



Planning for Distance Learning: Issues and Strategies

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ABSTRACT

Trends and issues in distance learning are reviewed, including current definitions and modes of distance education, compatibility between the mission and administrative vision for new programs, adjustments in faculty and student roles, characteristics of students who benefit from and find distance instruction attractive, pedagogical and assessment issues, faculty development, and technical and student support services. The complex interaction among these factors demands solid strategic planning focusing on developing a consensus among potential participants in all arenas of the university. A planning model emphasizing institutional outcomes, learner outcomes, and implementation processes is proposed.

Trends in Distance Education

Teaching and learning strategies using new technologies are now an accepted, but ever evolving, part of the landscape of higher education, so universities must engage in thoughtful, intentional, and strategic planning processes to make prudent use of resources that support their missions. Much media hype has surrounded distance education in the recent years, with claims that the bricks-and-mortar campus are on the way out, that faculty members will be replaced by technology, and library buildings will no longer be necessary as paper books go the way of the 8-track audiotape. While no one believes that people, campuses, and books are on the verge of extinction, there is no denying that the availability of virtual instruction and information resources have already transformed higher education and will continue to do so. This paper examines strategic issues and processes essential to colleges planning distance education.

What is Distance Education?

Distance learning, distributed education, online programs, computer-assisted courses, telecourses, and videoconferencing all refer to the trend in higher education that can be called generically *distance education*, the most commonly used term (Lever-Duffy, 1999). A comprehensive definition of distance education is “learning in which the student is separated physically, and sometimes in time, from an instructor” (Mariani, 2001; Paloff & Pratt, 1999; Phillips, 2001; University of Idaho, 2000). Other terms emphasize certain aspects of distance education. *Distributed education* describes flexible and open-access learning distributed among multiple dimensions, one of which is distance delivery (Barley, 1999; University of Plymouth, 2001). Other names refer to the mode of delivery of distance education: *correspondence courses* deliver materials through postal services; *online courses* are accomplished via the Internet; *computer-assisted courses* may include a mix of assignments on local computers, the Internet, and face-to-face classroom instruction; and *telecourses and videoconferencing* rely on telephone and broadcast communication between distant sites. The focus of this paper is on programs that rely on current technologies for course delivery – Internet and web-based, and video and



television transmission. But it is important to recognize that frequently these delivery modes are mixed and rapid innovation in technology will offer new possibilities before this ink dries.

Learning at a distance from an instructor is not novel, as expecting students to do some learning at home or away from the traditional classroom is commonplace in higher education (Davey, 1999). Thus the proportion of work that is done at a distance from the teacher may also define distance learning. In New York State, programs are registered as distance if more than 60% of the work is done at a distance (New York State Department of Education, 2002).

Past and Future Trends

Despite the recent rapid growth of distance education and concomitant media attention, the concept of education that occurs between physically separated teachers and learners is hardly new. Written correspondence was the only method of distance education until the invention of the telephone. As early as 1728, regular mail service was used to aid traditional education (Schrum, 1999). When free postal delivery to rural areas was created, institutions like Pennsylvania State and the University of Chicago offered mail courses emphasizing learning of skills (Prewitt, 1998; University of Plymouth, 2001).

Early in the history of radio and television, their potential power as educational vehicles was recognized: Wisconsin's School of the Air used radio in the 1920s (Prewitt, 1998). Other United States schools, the British Broadcasting Company and Australia media have used radio to deliver courses for decades (Schrum, 1999). In the United States, the Sunrise Semester began on television in 1957. In 1963, the United Kingdom University of the Air was chartered to use television and radio to provide education for citizens in remote places, which was transformed into the Open University in 1972 (Prewitt, 1998; Schrum, 1999; University of Plymouth, 2001; Williams, Paprock, & Covington, 1999). While these efforts had significant impact on modern culture, they had limitations, trying to recreate traditional classroom lecture and eliminate restrictions on numbers of students (Prewitt, 1998). Correspondence was slow, providing little personal contact or opportunity for informal dialogue between students and teachers; early radio and television were one-way lecture delivery mechanisms (Schneider & Germann, 1999).

Modern telecommunication devices have changed that. Teleconferencing, combining television, video, and telephone communication, permits two-way interaction between students and their teachers at distant sites. Beginning in the 1970's, universities began establishing remote sites to permit inter-site communication during class sessions. However, teleconferencing alone has some disadvantages, improving interaction between teachers and students, but often not among students (Schneider & Germann, 1999).

Powerful, affordable personal computers, the Internet, and the World Wide Web are responsible for the exponential increase in distance education in the 1990s (Van Dusen, 1997). The Institute for Higher Education Policy (1999) reports that thirty-three states had created virtual universities in 1998 and estimates that more than 2.2 million college students will take some distance courses by 2002, up from 710,000 in 1998. Internet2, a consortium of universities designed to create a network that will permit rapid transfer of new network applications to the broader Internet community, will permit even more sophisticated



communication, such as media streaming (rapid transmission of video via the Internet) and live video broadcast (Internet2, 2002).

Yet, attempts to deliver distance education have not been unbridled successes, as evidenced by the much-publicized demise of the for-profit distance education ventures of New York University and Temple University. Temple closed Virtual Temple after less than two years because it appeared that it would not be profitable (Blumenstyk, 2001). NYUonline, which was intended to develop online courses for business clients outside of the University's regular curriculum, was started in October of 1998 and closed only three years later, when it became apparent that the business climate would not support it (Carnevale, 2001). In both cases, though, the universities will continue to offer distance education through continuing education and academic departments.

On the other hand, distance education has established itself in some higher education markets, as several prominent successes show. The University of Phoenix, which was founded in 1976 with a campus in Arizona and expanded to a California campus in 1980, created its Online Campus in 1989 (University of Phoenix, 2002). In 2002, it has nearly 30,000 online students among its 100,000 students in undergraduate and graduate programs, and has received regional accreditation and professional accreditation in its nursing and counseling programs.

Another large-scale success story is the University College of the University of Maryland, a separate degree-granting institution of the University System of Maryland. Begun more than 50 years ago to serve adult students, it offers programs at educational centers throughout Maryland and on military bases around the world. It gradually developed online programs, with 44,000 online enrollments by 1999, including 14 undergraduate programs and several master's degree programs (University of Maryland, 2002).

