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ABSTRACT

With the advent of Internet instruction, distance learning has taken on enhanced status in higher education. This paper describes how Internet instruction differs from traditional instruction, what changes must be made if an institution chooses to move into Internet instruction, and some ramifications of those choices. As a general rule, Internet instruction has nearly all the problems of traditional instruction, plus the difficulties intrinsic in doing something different within an organization that has stayed the same, as most colleges have. If colleges are to get serious about the Internet, they must commit funds, people, and time, and must change the nature of the organization. If not, they must recognize that they are not serious players. Instructors must be prepared for hard work. Times are changing, and so must the institutional mission if community colleges are to survive. Colleges should use Internet instruction as means of increasing student success as well as improving access and quality. However, they can no longer continue to focus on marketing themselves as the inexpensive alternative--they must sell quality, and do the things that produce quality. Contains 18 references. (VWC)

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DISTANCE LEARNING CLOSE TO THE GROUND

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Abstract:

With the advent of Internet instruction, distance learning has taken on enhanced status in higher education. This paper describes how Internet instruction differs from traditional instruction, what changes must be made if an institution chooses to move into Internet instruction, and some rami of those choices.

As a general rule, Internet instruction has nearly all the problems of traditional instruction, plus the difficulties intrinsic in doing something different within an organization that has stayed the same, as most colleges have. If colleges are to get serious about the Internet, they must commit funds, people, time, and they must also change the nature of the organization. Or they must recognize they are not serious players.

Colleges, if they play their cards properly, may use Internet instruction as a means of increasing student success as well as improving both access and quality. However, we can no longer continue to focus on marketing ourselves as the inexpensive alternative – we must sell quality, and do the things that produce quality.

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My justification for being here today is to present three ideas about teaching on the Internet: what it feels like, what it takes to get there, and where I think it's going. My qualifications are dubious. I've taught some courses that were partly on the net, and a couple that were entirely on the net. And I have done some guessing about the future.

Teaching on the 'net is the trendiest thing since zoot suits. Everybody and his brother are getting into it, or wishing they were getting into it. I've published a lot of stuff over the years, but a brief article I recently published on teaching on the 'net (Levin, 1999) is the only one that has ever been reprinted in toto in a respectable journal. Double bangers are nice, but should make one suspicious of the social context – academic mob rule.

So much for hype. What's it like in the trenches?

Courses on the 'net bring the instructor almost all of the problems that on-campus courses bring, except trash left in the classroom and noise complaints.

Good students will succeed no matter what instructors do to them. Because 'net-based courses generally require more writing, there's more room for the up-scale student to shine. And they do. I got some world-class essays, from students who actually followed instructions.

Poor students do even worse on the 'net than they do in classrooms. Poor students do not have the necessary organizational, cognitive, reading, writing, or computing skills necessary to succeed on the 'net.

It is wise NEVER to admit a student who has an AOL account to a 'net-based course. Of my problem students, 98.6% (by actual estimate) had AOL accounts. I suspect AOL serves as a proxy for "new to computers" and thus on shaky ground from the first "day" of class.

The instructor must be prepared for a lot of work. The instructor will need to know a significant amount of technical information, even if support propeller-heads abound. But that's only the beginning. The instructor will be the student's only umbilical to the college, and the umbilical is via the electronic word. If the college does not have an up-to-date student-oriented web site, the instructor will be answering all kinds of questions that have nothing to do with the course but everything to do with retention and student success.

Because of the instructor's growing grasp of technology and its flaws, the instructor will discover early in the semester a variety of things that should have been done better. Unless they bear on fundamental fairness or otherwise destroy the course, the best advice is to leave bad enough alone. Students, like other people, have a limited tolerance for change. When they are isolated, hanging at the end of a link to the 'net, they have even greater need for stability.

The instructor will have students who are "no-shows." They register and that's the last the instructor ever hears of them. Sometimes the eddress they used to log on was invalid, so they never get the instructions, or they finally inquired about what they should be doing after the semester is half over. Students who do not have considerable self-discipline will not turn things in on time, or will turn in assignments that have little relationship to what they were asked to do.
Problem students will create policy challenges. They will have problems for which existing policy (the instructor's and the college's) is of little guidance.

There will be students who had no clue what they were getting into, and do not have the skills or knowledge to get out of it.

