Thirty-two Trends Affecting Distance Education: An Informed Foundation for Strategic Planning

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Abstract

Recent issues in this journal and other prominent distance-learning journals have established the need for administrators to be informed and prepared with strategic plans equal to foreseeable challenges. This article provides decision makers with 32 trends that affect distance learning and thus enable them to plan accordingly. The trends are organized into categories as they pertain to students and enrollment, faculty members, academics, technology, the economy, and distance learning. All the trends were identified during an extensive review of current literature in the field

Informed Planning

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In a recent issue of Distance Learning Administration, Beaudoin (2003) stressed the importance for institutional leaders "to be informed and enlightened enough to ask fundamental questions that could well influence their institution's future viability" (p. 1). Example questions included "How many faculty will we be needed in ten years? Will the notion of classrooms survive? Is the present structure of the institution viable? Will teachers and students need to meet on campus anymore? [and] Can the organization's decision makers respond to new competitors?" Given these and other pressing questions, decision makers must clearly understand all influencing factors. Institutions need not only pose difficult questions, they must answer them from an informed perspective.

Decision makers often rely on long-term demographic and economic projections, based on current trends and foreseeable influences, in their strategic planning (Reeve, 2002). While demographic and economic predictions are essential in planning distance learning, they alone are not sufficient. Other major influences complicate the issue, such as the rapid advancement of

technology, shifts in higher education audiences and learner profiles, faculty members' reactions, adapting campus cultures, and unsettled tensions between administrators, faculty members, and distance learning leaders. These and many other factors can compound one another in ways difficult to predict. While identifying trends does not offer solutions to distance-learning challenges, decision makers will benefit by carefully considering each trend as it affects institution and goals.

Methodology

The trends presented in this article were identified during an integrative literature review, conducted to summarize the current state and future directions of distance education. Books, journal articles, reports, and web sites were selected based on their currency (most references were published within the last 3 years) and relevance to distance education, information technology, and impact on the larger, higher education community. For this review, researchers collected citations identifying and supporting unique trends in a document that grew to over 140 pages. Themes emerged as the analysis progressed regarding students and enrollment, faculty members, academics, technology, the economy, and distance learning. The citations were then ordered in sub categories and specific trends, and condensed for publication.

Student/Enrollment Trends

1. The current higher education infrastructure cannot accommodate the growing college-aged population and enrollments, making more distance education programs necessary.

Callahan (2003) noted at a recent UCEA conference that the largest high school class in U.S. history will occur in 2009. In corroboration of this projection, a survey conducted by the US Department of Education, National Center for Education Statistics predicted that college enrollment will grow 16% over the next ten years (Jones, 2003). Reeve and Perlich, in projecting similar growth rates for the state of Utah, added this insight: "Because college and university attendance are not restricted to this 'traditional' age group, this presents only a partial measurement of the projected demand for higher education" (Reeve & Perlich, 2002, p. 3). With this growth in college-age population and enrollments and the need for more lifelong learning for adults, many institutions acknowledge that within the decade there will be more students than their facilities can accommodate (Oblinger, Barone, & Hawkins, 2001). Scalable distance-education models may provide a solution to capacity constraints growing enrollments place on the current higher education infrastructure.

2. Students are shopping for courses that meet their schedules and circumstances.

More and more learners are requiring flexibility in program structure to accommodate their other responsibilities, such as full-time jobs or family needs (PSU, 1998). With these constraints, students shop for courses that best accommodate their schedules and learning styles, and then transfer the credit to the university where they will earn their degrees (Johnstone, Ewell, & Paulson, 2002; Paulson, 2002; Carnevale, 2000c). Johnstone et al. (2002) refer to this notion of acquiring and exchanging credit at different institutions than the one they receive their degree from as "academic currency" and note that it is growing—as of 1999, 77% of all students graduating with a baccalaureate degree had "attended" two or more institutions.

Students' demand is being supported and answered. In 1998, 83% of governors identified "allowing students to obtain education anytime and anyplace via technology" as a critical characteristic of universities in the twenty-first century (de Alva, 2000 pp. 34, 38). Given the

demand and response, education is becoming a commodity, making consumers of students and putting them in a position to shop for the best deal (Johnstone et al., 2002; Pond, 2003; West, 1999; Dubois, 1996).

