This report examines the choices involved in implementing distance education technology. As colleges and faculties develop distance learning courses, complications arise concerning how to control cheating, how to assure that students follow rules, how faculty loads will be calculated, how students and faculty will be allocated, and whether students are learning effectively. Questions of choice established include: (1) what kind of distance learning should be used (synchronous and asynchronous modalities); (2) how much instructor time will be allocated; (3) criteria against which courses will be assessed; and (4) what software will be used for Web-based courses. The paper also discusses technical resources, the adaptation of policies, cost, faculty roles, and changing goals. A theme underlying much of the discussion about distance learning is whether technology is enhancing or distracting from teaching. After almost a millennium of traditional teaching, there is still debate about what works best in the classroom. Internet-based courses usually take more time, expertise, and money than expected and deliver somewhat less than is intended. Instructors pursuing this mode of teaching should take into consideration the many associated complications. (AS)
Distance Learning: Technology and Choices

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Distance Learning: Technology and Choices

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Distance learning, in one form or another, has been around for a long time. "Correspondence schools" were popular in the 1950's and 1960's. Correspondence students communicated by snail mail with their instructors, many of whom were nameless and faceless. I took several such courses, courtesy of the U.S. military, in the early 1960's. They got the job done, but certainly lacked warmth, speed, and any ability to communicate with peer students.

Distance learning has come a long way since then, at least in terms of the technology used and the frequency of use. Old technologies that are still around include those based on telephone, television, and satellite video downlinks, among others. But times have changed. More modern approaches use mixes of e-mail, listservs, internet-based compressed video, web-supported, and web-only courses. Some require student travel to testing sites, while many do not.

Why we bother with distance learning

The educational rationale for distance learning has been heterogeneous, but mostly is based on convenience of the customer. That riles the traditional academics who feel that suffering should be part of the package (e.g., Festinger's famous statement, "We learn to love those things we have to suffer for."). Surely Festinger is correct in general, but it is not clear how much his statement applies to the modern educational environment.

As colleges and faculties develop distance learning courses, we hear much of how one will control cheating, how one will assure students follow rules, how faculty loads will be calculated, how FTES and Full-Time Equivalent Faculty (FTEF) will be allocated. We don't hear a lot about whether students have learned. That will come, but slowly.
The delay is understandable since we haven't made a lot of progress on that question even in courses delivered on physical campuses.

Regardless of the technology used, the putative goal of distance learning has been largely consistent over the years -- to attract students who will pay for the privilege of not being bound by place (and sometimes, time) as they attempt to learn.

Particularly with regard to synchronous modalities like compressed video courses, traditional indices of need/demand are likely to drive the offerings; with web-based courses, need is both more difficult to measure and as a practical matter less than germane to the decision. While student convenience and student learning and FTES drive, in part, the offering of distance learning, there is another motivation not often discussed. Distance learning is being emphasized because if a college does not float the Internet-based distance learning boat, the college will be left at the dry dock, its hull holed by competitors. Further, it is not only in distance learning that the college would be damaged, but in any leading edge activity. That can be very expensive for institutions, such as community colleges, that operate on the outer edge of an enterprise -- in this case, the outer edge of higher education.

Having said all the above, it is clear that distance learning of many varieties is hot. For example, in the Virginia Community College System, asynchronous distance learning Full-Time Equivalent Students (FTES) increased about 30% from Fall 98 to Spring 98; synchronous FTES decreased slightly (Table 1).

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<tr>
<th></th>
<th>Synchronous</th>
<th>Asynchronous</th>
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<tbody>
<tr>
<td>Fall 98</td>
<td>373</td>
<td>1331</td>
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<tr>
<td>Spring 98</td>
<td>354</td>
<td>1782</td>
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Table 1. VCCS FTES, Distance Learning. [http://www.so.cc.va.us/vccsdl.htm](http://www.so.cc.va.us/vccsdl.htm)

Given the opportunity, students are voting with their feet, errr, fingers. VCCS FTES due to asynchronous distance learning already is higher than the FTES of 9 of the VCCS's 23 colleges ([http://www.so.cc.va.us/vccsasr/an9798.htm](http://www.so.cc.va.us/vccsasr/an9798.htm)). Further growth is likely, although it will be suppressed by the VCCS's
failure to address the assessment of "out-of state" tuition for distance learning students not domiciled in Virginia.

The VCCS asynchronous learning is still predominantly videotape check out and traditional correspondence. Web-based courses, however, are likely to account for a significantly increasing number and proportion of FTES. That, in turn, will drive financial and teaching and cultural changes in the institutions.

Choices
Choices will need to be made, for each course offering. Those choices include, but are not limited to:
1. If the course is to be offered by distance learning, what kind of distance learning should be used? The modes mentioned above are some, but by no means all. Each may be more or less useful, depending on the population to be addressed, the course objectives, instructor skill level, and the technology and support available.
2. How much instructor time will be allocated? E-mail based courses can be very labor-intensive, while carefully planned web-only courses may be relatively easy on the instructor in the long run, and may show some economy of scale, especially if they are infrequently updated.
3. Against what criteria will the course be assessed? Should the criteria be the same as for traditional courses, should distance learning courses be considered loss-leaders, how should student learning be measured and what will be considered comparable measures?
4. For web-based courses, what software will be used? Alternatives include static html, Web Course In A Box (WCB, now in v. 3.0 -- see http://www.wcbcourses.com/), and FrontPage 98 (FP98, see http://www.microsoft.com/frontpage/). This choice should be influenced by instructor expertise; functions required; hardware, software, and support available; and funding. While the use of static html requires only a vanilla webserver and a pentium with 32mb of memory and 50mb of disk space, full-blown FrontPage 98 requires a FrontPage Server and a barrel of technical expertise.
How does this apply to criminal justice? Those colleges and faculty who try to do something are likely to succeed, at least in the short run, and particularly in criminal justice. Internet-based courses are popular, computers and the Internet are popular, criminal justice is popular, and better students are disproportionately likely to be interested in such courses. Frankly, most criminal justice course failures, at least in the short run, will be due to failure to enter the race or marketing failure.