There will be students who "want the same old song and dance" (Benvenuto, 1999) -- traditional lecture classes -- instead of what they got. While they may hang in, they will not be happy campers.

Because of these problems, the instructor will need to develop a long list of FAQs, which many students won't read until it's too late.

Because the instructor will never actually talk to many students, the instructor will be more socially isolated from their reality and the instructor will be deprived of a major source of social reinforcement in the classroom, the hallways, and the office. E-mail, discussion lists, chat rooms, and voice-mail can compensate, but only minimally.

The emerging student educational outcomes assessment and evaluation processes which are now being engulfed by state-mandated standards are designed with classroom teaching in mind, and don't work very well even there. When applied to distance learning, insanity can result.

What it takes to get serious about teaching on the Internet is an institutional commitment to the notion of risk capital. By this I mean that the institution must recognize that it must make significant investments in (and thus put at risk) people, time, and money if it is to be successful at the Internet instruction game. Institutions of higher education are notoriously risk-averse, so the notion of risk capital is one usually greeted grudgingly, with trepidation, and with bureaucratic obfuscation.

Some colleges will decide they simply cannot afford to play the Internet game in any serious way. That is understandable, given the tremendous costs involved in playing it well (e.g., Levin, 1999). Other institutions will outsource or otherwise isolate high-risk enterprises, in order to reduce capital outlay and the potential damage caused by failure. In doing so, they also insulate themselves against potential benefits, and add to the profits and power of potential competitors. Thus the rise of private entrepreneurial enterprises specializing in outsourced Internet-based instruction.

Blue Ridge Community College created and exploited opportunity and made a significant commitment across the institution. The commitment involved money, organizational

change, professional development, decentralizing, and rewarding faculty initiative. However, guided as the institution is by chaos theory rather than a master plan, there was, and is, no strategy worthy of the name, no clear guiding principle, no formal goal (other than the usual litany of access, student success, et al.), and no sense of focus in the cybercollege. Rather, our "close to the ground" perspective is that we are entrepreneurial, and that Darwin (and cold, callous deans) will sort it all out.

On a global scale, where is it all going? This question is salient, because the choices that institutions make about teaching on the 'net will affect mission for a long time to come. There are choices, the choices will create the outcomes, and very little is pre-ordained.

The VCCS has not a clue about what it will do with cybercourses. Neither has Blue Ridge. Should we primarily serve students already taking courses with us, or at least students in our service area? Or should we market nationally? We don't know. That question goes to mission, and puts community colleges in a serious bind – decisions that are economically sound and consider amortizing sunk costs are likely to be inconsistent with existing mission.

Replacing college faculty is never easy – exact fits are scarce. Replacing faculty who teach on the 'net is even more difficult.

Recruiting adjunct faculty can be a challenge. Recruiting adjunct faculty with current discipline and technology skills may be possible only if traditions are fractured, for example, if one is willing to hire virtual adjunct faculty – those who are never physically present at the college or even in the service area. And think syndication.

This may lead to outsourced teaching, something with which most colleges will be uncomfortable. Few businesses outside academe would willingly outsource their core mission. Perhaps teaching will no longer be our core mission, having been supplanted by what we learn to do well -- marketing, certification, and records/financial management? This model, however, is not far from what many "local" [community?] newspapers have adopted – a small local news operation, local advertising/sales, local delivery, but most of the rest centrally controlled, including contracting with syndicated columnists to the near exclusion of local talent. Imagine temp agencies who bring together faculty and colleges for specific course sections [One existed as early as 1996. see Miller & Dunn, 1996]. Leasing specific "lectures"? Specific technology applications?

In-service knowledge acquisition, on a continuing basis, is necessary. Technical knowledge has a useful lifespan of less than two years (the lifespan of MicroSoft Office97). Without a faculty-driven professional development program, success by any measure is not likely.

Assignment of full time faculty to teach on the 'net must be led by faculty. Otherwise it may be seen as a punishment post. Teaching on the 'net is far more work, requires far more expertise, and has far less intrinsic reinforcement.

Support for faculty teaching on the net is very expensive – Internet infrastructure, support staff, software, laptops – the list is endless. And necessary. No point in getting in the game unless you can afford the admission ticket, every year.

Trying to run a serious 'net teaching operation within a traditional, organizational structure is working against oneself. Nurturing a rapidly changing enterprise within a turgid and turbid system does not work. Professors will play the game, but without enthusiasm.