Both of these institutions, and most of the other prominent players in online institutions, had thriving adult degree programs using various modes of delivery prior to their shift towards online coursework. They already had established market niches serving adult students and created virtual programs gradually, often in conjunction with remote satellite sites. There are two lessons to be learned from this: start with existing programs where the institution already has a foothold and gradually add online learning to the mix.

Predictions regarding the future of distance education range from simple estimates of numbers of students to viewing it as a catalyst for massive transformation of education. The democratization of higher education and other economic and cultural changes that have followed World War II have led to shifts in the college student population to include more ethnic minority, female, older, first generation, poor, and part-time students. Supporters argue that distance learning meets the needs of several burgeoning student groups: life-fulfillment learners; corporate learners; professional enhancement seekers; and degree completion adults, including working parents and other busy professionals, pre-college learners taking college courses while in high school; and English language, homebound and international students (Boschmann, 2001; Bothel, 1999; Eaton, 1999; Hodgson, 1999; Mehrotra, 1998; Moore, Winograd, & Lange, 2001; Oblinger & Kidwell, 2000; Peterman, 2000; Prewitt, 1998; *US News & World Report*, 2001).



Distance learning technology can help institutions respond to changing learner demographics, draw students from larger geographical area, let faculty teach at various campuses without traveling, and form partnerships with peer schools (Hodgson, 1999; Van Dusen, 1997). Many believe that distance delivery will become more prevalent (*e.g.*, Davey, 1999; Eaton, 1999; Peterman, 2000; Riedling, 1999), though some do note that the market cannot be infinite (Fram, 2000). Even proponents do not believe that distance education can or should supplant traditional on-campus education completely. However, in market-driven higher education, many believe that distance learning will become mainstream (Davey, 1999; Lever-Duffy, 1999) and catalyze institutional transformation (Oblinger & Kidwell, 2000). Sharing of resources through technology will become more commonplace and may be the only way in which technology affords some economic efficiencies (Riedling, 1999).

While the claim that distance education will transform higher education totally is undoubtedly exaggerated, it seems clear that it is not a passing fad. In an article written for trustees, Eaton (1999) maintains that distance learning will force institutions to examine and be clear about core, mission-related issues, such as the value of campus-based learning and commitment to distance learning in the context of the goals and vision of institution. In short, the discussion of distance education is wide-ranging, with potentially far-reaching ramifications.

Modes of Distance Education

To fully comprehend the nature of the distance learning experience, one has to understand the ways in which courses are delivered. *Synchronous* and *asynchronous* communication modes are often distinguished. Synchronous sessions are those in which teacher and students are communicating live, in “real time,” either through telephone, videoconferencing, or online chat facilities. In a sense, the attempt is to recreate the traditional classroom, with multiple locations, but shared time. Asynchronous communication involves separation in both space and time, in that students are sent course materials via the Internet, video satellite, or the mail, review them when they are able to, and then communicate with instructors and other students at their convenience.

There are countless variations in delivery strategies online (Mariani, 2001). Increasingly, various delivery modes are mixed, with some combination of synchronous and asynchronous, computer and videoconferencing, and traditional face-to-face classroom instruction. One of the reasons that many education specialists have embraced distance education – albeit with some skepticism and caution – is that the rich mix of instructional strategies elicits an important discussion of pedagogy. Enthusiasts argue that higher education has been rather complacent in its assumption that traditional modes of instruction are effective. Because of their novelty, distance programs are compelled to prove their value by assessing the effectiveness of methods, leading not only to improvement in distance techniques, but also to changes in practices in traditional classroom-based education. Supporters of distance education believe it will transform instruction in higher education both on and off campus.

The transformation will occur, in part, in response to justified criticism of distance learning. Distance learning via any delivery mode can make students feel isolated, lose motivation, and experience frustration and anger (Prewitt, 1998). A high rate of withdrawal



from distance courses and programs, the most obvious symptom of these difficulties, has led to a focus on student-centered learning and the realization that attempts to mimic the traditional classroom are bound to fail for two reasons: the lecture that is the mainstay of the traditional classroom may not be a very effective instructional technique for many learners, and the absence of the interpersonal cues and dynamics that distinguish distance from traditional modes means that the classroom can never really be recreated adequately. Instead, distance programs have begun to develop innovative pedagogical techniques that take advantage of the strength of new technologies and compensate for the lack of face-to-face interaction (Marcus, 1999; Phipps & Merisotis, 1999; Prewitt, 1998). The potential to transform the structure and delivery of higher education is what leads proponents to argue that every university will need to embrace some form of distance learning in the future.

Mission

Compatibility with Mission

However, skeptics question exaggerated claims regarding instructional technology. Stanley Katz (2001) exhorts, we should not “mistake a tool for a goal.” Other educators echo this theme, arguing that higher education needs to avoid adopting distance education and instructional technology simply to jump on the bandwagon, instead attending first to the goal of educating students (Keohane, 2000). Colleges must evaluate technology for intellectual and educational priorities, rather than administrative priorities. To that end, appropriate technology should be determined *after* learning goals, course requirements, student needs, and effectiveness are evaluated (Bunn, 2001; Schrum, 1999; University of Idaho, 2000; Van Dusen, 1997).

As in any systematic planning, starting with clear statements of mission and goals is important (Rowley & Sherman, 2001). Many writers note that distance learning programs should be motivated and informed by institutional mission from the top administrative levels down (Eaton, 1999). Discussions must consider the meaning of educational access, the student population served by the university, institutional values such as commitment to community and excellence, and other abstract concepts. Distance programs developed without considering philosophical and value issues will likely lose support from staff, faculty, and students. There are so many possibilities with distance delivery that most institutional values probably can be accommodated in some way, but such accommodation requires careful and innovative thinking (Hagner & Schneebeck, 2001; Levin & Ben-Jacob, 1998; Merisotis & Phipps, 1999; National Education Association, 2000).

Distance learning is appealing because it has the potential to serve and, therefore, attract new students to an institution (Moore, Winograd, & Lange, 2001). Regional universities can offer programs nationally and internationally; and populations of students who had difficulty attending classes on campus because of work schedules, family obligations, or mobility problems may be able to enroll in distance programs. Regardless of whether the goal is to serve better and retain existing students or attract new students, before embarking on new distance programs colleges must know the needs of their current students and understand the characteristics of students who choose and succeed in distance learning programs (Van Dusen, 1997).



