Distance Learning

Are We Being

Realistic?

By Diana Oblinger and Jill Kidwell

A few years ago it would have been hard to imagine that distance education could be such a dominant topic. In the past year alone, the percentage of colleges and universities offering distance education courses has exploded. Conference programs, campus strategies, and faculty senate discussions often carry a theme of distance education.

Although distance education is a "hot" topic, how well do we understand it? Our definitions and expectations of distance education tend to be fuzzy. New firms, alternative organizational models, and venture capital funds are emerging with startling rapidity, further complicating matters. And the policies and protocols that once worked so well to define copyright, intellectual property, and so on no longer seem to apply in this digital environment.

Distance education represents the convergence of a host of issues for higher education. Although the questions are complicated, we are beginning to develop the conceptual frameworks that allow us

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to engage these issues. The purpose of this article is to lay the foundation that will allow institutions and individuals to discuss distance education. Components of that foundation include the following: an understanding of the higher education market; rationales for distance education; learner segments; indicators of institutional readiness; alternative models; partnerships; and assumptions.

A Networked World

Although distance education has a century-long history, we generally don't think of distance education today in terms of correspondence courses or collections of videotapes. Our notions have changed because distance education is evolving in a networked world. So as we look to shape the future of distance education, it makes sense to consider the context and defining characteristics of this networked environment:

- *The networked world has arrived faster than expected.* A few years ago we were predicting that Internet usage and the World Wide Web would expand, but the growth of both has already surpassed even the experts' expectations.
- *The networked world is beginning to dominate the traditional economy.* Although many of our traditional structures are alive and well, e-business and the convergence of digital media are dominant forces today. In fact, you can add an "e" to just about anything: e-commerce, e-procurement, e-care, e-tailing, or e-learning.
- *The networked world is increasing the power of the individual.* Individuals can leverage buying power by using sites such as Priceline.com to shop for the best deals. Customization and individualization are possible to a greater extent than ever before, thanks to the Web. Individuals can create their own music CDs by selecting tunes from the Web. Numerous activities that were difficult, if not impossible, to customize and individualize a few years ago are now easily accomplished. The individual has gained significant leverage due to the Web.
- *The networked world is fundamentally changing many of our business models.* Amazon.com is a "store" with no real estate. E*Trade, a new type of brokerage firm, has challenged industry giants such as Merrill Lynch and Salomon Smith Barney. Dell Computer uses the Web to outperform the traditional sales and distribution models of other PC makers. Increasingly, the new challenges in this networked world center on institutional models rather than on the technology. There are a growing number of examples—@Home, Amazon.com, eBay, Excite. All these companies, founded on technology, use new business models.

You don't have to be a net-generation company to be molded by these trends. Even traditional institutions are being affected.[1] In higher education, there are dozens of net-generation companies that are becoming part of the landscape—UNext.com, SmartForce, University Access, Hungry Minds, OnlineLearning.net, and many others.

Education as a Market

In the last few years we have begun to think of higher education as a market. The size of the education market—preschool, K–12, higher education, and adult learning—has been pegged at $665 billion a year. That makes the amount that America invests in lifelong learning more than the total spent on national defense.[2] Estimates for higher education alone indicate that it is a $225-billion-a-year market.[3]

The shift in perspective about higher education—from a "cottage industry" to a substantial market—has attracted the attention of firms such as Merrill Lynch, Banc One, and a host of venture capital groups. Education is being looked at as a market—one that has strong growth prospects. In fact, the price point of education (e.g., tuition and fees, which range from several hundred to many thousands of dollars) is far higher than the price points of the Internet's first big industries—books, CDs, or flowers. E-learning is viewed by many as a "killer app" of the Internet. Investors are eager to put their money into dot.com educational start-ups because they believe there will be huge payoffs.[4]

Such investors have been active in the distance education market for several years now. Since 1994, thirty-eight initial public offerings (IPOs) and thirty follow-on offerings have been completed, raising $3.4 billion in equity. eCollege.com, which recently raised $50 million in capital from its IPO, traded at $200 million of market capitalization on its first day of trading. Many venture capital firms also have invested in the educational technology sector, as Table 1 indicates.[5]

