



# THE CAMPUS COMPUTING PROJECT

*The 1998 National Survey of Information Technology in Higher Education*

## Colleges Struggle With IT Planning

Roughly two decades after the first microcomputers arrived on college campuses, American colleges and universities continue to struggle with computer and information technology (IT) planning. Just under half of US colleges have a strategic plan for information technology, more than 60 percent do not have an IT financial plan, and only about two-fifths have an IT curriculum plan. Moreover, two-fifths have an instructional plan for using the Internet, less than a third have a plan for using the Internet in their distance learning initiatives, and only a fourth have a campus policy regarding intellectual property for WWW-based instructional resources developed by faculty.

“Without question, technology has become a pervasive part of the campus environment and college experience,” observes Kenneth C. Green, director of the Campus Computing Project and a visiting scholar at the Center for Educational Studies of the Claremont Graduate University in Claremont, CA. “Students of all ages and across all fields come to campus expecting to *learn about* and also to *learn*

*with* technology. Yet across all sectors of the higher education landscape, institutions continue to struggle with key aspects of IT planning and infrastructure: developing a strategic and a financial plan for IT, planning curriculum

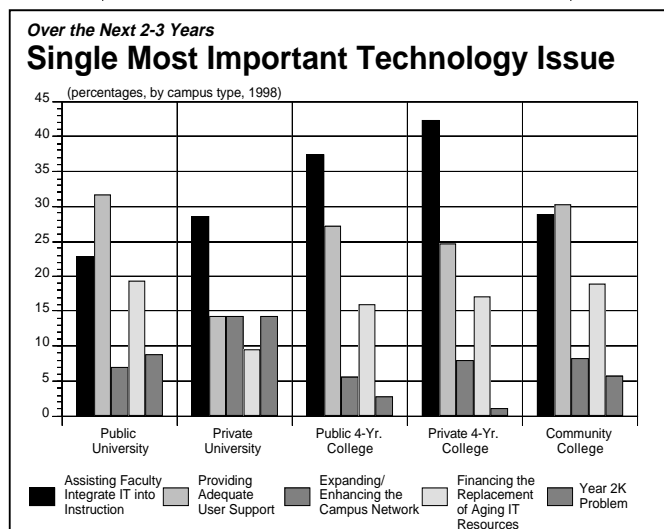
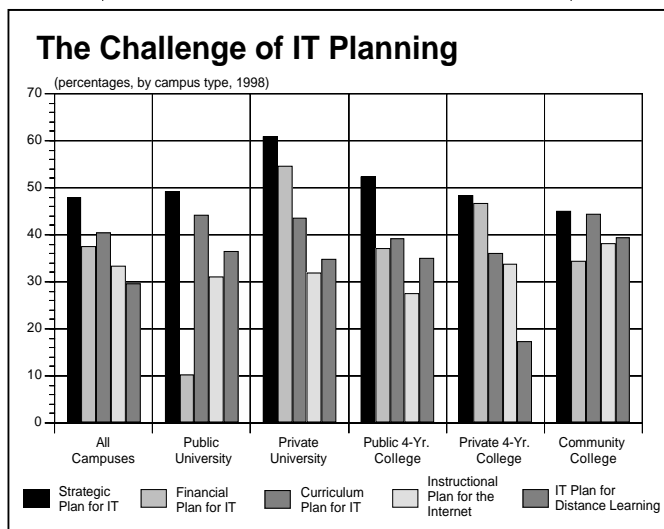
integration, and providing adequate user support.”

Green notes that these planning challenges are reflected in the issues identified as the top IT challenges confronting colleges and universities. Again this year, more

than a third of the survey respondents (33.3 percent) identified “assisting faculty integrate technology into instruction” as the single most important IT issue confronting their institution, followed by “providing adequate user support (26.5 percent); IT financial planning ranked third at 17.1 percent. Only 4.3 percent of the respondents identified Y2K problems as the most important IT challenge confronting their campus.

“Campuses are doing more with technology, and they are doing it better than in the past. But the real challenge at most institutions is to improve resources and services given both rising expectations and exploding demand,” says Green.

Not surprisingly, the 1998 survey shows that more college courses are using more technology. The percentage of classes



using e-mail jumped to 44.4 percent this year, up from 32.8 percent in 1997, 25.0 percent in 1996 and just 8.0 percent in 1994. One-third (33.1 percent) of all classes are tapping into Internet resources as part of the syllabus, compared to one-fourth (24.8 percent) last year and just 15.3 percent in 1996. And almost one-fourth (22.5 percent) of all college courses are using "WWW pages for class materials and resources", compared to just 8.4 percent in 1996 and 4.0 percent in 1994.

Despite assumptions that students may be more "wired" than their professors, a new item on the 1998 survey suggests that more faculty get a daily dose of the Internet. Survey respondents, typically, the chief information officer (CIO) or chief technology officer (CTO) at the participating campuses, estimate that 45.1 percent of their undergraduates use the Internet at least once a day, compared to 51.6 percent of their faculty. Both the student and faculty numbers are highest in research universities (over 50 percent for both groups). In contrast, less than a third (29.1 percent) of the students and two-fifths (40.1 pct.) of the faculty in community colleges have daily contact with the Internet and WWW.