One result of the highly competitive e-learning market will be institutions that specialize in meeting particular niches in the market (Gallagher, 2003). Morrison and Barone (2003, p. 4) observed, "We can see the beginnings of the trend toward the unbundling of courses, credits, services, and fee structures." Dunn foresaw a similar trend, predicting that "courseware producers will sell courses and award credits directly to the end user and thus, through intermediation, bypass the institutional middleman" (Dunn, 2000, p. 37). The transition may also blur the distinction between two- and four-year colleges and universities (Carr, 1999). In this context of greater "portability," more educational "brokers" (e.g., Western Governor's University, Excelsior College, Charter Oak State College, etc.) will exist (Pond, 2003). Further, as de Alva has asserted, "Institutional success for any higher education enterprise will depend more on successful marketing, solid quality-assurance and control systems, and effective use of the new media than on production and communication of knowledge" (de Alva, 2000, p. 40).

3. Higher-education learner profiles, including online, information-age, and adult learners, are changing.

Online students are becoming an entirely new subpopulation of higher-education learners. They are "generally older, have completed more college credit hours and more degree programs, and have a higher all-college GPA than their traditional counterparts" (Diaz, 2002, pp. 1-2). For example, Diaz has noted that online students received twice as many A's as traditional students and half as many D's and F's.

The modern, traditional-age college students are unlike past generations. They are "interested in [qualifications from] small modules and short programs … and in learning that can be done at home and fitted around work, family, and social obligations" (Bates, 2000, p. 5). Information-age learners prefer doing to knowing, trial-and-error to logic, and typing to handwriting. Multitasking is a way of life for them, staying connected is essential, and there is zero tolerance for delays. Further, modern literacy includes not only text but also image and screen literacy—it involves navigating information and assembling knowledge from fragments (Oblinger et al., 2001; Jones & Pritchard, 2000).

Today's adult learners differ still from traditional college-age students. They tend to be practical problem solvers. Their life experiences make them autonomous, self-directed, and goal- and relevancy-oriented—they need to know the rationale for what they are learning. They are motivated by professional advancement, external expectations, the need to better serve others, social relationships, escape or stimulation, and pure interest in the subject. Their demands include time and scheduling, money, and long-term commitment constraints. They also tend to feel insecure about their ability to succeed in distance learning, find instruction that matches their learning style, and have sufficient instructor contact, support services, and technology training (Dortch, 2003; Diaz, 2002; Dubois, 1996).

4. The percentage of adult, female, and minority learners is increasing.

Approximately "42 percent of all students at both private and public institutions are age 25 or older" (Aslanian, 2001, p. 4). Not only are they numerous, adult learners are the fastest-growing population in higher education. While the number of 18-24-year-old students increased only 41% between 1970 and 2000, the number of adult students increased 170% (Aslanian, 2001;

"Lifelong," 2002). Some factors that might influence this phenomenon include "the growth of continuing education programs, economic necessity, the rapidly changing job market, changes in the economy, and the simple aging of student populations" (Bishop, 2003, p. 374).

Like growth in adult learners, the percentage of women and minority learners is increasing. More women than men now enroll in college (57% of students are women), a trend supported by the fact that more women are entering the workforce ("Lifelong," 2002). Among minorities, the proportion of women is even higher: "60% of Hispanic and two-thirds of African-American college students are women" (Cetron, 2003, p. 10). If enrollment follows population projections, higher education can expect this trend to continue—the Hispanic population in the U.S. is expected to increase 63% by 2020, reaching 55 million people ("Lifelong," 2002).

5. Retention rates concern administrators and faculty members.

Studies comparing online course retention rates with traditional courses are inconclusive. This may be due to "the newness of online education, but individual schools and organizations are reporting that their online programs have as high or higher rates of retention as their traditional classroom offerings" (Roach, 2002, p. 23). Some claim that distance education attrition is high. A Chronicle of Higher Education article in 2000 reported that "no national statistics exist yet about how many students complete distance programs or courses, but anecdotal evidence and studies by individual institutions suggest that course-completion and program-retention rates are generally lower in distance-education courses than in their face-to-face counterparts" (Brady, 2001, p. 352).

