

Update

Higher Education on the Web

WHERE IS THE COMPUTER REVOLUTION TAKING HIGHER EDUCATION?

The computer revolution has matured to the point that we take the computer for granted. Equipment and software have become standardized and more reliable. Most students and staff members have the minimum skills necessary to work with a computer, and many administrative functions, such as record keeping, accounting and reporting, have been done digitally for decades. Every workday includes E-mail and Web searches as part of the regular routine for students and faculty.

This is not to say that problems brought by the computer revolution have been solved. Colleges and universities still have trouble integrating administrative systems and standardizing computing platforms within their institutions. The investment in information-technology services has doubled for the average college over the last ten years.¹ And the next big evolution, the development of Web-

based learning, is well underway.

New competitors are marketing college distance education classes aggressively, which forces everyone to take a hard look at the investments necessary to move courses onto the Web. In 1998, the U.S. Department of Education found that the number of distance education programs offered by colleges and universities had increased by 72 percent between 1995 and 1998.² They estimated that 1,680 institutions were offering a total of 54,000 distance education courses. That does not include the college-level courses being offered by non-traditional providers. It is now possible to study for a college degree on-line in hundreds of programs. To this time, no one appears to have made much money by providing on-line courses, but the key is expanding the offerings internationally to populations in nations that want advanced education, but do not have the resources to produce it on their own.

For-profit distance education companies include the Uni-

versity of Phoenix, McGraw-Hill World University, Kaplan College, Strayer University, and Jones International University. Each of these, and many others, are developing college-level programs for national and international markets. Most of these organizations identify distance education as a key component of their long-term education plans, not an auxiliary program, as it is perceived in most traditional colleges and universities.

WHO IS LEADING THE MOVEMENT TO DISTANCE EDUCATION?

The 2000 Campus Computing Report shows that most

Table 1

Does the Institution Have a Strategic Plan for Distance Education?

Institution Type	No	Planning	Yes
Public university	43%	28%	29%
Private university	17	61	22
Public 4-year	38	24	38
Private 4-year	64	26	10
Public 2-year	23	30	48
Private 2-year	50	38	13

Source: Green, *Campus Computing 2000*

colleges and universities have a strategic plan for distance education or are developing a plan. Public 2-year colleges have taken an aggressive lead in developing distance education plans. Three-fourths (77 percent) of them report having strategic distance education plans or are in the process of developing them. The other group of institutions with a heavy commitment to distance education is private universities. Other private institutions are much less likely to be planning for distance education. Sixty-four percent of the private 4-year colleges do not have a distance education plan in place, 10 percent have one and another 25 percent are planning for distance education.³ Private 2-year institutions are similarly slow to invest themselves in distance education.

Why do community colleges and private universities lead other sectors on strategic planning for distance education? Perhaps it is because both have a tradition as comprehensive institutions that provide access to broad communities of students. Community colleges serve a large component of adult students, which may have motivated them to consider new ways of reaching and serving their potential

Table 2

Percent of Campuses that Provide, or Have Provided, the Following for Academic Computing

Percent	Types of Support Provided
77%	Support for faculty developing instructional software/courseware
70%	Agreements/licensing for duplication of software products
69%	Technology resource center focusing on the use of IT
60%	Projects for developing desktop instructional software/courseware
55%	Program to provide supplemental IT training for IT staff
49%	Plan for using Internet resources for marketing to off-campus audiences
45%	Support for faculty developing software for their research
40%	Plan to use Internet resources in instruction
40%	Plan for integrating IT into the curriculum
38%	Plan for using Internet resources in distance education
37%	Policy regarding ownership of Web-based resources developed by faculty
35%	Program for rewarding software development
29%	Maintain library of academic courseware
21%	Program assessing impact of IT on instruction

Source: Green, *Campus Computing 2000*

clientele. Private universities may see distance education as a way to extend their reach internationally as a natural expression of their worldwide interests. Public universities and other public 4-year colleges may have their funding limited to functions that are specific to state interests and preclude offering classes out of state. Smaller private colleges that serve mostly full-time residential students may not see the provision of courses on the Web as an important part of their mission.

WHAT ARE THE BARRIERS TO DISTANCE EDUCATION?

Today, 97 percent of faculty members have access to the web and 68 percent of classrooms have Internet access. Most institutions are developing high-speed video, which will animate the next generation of educational technology. The biggest constraint to moving education to the Internet is not technical resources, but staff development. The single largest

information-technology problem that colleges and universities must address is the need to assist faculty members in their efforts to integrate technology into instruction. This problem is being tackled by over three-quarters of the colleges in the 2000 Campus Computing Report sample. More campuses provide support to faculty members who are developing instructional software than any other academic computing function.

IF NOT INSTRUCTION, WHAT?

As much as the Web promises a major revolution in learning, colleges and universities are more likely to

use the Internet for marketing and internal communication than for distance education or instruction on campus. The single most typical piece of information on college and university Web sites is a staff directory. Just over half of the Web sites have course outlines on the Web and a third have customizable student Web pages. Classroom use of the Web ranks as a less important part of official institutional Web sites than these other administrative applications.

Colleges and universities appear to use the Internet to emphasize marketing and communication, with more

modest plans for educational services. Nearly half the responding schools said they planned to use the Web for marketing and 40 percent planned to include Internet sources in instruction.

- n 49% plan to use Internet sources for marketing to off-campus audiences
- n 40% plan to use Internet sources in instruction
- n 37% plan to use Internet sources in distance education

WHAT ARE THE IMPLICATIONS?

The Internet is changing the way colleges and universities teach and do business. In this transformation, colleges are

Table 3

What Services are on College and University Web Sites?

86%	Faculty/staff directory	50%	Campus bookstore
85%	Library/card catalogue	48%	Financial aid application
82%	Current course catalogue	48%	IT training/tutorials
77%	Program/major/degree requirement	48%	Student handbook
76%	Undergraduate admissions applications	45%	Student newspaper
74%	Athletic event schedule	43%	Course registration
73%	Journals and reference services	40%	Instructional software
67%	Alumni information services	36%	Course add/drop options
66%	Press releases/media services	36%	Course reserves
65%	IT support services	35%	Customizable student home page
60%	Interlibrary loan services	32%	Student transcripts
55%	On-line courses (i.e. full course outline)	19%	E-commerce (fee payments, etc.)

putting more emphasis on marketing and internal operations than they are on educational activities. Post-secondary institutions are not ignoring distance education, but they may be giving it a lower priority than for-profit education companies.

It is imperative that college and university faculty members keep abreast of this new teaching medium as it evolves. Every college and university should have a

plan and the resources to help faculty members develop the skills and knowledge that will allow them to keep pace with the expectations of their students. Without such

faculty skills, it will be difficult for traditional colleges to participate in an expanding education market that may be dominated by hybrid education businesses.

REFERENCES

- ¹ The Chronicle of Higher Education, Friday, October 13, 2000. New Data on Technology Spending Offers Benchmarks for College Administrators.
 - ² U.S. Department of Education, Distance Education, Distance Education at Postsecondary Education Institutions: 1997-98, National Center for Education Statistics (available on-line at nces.ed.gov)
 - ³ Green, Kenneth. Campus Computing 2000: The 2000 National Survey of Computing and Information Technology in US Higher Education. Encino, CA: Campus Computing 2000.
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