Rigidity in policy issues will be a serious challenge. VCCS, for example, has a mindless 10 hours/week office hours rule. Nobody has figured out where the "office" is when one is teaching on the 'net. On the electronic frontier, place is irrelevant, and time means little. Another policy problem is the notion of "full time load." How on earth do we measure time spent teaching when we use a medium independent of time? What should a "semester hour" mean? How should we weigh enrollment, services provided by the instructor, technological sophistication, teaching effectiveness, mission/strategy sensitivity, etc.? Or do we just fumble along with business as usual? Of course, existing policy also focuses on quantity, not effectiveness.

Rigidity is not limited to colleges and systems. Outside forces also may make Internet-based curricula untenable. For example, the Visiting Committee of the Substantive Change Committee, Commission on Colleges, Southern Association of Colleges and Schools (12-15 July 1998) "strongly suggests" that the Virginia Community Colleges System assure that "sufficient work, including tests upon which a course grade is based, occur in a proctored environment to ensure the integrity of course grading and the determination of levels of achievement" (p. 13). That's dandy if the students are local. Trying to do that in large and geographically dispersed classes will prove an interesting management challenge. Of course, as regulators become more familiar with the nature of the Internet and with instructional alternatives, such ignorant "suggestions" may fade. Abeles was on point when he wrote (1999), "Fear for the outcomes of technology has always been present in times of great changes".

How will we resolve the service area issue? If we decide to market world-wide, there will be tension thenceforth with existing services that are service-area based. These tensions will manifest in areas as diverse as the business office (books, tuition payment, out-of-state tuition, scholarships), admissions (will we really do it on the 'net?), and student services (and exactly how will you counsel a student who lives in Ireland so that the services received are comparable to those provided on campus?). Some (Kanter, 1998) recognize that "With the growth of distance education, previous notions of districts, college service areas, and boundaries 'are an old way of thinking'" (p. A-16). In her mind and in mine, "old" does not necessarily imply venerable.

There is a variety of models for institutionalized virtual learning (Hurst, 1998). Some of these models (and the institutions involved with them) may survive. Those that do will have to wrestle with increasingly complex dimensions, including operating effectively in the international economy.

One model, total virtual teaching, needs discussing. In this model, there is no "teacher." There is an instructional designer who creates the course to specifications. Timed multiple guess tests are taken over the 'net, and automatically graded and recorded. Essay examinations also are administered over the net, automatically graded and recorded. Sounds far out? Nope. BRCC already has the technology for multiple guess tests, except for the timing, which shall be on line soon. Reliable essay grading software in the form of latent semantic analysis via the Intelligent Essay Assessor (Thompson, 1999) already is available. The advantage of total virtual teaching is that the faculty, except for casual labor, becomes irrelevant.

How can a college provide quality 'net teaching when it has trouble keeping e-mail up and does not support faculty home pages? The short answer is, "It can't." The long answer is that there will be hierarchies of providers. Some colleges (and some independent for-profit corporations) will provide full-scale support for other colleges who cannot. For a small fee. Maybe not so small. Whatever the market will bear. With regard to Internet-based distance learning, most community colleges have decided by default to be content with small, uneconomical potatoes rather than become serious players. The rest had best decide soon.

The technology underlying Internet use is changing. For example, Jini devices and software (Govoni, 1999) may dramatically reduce the cost and complications that inhere in workstations, while making total portability the norm. Thus, Jini may well complete the migration from traditional classroom to totally decentralized learning, from the remnants of the industrial university to the virtual university (Miller & Dunn, 1996) and beyond.

The notion of the industrial university is not far-fetched. Heydinger was correct when he wrote, "The 'tool box' of higher education change contains mostly tools from the nineteenth century bureaucratic paradigm" (Heydinger, 1999, p. 1). Most colleges lurch along, driven by funding allocation and political pressures and what is trendy and the perceived built-in limitations of the system – whatever system the colleges perceive as germane. Inspired leadership and thinking about the future are still scarce as hens' teeth. Finn (1998) goes further: "Yet even strong leadership won't suffice as long as rusty institutional structures endure" (p. B5).

Cohen (1995) concluded that "Regardless of the spread of multimedia and interactive technology-based education, classroom centered instruction will remain essential." I am not certain that the classroom as we now know it will even exist.