Realistic Administration Support

A common theme about distance program development is the need for strong, realistic commitment from top administration from the beginning (Bothel, 1999; Eaton, 1999; Peterman, 2000). In 1999, Bothel warned that unrealistic and uninformed promises and demand for instantaneous financial returns will undermine the success of distance programs and prevent them from serving the needs of students and society. Recent closings of for-profit distance education ventures at universities such as NYU and Temple would seem to confirm his prediction (Blumenstyk, 2001; Carlson & Carnevale, 2001). Among the financial realities is that profits do not accrue immediately. The development and delivery of a course the first time is expensive; courses become increasingly cost effective at each subsequent offering (Riedling, 1999). Those who have developed successful distance programs warn that university officers should not regard online courses as quick fixes or cash cows (Peterman, 2000). California Virtual University, a state initiative creating a separate administrative unit coordinating courses from other state universities, failed to sustain support because of legislators' lack of patience for long-term development (Peterman, 2000).

Fram (2000) questions the potential market for distance learning. While there are boundaries to market potential for any product, little research on the distance market has been done. He points out that distance learning programs are seeking the same students as campus-based programs, *i.e.*, those who are persistent, motivated, optimistic about their success, work independently, highly literate, good time managers, and well prepared for what they intend to do. In other words, students are in short supply and possibly capacity is being overbuilt. But this reasoning also points to the danger of *not* developing some distance education capacity; students who in past years might have attended classes on campus may opt for competitors' more convenient distance programs. Colleges run the risk of losing their current share of students if they do not respond to this new demand.

A recent article in the *Chronicle of Higher Education* outlines some of the factors that universities have to consider (Carr, 2001). Universities are not losing a lot of money on distance learning, but are not making much either. Many have found that the costs of expanding programs is greater than anticipated, though variations in how costs and revenues are defined makes it difficult to generalize. For example, often hidden costs are not included, *e.g.*, librarians' time. Generally, universities spend \$5-15K to develop a course; commercial companies spend even more. Some feel costs will eventually be twenty percent lower than costs of traditional instruction because of reduced physical infrastructure costs. Delivery to new audiences will increase revenues, as well, but universities will need to spend more time creating and following business plans than they have in past to achieve financial gains.

Certainly identifying technological resources is an expensive part of the initial development of distance programs. As always, one needs to look first at course goals. In most cases, mixed media combining the strengths of various technologies will be ideal (Bothel, 1999; Riedling, 1999). In addition, the ability to share resources through technology is a viable alternative to building new buildings (Peterman, 2000).



A strategy for evaluating the cost of online professional programs divides costs into fixed and variable (Whalen & Wright, 1999). For videoconference courses, fixed costs include videoconferencing equipment, technicians' salaries, installation costs, and fees for phone services; variable costs include fees for distance learning network usage, shipping charges, honoraria for professors, and salaries for preparation of course materials. The break-even point these authors identify is 331 students, with a 75% reduction in future courses using the same equipment, or 82 students. For online courses, fixed costs include a server; content, instructional, and multimedia design; production of text, audio, video, graphics, and photographs; development of authoring and delivery software or commercial licenses; testing of course content; and student and instructor training. Web-based coursework has higher fixed costs, but is offset by lower variable costs in course delivery, because of the potential to deliver it to a larger number of students and compressed course delivery time, which is especially important to companies paying employees' salaries while they are enrolled. Synchronous delivery may be more expensive because of the cost of having the instructor present and extra time for students to travel to the delivery site. Fundamentally, although most universities must avoid losing money on distance learning, profit should not be the primary motive for pursuing it.

Other financial issues force far-reaching discussion of organizational structure and resource allocation. For example, faculty will be keenly concerned about the allocation of revenue, expenses, and faculty workload credits for these programs. So the value of their work is recognized, faculty will want to understand how they and their departments are credited for the students they teach in distance programs. Universities must consider issues such as whether faculty will be compensated for the time-consuming process of developing distance courses, on-campus departmental offerings will suffer if faculty time is allocated elsewhere, instructors will be paid extra for additional work, and efforts will be rewarded in tenure and promotion processes. If these accommodations can be offered, faculty will be much more enthusiastic about developing distance courses and programs than otherwise.

In some colleges, departments receive a percentage of tuition as overhead or percentages are distributed to departments based on enrollment; in others, a separate distance education unit partners with departments and splits revenue or contracts with faculty to "buy out" courses in their home departments (Bothel, 1999). Various incentives are provided to faculty, for instance, giving a laptop computer to faculty members who develop and teach distance courses.

Distance programs involving multiple departments or institutions present issues that strain existing structures (University of Maryland, 2001): Are courses included in more than one institution's class schedules? Do faculty get multiple class lists for a single course? When students register, whom do they pay? Which institution pays financial aid? Which institution gets credit for student reporting purposes? Who schedules rooms among multiple campuses? Are semester schedules the same? Who is charged for equipment, supplies, support services, or the cost of distributing materials? Who is responsible for hiring and training? Who assures that software and hardware is available and pays for licenses?

Faculty oversight of the curriculum is a steadfast principle in higher education. Therefore, faculty and accrediting and approval agencies will insist that curricula are vetted through faculty governance processes. In an institution with multiple faculties, this may



mean identifying how jurisdiction will be determined or creating a new faculty structure. Faculty and accrediting agencies will require consistency of programs; in other words, distance courses and degrees must be consistent and compatible with comparable programs offered on campus and mechanisms need to be created to assure that this condition is satisfied (New York State Department of Education, 2002).

Because distance program development raises issues that impact virtually every aspect of an institution, strategic planning processes are arguably more important in regard to them than for any other kind of new program development. Transformative planning models (e.g., Astin & Astin, 2000) are essential, yet discussions of planning for distance education tend to focus on issues and content rather than process.

Planning

Regardless of details, effective distance teaching is more the result of preparation than innovation (Garrett & Weiner, 1999). The literature on planning for distance learning focuses on issues that require planning without addressing process questions. A number of models for planning for distance education have been published, some more conceptual than others (e.g., Barone & Hagner, 2001; Hanley, 2001; Offir, 2000; University of Wisconsin, 2001; University of Maryland, 2001).

Kaufman *et al.* (2001) give a set of dimensions of distance learning and current and future trends, distinguishing mega level planning focusing on outcomes; macro level planning addressing outputs; and micro level planning. They recommend that institutions select a valid performance model and apply it rigorously, linking all three levels of planning and results. Planners should avoid confusing the means of delivery with mastery requirements of learning; conduct needs assessments; use a learner-focused, performance-centered approach; and create distance learning that systematically adds value. Table 1 lists concerns at the various levels that may serve as a useful checklist for planning efforts.

