



Distance Learning: Education or Economics?

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Abstract. Sir John Daniel, Vice Chancellor of the Open University in England, pronounced that American universities are in a crisis of access, flexibility and cost. His solution is that American Universities and Colleges should employ educational technologies that allow students to earn college degrees without visiting the college campus (distance learning). The argument is that distance learning is a cost-effective way of providing more students with access to higher education.

Sir John's argument illustrates a crisis in neither access, flexibility, nor cost. On further inspection, distance learning degree programs appear to be a strategy for reducing the cost of higher education by replacing professors with computers and part-time teachers. This strategy offers limited educational benefits for the student and may present a financial danger to smaller colleges and universities, if they succumb to the pressure to develop distance learning degree programs.

Keywords: Academic, freedom, educational values, technology, distance learning, Open University, online, Georgia, College, University

At the American Association for Higher Education's 1997 annual conference, Sir John Daniel, Vice Chancellor of the Open University in England, pronounced that American universities are in a crisis of access, flexibility and cost. His solution, not surprisingly, was that American universities ought to be more like the Open University: a mega-university with over 150,000 students. How does the Open University reach this army of students? Via techniques now popularly referred to as distance learning that allow students to earn college degrees without setting foot on a college campus. Sir John and other supporters of distance learning argue that it provides educational and financial benefits that will avert the educational crisis in the United States by shifting from an elite to a mass participation system of higher education. My thesis is that distance learning degree programs are nothing more than a strategy for reducing the labor force for the sake of decreasing costs, and that we who are concerned with educational values ought to oppose their implementation. I will focus on Sir John's arguments because they are directed at the American university system as a whole, and will use the California Virtual University, the State University of Georgia System and the Wharton Direct program at the University of Pennsylvania as examples of American experiments in distance learning. I will argue that no crisis of access, flexibility or cost exists in the United States. If a crisis exists, it is that educational values are being sac-

rificed for cost-cutting measures like the distance learning degree programs that Sir John is aggressively marketing in the United States. I will begin with the question of access.

By access, Sir John means that not everyone who wants to attend a university has access to a university. The problem with his access argument is that it does not apply to the United States. He quotes the World Bank report concerning Africa which says,

Unfortunately university institutions in their present form – overwhelmed with problems related to access, finance, quality, internal and external efficiency – are not up to the challenge. Enrolment levels are shockingly low. Limited space and declining budgetary levels prevent universities from servicing the growing demand for education. As a result, universities in sub-Saharan Africa suffer from low numbers of trained faculty, virtually non-existent levels of research, poor quality educational materials, and outmoded programs.¹

Problems of access in sub-Saharan Africa do not justify the proliferation of distance learning in the United States. Sir John tries to show that access is a problem in the United States also, and cites a *USA Today* article that says the cost of sending a child to college is approaching 15% of the median family income. But then, this is really a question of cost, not access. There is no obvious access crisis in the United States. We have the facilities: 3500 universities and colleges across the country. In the state of Georgia, for example, we have 34 public colleges and universities, and additional private universities. It is almost impossible to live more than fifty minutes away from a college campus in Georgia. See Figure 1 for a map illustrating the locations of public colleges and universities in the state of Georgia. Students who can afford to attend college have access to college. The crisis that Sir John describes in sub-Saharan Africa simply does not exist in the United States.

With regards to flexibility, Sir John asks, ‘is the traditional campus model of the university appropriate in the era of lifelong learning?’² By lifelong learner, Sir John means students over 25 years of age: adult students pursuing a first degree or returning to college for additional job training. Because technology based courses can be received at home over the television or computer, they appear to offer greater flexibility for students who work or have families. Proponents of distance learning often cite the Census Bureau statistics indicating that currently 41% of the nations students are over 25 years old.³ This evidence supposedly indicates that lifelong learners make up a significant portion of the student body and that the universities should design distance learning programs to meet their unique needs. But a more plausible interpretation of the statistics is that lifelong learners are finding