Brigham (2003), in a benchmark survey of four-year institutions' distance education programs, found that 66% of the distance-learning institutions have an 80% or better completion rate for their distance education courses; 87% have 70% or better completion. Diaz (2002) asserted, and others (Bolam, 2003; Allred, 2003) concur, that "many online students who drop a class may do so because it is the 'right thing' to do. In other words, because of the requirements of school, work, and/or family life in general, students can benefit more from a class if they take it when they have enough time to apply themselves to the class work … they may be making a mature, well-informed decision."

Faculty Trends

6. Traditional faculty roles are shifting or "unbundling."

"Rather than incorporating the responsibility for all technology- and competency-based functions into a single concept of 'faculty member,' universities are disaggregating faculty instructional activities and [assigning] them to distinct professionals" (Paulson, 2002, p. 124). Doing this involves a "deliberate division of labor among the faculty, creating new kinds of instructional staff, or deploying nontenure-track instructional staff (such as adjunct faculty, graduate teaching assistants, or undergraduate assistants) in new ways" (Paulson, 2002, p. 126). Distance education teams include administrators, instructional designers, technologists, and instructors/facilitators (Miller, 2001; Williams, 2003). The functions of instructors and facilitators then include being a "facilitator, teacher, organizer, grader, mentor, role model, counselor, coach, supervisor, problem solver, and liaison" (Riffee, 2003, p. 1; see also Roberson, 2002; Scagnoli, 2001).
The role of faculty members in distance education requires "some specialized skills and strategies. Distance education instructors must plan ahead, be highly organized, and communicate with learners in new ways. They need to be accessible to students [and] work in teams when appropriate" (PSU, 1998, p. 4). Distance faculty members must be experts in

maintaining communication, because there is increased demand for student interaction in distance learning (NEA, 2000). Finally, they may have to assume more administrative responsibilities than is true in a residential model (PSU, 1998).

7. The need for faculty development, support, and training is growing.

Faculty members tend initially to try to use their conventional classroom methods to teach at a distance and then become frustrated when attempts are unsuccessful (Dasher-Alston & Patton, p. 14). In Green's (2002) survey of the role of computing and information technology in U.S. higher education, chief academic and information technology officials rated "helping faculty integrate technology into their instruction" the single most important IT issue confronting their campuses over the next two or three years (p. 7). An EDUCAUSE survey supported the issue's importance: "faculty development, support, and training" were rated the fifth overall strategic concern, as well as the fifth IT issue most likely to become even more significant in the next year. However, despite IT leaders' rising concern over the issue, it is not yet among their top ten uses of time or resources (Crawford et al., 2003).

8. Faculty tenure is being challenged, allowing for more non-traditional faculty roles in distance education.

Faculty tenure status is coming under more fire as new state, private, and for-profit distance-learning universities are created. For example, Florida Gulf Coast University, a new distance-learning state university, and BYU-Idaho, a private four-year university, will not have tenured faculty members. The results of de Alva's 2000 survey support this trend: governors rated "maintaining traditional faculty roles and tenure" as the least desirable characteristic of a twenty-first century university (p. 34). Since distance educators and administrators must secure instructors and course content experts, access to on-campus professors and their arrangements with the university become significant factors affecting distance education. Contributions to distance education rarely move faculty members toward tenure; therefore, dissolving tenure might make them more likely to participate in distance education efforts.

9. Some faculty members are resisting technological course delivery.

As long as distance education contributions are not considered in tenure and promotion decisions, and as long as professors have their own, traditional ways of delivering their courses, many faculty members will be reluctant to participate in online courses (Oravec, 2003). Concerning this reluctance, Dunn has predicted that many faculty members will revolt against technological course delivery and the emerging expectations their institutions will have of faculty members. Dunn forecast that some of the resistance will even be manifest through unionization and strikes (Dunn, 2000). Some have suggested the labor-intensive and time-consuming demands required to develop online modules as reasons for faculty resistance (Brogden, 2002).

10. Faculty members who participate in distance education courses develop better attitudes toward distance education and technology.

Despite some resistance, the results of a four-year study by McGraw-Hill showed a strong increase in overall faculty support for technology in education, with only 22% viewing it as important in 1999 and 57% in 2003. Instructors feel that Web-based technology is helping them achieve their teaching objectives (McGraw-Hill Ryerson, 2003).

A 2002 study similarly showed that "most teachers (85%) were not philosophically opposed to distance education" (Lindner, 2002, p. 5). Further, teaching at a distance improves perceptions of

distance education factors: "Faculty members who had not taught distance education courses perceived the level of support as lower than those who had" (Lindner, 2002, p. 5). Carr (2000) found similar results: 72% of those who had taught distance-learning courses were favorable, compared with 51% who had not taught at a distance.