Table 1
Characteristics of Future Distance Learning
(adapted from Kaufman, Watkins, & Guerra, 2001)

1. Focused on the societal/organizational learner, rather than the teacher
2. Directed by usefulness, rather than content
3. Needs defined as gaps between current and required/desired results
4. Needs (gaps in results) formally identified and prioritized
5. Courses/programs linked to external usefulness through an explicitly stated vision
6. Clear and common goals link courses/programs with other learning opportunities
7. Content dictated by usefulness in the learner's future, rather than subject experts
8. Content of courses/programs designed through a systematic process (i.e., performance system or instructional design)
9. Options available for learners to explore their own areas of interest
10. Designers, developers, and deliverers appropriately credentialed to develop effective learning materials



11. Courses/programs delivered in multiple venues: at an institution or at remote sites, including home or workplace
12. Courses delivered using multiple methods: conventional, telephone, books, workbooks, video, computer, and Web-based means
13. Open, synchronous interactivities between the instructor/deliverer
14. Learner has access to advising (*i.e.*, academic advisement, career counseling)
15. Learner gets immediate feedback concerning performance
16. Content of courses/programs evaluated formatively and summatively
17. Delivery vehicles for programs evaluated for effectiveness and efficiency
18. Courses/programs evaluated for return-on-investment for learners, designers/developers, the institution, and society

Another model describes an issue-based conceptual model in five categories: logistical support, student support, faculty support, evaluation, and laboratory experiences (University of Maryland, 2001; Table 2).

Table 2
Conceptual Model for Planning for Distance Education
(Adapted from Institute for Distance Education, University of Maryland, 2000)

Logistical Support Issues

- All students treated equally
- Support through variety of communication modes
- Written exams and proctoring arrangements defined
- Security of exams
- Faculty reimbursement procedures

Student Support Issues

- Academic advising for distant students
- Easily accessible sources of information about nonacademic matters
- Faculty office hours
- Access to library, science labs, computer software

Faculty Support

- Training for faculty
- Incentives for faculty to become involved
- Access to resources to adapt courses
- Recruitment and selection of distance education faculty



Evaluation

- Useful information about faculty effectiveness
- Evaluation of technical systems and administrative support systems
- Evaluation of faculty orientation and training support systems

Laboratory Experiences

- Lab kits sent in mail
- Conduct lab experiences through interactive video
- Videotape experiments
- Off the self computer simulations
- Require travel to central lab facilities over intensive study or decentralized facilities

Another planning typology that may be useful classifies online distance education models into three types: the traditional distance learning program supplemented with Internet, computer conferencing, and virtual courses and institutions (Eastmond, 1998). Examining student reactions to these types, Eastmond concludes that supplementing traditional coursework is a low-risk way to start, good for experiential learning and helping students gain a new sense of their computer-learning abilities. Adding computer conferencing begins an emphasis on interactivity.

A final approach to planning for distance considers programs from the students' perspective. Guides to distance programs contain lists of elements that students should look for when they are evaluating and choosing programs (Criscito, 1999; Peterson's, 2002). For example, in a review of several online master's degree programs, Strong & Harmon (2000) list criteria for programs in a consumer's guide with themes similar to those of the issue-based models described previously.

Whatever the approach, it seems important to recognize that planning should involve the principle deliverers of the courses, faculty, since top-down rationales do not translate directly to pedagogical implications (Salomon & Almog, 1998). Successful distance programs are carefully and systematically planned, starting with explicit statements of learning goals and identifying the available pedagogical techniques that will best accomplish those goals in view of characteristics of targeted learners. Examples of how specific colleges have resolved these issues abound in the literature and the only common theme is that they started with existing structures and processes and developed a system that worked for them. For example, at Park College in Missouri, a program that began as a degree program for military personnel has expanded to an open access distance program (Peterman, 2000).

Nova Southeastern University has done distance education for decades and had online courses since 1983 (Scigliano & Levin, 2000). There, the process of course development begins with publication of a course as a document to which learners react. The faculty member then uses the student feedback to improve the course. Faculty members are encouraged to think first about pedagogy and then identify technology to support learning goals and instructional techniques, rather than starting with technology.



Another institution with a long history in distance learning, the Open University in the United Kingdom, embraced online technology carefully, gradually, and holistically, first using it to remedy difficulties with existing systems and then to enhance other aspects of the program (Thomas *et al.*, 1998). They first created electronic student registration and student assignment submission systems, previously done by postal mail. Then they embraced electronic marking and recording of assignments by tutors, electronic tutorials, and electronic examinations, administered at existing examination sites around the UK. To provide universal access, the students can still study via printed materials, postal correspondence, and telephone conferences, as well. Thus, the Open University deliberately uses technology only as a cost-effective servant of pedagogy. A conservative transition has enabled personnel to assimilate and evaluate technology, maintaining their impressive seventy percent retention rate for part-time students.

None of these models discuss process issues explicitly. Yet, given the complex array of constituencies involved in successful distance education, process may be especially important. Collaboration among professionals with distinct cultures and management styles is essential for success (Brown & Jackson, 2001), requiring the kind of transformative leadership outlined by Astin and Astin (2000, 2001; see also Madden, 2002). A leader is a change agent who enables all constituents to enhance colleges' missions of student learning and development. Leadership involves creating a supportive environment promoting the explicit shared purpose of collaboration.

Others writing about strategic planning in higher education echo these themes. For instance, Rowley and Sherman (2001) contend that strategic planning can help colleges improve community, be more student centered and respond to the fast-changing demands of the information economy through inclusion, caring, and sharing. Shared governance can facilitate participatory, consensus-based decision-making, team building, and empowerment of employees, features of organizational development models. Leadership, then, involves promoting effective communication and trust, listening, open processes, and creating interdisciplinary, self-directed teams. In all institutions, students expect more influence over programmatic and pedagogical matters, reflected in the shift in language that focuses on learners rather than students, or the imagery of students as consumers demanding excellence. Yet, Rowley and Sherman say, notions of shared governance frequently fall short in usual administrative processes. Budgeting processes, which determine priorities for all practical purposes, are rarely collegial or participatory, despite pretenses of shared governance. And faculty development is often overlooked in strategic planning. If colleges want faculty to change, they must supply training and incentives. Rowley and Sherman assert that colleges planning strategic shifts must build trust, political support, and training before beginning planning processes, as these signal intentions to produce change inclusively. These strategic planning principles are especially important regarding distance education because it involves such a broad range of campus constituencies, has the potential to transform education, and can require a substantial investment of resources.