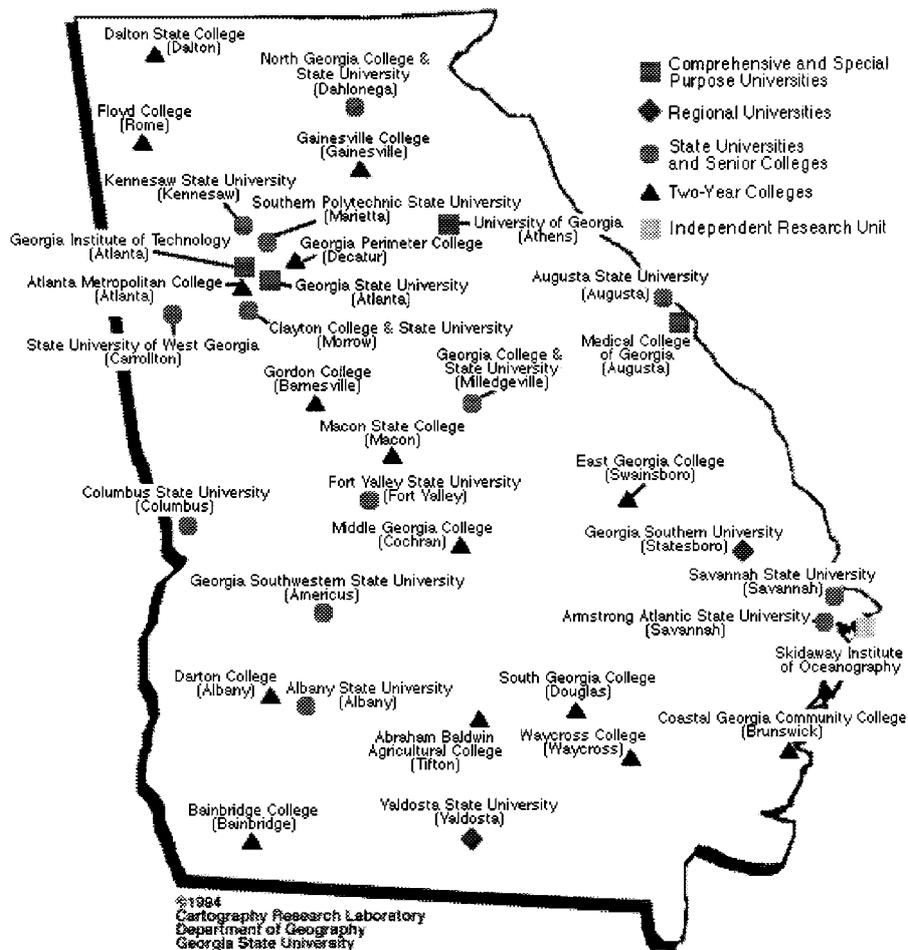


Figure 1. Map of Public Colleges and Universities in the State of Georgia.

their way to the classroom with nearly as much ease as the traditional students. The crisis of flexibility in America that would prevent lifelong learning is not a crisis if nearly half the student population is lifelong learners.

Furthermore, the generic advantage of flexibility provided by distance learning to all students is insignificant. Sir John points out that the advantage of distance education is that students receive lectures without having to attend classes at the university; 'it provides interactive study material and decentralized learning facilities where students can seek academic and other forms of educational assistance when they need it.'⁴ But distance learning still requires students to log on, study, do homework and write exams. The students only save on the time of their commute to and from campus. A study done at the

University of Southern Queensland showed that students enrolled in distance learning courses found that the distance learning courses did not alleviate problems associated with time, employment and family support.⁵ Another study done in South Carolina shows that the dropout rate for online students is higher and surveys indicate that this is partially due to a common misconception about the amount of time required of a distance student.⁶ The flexibility advantage of distance learning does not alleviate the most significant demand on a student's time.

Nothing illustrates the demand for study time more than the fact that at the Open University students take an average of six to ten years to complete a degree.⁷ Hence, Sir John's claim that students may receive the education when they need it only holds true if they have six to ten years to give to the degree program. While there is no reason to oppose these lengthy matriculation periods, describing them as a unique solution to a flexibility crisis seems something of an overstatement. Most universities now offer both daytime, evening and weekend courses, along with the option of attending the university part time. Like distance degree students, part time students attend fewer courses per semester and subsequently take longer to matriculate. The only flexibility advantage for the distant student comes from avoiding a visit to the college campus. This does not alleviate the most significant demands on a student's time.