Green observes that the Internet data are interesting for several reasons. First, these numbers document the widespread assumption that large numbers of both students and faculty routinely use the Internet. Second, unlike other "knowledge workers," whose work activities are more linked to an individual desk or office, students and faculty are a more mobile population in that they spend a large

part of their working day in multiple locations (home, dorm, office, classroom, etc.). On many campuses, students and faculty of-

and faculty appear to make an extra effort to get their "daily dose" of the Internet and WWW.

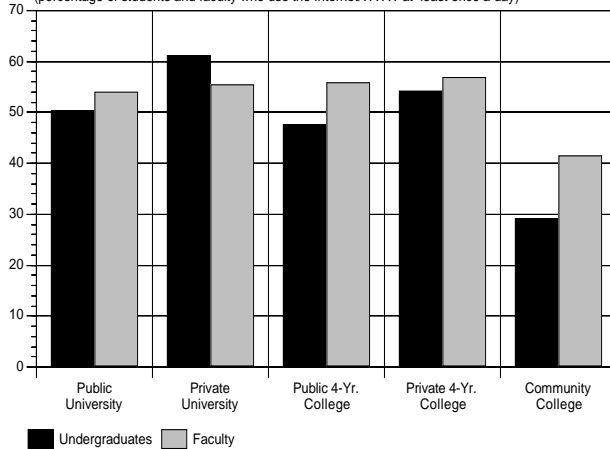
### More Colleges Impose IT Fees

The 1998 data reveal that more campuses are using student fees to help cover rising IT costs. This year almost half (45.8 pct.) of the institutions participating in the survey report a mandatory student IT fee, up from 38.5 percent in 1997 and 28.3 percent in 1995. Although the number of public institutions imposing mandatory IT fees is rising, the average annual fee has remained fairly stable

among public four-year colleges and universities at \$120, roughly the same as in 1997. In community colleges, however, the annual IT fee rose by one-third, from \$55 to \$72. Among private institutions, the percentage of research universities im-

### A Daily Dose of the Internet/WWW

(percentage of students and faculty who use the Internet/WWW at least once a day)



ten log- on to the Internet from multiple locations, such as libraries, campus offices, public-access labs, and computer-based classrooms. In this context the data suggest that, compared to other "wired workers," students

### THE CAMPUS COMPUTING PROJECT

Begun in 1990, the Campus Computing Project focuses on the use of information technology in higher education. The project's national studies draw on qualitative and quantitative data to help inform faculty, campus administrators, and others interested in the use of information technology in American colleges and universities.

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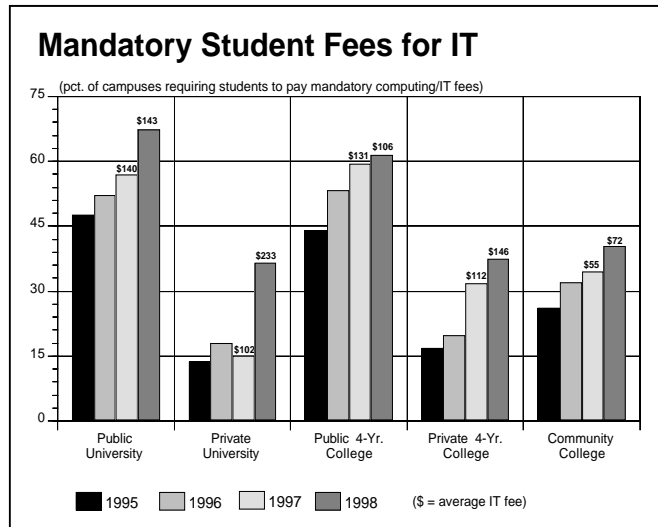
posing an IT fee rose to 36.4 percent, compared to 15.0 pct. last year; moreover, the average IT fee at private research universities more than doubled, rising from \$112 in 1997 to \$233. Similarly, more private four-year colleges now impose an IT fee (37.4 percent in 1998, up from 31.7 pct. in 1997), and the average IT fee increased by about third, rising to \$146 in 1998, up from \$112 last year.

“Rising IT fees reflect the continuing financial challenges colleges confront in attempting to provide more and better IT services for students and faculty,” says Green. “Yet campus officials must avoid the temptation to use student fees to supplant, rather than supplement the institutional investment in IT.” He notes that this is a particularly pressing issue for public institutions, as state officials may be tempted to have students cover a larger share of rising institutional IT costs: “Computer networks, user support services, software and content licenses, computer labs and instructional classrooms are key components of the campus technology infrastructure and need more than just student fees to be viable and reliable,” says Green.