Faculty

Changing Role of Faculty

Those who write about pedagogical issues in distance learning unanimously believe that the success of distance courses and programs rests with the effectiveness of the instruction, not with the nature of the technology (McKenzie & Roblyer, 2000; Omatseye, 1999; Spitzer, 2001). Furthermore, there is widespread recognition that distance education changes the role of the faculty member to facilitator and mentor, as well as content expert (Hamza & Alhalbi, 1999; Paloff & Pratt, 1999; Phipps & Merisotis, 1999). Taking materials prepared for classroom presentation and simply dumping them on web pages for students to read is a common beginner's mistake. Instructors must monitor learning tasks and student characteristics and motivation (Paloff & Pratt, 1999). The learner's role shifts, too, with students becoming more responsible for awareness of their own learning processes (Paloff & Pratt, 1999). This means that more emphasis may be needed on systematic instructional design (Hamza & Alhalbi, 1999) and preparing instructors to be effective teachers (McKenzie & Roblyer, 2000), considering pedagogical, social, managerial, and technical issues (Paloff & Pratt, 1999).

Building Consensus among Faculty

Because the shift in focus will be dramatic for many faculty members, building consensus among them is an important component of preparation for distance education (Brown & Jackson, 2001; Hughes, 2001; Small, 1999). While "early adopters," who tend to be entrepreneurial and see technology as a way to expand interest in their courses, may initiate use of technology, others who are committed to quality teaching and learning and see potential in technological applications will require encouragement to take risks. Those who engage in new activities primarily when they are rewarded for doing so will need institutional motivations. Those who are truly reluctant to do anything new will often argue resistance on philosophical grounds and are not worth courting actively (Hagner & Schneebeck, 2001; Oblinger, 1999). Thus, knowing one's faculty and identifying who is likely to be an early adopter and who will respond to various levels of institutional support is an essential first step. Reward seekers will respond if there are clear statements in promotion materials about using instructional technology. Hagner & Schneebeck (2001) recommend a series of steps to engage faculty: conduct assessment of faculty readiness; make sure faculty are included in a campus wide change process; start with examination of reward processes; explore innovative, faculty-based resources; and examine campus faculty support mechanisms and improve them as needed.

Issuing edicts never works well with faculty and offering the option of *not* participating at all is essential, especially when administrative goals are ahead of faculty consensus (Brown & Jackson, 2001; Hagner & Schneebeck, 2001). Administrators should participate as proponents rather than as judges, perhaps needing to bridge different groups with distinct decision making cultures. Faculty culture is more used to local autonomy and may distrust centralized decisions; information technology culture is attuned to integrated functioning and therefore inclined to recognize the need for organizationally legitimated decision making (Brown & Jackson, 2001). Resistance to change and the assumption that technology eliminates jobs are common in technological transitions (Hughes, 2001), but most resistant faculty members are simply trying to



make good use of their time (Brown & Jackson, 2001). Brown and Jackson (2001) suggest a voluntary reward system in which grants are offered for instructional innovation through a systematic process with structured proposal guidelines, competition, and a review process that promotes discussion. The review board should include some who are not fully persuaded about the benefits of instructional technology as a way of educating them about the possibilities.

What Works with Whom?

In the 1990s, Thomas Russell (1996) created a website listing studies that found "no significant difference" in student outcomes between distance learning programs and traditional classroom programs to make the point that there is substantial, long standing research that shows that distance education is as effective as classroom instruction in regards to variables like student test performance and grades. While there seems to be consensus that his conclusion about average or overall performance is correct, educators are cautious about overgeneralizing to all students in all programs. It is safe to say that research does *not* support the conclusion that distance education leads to *worse* outcomes for students and would not imply that it should be avoided. However, more useful research questions concern which types of students do well in distance programs and what types of programs are effectively delivered at a distance.

As mentioned above, the changing nature of the student population is one reason for the rise in distance programs. Even at colleges with mostly adult students, compared to students in on-campus programs, distance students are more often older, lower-income, part-time, at public and two-year institutions, and "perpetual learners" who need to update skills for jobs (Diaz & Cartnel, 1999; Oblinger, 1999; Paloff & Pratt, 1999; Schneider & Germann, 1999).

Paloff and Pratt (1999) portray distance learners as voluntarily seeking further education; motivated, with high expectations and self-disciplined, and more serious attitudes toward courses. The overriding theme in surveys of reasons students choose distance programs is that previously nontraditional students like their flexibility and convenience (Bruno & Pedroza, 1994; Omatseye, 1999; Peterman, 2000). They enroll in programs to balance work and family, avoid travel, fit education into their schedules, or supplement traditional education (Mariani, 2001). These learners may also be more independent than traditional students (Diaz & Cartnel, 1999).

Successful distance students tend to be female and/or married. Other attributes of successful students include persistence in taking on new projects, self-confidence manifested by self-ratings of success probability and formal and informal learning ability, not needing support from others, good time management skills, and high literacy levels. The seriousness of the consequences of passing a particular course (*e.g.*, continued professional certification) is also related to success. Paloff and Pratt (1999) report that introverted people are more successful online. Based on personal experience and anecdotes, course design experts make assumptions about student characteristics, for example, that students need minimal levels of comfort and familiarity with computer technology to succeed in online courses (Lever-Duffy, 1999; Lundin, 2000; Merisotis & Phipps, 1999; Schrum, 1999).



Many believe that universal accessibility should be a goal of technology (Oblinger & Kidwell, 2000; Prewitt, 1998) and many institutions consider providing access to students an important part of their missions. While distance learning has the potential to provide access to diverse groups, ethnic minorities have been underrepresented in distance programs and special consideration should be given to addressing financial, pedagogical, or social barriers that make distance education less feasible for underrepresented groups (Manzo, 1997).

Not only must students have access to programs, but they must succeed, as well. Using discriminant analysis, Osborn (2001) identified a profile of students at risk of failing in distance education. Students who were at-risk were taking more credit hours and working fewer hours per week, had not taken other distance learning courses, and were continuing students or had been away from college less than 2 years. Those with a less stable study environment, lower motivation, less computer confidence, or with less encouragement to take the course also did less well. Osborn recommends that students with grade point averages of B or lower, relatively unstable study environments, and no previous distance learning experience may need additional encouragement, feedback on initial assignments, and assistance with use of software. Students who become easily frustrated or procrastinated do not do well in distance instruction, either (Leasure *et al.*, 2000; Mariani, 2001; Schrum, 1999).