This leaves us with only the crisis of cost. Again, there is no obvious crisis here. The fact that the United States boasts 3500 universities and over 14 million students in college indicates that we have not reached crisis status yet. Sir John asserts that universities cost too much, and he is correct. However, few students who wish to attend college are unable to do so because they cannot afford the tuition. The United States offers a very good student loan program and many inexpensive state colleges. Furthermore, states are developing financial aid programs like the HOPE scholarship in Georgia. HOPE scholarships cover the tuition for students who complete high school with a 3.0 GPA, and maintain a 3.0 GPA at the public or private university or college of their choice in Georgia – though these scholarships may not cover the entire tuition burden at some private schools. While this solution merely shifts the burden of tuition on to the state, it makes significant strides towards guaranteeing that people are not denied a college education merely because of the cost.

Nonetheless, the problem of cost, though not a crisis, is a real one. Tuition prices continue to rise, and there are a variety of reasons for this increase. Sir John focuses his money saving strategy on the faculty, suggesting that academics in general dislike cost-effectiveness.⁸ His argument has two parts. First, he suggests that faculty and administrators are guilty of excess,

In the last century, most especially here in America, the wealthy have built and equipped university campuses far beyond the basic needs of teaching and research. Who can blame university staff for enjoying the civilized environments of these well-endowed seats of learning? To be reluctant to exchange them for workplaces that are less extravagantly over engineered is only human nature.⁹

Sir John seems almost angry at the fact that college campuses are civilized environments. Perhaps he would prefer we conducted our business in corrugated metal portables. I might mention that for the last two years I have taught in corrugated metal portables at the University of North Florida and at Savannah State University. Any building that is built by the same company that builds porto-potties is unlikely to be over engineered.

But on this point of architecture, Sir John's generalizations about the wealthy who have built beyond their needs is simply false. At Savannah State University, the oldest public, historically black college in Georgia, the most extravagant buildings were erected over one hundred years ago by the first students of the college as a result of Booker T. Washington's educational philosophy that encouraged both intellectual training and manual labor. The faculty were paid next to nothing, and the students farmed the university lands and constructed the buildings in lieu of paying tuition. These venerable buildings now stand as symbols of what determined students can accomplish. Other universities have their own stories, but to separate the architecture from the education would be a gross misunderstanding of the variety of ways in which universities inspire the human spirit.

But speaking to the question of cost reduction, there is no obvious connection between distance learning and reducing the costs of maintaining those civilized environments for higher education. Dropping enrollments in the United States should alleviate the need for universities to construct more buildings. Unless Sir John intends that we should sell the existing university properties, the addition of distance learning will not reduce these costs. Later I will suggest that the closing of existing institutions must be the ultimate result of distance degree programs if they are to reduce the cost of higher education.

In the second component of his cost crisis argument, Sir John claims that the university system is teacher oriented rather than student oriented, 'The academic tradition esteems the faculty for who they are, not for the value of what they produce.'¹⁰ I am not convinced that valuing people for who they are rather than what they produce is such a bad idea, but Sir John goes on to say that the result of this teacher orientation is that, 'academics instinctively resist substitution of capital for labor.'¹¹ Put more simply, Sir John blames high university costs on the faculty for their reluctance to replace themselves

(labor) with technology (capital). 'Technology,' he says, 'is the way to reduce cost and enhance quality.'¹²

The replacement of faculty with a technology based strategy for delivering education is distance learning. Sir John describes the four keys to the national and international success of a distance learning program. I will paraphrase them for the sake of time.

First, the study materials must be excellent and varied so as to create in the home a congenial university experience. This is accomplished at the Open University with courses offered in the evenings on the television.

Second, the Open University employs 7500 adjunct faculty to serve as tutors to each Open University student. The adjuncts comment on and mark the students assignments, hold group meetings and give support by phone and e-mail.

