel costs, faculty development costs, hidden costs, the costs of course development and the costs of teaching. (23-25) Hidden costs also provide pitfalls. One hidden cost repeatedly cited in the literature is the added expense involved when faculty members are replaced by more expensive IT personnel.

Overall, are colleges and universities saving money by using technology? The answer is a qualified yes. Finkelstein and Scholz, for example, argue that technology investment has saved money in administration and business processes, library operations and faculty research. (16) When this question is applied to instructional technology and DE, the case for cost savings is much less clear. Some DE advocates still argue that cost savings are achievable, but only under certain circumstances. These are primarily large course sections at mega-universities. The argument here is that per-student costs typically decrease as individual course enrollments rise, an idea that is generally accepted by most DE analysts. At the University of Maryland, for example, an Alfred P. Sloan Foundation study that imposed tight restrictions on course development costs found that even a slight increase in enrollment had a large impact on total costs. At UMUC, an MBA class of 15 students would result in a loss of \$22,399, while the same class with an enrollment of 20 would result in a profit of \$61,838. (Carr, 3)

As Finkelstein and Scholz point out, "Leaders in the IT community have argued for several years that the most cost effective instructional use of IT may be in certain kinds of high-enrollment introductory courses." (21) Perhaps the best-known example of putting this idea into practice has been The Pew Charitable Trust Grant Program in Course Design. Headed by Carol Twigg, former vice president of Educause, "the purpose of this institutional grant program is to encourage colleges and universities to redesign their instructional approaches using technology to achieve cost savings as well as quality enhancements." (Twigg, 2003, 1) The Pew program provided grant funding to eligible public universities that were willing to replace large lecture sections in introductory courses with smaller, collaborative sections that relied on computer-mediated instruction. Among the formats used in



For a full discussion of cost issues, see Dollars, Distance and Online Education: The New Economies of College Teaching and Learning.

these courses were interactive tutorials, online learning resources, self-paced interactive materials, and greater individualized instruction. (Twigg, 1999, 16)

According to Carol Twigg, the results of the three rounds of awards and course redesign were clear. Learning outcomes in these courses were either improved or showed no significant difference, all of the projects were “more active and learner centered,” and, importantly, they saved the institutions money. She writes, “In regard to cost savings, the redesign methodology was an unqualified success.” (Twigg, 2003, 3-5) The Pew Project, however, is not without its critics. The problem with Twigg’s model, as some analysts have pointed out, is that it excludes developmental costs, the share of institutionwide support costs, administrative overhead and infrastructure. (Finkelstein and Scholz, 22) Thus its claims regarding actual cost savings are open to question.

For faculty members and faculty unions, the issue of cost savings at colleges and universities through the increased use of technology often conflicts with the quality of the education, so this issue deserves careful scrutiny.\* As we have seen in the examples cited above, the mechanics of cost savings often involves increasing class size, which cuts into the time for individual instruction, or replacing full-time faculty with part-time faculty, which deprives students of experienced mentors or advisors. As Finkelstein and Scholz explain, “. . . there is fear that [substituting technology for labor] is moving colleges and universities in a direction where faculty will have less control over their working arrangements, may lose the products of their knowledge and skills, and may be replaced by less qualified personnel.” (26)

A more recent concern is whether budget cuts, particularly at large public institutions, may limit the growth of DE for, at least, the immediate future. In the 2002 Campus Computing Project national survey, one-third of participating institutions reported a decline in academic computing budgets, and 31.9 percent agree or strongly agree that budget cuts will “severely impede efforts to enhance” DE. (Campus Computing Project, 2002) According to the National

Governors Association, “the current state budget picture” across the nation is “the worst since World War II” (cited in Mortenson, 5).

### **Quality: The Ongoing Debate over Distance Education’s Effectiveness**

Early on, advocates of DE established a Web site that claimed, based on research reports, that there was no significant difference between DE courses and traditional courses. Although the AFT and other faculty organizations raised issue with the quality and reliability of the research cited, this debate continues today.