Many believe face-to-face interaction is essential for some students (Lever-Duffy, 1999), but the issue of whether students who are distant geographically are also distant psychologically deserves some attention. Despite the widely held belief that online learning is impersonal and non-interactive, instructors and students report substantially *more* interaction between faculty and students and among students in online courses than in traditional classroom courses (Lesniak & Hodes, 2000; *US News & World Report*, 2001). For one thing, classrooms often are not as interactive as is assumed (Lever-Duffy, 1999). When the instructor relies heavily on lecturing or classes are large, there is really very little interaction among those in the room. Studies show that classroom instructors spend as little as four percent of time on discussion.

Advocates of distance learning believe that supportive social relationships can be fostered using technology (Lesniak & Hodes, 2000). Some students who are silent in classrooms thrive in online communication. For shy students, the semi-anonymity and absence of visual cues and body language in asynchronous discussion is more comfortable. Thoughtful and careful students also prefer the opportunity to contemplate responses to questions and comments (Lever-Duffy, 1999). To be sure, online communication is different, and may require more effort (Mariani, 2001; *US News & World Report*, 2001), but it also can be of higher quality (Van Dusen, 1997).

Distance Pedagogy

Another misconception that leads to considerable defensiveness about online teaching is the assumption that it will reduce the need for real, live faculty. In fact, online instruction will increase the need for faculty members. In addition to requiring more time to develop than most classroom-taught classes, instructing online courses can take double or triple the number of hours per week, because effectiveness demands substantial interaction between faculty and students via e-mail, chat rooms, or telephone contact (Lamb & Smith, 2000; Paloff & Pratt, 1999).



Along with requiring certain pedagogical strategies, online instruction provides an opportunity to enhance the learning for some types of students and material. Recognizing that not all students learn in the same way, educational psychology has developed a rich literature on learning styles of students. That research has converged with experimentation with modes of online delivery to create some promising possibilities, though they are not yet thoroughly researched or assessed (Institute for Higher Education Policy, 1999). Because online programs can present material in various modalities and provide an assortment of assignments, they can be customized to meet the needs of students with diverse learning styles (Prewitt, 1998). Course developers and instructors need to understand the learning styles of students, distance learning theory, instructional design process, adult learning theory, and active and cooperative learning (Van Dusen, 1997). In other words, one needs a coherent model of learning to support course and program design (Cawkell, 1998).

Trends in education that merge with distance learning include problem-based education, which teaches from examples (Cawkell, 1998); individualized instruction emphasizing individual learning strategies and assignments and finding personal meaning in material (Eastmond, 1998; Oblinger & Kidwell, 2000; Prewitt, 1998; Van Dusen, 1997); and collaborative and cooperative learning techniques (Prewitt, 1998; Levin & Ben-Jacob, 1998; Van Dusen, 1997; Munkittrick, 2000; Schrum, 1999). Limited research on the relationship between learning styles and successful completion of online courses suggests that students who aim to construct personal meaning benefit more in an online course than those who want to simply gain knowledge (Eastmond, 1998).

At the core of any online pedagogy is communication. Because faculty members cannot tell visually if students are present, alert, puzzled, or annoyed, frequent and active communication is essential. One instructor argues that students equate *speed of response* with *caring* in an online course (Glazer, 2001).

Research to date does not suggest that some instructional media are inherently superior to others in promoting student achievement. A variety of modes of delivery can enhance learner-content interaction and each probably has some advantages and some disadvantages, although systematic research specifying these has not been done. For example, distance instructors often remark that asynchronous interaction has the advantage of considered deliberation and response (Van Dusen, 1997). Research does show that distance learning is effective when methods are appropriate to instruction tasks, there is student-to-student interaction, and there is timely teacher to student feedback (University of Idaho, 2000).

Rather than diminishing the role of faculty members, these requirements emphasize the importance of faculty judgment in instructional design and strategy (Van Dusen, 1997; Yoakam, 2001). Faculty must be supported appropriately to encourage them to think imaginatively about pedagogical possibilities (Katz, 2001).

Assessment of Distance Learning

Some have argued that distance programs are leading the way on outcomes-based assessment, perhaps because of the timing of their growth and public skepticism about their



effectiveness (Carnevale, 2001). The New York State Department of Education (2002) requires programs seeking approval to demonstrate assessment of student learning appropriate to content and students and clearly identified learning outcomes the same as those in comparable programs. Programs must be consistent with stated outcomes and have processes to monitor effectiveness used for continuous program improvement.

Others have suggested that one need merely adapt characteristics of good instruction, such as those proposed by Chickering (Marienau & Chickering, 1983; Mehrotra, 1998; Merisotis & Phipps, 1999). For instance, relevant principles of good instruction mandate outlining student learning outcomes and communicating high expectations; promoting interaction and cooperation between faculty and students and among students; ensuring up-to-date knowledge and content; using combinations of media and methods to encourage active learning; providing students with timely and informative feedback; offering advising and counseling support that respects diverse talents and ways of learning; monitoring student retention and satisfaction; and assessing achievement of outcomes. The means for accomplishing these goals may vary, but the desirability of achieving them probably will not.

Distance learning uses the same variety of assessment devices as on-campus learning, including projects and standardized tests. But technology makes assessment easier in some ways. For example, portfolio assessment is fairly common, as electronic portfolios are easy to compile. Records of class discussions can document the quality of in-class conversation in a way not readily possible for classroom discussions, creating a long-lasting record of details of a course. But, like any assessment program, the providers need to have a systematic plan that includes follow-up and enhancement of programs based on the results of assessment.

Faculty Development Strategies and Programs

Faculty members' anecdotal accounts of initial experiences teaching online courses frequently describe discovering the altered role of the faculty member through unanticipated difficulties. By trial and error, instructors begin to understand that their role is to facilitate new ways of learning that involve monitoring and evaluating student debate and progress, rather than simply presenting information (Lever-Duffy, 1999; Prewitt, 1998). Because this shift to new roles and classroom responsibilities is substantial for many, faculty development programs are essential (Van Dusen, 1997). Good faculty development programs relate pedagogy to the medium of delivery (McConnell *et al.*, 1999), provide a working understanding technology, and teach faculty to be both facilitators and content providers (University of Idaho, 2000).