The market-research firm International Data Corporation (IDC) expects a compound annual growth rate of 33 percent over the next several years for distance education. Analysts predict that demand will increase from 5 percent of all students in higher education institutions in 1998 to 15 percent by 2002.[6] In fact, strong growth is projected in both the academic and the

TABLE 1

Companies	Financial Sponsor
Blackboard.com	Carlyle Group
WebCT	CMG@Ventures
	BancBoston Capital, Inc.
	Kestrel Venture Management
Learning Ventures	Cherry Tree
Varsity Books.com	FBR Tech Venture Partners
	Mayfield Fund
eCollege.com	Pritzker Family
OnlineLearning.net	St. Paul Ventures
Academic Systems	Kleiner Perkins
click2learn.com	Vulcan Learning Systems
University Access	Franklin Street/Fairview Capital
	Rockefeller & Co.
Pensare	GE Capital
	Battery Ventures

Source: PricewaterhouseCoopers, "Overview of e-Learning," January 26, 2000.

corporate education markets. Estimates are for the U.S. academic market to grow from $16 million in 1997 to $1.57 billion in 2002. The corporate market is estimated to grow more rapidly, from $217 million to $7.6 billion in the same period.[7]

Overall, demand for post-secondary education is predicted to grow. An increasing portion of that demand may be met through distance education because of the type of student (e.g., older students with family and work commitments), the desire for flexibility, and the lack of adequate physical facilities to meet the growth in the traditional college market of eighteen-to-twenty-four-year-old students.

Projecting the future, we can envision two alternative scenarios. One is that higher education will continue to focus on the eighteen-to-twenty-four-year-old student population and conventional modes of delivery. If the size of the overall market doubles, we could see our portion shrink in the next ten

moving to distance education, the rationales generally fall into one of four broad categories.

1. *To expand access.* Most states need to expand access to meet the education and training needs of state residents and companies as well as to provide education to underserved populations. For many students, academic program schedules have not been flexible enough for work and family responsibilities. In addition, program offerings may not have met learner needs.

2. *To alleviate capacity constraints.* Many states are expecting more college students than their facilities will accommodate in the next decade. Some are hoping to leverage the scalability of distance education to avoid their existing bricks-and-mortar capacity constraints.

3. *To capitalize on emerging market opportunities.* The quest for lifelong learning has increased the demand for higher

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years. Higher education's market share could decline relative to corporate education or dot.com start-ups. The other scenario is that higher education will alter the traditional model to capture new learner segments. In this case, higher education's portion of the overall market could increase. However, this market share will grow only if we alter who we serve, how we make education available—even how we define *education*—and if we do this better than the new providers.

Of course, many of us believe that we understand education better than anyone else and so it would be best if we were the educational provider rather than Disney, Microsoft, Ziff-Davis, or any number of other potential providers. But can we be successful in expanding—or even retaining—our share of the market? Are we changing as fast as our learners are?

Is Distance Education the Answer?

In most scenarios of the expansion of higher education into the overall education market, distance education plays a major role. In fact, many educators hope that distance education will be the solution to myriad problems. But what, exactly, do we mean by "distance education"? Does it occur at a distance? Is it synchronous or asynchronous? Is it an extension of the classroom? Is it a replacement for the classroom? Is it distributed education, location-independent learning, or time-enhanced learning?

It is not just the definitions that are vague. Few institutions clearly articulate their rationales for investing in distance education or precisely identify their market—that is, the learner segments. Sometimes, the push to develop a distance education program arises simply from the perception that "everybody else is doing it" and from the fear of being left behind.

Rationales
For those institutions that do have clearly defined reasons for

education services to a group much broader than the traditional eighteen-to-twenty-four-year-old students. Emerging segments, such as executive education or education for working adults, may be more lucrative than traditional markets.

4. *To serve as a catalyst for institutional transformation.* Higher education institutions are being challenged to rapidly adapt in a more competitive environment. Distance education can be used as a catalyst to stimulate institutional transformation.