The larger issue is one of defining educational quality in higher education. With no fixed standard, the traditional benchmarks in higher education have been seat time, contact hours and accreditation. Today, the first two benchmarks are under attack in Washington. Representatives of proprietary colleges and virtual universities have urged the Bush administration to repeal the 50 percent rule, which requires that institutions offer at least 50 percent of their courses on campus for their students to be eligible for federal financial aid. These same groups are also pushing for an end to the 12-hour rule, which requires that students devote a minimum of 12 hours per week to their studies to be eligible for federal financial aid (see Carnevale, 2002).\* Accreditation has also been a controversial issue regarding DE, given the accreditation of several new virtual universities by regional accrediting agencies.

■ The University of Phoenix’s policies regarding faculty and curriculum have sparked the greatest controversies over educational quality. Phoenix’s administrators have embraced a model where faculty duties are “unbundled” or “disaggregated” into discrete steps like those envisioned in the NLII. In addition, the Phoenix curriculum, which is oriented toward nontraditional students in business and industry, is developed by specialists who control exactly what the institution’s vast majority of part-time instructors teach and how they teach. Phoenix administrators defend their practice of employing almost exclusively part-time faculty who must follow strict curricular guidelines in the name of standardization.



See Section C for discussion of how unions have worked to maintain quality and control of faculty work through collective bargaining.



Watch AFT Higher Education’s Legislative Issues Web page for developments in this area during the upcoming reauthorization of Higher Education Act [www.aft.org/higher\\_ed](http://www.aft.org/higher_ed).



Critics, however, have questioned the quality of Phoenix's courses and have voiced concerns regarding academic freedom given these restrictions on teaching and course development (see Farrell).

■ Jones International University (JIU), a for-profit subsidiary of Jones International, a cable and media firm located in Englewood, Colo., employs an instructional model similar to that of the University of Phoenix. At the time it was accredited, for example, 96 percent (54 out of 56) of JIU faculty members were hired part time. (Blumenstyk, 1) In addition, course development and instruction at JIU is disaggregated into discrete processes. Administrators at Jones contract with faculty at outside institutions who are known as "content experts" to create JIU's courses. The JIU curriculum is geared toward working adults. Instead of traditional semesters, JIU students enroll anytime in courses that last for 16 or eight (accelerated) weeks and that require one hour of contact time per week.

On March 5, 1999, the North Central Association (NCA) of Colleges and Schools' Higher Learning Commission accredited JIU, making it the first fully accredited entirely virtual university in the United States. (Mendels, 1) NCA's decision, however, generated great controversy within higher education. In a letter to Steven Crow, executive director of NCA, James Perley, chair of the American Association of University Professor's Committee on Accrediting, raised a series of questions regarding the quality of JIU programs. The first issue Perley cited was the lack of full-time faculty members at JIU, who would shape the curriculum, uphold the quality of teaching and research, and mentor and advise JIU students. Perley also questioned whether academic freedom could be protected with prepackaged courses; the fact that Jones had only one online reference librarian; and the inability of JIU's vast majority of part-time faculty members to engage in meaningful faculty governance. According to Perley, "By all public accounts, [JIU] presents a very weak case for accreditation. Indeed it embodies most of our major worries about the denigration of quality that could follow this

apparently inexorable march toward online education." (Perley, 1)

■ Another well-publicized virtual university is Western Governors University, a privately owned university that offers degrees based upon competency-based education. Under this model, students gain credits toward their degree or certificate by demonstrating mastery, in lieu of actual coursework, in a particular field. In March 2003, Western Governors University was accredited by the Inter-Regional Accrediting Committee, which represents four regional accrediting agencies. (Carnevale, 2003, 1)