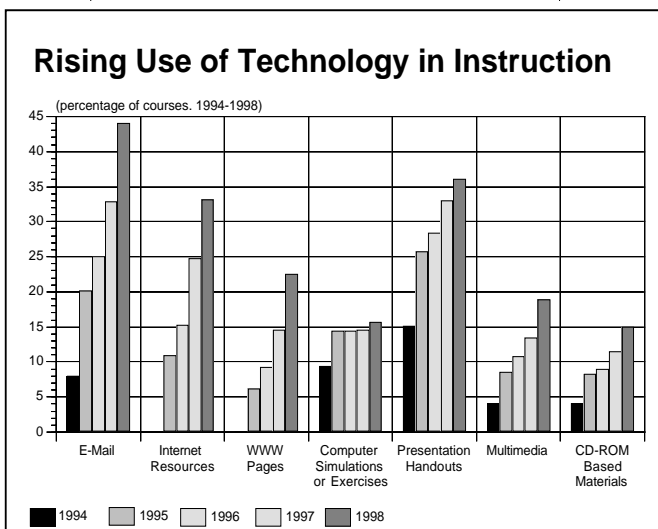
### Year 2K Issues

As a group, the survey respondents do not appear very concerned about the potential impact of the Year 2000 bug at their campuses. The vast majority, 70.0 percent, “disagree” or “strongly disagree” that “Y2K problems pose a major problem for my institution.”

Green observes that campus officials may view the Y2K issue as a supplier responsibility, rather than a campus problem: “Many cam-



pus now buy, rather than build, most of their core academic and administrative software. Consequently, campus officials are no



doubt expecting their software suppliers to provide solutions to potential Y2K problems.”

### Intellectual Property Policies

The growing role of the WWW as a vehicle for scholarly dissemination and as a repository for in-

structional resources raises important questions about who owns intellectual property—a course syllabus, working paper, or some instructional software—posted on a college or university WWW site. Yet the 1998 survey reveals that most campuses have not developed policies to address intellectual property issues.

Roughly a third of research universities report some type of policy addressing faculty-developed intellectual property on the campus WWW site (38.6 pct. for public universities; 30.4 pct. for private universities). In contrast, just over a fourth (27.5 pct.) of public four-year colleges and community colleges (27.3 pct.) have institutional policies about WWW-based intellectual property, while less than a sixth (14.1 pct.) of four-year private colleges have addressed this issue.

Green notes that given some great expectations in parts of the campus and the corporate community for the role of the WWW as a cash machine for online instruction, “it is easy to anticipate tense discussions between faculty and administrators about institutional copyright policies affecting a wide range of materials and resources that faculty routinely develop as part of their scholarly and instructional activities. To date, many faculty and researchers have been willing to post these materials on WWW sites hosted by their home institutions. That may change quickly, however, if colleges and universities claim copy-

right simply based on the fact that content was first posted on a campus WWW site.”

**WWW-based Services**

Not surprisingly, colleges and universities are using the WWW to offer an expanding range of information and support services. Across all sectors of higher education, a growing number of institutions are using the WWW to provide access to admissions forms, financial aid applications, course catalogs, and related materials. In some areas, the gains have been striking: alumni services is up by a fifth (from 46.0 to 55.6 percent), student transcripts almost doubled (from 9.8 pct. of the 1997 respon-

dents to 17.8 pct. this year), while course reserves more than doubled from 8.6 percent in 1997 to 19.9

students are buying clothing, music, and even books online, it is surprising that more colleges are not prepared for e-commerce. For campuses, the long-term e-commerce issue is course materials and other content, not t-shirts and application fees” says Green.

**Services on the Campus WWW Page**

(percentages, by sector, 1998)

	Public University	Private University	Public 4-Yr. College	Private 4-Yr. College	Community College
undergraduate application	76.3	78.8	69.4	54.1	39.1
course catalog	86.4	91.3	75.7	62.2	54.7
program/degree requirements	83.1	69.6	73.9	68.4	46.0
course registration	52.5	39.1	27.0	10.7	16.1
library catalog	86.4	95.7	83.8	68.4	37.3
course reserves	39.0	52.2	20.7	20.9	1.9
student transcripts	44.1	43.5	22.5	12.2	8.7
IT support services	84.7	82.6	64.0	57.1	12.4
instructional software	57.6	60.9	26.1	26.5	5.0
press & media information	89.8	87.0	64.0	64.3	23.0
e-commerce	18.6	13.0	1.8	4.1	3.1
college bookstore	49.2	52.2	28.8	28.6	9.9

percent in 1998. Yet few campuses, just 5 percent, are doing e-commerce via the WWW: “Given that

*The annual Campus Computing Survey, now in its ninth year, is based on data provided by officials at 571 two- and four-year colleges and universities across the United States. Participating campuses completed the survey during Summer 1998. Copies of the 1998 survey report are available for \$35 from Campus Computing; see coupon below, or use a purchase order to order directly from the WWW: [www.campuscomputing.net](http://www.campuscomputing.net).*

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