No institution will be able to meet all four goals with a single model of distance education. Depending on the rationale chosen, organizational structure, governance, and financial model required would be different. For example, if we chose to focus on enhancing access to education for a state's citizens, we would likely choose a different technology, different courses, and different delivery systems than if we were primarily trying to capitalize on emerging market opportunities. Enhancing educational access might cause us to emphasize general education courses, whereas capitalizing on emerging market opportunities might direct us toward courses in areas of high growth in the state, such as financial services or genomic sciences.

Learner Segments
Once the rationale for distance education is defined, it is important to identify the type of learner being served—that is, to define the market, the learner segments. Distance education is described as a rapidly expanding market. Lifelong learning, educational flexibility, and growth in student populations are among the trends fueling this growth. However, the distance education "market" is not homogeneous. Learners may range from traditional students seeking additional flexibility to "recreational learners" engaged in expanding their personal knowledge.

Segment definitions depend on various factors, including

the goals of the learner, the maturity level of the learner, and the person making the purchasing decision. Different segments also signal that alternative educational approaches may be appropriate. The kind of program designed to serve traditional college students will be quite different from the type of program designed for corporate learners, for instance. The following are examples of learner segments.

- *Life-fulfillment learners* are interested in education for its own sake. They enjoy learning and the academic environment and view additional education as a hobby or as a source of personal development.
- *Corporate learners* work for corporations and are seeking education to advance their careers. The purchase decision is made by the corporation and not by the individual acting

nologies has enabled institutions to think quite differently about distance education. However, distance education is actually an educational—not a technology—issue.

There are a host of questions that institutions can ask themselves to decide whether they are ready to move into distance education. Institutions should evaluate their "readiness quotient" for both intellectual and technical infrastructures.

To decide whether your institution has an adequate intellectual infrastructure to pursue distributed learning, ask the following questions:

- Does the campus have a policy defining the "ownership" of the intellectual property that would be associated with these new offerings, and is this policy accepted and well understood?

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alone. Corporate learners demand a broad range of services, from information technology end-user training to advanced scientific training.

- *Professional-enhancement learners* are seeking to advance their careers or shift careers. They work for companies but are making the purchase decision themselves.
- *Degree-completion adult learners* are working to complete a degree at an older age. They are frequently working adults and must often balance work and family needs with their educational goals.
- *"College experience" learners* (i.e., "traditional students") are preparing for life. This segment includes many of the eighteen-to-twenty-four-year-old residential college students for whom the "coming of age" process is as important as academic learning.
- *Pre-college (K-12) learners* are interested in taking baccalaureate-level work before completing high school. This segment may be interested in getting a jump start on college.
- *Remediation and test-prep learners* are focused on learning to complete prerequisites for an examination or for enrollment in another program.

Readiness Quotient

Higher education appears to be on the verge of getting caught up in a "herd effect," with institutions all moving in the direction of developing online courses. They are making verbal commitments to this new set of educational opportunities before seriously considering the consequences. Would offering distance education courses reduce or eliminate on-campus offerings? Should all institutions offer distance education courses or programs? If not, are certain types of institutions best suited to compete in this new marketplace?

Complicating the issues of institutional goals and learner segments even further is the tendency to see distance education as a technology issue. Certainly the advent of new tech-

- Does the campus have a noncompetition and/or conflict-of-interest policy that clearly defines authors' roles?
- Is there a campus policy on appropriate use of the Internet and the Web?
- How available are online library resources, and how can they be made legally available to nonresident students?
- Does the campus have a scalable method of determining equivalency of credit?
- Does the campus have a method of assessment and means of determining the quality of its courses?
- How has the campus defined faculty workload, and can this be easily integrated with an online effort?[8]

To determine whether your institution has an adequate technical infrastructure to pursue distributed learning, ask the following questions:

- Does the campus have a high-speed network to support this initiative?
- Is there a support structure that can assist users on a seven-days-a-week, twenty-four-hours-a-day basis?
- Does this support structure include help desk, user support, instructional design, and faculty training?
- Does the campus have a capital-replacement plan to refresh hardware and software on a reasonable schedule?
- Does this plan include servers and the network itself in order to provide quality services?[9]

Alternative Models

Higher education provides a variety of services. These activities constitute a value chain—the end-to-end services that make up a college education. One way to conceptualize this value chain is to think of the activities as falling into several categories:

- Curriculum development
- Content development
- Learner acquisition and support

- Learning delivery
- Assessment and advising
- Articulation
- Credentialing[10]

Historically, higher education institutions have provided this entire value chain for students. Today, a number of new entrants to the educational field are also providing some of these services. A categorization of some of those new entrants is shown in Table 2.