11. Instructors of distance courses can feel isolated.

Despite growing support among faculty members for distance learning, there are acknowledged drawbacks. "Design teams and instructors must anticipate isolation that can be felt by instructors who are separated from their students. This isolation may affect instructor satisfaction, motivation, and potential long-term involvement in distance learning" (Childers & Berner, 2000, p. 64). Childers and Berner (2000) anticipated the potential for feeling isolated and suggested that "feelings of isolation may be offset by the instructor's ability to work with peers in other institutions or with students across the globe" (p. 64).

12. Faculty members demand reduced workload and increased compensation for distance courses.

An NEA survey reported that faculty members' top concern about distance education was that they will do more work for the same amount of pay, apparently a merited concern. The NEA (2000) found that most faculty members do spend more time on their distance courses than they do on traditional courses, and 84% of them do not get a reduced workload. Similarly, 63% of distance faculty members receive no extra compensation for their distance courses.

A UCEA survey of four-year institutions found that 64% of faculty members were compensated for distance courses with normal, on-campus salary; 74% were additionally given development stipends. However, 82% of respondents added a qualifier about how compensation for distance learning depended on the type of course, the rank of the faculty member, and other factors (Hickman, 2003).

Academic Trends

13. Knowledge and information are growing exponentially.

One cannot dispute that there is proliferation of new information: "In the past, information doubled every 10 years; now it doubles every four years" (Aslanian, 2001, p. 5; see also Finkelstein, 1996). This growth in information will certainly continue to dramatically impact higher education and learning in general. Knowledge proliferation may increase content-breadth demands on higher education, spreading distance education resources ever thinner and complicating development decisions.

14. The institutional landscape of higher education is changing: traditional campuses are declining, for-profit institutions are growing, and public and private institutions are merging.

Changes in the institutional landscape may magnify competition among educational providers and allow new models and leaders to emerge. "For-profit institutions are the fastest-growing sector in education" (Gallagher, 2003; Pond, 2003). Currently, only 4 to 5% of all higher-education students are enrolled with for-profit providers, but 33% of all online students are enrolled with these same providers (Gallagher, 2003). As Bates (2000) has observed, this phenomenon could have a dramatic impact on higher education:

The private sector will concentrate on those areas where profits are most easily made, such as

business programs and information technology courses. However, it will leave those areas that cannot pay their way, such as many arts and social science programs, and possibly health science because of the high cost, to the public sector. With the loss of cross-subsidy, the higher education sector will be in even more financial trouble. (p. 6; see also Anderson, 2001). However, accompanying the growth in Internet usage (see trend 23).

Berge (2000) describes for-profits' practice as "picking the low hanging fruit" by offering the more marketable courses, e.g., business, computer science, etc., and leaving the "heavy lifting" type of courses to traditional academe.

Dunn (2000) projected changes in higher education's landscape over the next 20 years. "The number of degree-granting institutions will continue to grow, while the number of traditional campuses will decline. By 2025, half of today's existing independent colleges will be closed, merged, or significantly altered in mission" (p. 37). Another aspect changing in higher education is the blurring line between public and private universities, especially in the financial arena. Dunn also predicted that "the distinctions between and among public and private, for-profit and nonprofit institutions of higher education will largely disappear" (p. 37). White (2003) has observed this blurring already taking place.

15. There is a shift in organizational structure toward decentralization.

Much of distance education programs' success or failure can be attributed to how it is organized. Hickman (2003) observed a movement "from a highly centralized core of administrators, coordinators, [and] marketing and support staffs to a more 'institutionalized' approach in which continuing education personnel were assigned to academic units within a university" (p. 6). He noted that others with a semi-decentralized model in which continuing education personnel were assigned to academic units (decentralized), while the support and marketing infrastructure remained centralized to coordinate interdisciplinary work. Pointing to a series of UCEA managerial surveys, Donaldson (2003) affirms, "The organization of CE [continuing education] is tended to be related to issues of centralization/decentralization of both its administrative and academic functions" (p. 1). In the 2002 managerial survey, UCEA found "an increase in the academically/ administratively centralized model (28% for public and 44% for private institutions) [and] the academically decentralized/administratively centralized model (58% for public and 32% for private institutions)." But as Donaldson reminds, "There are strengths and weaknesses in all these models" (p. 1).