Third, there must be accurate and efficient distribution of materials. Everyone must get what they are supposed to get when they are supposed to get it.

Fourth, the video courses must be up to date.¹³

The beauty of distance learning is that it is significantly cheaper than traditional classroom instruction, and the key to reducing costs is in his second point. By replacing the majority of its full time faculty with adjuncts who receive minimal pay, distance learning programs like the Open University can reduce their costs significantly. Sir John points out that whereas in the United States our universities spend on average \$12,500 per student per year, the Open University spends closer to \$5000 per student.¹⁴

The replacement of full time faculty with recorded lectures and adjunct faculty constitutes the fundamental change that Sir John describes as the development of a learning based orientation toward education. Apparently, the problem with higher education has been those damned professors, the offices they occupy and the classrooms in which they teach. While Sir John believes that the Open University has discovered something new, this method of reducing costs has been around in the United States for a very long time. Like movements to abolish tenure, the use of adjunct faculty in the United States is epidemic and generally associated with efforts to reduce university costs at the expense of faculty. The term adjunct has such negative connotations with faculty, that many universities now refer to adjuncts as practicing professionals. Even Sir John, who described the 7500 Open University faculty in 1997 as adjunct faculty, has become sensitive to the Americans' distaste for the term. At the 1999 meeting of the Board of Regents of the University System of Georgia he referred to these adjuncts as associate faculty.

Replacing full time faculty with adjuncts and technology in order to develop mega universities is a technology based, cost cutting measure that has nothing to do with learning styles of students. In the 1960's, the Open University exploited the power of television. But the one-way limitation of television makes distance learning a pretty unattractive enterprise. Now, the Internet has made two-way communication possible, and suddenly distance learning is all the rage. Distance education is not student oriented, it is technology oriented.

Currently, the application of distance learning in the United States does not involve transforming all 3500 colleges and universities into mega-universities that function like the Open University. Distance learning is being implemented in many different ways now by over 1000 different institutions.¹⁵ But in nearly all cases, the development of these curricula is driven by the anticipation of financial reward. At the Wharton School of Business distance learning is being used to provide middle-ranking business executives with business courses covering subjects such as understanding financial statements, making a business case, leadership and negotiation skills. Rather than bringing the executive to the campus, Wharton Direct brings the campus to the executives in multi-media classrooms located around the country. These synchronous distance courses have received rave reviews from the *Financial Times*.

In the Wharton Direct course reviewed by John Authers, 260 students in 29 cities across the US simultaneously participated in the class. Wharton Direct classes function on software designed to maximize student input in a synchronous format. But input from 260 students across the country cannot be managed by a single professor. This task requires human backup. The faculty member is assisted by eight teaching assistants composed of graduate students and junior researchers: cheap labor. Additionally, each classroom around the country has the backing of another facilitator armed with a headset and mouthpiece. Authers explains, 'As participants around the country ask questions, by sending a typed message, the assistants can either answer them directly, or pass them on to the professor, who may answer them 'live' for the rest of the nation. At the end of the course, business plans they have drawn up over the six weeks can be physically submitted to Wharton professors for evaluation.'¹⁶

Developing these synchronous courses requires a major investment in technology, and a seemingly large labor force. But that labor force is predominately cheap labor. With the exception of the professor, the rest of the crew is living below the poverty level. Hence, we see Sir John's *capital for labor* argument developed in Authers' review of the Wharton course. While the initial expense in technology is significant, Authers insists that, 'The economics for Wharton are clear-cut. If enough students warm to the Wharton Direct style of learning, they will be able to sell far more courses,

at only a slightly reduced price for each participant, at little extra cost to the institution.¹⁷ Expanding the enrollment is merely a matter of adding a couple graduate students and facilitators. Consequently, distance learning is potentially very lucrative. Authers points out that the economics of Wharton Direct are similar to how Johnson & Johnson revamped the contact lens industry by shifting to disposable lenses. The customers found the disposable lenses more convenient. They paid less for each unit, but they bought far more units, making the whole business much more profitable for the company.¹⁸ With distance learning, it is faculty, not contact lenses, that are disposable.