Describing a value chain allows us to consider which services we might offer, which might be provided by alternative educational providers, or even which services students actually want.
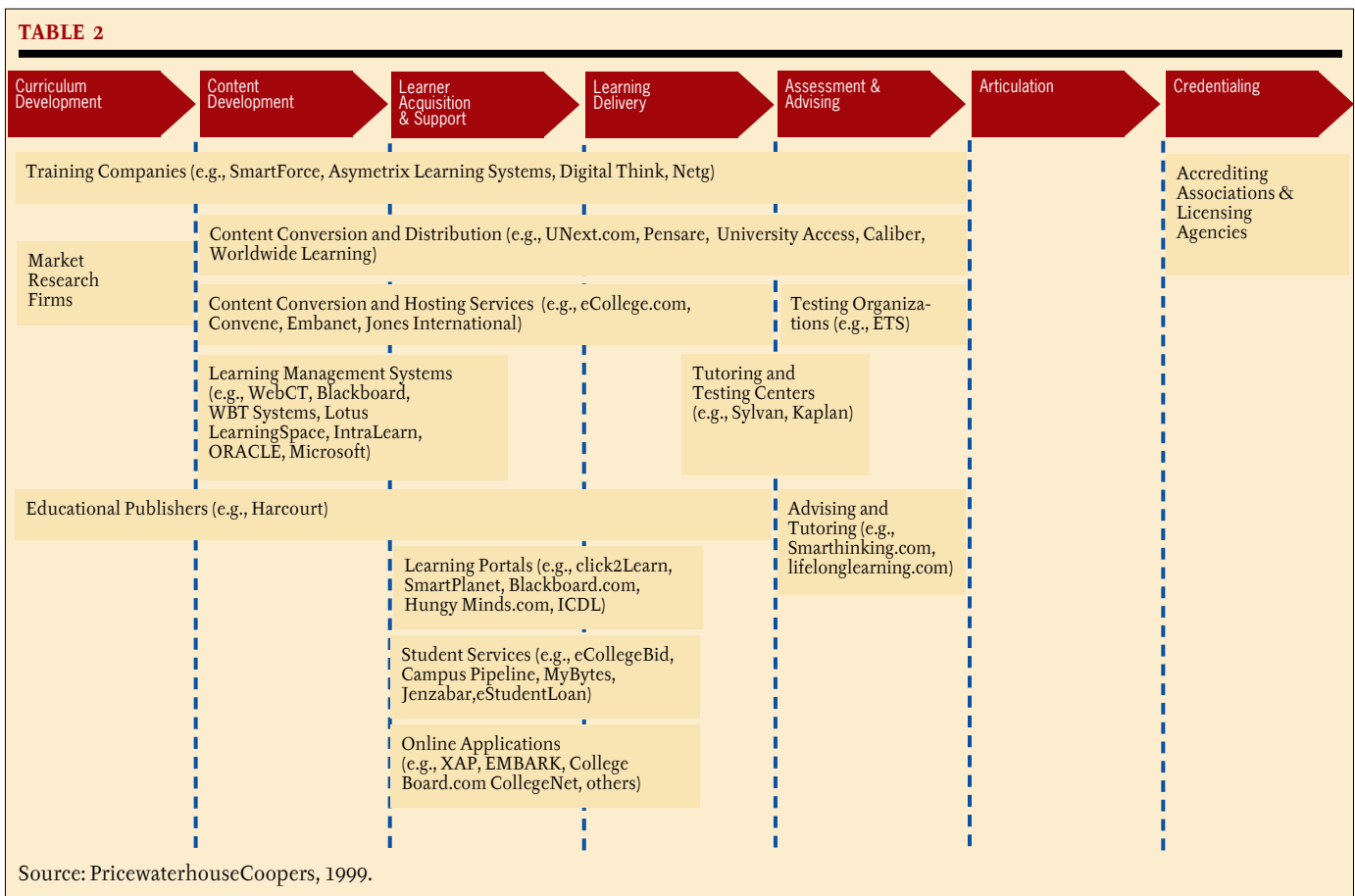
Consider the following hypothetical, alternative distance education models. Each illustrates a rethinking of our traditional models.