16. Instruction is becoming more learner-centered, non-linear, and self-directed.

Instructional approaches are becoming more learner-centered: "recursive and non-linear, engaging, self-directed, and meaningful from the learner's perspective" (McCombs, 2000, p. 1). Whereas in the past, most instructors followed a "transmission" or lecture-style approach to teaching, more instructional diversity is occurring among teachers who are trying a larger variety of approaches (Eckert, 2003). A pedagogical shift is likewise occurring within distance education, moving from a transmission model to constructivist, sociocultural and metacognitive models. These models use computer-mediated communication and emphasize students' responsibility for their own learning (Rumble, 2001; Miller, 2001).

Stated differently, "Distance education can be seen to be evolving from an essentially modernist (bureaucratic or Fordist) form of education into a post-modernist phenomenon with a focus on the student as consumer, on flexibility and global reach" (Rumble, 2001, p. 31). With this transition, there is also a shift toward increased accessibility for those who are disabled. "Many

feel that eLearning holds great promise…for learners with physical and mental challenges" (Frydenberg, 2002, p. 7).

17. There is a growing emphasis on academic accountability.

In a recent poll by the North Central Association of Colleges and Schools, university presidents, administrators, and faculty members rated increasing demands for accountability (80%) and expanding use of distance education (78%) as the highest impact trends on future NCA (i.e., regulatory) activities (de Alva, 2000). Programs such as the "State-by-State Report Card for Higher Education" manifest this growing emphasis on academic accountability (see http://measuringup.highereducation.org/2002/reporthome.htm). Noting this trend, Dunn (2000) forecast the following:

Accreditation and program approval will be based more on educational outcomes. Testing programs will be put in place by discipline organizations, federal and state governments, corporations, and testing companies. Large corporations will develop their own approval systems. By 2025, there will not be one national accreditation system, although the U.S. Department of Education will provide a basic safety net for quality. (p. 37; see also Pond, 2003) Distance educators must plan to accommodate this emphasis on accountability if they are to maintain accreditation and meet consumer demands.

18. Academic emphasis is shifting from course-completion to competency.

Related to the shift toward accountability, there is a slight shift from "theoretical" and "seat-based time" to "outcomes-based" or "employer-based" competency. In many cases, "certification is becoming more preferable than a degree" (Gallagher, 2003). Diplomas are less meaningful to employers; knowledge, performance, and skills are what count to them (Callahan, 2003). De Alva (2000) also found this trend; 66% of governors identified "integrating applied or on-the-job experience into academic programs" as a critical characteristic of universities in the 21st century (p. 34, 36, 40; see also BYU DCE Unit Review, 2001). With an emphasis on competency, course content will be dictated more "by what learners need, [than] by what has been traditionally done" (de Alva, 2000, p. 38).

19. Education is becoming more seamless between high school, college, and further studies.

As universities shift toward competency and institutions cater more closely to learners' specific needs, the distinctions between high school, undergraduate college, and graduate programs will dissolve. "Incentives will be given to students and institutions to move students through at a faster rate [and] the home school movement will lead to a home-college movement" (Dunn, 2000, p. 37). As leaders in the effort to cater to learners' needs, distance education programs may be a dominant influence in this trend.

20. Higher education outsourcing and partnerships are increasing.

Universities are traditionally independent, free-standing, and competitive (Hawkins, 2003). On the other hand, distance learning institutions have been more cooperative and accommodating with partner institutions. Interestingly, Rubin (2003) has noted that "traditional universities are becoming more like distance learning universities and not the opposite" (p. 59). With this shift, more institutions are creating partnerships with other colleges, universities, companies, and other kinds of institutions to share technology and to produce and deliver courses (Carnevale, 2000c; Dunn, 2000; Cheney, 2002). It is predicted that higher education teaming will be successful: by 2005, partnerships and outsourcing will produce "courseware applications covering the 25

college courses that enroll 50% of all credits" (Dunn, 2000, p. 37; see also McIsaac, 1998; Paulson, 2002).

However, partnerships present "obstacles as well as benefits. Winning accreditation, providing student services, setting tuition, figuring out finances, and transferring course credits are among the thorny issues that administrators find themselves struggling to face collectively" (Carnevale, 2000b, p. 2).