Criminal justice courses do not raise any issues that are new for distance learning. Justice-related courses are already quite available on the Internet. For example, a search using "law" as the keyword and restricted to undergraduate courses pulled up more than 100 courses, and a search using "criminal justice" pulled up 10, just from one web site (http://www.caso.com/casopage.cgi?page=course_search.html).

Moving courses from the classroom to an asynchronous modality increases the potential for connection with in-service training and professional development activities within law enforcement agencies. In addition, asynchronous courses may emerge as competitors for criminal justice training centers for specialized and advanced training.

We know very little of how potential distance learning students make their choices, especially when choosing Internet-based courses. Are web courses offered by distant institutions on a competitive footing equal with that of the local college? At present we cannot answer that question, although preliminary data are suggestive. Many of the students we get at Blue Ridge are also taking traditional courses. Of course, that may be an artifact of traditional marketing methods that do not take advantage of the Internet.

We suspect that the more mature and the more skilled the student, the more likely the student will be to succeed at distance learning. But that may not be very different from what we see in standard classroom settings.

Much research remains to be done.
It is not necessary to dive head-first into web courses; one can dip one's toes, one at a time. That is what my students and I have done. For several years my students have been surfing the Internet for information of various kinds. My Web bookmarks are on the Internet (see http://www1.br.cc.va.us/levin/bookmark.htm) as are my course outlines (see http://www1.br.cc.va.us/levin). My students have used e-mail as a routine means of communication. They have been writing papers (first on disk, then sent as E-mail attachments). They have used discussion boards linked to each course outline. Each of these things were done, one at a time, and then patiently (or sometimes impatiently) debugged and reconstituted.

Last spring, in conjunction with colleagues at two other colleges, I used WCB for a couple of sections of a standard introductory psychology course. WCB was adequate, but not as flexible as I would like. This summer and fall I have been experimenting with FP98, and will deliver courses using it starting spring of 1999.

The progress made was not much strain. In part, that is because I have been playing with computers since 1963, but mostly because many colleagues at my college are interested in and doing similar things, and the college has shifted its budget dramatically to support those activities.

No matter how one does it, currently available models of distance learning are at least as expensive as comparable traditional courses. Most distance learning models require more instructor time per student and thus have a diseconomy of scale. But that diseconomy is only the tip of the iceberg.

When traditional institutions try to deliver distance learning, particularly web courses, they have difficulty adapting existing policies, staff, and procedures. Problems include how to advertise, how to admit and register students, how to add and drop courses, how to report test results to students, how to measure faculty load, and on and on.

And then there is the small matter of technical resources. When we move to Internet-based courses, we are making a large, although often hidden, impact on the college budget. The cost of computers and software for faculty can be significant, but pales into insignificance compared with
needs for professional development, network engineering, software troubleshooting, and instructional technology.

Blue Ridge, a small college (about 43 teaching faculty and 1450 FTES), is budgeting about $500k for next year for computer-related expenses, not including staff. Currently our computer support staff includes 3 instructional technology types, parts of several other learning resources positions, and 5.5 positions in information technology. In addition, of course, there is the vast amount of peer training that goes on, as well as inter-departmental course offerings (mostly non-credit and tightly targeted).

Capital outlay must also be considered. For example, our one compressed video classroom, with about 20 seats, represents about $79k in equipment costs and another $12k in renovations. A per-seat cost of about $4k, excluding personnel, is rather steep for most colleges’ blood.

Out of our $7.5m maintenance and operations budget, computer-related hardware, software, staff, training, and related items runs about $1m. That's equivalent to about 20 new faculty positions. Of course, it's not an either-or issue. If one is to offer any courses about computers, some of those expenditures will be unavoidable. But should every college go as far as Blue Ridge has?

As faculty, we should be asking ourselves whether we are prepared for teaching on the Internet. We also ought to be asking whether our college is prepared for delivering courses on the Internet. If the answer to either question is no, then we should be asking whether that gap is intentional. We ought to be examining whether distance learning needs to be considered as part of our curriculum development and as part of our marketing plan.

The rules of the game are changing, the goals will be changing, the technology is changing, and our sense of who the customer is and should be is changing. Further, successful implementers will be redesigning their institutions to take advantage of these changes, rather than, as currently, trying to force Y2K technology through an 18th century sieve.

A theme underlying much of the discussion of distance learning is whether the technology is fomenting or distracting from teaching. At present, we have no clue.
After most of a millennium of classroom teaching, there is still endless debate about what works best in the standard classroom. I do not expect that we will know any time soon what works best regarding the technology of teaching.

Internet-based courses usually take more time and expertise and money than expected. They usually deliver somewhat less than is hoped for, although in this they may not differ from standard classrooms. Internet-based courses are not for the faint of heart. They require an instructor with initiative, and perhaps a bit of a death wish. Internet-based courses can also be a lot of fun. But they may not be a game everyone needs to play, or should play.

Notes

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Title: Distance Learning: Technology and Choices

Author(s): Bernardo H. Levin

Date: 19 Nov 98

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