ization to become self-sustaining and operate as a full-cost-recovery unit. Open Internet standards and corporate partnerships would be features of this model.

The Virtual Campus

The "Virtual Campus" scenario would offer students a broad array of high-quality courses leading toward baccalaureate degrees. Much of the investment in course development would be focused on the most popular courses and programs. It has been estimated that 1 percent of college courses are responsible for 50 percent of the enrollment.[11] The Virtual Campus might offer credits that students could apply toward a degree at their home institution or another accredited institution.

Delivering services through electronic channels, the Virtual Campus would require a different organizational structure

TABLE 2

Curriculum Development	Content Development	Learner Acquisition & Support	Learning Delivery	Assessment & Advising	Articulation	Credentialing
Training Companies (e.g., SmartForce, Asymetrix Learning Systems, Digital Think, Netg)						Accrediting Associations & Licensing Agencies
Market Research Firms	Content Conversion and Distribution (e.g., UNext.com, Pensare, University Access, Caliber, Worldwide Learning)					
	Content Conversion and Hosting Services (e.g., eCollege.com, Convene, Embanet, Jones International)			Testing Organizations (e.g., ETS)		
	Learning Management Systems (e.g., WebCT, Blackboard, WBT Systems, Lotus LearningSpace, IntraLearn, ORACLE, Microsoft)			Tutoring and Testing Centers (e.g., Sylvan, Kaplan)		
Educational Publishers (e.g., Harcourt)				Advising and Tutoring (e.g., Smarthinking.com, lifelonglearning.com)		
		Learning Portals (e.g., click2Learn, SmartPlanet, Blackboard.com, Hungy Minds.com, ICDL)				
		Student Services (e.g., eCollegeBid, Campus Pipeline, MyBytes, Jenzabar, eStudentLoan)				
		Online Applications (e.g., XAP, EMBARK, College Board.com CollegeNet, others)				

Source: PricewaterhouseCoopers, 1999.

The Broker

The goal of the "Broker" is to provide citizens and students with access to online educational services. The university's distance learning "entity" acts as a broker to link students and educational providers from within, as well as from outside, the institution. As a result, learning opportunities can be made available for virtually all learners.

The organization might operate as an independent non-profit corporation with a corporate-like structure. Initially, funding might be provided by the university as well as by corporate donors. Subsequently, the goal would be for the organ-

from that of the traditional university. The core faculty might be small; instructors from other institutions could be hired on a temporary basis to develop and teach courses. A vendor solution for asynchronous classroom and computer-based training programs would be used rather than developing a "home-grown" solution. A substantial amount of up-front funding would be required for start-up. The Virtual Campus might operate as an independent campus with a president/chancellor.

University.com

The "University.com" would offer high-quality online courses

to corporate learners in selected target industries. By partnering closely with companies and industry associations, the University.com could develop courses, strengthen the competitive advantage of the region, and increase the competitiveness of the university. The University.com would target high-growth industries such as financial services, biotechnology, or information technology.

The University.com would not grant degrees but would instead offer "competency-based" certificates. As students demonstrated mastery of a subject through performance on a test, they would be awarded a certificate. The organization might be a for-profit subsidiary with a corporate structure; it would not be governed by the traditional academic policies and procedures. Moderate up-front investment would be required, with the expectation of high returns.

Do It Yourself or Partner?

Alternative models such as these encourage those of us in higher education to rethink what we must do ourselves and when we might partner with others for services. Although many organizations talk about "partnerships," this is a term that is often ill-defined.