James Mingle, Executive Director of State Higher Education Executive Officers for the Association of American Universities, agrees with Arthur's economic analysis of distance learning. Speaking on behalf of the Ivy league schools, Mingle explains that, 'There is evidence that there's money to be made in this business [of distance learning]. We've pretty much maxed out on the participation rate for high school graduates. This is a search for new markets.'¹⁹ The search for new markets may best describe Sir John's interest in expanding distance learning in the United States. Sir John criticizes programs like Wharton Direct for their synchronous approach. His initial criticism is that the asynchronous approach remains teacher-centered: designed from the teacher's point of view.²⁰ Taping the lectures so that they may be shown over and over in asynchronous fashion apparently makes them student-centered. This weak distinction is made clear two paragraphs later when he says that the problem with asynchronous distance education is that it is too expensive.²¹ By taping the lectures and relying on the asynchronous approach, the Open University does away with the cost of the facilitators and the professor.

In direct competition with programs like Wharton, the Open University has opened a branch office in Delaware and developed partnerships with California State University, Western Governors and most recently, Florida State University to offer distance learning. Sir John describes the partnerships with universities in the United States as an expansion of the United States Open University.

With universities the interest is primarily in the joint development of distance learning programs that reach beyond the individual states. We are working with Florida State University, for example, to develop an upper division program in Information Studies to which both FSU and the Open University will contribute courses. FSU has involved Florida's community colleges as key players in the distance delivery system for this and other programs in their State and the United State Open University intends to extend that idea further.²²

By developing programs that will reach beyond the individual states, Sir John is laying the groundwork to compete for students on a national level through state universities. I see no reason to oppose competition in the sphere of higher education, if this competition puts pressure on academic institutions to improve the educational opportunities for their students. But the competition to make higher education more profitable has turned traditional educational values on their head. Whereas universities once boasted low student to teacher ratios, now Sir John is bragging that the Open University employs only 800 full time faculty for 150,000 students (188/1).

When it is suggested that distance learning will move us from an elite system to a mass participation system of higher education, we must feel that we are falling prey to double speak. While it is true that in the United States we spend a lot of money on higher education, we often do so to overcome the advantages of wealth. Distance learning will create greater distance between the wealthy who can afford traditional degree programs and the poor who will have to settle for distance degree programs. Hence, distance degree programs will establish a clear hierarchy between those who can afford a traditional four year education, and those who have earned their degree over the Internet.

In the quest for financial efficiency, the financing of distance learning degree programs threatens the quality of traditional academic programs. Andrew Feenberg, who worked on the design team that created the first online educational program in 1981, says of distance learning that, 'it's all about efficiency and, ultimately money. And there is plenty of it for high tech approaches to education, if not to staff the French department.'²³

The final blow to our traditional educational values comes when Sir John says that mass education will inspire the human spirit, and that, 'distance learning can be successful for practically any subject.'²⁴ Whereas a university was traditionally thought to offer an environment in which inquiring students would learn through interaction with other inquiring students, now Sir John insists that distance learning makes the most of a student's capacity to study on their own.²⁵ This comment begs us to question the value of a traditional liberal arts education. Studies, like the one done in South Carolina, indicate that students in distance courses perform as well on exams as students in traditional courses. But Andrew Feenberg asks,

What kind of network would make it possible to bump into someone on the way into class and make a new friend, to carry on a heated discussion after the end of the hour, to catch the professor's eye and exchange an instantaneous glance in which boredom or alertness is tacitly expressed? How can the intense moments of human interaction which mark our memories and our lives ever occur in a sterile electronic environment experienced in the isolation of the home?²⁶