Overall, higher education students have expressed mixed views regarding the quality of instruction in DE courses. According to data compiled by the National Center for Educational Statistics, 7.6 percent of college students in 2000 enrolled in distance education classes at post-secondary institutions. According to an NCES survey, 47 percent of undergraduate students were equally satisfied with the quality of instruction in DE courses, 23 percent were more satisfied, and 30 percent were less satisfied with the quality of instruction in DE courses. Among graduate students, a lower percentage (27 percent) was less satisfied with the quality of instruction in DE courses. The degree of dissatisfaction also varies somewhat among students at different types of institutions. Although students at public two-year, public four-year, and private not-for-profit four-year institutions all expressed similar rates of dissatisfaction (28-30 percent) with the quality of instruction in DE courses, students at private for-profit institutions expressed a higher degree of dissatisfaction: 39 percent. (Sikora and Carroll, vi, 23-24)

According to some DE advocates, criticism of the quality of online courses – as they are currently practiced – is legitimate but premature. They point out that today most DE courses are simply online versions of traditional courses, which means that DE has affected higher education but has not fundamentally changed the nature of the student-teacher interaction.\* With more sophisticated technology, however, which



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learning conundrums and challenges can be answered by one letter: 'e.' But this 'e' answer remains dubious." (van Dam, 160)

The main problem with asynchronous training courses, corporate analysts point out, is that they disregard the fact that education is best accomplished face to face. It is important to note that this point was central to faculty criticism of distance learning in higher education. \* According to van Dam, "The 1,000 year-old classroom model and tradition of learning is hard to leave behind.... This model has endured for 10 centuries because humans are social creatures, and not much has changed since the oldest university (in the estimation of most people) was established in Bologna, Italy." (160) James Mathewson, writing in *ComputerUser*, makes a similar point. He writes:

To wit, there is no technological substitute for time with an instructor. Teleconferencing and other advanced collaboration tools can reduce the need for face time. But you just can't eliminate face time without degrading the learning experience. (2)

Like their counterparts among the higher education faculty, corporate trainers point to a number of irreplaceable advantages inherent in the face-to-face interactions found in the classroom. Their views stand in stark contrast to the much more pessimistic view of classroom instruction expressed by some DE advocates. As Zenger and Uehlein explain, the advantages of classroom interactions include the enthusiasm of the teacher for the material, which they claim "is contagious and encourages learning"; the fact that "people prefer to learn in a social situation"; the greater student accountability in a classroom that is missing with e-learning; and "the questions and comments of class members," which raise important issues, create comfortable space for discussion, and provide "opportunities for learners to practice and rehearse skills and to receive feedback...." (57)

Rejecting totally virtual courses and training, corporate trainers turned to BL, combining classroom instruction with a more limited use of online and other computer-mediated instruction. The main advantage of a blended approach

was that it allowed corporate trainers (as well as higher education faculty) to incorporate the advantages of face-to-face classroom interactions with positive characteristics of distance learning. These include greater accessibility for students with busy schedules, the anonymity that may allow some students to participate more in class interactions, self-paced access and learning, consistent content delivered across multiple sections, and, perhaps most important for corporate training, the cost savings associated with less travel and lodging (see van Dam; Zenger and Uehlein, 57).

In its most fully developed form, BL refers to much more than a simple mix of different teaching styles. Writing in *Training and Development* magazine, Zenger and Uehlein pose the question: "What constitutes a truly blended solution?" Their answer is that blended learning, for it to be effective, must be a well-thought-out and designed methodology. One characteristic is a "completely integrated instructional design." For higher education, the implication is that a traditional course that has been videotaped for online distribution or a course that contains a few online assignments would not qualify under this rubric. As they explain:

A blended solution doesn't occur when you just bolt on some e-learning modules to an instructor-led session. It's only when the pieces fit together logically like finely machined parts of an engine that you create a real blended solution. (58)

The second characteristic of fully developed BL is "consistent framework and nomenclature," and the third is that each different teaching method is used to its maximum advantage. (Zenger and Uehlein, 58)

This rise of BL, as we have seen, was partly based upon the fact that administrators realized that DE was more complicated and expensive than originally envisioned. A further advantage of BL for college and university administrators is that it allows them to avoid some of the quality criticisms related to virtual higher education, such as the difficulty of transferring course credits or the continued existence of virtual diploma mills in higher education.



See AFT's *Distance Education: Guidelines for Good Practice*.



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