The hypothetical models described above illustrate that collaboration with other entities is often important. Moreover, the question is not just with whom the institution has a relationship but what that relationship will be. Even when the term *partnership* is used, the relationship between supplier and educational institution is rarely that. More accurate terms range from *transactional exchange* to *strategic alliance*:

- In a *transactional exchange*, a commodity-like product or service is provided. Often the affiliation is predicated on lowest cost. For example, many relationships involving bulk PC purchases are more accurately described as transactional exchanges than as partnerships.
- *Performance contract* describes a situation in which the institution contracts for a particular product or service with certain assurances of service quality. An example of such a performance contract is the outsourcing of food-service operations. An increasing number of institutions are establishing performance contracts for data-center operations as well.
- A *tailored environment* occurs when a standard product or process is tailored for an institution. Many student service systems and reengineering projects fall in this category. A product (e.g., PeopleSoft) is installed, but much of the vendor/university relationship involves tailoring the product to the institution's needs and processes.
- *Strategic alliances* are relatively uncommon. In this type of situation, both parties bring unique expertise to a relationship. Work is interconnected and results in mutual benefit. These relationships tend to be associated with the development of trust and a mutual vision of the future.[12]

Assumptions

In discussions of distance education, the assumptions we make often cause us to miss opportunities to rethink what we are doing and why. An important part of an institution's distance education strategy may be to analyze its assumptions. Some common assumptions follow:

- Most students are seeking a degree or credential.
- We understand our students' preferences for learning and service delivery.
- The relevant units of measure for distance education are student credit hour (SCH) and full-time equivalent (FTE).
- Higher education should provide all components of the educational value chain.
- High quality will drive out low quality.
- For-profit or nontraditional providers of educational services are inferior.
- Traditional institutional models will be successful in an e-learning world.
- Distance education is a viable option for all post-secondary institutions.

If we challenge our existing assumptions, we are more likely to see alternative models.

Conclusion

Information technology has presented new, essentially different options for higher education, both in how to run "the business of higher education" and in how to conduct teaching and learning. Fundamental technological change ultimately results in significant structural change, regardless of whether the affected participants choose to join or to resist the movement. The changes that universities have weathered over the centuries did not upend their basic technology. Information technology did and does.[13]

The traditional technology model of higher education is print-on-paper. The organizational structures, financial policies, pedagogy, and research methods of academic institutions reflect the characteristics of print-on-paper technology:

- Site-based information resources
- Class and lecture-based teaching techniques
- Discipline-oriented departmental structures
- Compartmentalized financial formulas and budgets based on the predictable stability of print-on-paper technology[14]

Digital technologies have vastly different properties:

- Site-independent information resources
- Merging of multiple media forms
- On-demand, easily customized, and ubiquitous information resources
- Technology-driven changes in teaching, learning, research, and service
- New financial formulas and organizational structures[15]

Part of the challenge of knowing when and/or how to participate in distance education, e-business, or other Internet phenomena is that we may lack the conceptual framework needed to decide which technological, organizational, or educational innovations to adopt and which to forgo. With distance education, many of our long-held notions are turned upside down. *e*

Notes

1. Adapted from IBM, "Global Market Trends," 1999.
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3. Department of Education, 1999.
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8. B. Hawkins and D. Oblinger, "A Conceptual Framework for Decision Making about Distributed Learning," NLII Annual Conference, New Orleans, La., January 21, 2000.
9. Ibid.
10. UNC and PricewaterhouseCoopers, "Strategic Alternatives for Distance Education at the University of North Carolina," April 14, 1999.
11. C. Twigg, "Academic Productivity: The Case for Instructional Software," EDUCOM, July 24–25, 1996.
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13. W. F. Massy, "Life on the Wired Campus: How Information Technology Will Shape Institution Futures," in D. G. Oblinger and S. C. Rush, eds., *The Learning Revolution* (Bolton, Mass.: Anker Publishing, 1997), 195–210.
14. B. L. Hawkins and P. Battin, *The Mirage of Continuity: Reconfiguring Academic Information Resources for the 21st Century* (Washington, D.C.: Council on Library and Information Resources and the Association of American Universities, 1998).
15. Ibid.