The most common approach to faculty development involves creating a team for support of faculty (Boschmann, 2001; Georgia State University, 2001; Hanley, 2001; Hartmann & Truman-Davis, 2001; Oblinger, 1999). Faculty members who attempt to develop technology alone tend to have poor graphics and user interfaces and may abandon their attempts because of excessive technical demands (Hartmann & Truman-Davis, 2001). A "boutique approach" that provides one-to-one support as requested is a common way to start, but a more systematic approach is necessary to promote widespread use. Faculty-driven content with professional support for media production, instructional design, and ongoing support for faculty and students as courses are taught are essential elements of strategic faculty development. Both the



technology and the support for it need to be accessible and easy to use. “Faculty development without infrastructure is an exercise in frustration” (Hartmann & Truman-Davis, 2001, p. 51). Sustained institutional commitment is important and must include administrative and technological structures, incentives and rewards, and ongoing assessment that focuses on a continuous process improvement (Hartmann & Truman-Davis, 2001).

Encouragements for faculty who attempt innovation can take the form of annual poster or demonstration projects that can also be included in tenure and promotion packets. Using instructional technology can provide valid and reliable evidence of teaching-learning effectiveness (Hanley, 2001; Oblinger, 1999). Faculty members should publish the results of their work, assemble teaching portfolios demonstrating the effectiveness of distance courses, and insist on review by peers who also teach with technology (Boschmann, 2001; Oblinger, 1999).

Several comprehensive faculty development programs are described on websites, e.g., at Indiana University (Boschmann, 2001); Georgia State University (2001); Virginia Tech (Moore & Head, 1999; Virginia Polytechnic Institute and State University, 2002); and Park College in Missouri (Peterman, 2000). In one of the more ambitious faculty development programs, Virginia Tech has had more than 1400 faculty participate in workshops (Moore & Head, 1999). The workshop includes presentations by other faculty on how technology transformed their teaching and open lab time for participants to develop their own course materials. The university also funds course development projects. As a result, faculty in every department are committed to improving teaching and learning, including redesigned course objectives and assessment methods; shifts to more active learning strategies; increased student online writing; increased feedback to students; asynchronous interaction with course content; and collaboration in the design and teaching of courses. Moore and Head conclude that many faculty members will commit to learning to use technology with appropriate resources and support.

Other colleges use different models. At Park College, which offers degree completion for people in the military, new course developers participate in a weekend training session and then prepare a detailed (10-15 page) syllabus and reference list. The training includes the nature of nontraditional students, organizing content, methods of instruction, evaluation techniques, and classroom organization techniques (Peterman, 2000). At Empire State, a SUNY branch that has offered individualized degrees for adult students for years, faculty members who are going to teach distance courses using technology first gain proficiency in the technology and then conceptualize pedagogical possibilities (Eastmond & Lawrence, 1998). The coordinator for online programs conducts workshops for new tutors, who then shadow an online course prior to teaching their first solo course. Shadowing (observing electronically) of courses by new instructors or having an experienced mentors shadow others’ first courses is common. In addition, universities are starting to develop graduate programs to train professionals in areas such as instructional design, adult learning theories, and pedagogy of online learning (Ely, 2001).

Library and information resources must also be considered in program development. Distance education demands remote and ubiquitous access to library resources. Even without distance programs, academic libraries are responding to transitions in the delivery of information and use of their physical space and fiscal resources. Universities must explicitly



and carefully retain strong commitment to library staffing and funding, attend to how technology is changing libraries, and address assessment of the effectiveness library programs for both distant and residential students (Prewitt, 1998; Van Dusen, 1997).

Faculty development will also necessitate attention to intellectual property, compensation, and workload policies (Graves, 2001; Hilton & Neal, 2001). There are two main intellectual property questions: who owns and controls intellectual property in a course and how different modes of transmission affect the use of material in distance learning (American Association of University Professors, 1998)? This paper will not detail the legal arguments concerning intellectual property and copyright issues, but notes that institutions must develop policies concerning them if they wish to encourage faculty members to explore online course delivery (Twigg, 2000).

Teaching courses online is time consuming, so faculty members are understandably worried about being compensated appropriately for their work and colleges need to have explicit compensation policies (Boschmann, 2001; Garrett & Weiner, 1999). Because there is a potential for unlimited enrollment in these classes; increased contact with students, often with greater participation for each class session than in the standard lecture format; and simultaneous multiple student audiences, faculty should be compensated accordingly (American Association of University Professors, 1998). Since distance learning requires faculty to develop technical expertise beyond traditional academic disciplines and preparation timelines are altered so materials can be distributed in advance, faculty also need to be compensated for preparation (Instructional Telecommunication Council, 1998). Many believe that institutions must recognize that they will need to hire more faculty members specifically for distance learning, as well (Garrett & Weiner, 1999)

Support

Because of the amount of time it takes to create and teach online courses, faculty members simply need help (Peterman, 2000). In anecdotes about distance education, the most frequently mentioned mistakes – often reported as fatal flaws – are failure to provide expert development support for faculty and expecting faculty to teach and run technology at the same time (*e.g.*, Eddy & Spaulding, 1996).

The support model that appears to be most successful involves a support team (Hanley, 2001). Teams assemble to produce course or course segments, with faculty members focusing on content. Other team members, who focus on technical delivery and online pedagogy, should be professionals with broad backgrounds in areas such as instructional design, adult learning theories, and pedagogy of online learning (Garrett & Weiner, 1999; Moore, Winograd, & Lange, 2001; Williams, Paprock & Covington, 1999). Student support members might also be responsible for orienting first-time students, including how to use technology and what to do if they have problems, and responding to technology or courseware problems in ongoing courses (Ely, 2001). There should also be comprehensive administrative support for the distance learning team, including clerical staff who respond immediately to student e-mail (Garrett & Weiner, 1999). Other professional resources should be on teams, as well, such as a dedicated virtual librarian (Garrett & Weiner, 1999). Making seed money for program development



available and considering team involvement in promotion, tenure, and merit processes encourage participation (Connell, 1996). Adequate training and sufficient practice for staff and technical support are necessary, as activities needed to allow student interaction may be beyond the experience of many traditional classroom instructors.

While this paper cannot detail the infrastructure support needed for effective distance education, the issue is so important that it deserves recognition. Without exception, program development models emphasize the need to review available resources and administrative structures and adapt and enhance them to provide adequate support (Buchanan, 2000). While technical resources and support are essential, student services, library resources, and course development staff are also vital and may be overlooked (Peterman, 2000). For example, in one new program, unanticipated support needs included clerical staff for advising and registering students, faculty virtual office hours, and modifying computer system servicing schedules to avoid weekends, when distant students used the system heavily (Peterman, 2000).