21. Some advocate standardizing content in learning objects.

"The central issue in courseware development at the moment is the potential for developing reusable learning objects, tagging them in a systemic way, storing them in well-designed databases, and retrieving and recombining them with other objects to create customized learning experiences for specific needs" (Frydenberg, 2002). Farhad Saba referred to this as part of the "post-industrial" culture, pointing out that traditional academe is still in the "industrial" or mass-production and standardized testing culture. According to Saba, "true" individualized learning is the future and strength in educational technology (Saba, 2003; see also Bates, 2003). Others have likewise noted the increasingly widespread standardization and reuse of content (Anderson, 2002; Gallagher, 2003).

Technology Trends

22. Technological devices are becoming more versatile and ubiquitous

One of the most apparent trends affecting distance education is the advancement of technology. Infrastructures are growing stronger as computers double in speed while decreasing in cost, and high-speed network connections continue to expand. Computer, fax, picture phone, duplication, and other modalities are merging and becoming available at ever cheaper prices (Cetron, 2003). Further, IT functionalities not imagined ten years ago are being realized. By 2018, computers will be able to "routinely translate languages in real-time with the accuracy and speed necessary for effective communications" ("Emerging," 2003, p. 8; see also Cetron, 2003). "New technology will transform higher education as we know it today" (Oblinger et al., 2001, p. 2), one example being the changes caused by broader use of e-texts and PDAs (Chick et al., 2002). By the year 2012, schools and colleges will routinely use "computerized teaching programs and interactive television lectures and seminars, as well as traditional methods" ("Emerging," 2003, p. 8). Videoconferencing and other technologies will also help enrich distance media and provide many benefits of face-to-face instruction.

23. There is a huge growth in Internet usage.

Not only is technology becoming more ubiquitous, it is being used more competently by more people from all nationalities, age groups, and socioeconomic levels (Murray, 2003). There has been a 59% increase in the number of children accessing the Internet since 2000 (Murray, 2003). As Cetron (2003) reports, the number of current Internet users is approximately 500 million worldwide and will almost double by 2005. One reason for the growth is a growing percentage of users outside the US; Americans have dropped from 42% to 37% of the total Net-using population within the last three years. However, this decrease does not reflect a decline in American users. "By 2002, 83 percent of all [American] family households reportedly owned computers," and "78 percent of children live in a home where they or their parents have access to the Internet. That represents a 70-percent growth rate from 2000" (Murray, 2003, p. 37).

24. Technological fluency is becoming a graduation requirement.

Ubiquitous technology may continue to increase the options available for distributing distance education to more people in a scalable fashion, especially if it is accompanied by technological fluency. The increase in Internet usage includes competence as well as sheer numbers: by 2005, "computer competence will approach 100% in U.S. urban areas" (Cetron, 2003, p. 6). The networked world is dominating the economy, increasing the power of the individual, and changing business models—no one can afford to be without computer competence (Oblinger, 2000). Accordingly, universities are beginning to list the fluent use of technology as an outcome skill, encourage students to take online courses, and even requiring students to take at least one online course before they graduate (e.g., Fairleigh Dickinson, BYU-Idaho) (Young, 2003).

Economic Trends

25. With the economy in recession, there are fewer resources for higher education and higher education, initiatives, such as distance education.

The Washington-based Center on Budget and Policy Priorities recently calculated the combined deficits of the nation's 50 state governments to total $85 billion within the next year, "the highest number since the Great Depression" (White, 2003, p. 54). This recession will prompt all universities to seek additional external sources of funding. To worsen the problem, university costs and enrollments are growing (UCEA, 2001; see Trend 7). Some institutions are beginning to consider distance learning as a possible solution to the dilemma (Jones, 2003), but start-up expenses for distance education programs are typically high.

26. Funding challenges are the top IT concern for many.

While distance learning is a potential solution to decreasing resources and rising demand, the issue is far from being resolved. A study from the Colorado Department of Education reported that "the cost per student of a high-quality online learning program is the same as or greater than the per-student cost of physical school [i.e., traditional] education" (Branigan, 2003, p. 1). The study also explained that most costs in education are for staffing. EDUCAUSE reported similar results: "IT Funding Challenges has become the number-one IT-related issue in terms of its strategic importance to the institution, its potential to become even more significant, and its capture of IT leaders' time" (Crawford et al., 2003, p. 12).