The current trend to run universities more like businesses has left us with university administrators and state legislators who are chomping at the bit of distance learning and its financial promises. However, even if we ignore my claim that distance learning offers minimal educational benefits, assuming that Sir John's business principles (division of labor, specialization, teamwork and project management) will benefit higher education is naive.²⁷ First, what works in the U.K. may not work in the U.S. At present distance degree programs offered by California Virtual University and Western Governors University are, in the words of educational analyst Gary Berg, 'not very impressive. In fact, they are little more than a hodgepodge catalogue of previously existing courses with great differences in format and quality.'²⁸ California Virtual University got itself into serious financial trouble because it was expected to be a cash cow.²⁹ Instead, it has turned into a six million dollar cow that is now it is nothing more than a catalogue of courses on-line. The financial payoff of any mass production business/education only comes if hundreds of thousands of students actually enroll. Unless there is a massive increase in the number of students attending college in the United States, and the current trends in the United States speak against that, the student body of the new distance learning universities must be made up of students who would have otherwise attended traditional institutions. Hence, a university's distance learning programs are competing with traditional programs for students. The California Virtual University enrolled only 38 students the first semester and had only 300 students after two years. At this point, students still prefer traditional degree programs. But this lack of interest is not slowing down academic administrators. Internet degree programs are popping up around the country. In addition to Florida State's new alliance with the Open University, The Georgia University System decided in May of 1999 to offer a degree program over the Internet scheduled to begin in March of 2000.³⁰

Second, distance learning is not a good financial solution for the smaller universities and colleges in the United States. Many universities and colleges are scrambling to develop some kind of distance learning program. At Savannah State University, a liberal arts university with an enrollment of approximately two thousand students, administrators have described the development of these programs as critical to the future survival of the university. But this vision of the future is short-sighted. If the demand for distance learning courses fades, then universities will lose their capital investments. Considering the high opportunity cost of distance degree programs, the loss of these capital investments would devastate and perhaps close down a small school like Savannah State. If the demand for distance degree programs increases, then more universities will develop programs. Ultimately, competition for students will drive the prices down so that students with access to computers

will be able to choose whatever university program they like for almost the same price. Imagine students choosing from Wharton Direct, Harvard Direct, Stanford Direct and Savannah State University Direct. Which do you think they will choose? What this means is that if distance learning succeeds, the big name players will squeeze out the smaller colleges and universities because larger programs will be able to offer the courses at a reduced price and because a distance degree from Harvard or even Florida State University will be better than a distance degree from Savannah State. Consequently, the capital that these small schools invest in their distance learning programs will have only a short term pay-off, if distance learning catches on in the US, and no pay-off if it doesn't.

Another possibility is that smaller universities like Savannah State will themselves become sites for multi-media classrooms or mentor meeting sites for students pursuing distance degrees from Wharton, Harvard, and Florida State University in cooperation with the Open University. Such a trend would then transform these smaller schools into facilitator factories. Again, financially lucrative for the big name players, but probably not the future of the university that most administrators of small colleges currently have in mind.

The future of distance learning that I present is not intended to appear apocalyptic. Rather, my vision is as mundane as Sir John's formulation that states distance learning substitutes capital for labor. Like the movement to abolish tenure and the trend to employ adjunct faculty, distance learning degree programs in the United States are merely a method of increasing student enrollments while decreasing payroll and facility costs. There are already 1000 institutions in the United States that offer some form of distance education and the use of technology to deliver education will certainly grow. But in the dash for the financial nirvana of distance degree programs many institutions are ignoring educational values and may find that their financial nirvana looks something like the California Virtual University: a very expensive, high tech course listing that has little appeal for most students.

Notes and References

1. Sir John Daniel, 'Why universities need technology strategies,' American Association for Higher Education, 1997 Annual Conference <http://acs-info.open.ac.uk/OU/News/VC/aahe.html>
2. Daniel, 'Technology strategies,' p. 3. The question actually has three parts. Sir John asks, 'Do our teaching methods match the habits of today's learners? Are universities confident about the quality of what they do? [And] is the traditional campus model of the university appropriate in the era of lifelong learning.' But Sir John does not explain what he means by the habits of today's learners, and he shows no reason to question the quality of American methods.