What will be the nature of the virtual campus? "Will the groundskeeper be the webmaster? Will the university own or lease space and talent? Will it own courses?" (Abeles, 1999). Will there be a physical campus, or will it, like computing, become distributed without regard for jurisdiction, geography, and time?

Science is inexorably moving in the direction of "collaboratories" (Kiernan, 1999). Social scientists and even law enforcement officers have long been involved in Internet-based collaboration. In Internet-based distance learning, we are seeing this as well, both within individual classes and in collaborative teaching projects, among both students and instructors. Given the connectedness of the Internet and its paradoxical isolating effect (high tech but hard touch), Internet collaboration is an inexorable force. A force whose long-term effects remain speculative.

The ultimate question is whether traditional colleges will survive at all. Private enterprise (e.g., Sylvan Learning Systems, University of Phoenix), being more nimble (Selingo, 1999) and more rational, will cream even more of our "good" students, leaving us with a higher density of students who are, shall we say, "service-intensive," and thus disproportionately expensive to serve. Community colleges that do not get on the Internet bandwagon will receive, at best, the funding levels to which departments of mental health and welfare departments are accustomed. And will be equally ineffective.

This train is leaving the station. Colleges not on board already are out of the game unless they get serious funding to play catch-up ball. That money will be hard to come by.

There are broader social implications. The community college cannot be all things to all people (Phelan, 1997; Levin, Perkins, & Clowes, 1992). Unfortunately, the typical community college mission would have it that the community college can be all things to all people, or at least all poor people. Community colleges have a history, well-intentioned but not terribly fruitful, of "serving" the poor and downtrodden. We are proud of helping them "learn to labor" in Willis' (1977) terms. We even market that we're the inexpensive, low-status alternative. We tout our low cost more than we talk about quality. It is difficult (for students as well as for faculty) to take pride in being part of a low-bid operation.

When the so-called "modern" community college mission was articulated four decades ago, the framers visualized a community college that would ameliorate social ills, lift the downtrodden, and make ours a better world. That vision did not assume the tremendous power of the Internet. The isolating effect of electronic communication – not just the Internet but also the television, video games, artificial intelligence, and simulations – was not anticipated.

Times have changed, so mission must change if community colleges are to survive. Change always poses threat to those vested in the present. No matter what we try to accomplish with respect to mission, it will be wise to attend to Ian Wilson's (1997) caveat: "Changing strategy and improving vision are a lot easier than moving culture" (p.1).

Federal Communications Commssioner Evin S. Duggan noted, the "democratization of the Fax machine may not be desirable or necessary" (Skrzycki, 1991). There is good

reason (National Telecommunications and Information Administration, 1999) to suspect that Duggan's principle applies to the Internet and to Internet-based instruction. The National Telecommunications and Information Administration (NTIA) has published a blockbuster report on demographics of Internet use (NTIA, 1999). See tables 1 and 2.

Year	White non Hispanic	Black non Hispanic	Hispanic
1994	27.1%	10.3%	12.3%
1998	46.6	23.2	25.5
Difference	19.5	12.9	12.2

Table 1. U.S. household computer penetration gap. From NTIA 1999, p. 19.

Household Income	Percent Using Internet
Under $5,000	8.1%
5000-9999	6.1
10,000-14,999	7.4
15,000-19,999	9.8
20,000-24,999	12.1
25,000-34,999	19.1
35,000-49,000	29.5
50,000-74,999	43.9
75,000+	60.3

Table 2. Percent of U.S. households using the Internet, 1998. Data derived from NTIA and December 1998 Current Population Survey, U. S. Census Bureau. From NTIA 1999, p. 25.

Table 1 shows that not only do Whites have greater access to computers than do Blacks and Hispanics, but the discrepancy is growing. Table 2 shows that Internet access is highly positively correlated with household income. Absent powerful ameliorating forces, the poor and traditional minorities on which many community colleges focus are unlikely participants in Internet-based instruction.

There is a bright side to all of this. Now that we in higher education are being pushed harder for productivity, we are feeling uncomfortable. Fortunately, the Internet-based curriculum may rescue us, if we do not blow it. If we market Internet-based courses in a business-like manner, focusing on quality, we may attract a student more competent, more organized, and more likely to succeed than our traditional students. The written mission may not change, but our students and our "success" rate may.

Where or whether we (as faculty, administrators, and institutions) wind up in our distance learning adventures is not pre-ordained. What happens will depend upon the choices we make. We live in interesting times.

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