27. Lifelong learning is becoming a competitive necessity.

Some have estimated that people change careers, on average, every 10 years (Cetron, 2003). Labor Department officials estimate that approximately 40% of the workforce change jobs every year (De Alva, 2000). Undoubtedly, "the changing nature of the workforce in the Information Age … [will require] a continuous cycle of retraining and retooling" (Dasher-Alston & Patton, 1998, p. 12; see also Dunn, 2000; McIsaac, 1998). To add to the demands for a dynamic workforce, retirement will be delayed until late in life (Cetron, 2003; "Lifelong," 2002). In such circumstances, "the opportunity for training is becoming one of the most desirable benefits any job can offer," and employers are coming to "view employee training as a good investment" (Cetron, 2003, pp. 6, 22). Accordingly, an increasing number of employers (85% of Fortune 500 companies) are paying for their employees to go back to school to stay current with changes (Markel, 1999).

Alvin Toffler wrote, "The illiterate of the 21st century will not be those who can't read and write. They will be those who can't learn, unlearn, and relearn" (Pond, 2003). Considering these factors, some are concerned about how well higher education will be able to respond

(Dasher-Alston & Patton, 1998). Some of the changes accompanying the growing demand for lifelong learning, will demand short accelerated programs, well-suited for online delivery, and portfolio credentials (Gallagher, 2003).

Distance Learning Trends

28. More courses, degrees, and universities are becoming available through distance-education programs.

The literature is replete with evidence of the growing demand for distance education. The annual market for distance learning is currently $4.5 billion, and it is "expected to grow to $11 billion by 2005" (Kariya, 2003, p. 49; see also Pond, 2003; "Lifelong," 2002). As Oblinger and Kidwell (2000) have noted, the International Data Corporation (IDC) expects a 33% growth rate in distance education over the next several years. Some analysts predict that demand for distributed education will grow from "five percent of all higher education institutions in 1998 to 15 percent by 2002" (p. 32; see also West, 1999). Others have asserted that up one-half of traditional campus programs will soon be available (alternatively or exclusively) online (Finkelstein et al.2000; Bishop, 2003; Dunn 2000; Winsboro, 2002).

Organizations from within and outside higher education are adapting to accommodate the growth in distance learning. For example, "human resource professionals and hiring managers are becoming more accepting of online degree credentials" ("Lifelong," 2002, p. 77). Further, more and more university systems are "spinning off" new "virtual" or "online" universities—for example, Penn State's World Campus, Arizona Regents University, California Virtual Campus, and many others.

Some reasons for this remarkable growth include efforts to expand access to more students, alleviate capacity constraints, capitalize on emerging market opportunities, and serve as a catalyst for institutional transformation (Oblinger & Kidwell, 2000). Another factor influencing growth may be competition with other institutions. "Universities offering distance education are often perceived as modern and [technologically] competent, thus creating a competitive advantage" (Bishop, 2003, p. 374).

Distance students include both the traditional continuing-education students (i.e., adult learners) and growing numbers of younger, on-campus students (Anderson, 2001). One estimate is that as "many as half the students in online courses are from the traditional 18- to 25-year-old student cohort who normally take campus-based courses" (Roach, 2002, p. 24).

29. The Internet is becoming dominant among other distance-education media.

Distance education has existed in some form or another since the 1800s. However, accompanying the growth in Internet usage (see trend 23), "today's distance education focus has dramatically shifted toward network-based technologies (in general) and Internet-based delivery (more specifically)" (Kinley, 2001, p. 7). Today, the Internet is being used more than other continuing education delivery strategies, such as Interactive Television (ITV), correspondence, and live-remote location combinations (Hickman, 2003). Not only is online learning more common now, but it increases 40% annually (Gallagher, 2002). One reason for the growth is the fact that digital media are transferable, storable, and widely accessible (Pond, 2003).

The UCEA Distance Learning Community of Practice (2002) recently collected a baseline survey of distance enrollments by medium. The average enrollment in university-level independent study courses was 4,725, with 56% of course credits delivered in print, 25% online, and 19%

granted by passing waiver exams. In 2002, Brigham Young University Independent Study had 24,351 university-level enrollments. Of those, 32% were delivered online and 68% on paper—an increase in web-delivered courses since 1998, when only 15% were online (BYU IS, 2003).