In a study co-sponsored by the National Education Association and Blackboard, Inc., a leading producer of online courseware, the Institute for Higher Education Policy (2000) proposed 24 quality measures for online education (Table 3). Institutional, student, and faculty support benchmarks are almost as numerous as course development, teaching and learning, and evaluation and assessment benchmarks. State guidelines for registering distance programs also emphasize these services (New York State Department of Education, 2002).

Table 3
Quality Measures for Online Education
(Institute for Higher Education Policy, 2000)

Institutional Support Benchmarks

1. A documented technology plan that includes electronic security measures (*i.e.*, password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.
2. The reliability of the technology delivery system is as failsafe as possible.
3. A centralized system provides support for building and maintaining the distance education infrastructure.

Course Development Benchmarks

4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.
5. Instructional materials are reviewed periodically to ensure they meet program standards.
6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.



Teaching/Learning Benchmarks

7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.
8. Feedback to student assignments and questions is constructive and provided in a timely manner.
9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

Course Structure Benchmarks

10. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.
11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.
12. Students have access to sufficient library resources that may include a “virtual library” accessible through the World Wide Web.
13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.

Student Support Benchmarks

14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.
15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.
16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.
17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.

Faculty Support Benchmarks

18. Technical assistance in course development is available to faculty, who are encouraged to use it.
19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.
20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course.



21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.

Evaluation and Assessment Benchmarks

22. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.

23. Data on enrollment, costs, and successful/ innovative uses of technology are used to evaluate program effectiveness.

24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.

Two infrastructure issues that bear directly on the academic aspects of distance programs are the nature of the administrative unit that oversees the development and delivery of distance programs and the arrangements for course development. Bothel (1999) suggests several models for administering distance education: the support center under some academic unit; the administrative center-broker, such as an entity outside of a university structure (*e.g.*, Western Governors University); the independently accredited academic center that delivers its own degree programs (*e.g.*, Nova Southeastern); or the training and education center, a for-profit center with its own faculty and staff run like continuing education programs. Bothel prefers the latter model because it is administratively efficient, while maintaining ties to a known university. Regardless of the model, it is essential to first inventory existing infrastructure and then determine the technology needed to effectively deliver a program, focusing on how faculty plan to use the technology and what students will be expected to own themselves (Ingermann, 2001).

Conclusions

Planning new distance education programs demands solid strategic planning focusing on developing a consensus among potential participants in all arenas of the university. While articles on initiating such programs tend to focus on the technical and pedagogical issues that need to be considered, little attention has been paid to processes ensuring that faculty and staff implementers commit the sustained enthusiasm necessary for transforming institutions. Therefore, a planning model is proposed that focuses on **institutional and learner outcomes** and **implementation processes**, rather than simply outlining the issues that need to be addressed (see Table 4).

Table 4
Outcomes and Implementation Based Model for Planning for Distance Education

Institutional Outcomes

1. Additional revenue (with realistic consideration of expenses)
2. Reduction of costs (*e.g.*, travel expenses to satellite campuses, consolidating sections at



distant sites)

3. Full and efficient use of existing resources (e.g., technology acquired for other purposes, deployment of faculty)
4. Access to new student markets
5. Maintenance or expansion of current student markets
6. Faculty development in instructional technology and related pedagogy
7. Enhancement of pedagogical repertoire of faculty and impact on classes across the institution
8. Morale and campus climate improvement through undertaking exciting new initiatives

Learner Outcomes

9. Access for students who would not otherwise have the opportunity (e.g., because of physical distance or time constraints)
10. Successful completion of programs by students
11. Effective delivery of content to students
12. Response to students' diverse learning styles

Implementation

13. Focus on participation and building consensus among principle stakeholders (faculty, support staff, students)
14. Explicit statements of learning goals
15. Capitalizes on existing programs, structures, and processes
16. Consideration of quality benchmarks (see Table 3)

Institutional outcomes address benefits to the institution. As most colleges and universities, both public and private, must be financially self-sustaining in the current economic climate, they rarely can afford to initiate programs simply because they provide a needed service to students. Therefore, the first step in a planning process is to identify outcomes that can be translated into benchmarks that indicate whether the program is meeting institutional needs.

As colleges and universities increasingly are expected to document their effectiveness at fulfilling their missions, the focus has shifted to learner outcomes. These, too, can be translated into benchmarks to ascertain their effectiveness.

And, finally, a model should consider the process of implementation, the piece most strikingly omitted from other models of distance learning planning. While attention to implementation in strategic planning is not unique to this topic, incorporating it here recognizes that strategic implementation is of greatest importance when initiating programs likely to encounter resistance and require widespread cooperation and engagement on the part of many campus constituencies, frequently true with distance education.

Distance education can enhance universities' mission to provide access to excellent education has long been a centerpiece of universities' mission by providing flexible programs for nontraditional students with ongoing obligations to provide and care for their families. Distance



education can be effective if the curriculum and pedagogy are appropriately designed and support services are adequate. Indeed, the curricular and pedagogical discussions required to create sound distance programs can benefit universities more generally by stimulating examination of pedagogy in light of recent research on learning and teaching. Faculty who participate in distance initiatives often report modifying their classroom technique, as well. Thus, the creation of distance programs may enhance teaching throughout the academy.

Necessary resources and costs clearly depend on the size and nature of programs universities wishes to offer via distance. Often the technical infrastructure needed is also used to provide services to residential students and represent little additional expense when distance learning remains on a modest scale. However, new expenses include stipends for faculty to develop courses and learn to use the technology and technical and student services support staff.

Universities should not develop distance learning as an easy source of revenue. Just as the gold rush of the dot-coms has faded, it has become clear that distance education learning will not be a get-rich-quick scheme for universities. Institutions should identify programs that fulfill market niches and capitalize on existing strengths in curriculum, faculty, and reputation. The discussion of market should also evaluate whether existing programs are vulnerable to losing their market share because of competition from distance programs at other institutions. Despite some exaggerated claims and overly ambitious programs at other institutions, distance delivery is a trend that is likely to continue, particularly for adult and professional development students.

In summary, universities should plan to offer some of its curriculum via distance education to support their missions and pedagogical goals. Planning for distance instruction should be strategic, providing for appropriate curriculum and faculty development and adequate student and technical support services to fulfill the University's mission of offering excellent and accessible educational programs.



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