3. Rosalind Bruno and Andrea Curry, 'School enrollment-social and economic characteristics of students,' *U.S. Department of Commerce, Economics and Statistics, Bureau of the Census*, October 1995, Table A-6, p. A-37.
4. Daniel, 'Technology strategies,' p. 5.
5. Kirkwood, Jannette and Jegede, Olugbemi (1992), 'Student's anxiety in learning through distance education,' Queensland, Australia: University of Southern Queensland (Eric document reproduction service number ED 360476).
6. Robert Hogan, 'Analysis of student success in distance learning courses compared to traditional courses,' Technical College of the Lowcountry in Beaufort South Carolina, *Sixth Annual Conference on Multimedia in Education and Industry*, Chattanooga, TN, July 23-25 (Eric document reproduction service number ED 412992). Drew Schwartz, 'The Internet alters student-instructor relationship,' *Community College Week 11* (6), 19 October, 1998, p. 1.
7. Daniel, 'Distance learning and clear thinking,' Board of Regents of the University System of Georgia, April 21, 1999. <http://www.peachnet.edu/admin/regents/minutes/1999/apr99.html>
8. Daniel, 'Technology strategies,' p. 3.
9. Ibid.
10. Ibid.
11. Ibid. Additionally, Sir John argues that academics show little interest in finding out what academic activities cost. He never explains what he means regarding discovering the cost of academic activities. Universities certainly know what their budgets are, so that cannot be what he means. Any hope that distance learning will clarify the cost of academic activities is wishful thinking. Jessica Summers of the University of Georgia System Board of Regents told me that there was no way to tell what the state of Georgia was spending in the development of their new distance degree program.
12. Ibid.
13. Daniel, p. 6. Sir John says that the OU has 7000 adjunct faculty, but while answering questions after his presentation 'Distance learning and clear thinking' at Savannah State University he said that the OU has 7500 adjuncts. See the minutes of the Georgia Board of Regents: <http://www.peachnet.edu/admin/regents/minutes/1999/apr99.html>
14. Daniel, 'Technology strategies,' p. 4.
15. Marlene Lozada, 'Look out for distance learning,' *Techniques 72* (7), October 1997, p. 24.
16. John Authers, 'Lessons at long range could hit the target,' *Financial Times*, 4 January 1999, p. 15.
17. Ibid.
18. Ibid.
19. James Mingle, cited in 'Some elite private universities get serious about distance learning,' by Goldie Blumenstyk, *Chronicle of Higher Education 43* (41), June 20, 1997, p. A24.
20. Daniel, 'Technology strategies,' p. 6.
21. Ibid.
22. Daniel, 'Board of regents,' p. 7.
23. Andrew Feenberg, 'Distance learning: Promise or threat,' [http://www-rohan.sdsu.edu/faculty/feenberg/TELE.3HTM#Distance Learning:_Promise_or_Threat](http://www-rohan.sdsu.edu/faculty/feenberg/TELE.3HTM#Distance_Learning:_Promise_or_Threat). The marriage of technology and profit margins has also opened the door to potentially dangerous partnerships between the universities and industry. As industry controls the distribution of

- educational materials, the universities may lose autonomy over their curricula. Curricula autonomy has already become an issue at California Virtual University.
24. Daniel, 'Technology strategies,' p. 2 and 'Board of regents,' p. 5.
 25. Daniel, 'Technology strategies,' p. 5. Dr. James O'Donnell, Vice-Provost of Information Systems and Computing at the University of Pennsylvania said that, 'at Penn and similar private institutions, the one thing they sell is that the people sitting next to you are smart people.' Appearing in the article, 'Some elite private universities get serious about distance learning,' Goldie Blumenstyk, *Chronicle of Higher Education* 43 (41), p. 23.
 26. Andrew Feenberg.
 27. Daniel, 'Board of Regents,' p. 4.
 28. Gary A. Berg, 'Public policy on distance learning in higher education: California State and Western Governors Association Initiatives,' *Education Policy Analysis Archives* 6 (11): June 12, 1998, <http://olam.ed.asu.edu/epaa/v6n11.html>
 29. Re: Problems With Calif. Virtual University Dave Balch, post to WWDEV, April 12, 1999, <http://leahi.kcc.hawaii.edu/org/wwwdev/logs/2469.html>
 30. Joan Kirchner, 'Regents give green light to Internet bachelor's degrees,' *Savannah Morning News*, May 13, 1999, p. 4C.