30. The distinction between distance and local education is disappearing.

As universities digitally enhance more courses, the distinction between distance and local education is becoming blurred (Dunn, 2000). Digitally enhanced courses provide students in traditional classrooms with more opportunities for independent study: "Even in a conventional 'face-to-face' system, students spend much of their time working on their own. It may always have been so, but the increase in resources for individual learning and especially those through the new technologies has provided students with far more powerful tools for independent learning" (Rumble, 2001, p. 36). Clearly, distance students are not the only ones who benefit from "distance" courses. In fact, most online students live in the local vicinity of the institution offering their course (Carr, 2000).
As a result of online courses, many institutions struggle to define Internet students (Hickman, 2003). Traditional in-state, out-of-state, and international student distinctions are being eliminated, and the corresponding fee structures for the respective groups are breaking down (Carnevale, 2000a; Carnevale, 2000b). Currently, 74% of distance learning institutions do not charge out-of-state distance students out-of-state tuition, 91% do not charge international students more, and 71% do not charge more for distance courses than they do for on-campus courses (Brigham, 2003).

31. The need for effective course-management systems and Web services is growing.

With all the growth in online education, student- and course-managing systems are becoming ever more crucial. Web services is "a relatively new term used to describe new software standards that allow for integration of different applications as well as the secure exchange of data over the Internet" (Crawford et al., 2003, p. 24). Web services ranked number seven on the EDUCAUSE strategic IT concerns list, number six on the list of issues becoming more significant, and number three on list of highest resource expenditures. EDUCAUSE predicted that "at some point, vendors will… offer a standard approach to data integration, interchange and interface" (Crawford et al., 2003, p. 24). Instructional/course management systems were similarly ranked number nine on the IT issues most likely to become more significant in 2003-2004 (Crawford et al., 2003).

32. There is an increasing need for learning and teaching strategies that exploit the capabilities of technology.

Technological advancements have naturally caused distance educators to ask how "new technologies such as wireless, mobile laptop computing, personal digital assistants (PDAs), videoconferencing, videostreaming, virtual reality, and gaming environments enhance distributed learning" (Crawford et al., 2003, p. 24). For many administrators and faculty members, "how" is the question. While many studies have shown no significant difference when comparing online with traditional courses, applying traditional teaching strategies at a distance often causes frustration (Dasher-Alston & Patton). Appropriately, then, developing distributed learning and teaching strategies for online education was ranked number eight on the EDUCAUSE list of IT strategic concerns (Crawford et al., 2003). Distance learning research should focus on delivery strategies that help solve the capacity constraints, economic concerns, and higher-education consumer needs outlined in this article.

Trends Informing Vision

In summary, many trends in higher education will influence the future of distance learning. Student enrollments are growing to surpass the capacity of traditional infrastructures, learner profiles are changing, and students are shopping for education that meets their needs. Traditional faculty roles, motivation, and training needs are shifting while workload, compensation, and instructional issues continue to deter them from distance learning participation. The institutional and organizational structure of higher education is changing to emphasize academic accountability, competency outcomes, outsourcing, content standardizing, and adaptation to learner-consumer demands. The Internet and other information technology devices are becoming more ubiquitous while technological fluency is becoming a common expectation. Funding challenges are increasing with fewer resources to meet expanding, lifelong-learning demands. Distance education is becoming more abundant, especially online, and location independent, increasing the need for effective course-management systems and teaching strategies that utilize technology.

In response to these trends, distance learning may rise to meet student needs and overcome funding challenges that traditional institutions cannot. Distance education administrators must resolve concerns with faculty and university administrators to ensure adequate support, as well as to develop the needed course management systems and teaching strategies. Technological advances and increased fluency will continue to open opportunities for distance education. Although higher education institutions are changing to favor distance education, the complexities of major transformations will require patience.

As Bates (2000) suggests, perhaps "the biggest challenge [in distance education] is the lack of vision and the failure to use technology strategically" (p. 7). The challenge is understandable, given the complexity of the issues involved. "Clearly, each institution needs to understand where on-line distance education fits in its vision of the institution's future and in its mission" (Meyer, 2002, p. 67). Further, institutions will strengthen their distance-learning strategic plans by identifying and understanding distance-education trends for student enrollments, faculty support, and larger academic, technological and economic issues.

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