California's Rio Hondo Community College (RHCC) began developing on-line programs in response to rapidly approaching external changes affecting education and training. These changes included reduced funding for expansion, increased needs for inservice training, increasing numbers of adult students, and the growth of computer technologies and the Internet. Current distance learning applications allow colleges to combine new roles for teachers and learners, new learning paradigms, and technology that increases speed and accessibility. In developing the new program, however, planners at RHCC faced immediate resistance to change among faculty and staff. In addition, the following issues and obstacles had to be addressed: (1) gaining the support of key administrators; (2) convincing faculty, the Academic Senate, and the college's Curriculum Committee that distance learners would receive the same support and quality instruction as on-campus learners; (3) obtaining the support and assistance of colleagues in the target department; (4) assessing student needs and piloting courses; (5) maintaining adequate technology and deciding upon elements to be implemented; and (6) allowing sufficient time to implement the program. The obstacles were overcome, however, and, as of 1997, 24 Web-based professional update courses related to peace officer education were offered through the college's Public Service department. The course pages include course titles, descriptions, learning goals, activities, assignments, and links to other Internet resources. Contains 18 footnotes. (HAA)
Learning On-line: A 20th Century Zen Experience

A Paper Presented to

Academy of Criminal Justice Sciences (ACJS)

"Future of Criminal Justice and Use of High Technology Committee"

March 14, 1997

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Learning On-line: A 20th Century Zen Experience

The Journey

The students of Zen are seeking the transition from dependence on ordinary thought into enlightened consciousness. The beginnings are attributed to Bodhidharma who came to China from India in the late 5th century and taught the practice of “wall gazing.” According to tradition Hui-K’0 (487-593) defined enlightenment as the direct seeing of one’s own “original mind.” At present two schools of thought have developed: Lin-chi which uses “sudden enlightenment” and Ts’ao-tung which emphasis “sitting mediation.” In our case this has developed into “sitting mediation” using “screen gazing” while waiting for the web page to load.

How did Rio Hondo Community College get involved in “going online?” Our journey began some three years ago with a growing awareness that a number of changes were rapidly approaching. These changes would dramatically effect the way we delivered training and education to our students or customers in several areas

- reduced funds for expansion and growth,
- increased need for inservice training,
- changing student demographics, and
- movement into computer technology.

Reduced funding

The Community College system is funded by the State of California. For each student contact hour the college receives money to offset cost. In prior years there were additional funds available for growth and some expansion. As the State developed some fiscal problems these funds became less available and colleges began to look at more efficient use of their budget. Classes under 20 or so students were canceled, since 20-25 is the “break even” point for funds. A “cap” was established for each college based on their current funding level. Student contact hours generated above that “cap” were either not funded or funded at a reduced percentage.

Since the campus, physical plant, is a major budget item, options for maximizing use of existing classrooms and finding other existing facilities for classrooms became a priority. Integrating the needs of the
learner with facility availability, need to maximize, has created innovations that may not have occurred without the funding crunch. Within a series of recommendations for a "Learning College" the authors suggest that there is a need to develop open-entry/open-exit classes that span the whole year, explore and develop alternate scheduling patterns based on the needs of the students. As both Alvin Toffler and John Scully, former CEO of Apple Corporation have predicted that the real structure of colleges and universities of the 21st century will not be bricks and mortar...it will be information systems.

Increased need for inservice training

The Public Service Departments strategic mission involves serving the needs of the community and students from the law enforcement, corrections, security, and fire communities. In each service area there are requirements for entry level and continuing professional training. With any incident involving these service organizations it seemed the solution is legislation, usually involving a training mandate. In 1970 the California Commission on Peace Officer Standards and Training was established, by legislation, and given the authority to establish selection and training requirements for law enforcement agencies that participate in the program. The Commission created the police Basic Course which was mandated at 200 hours. The list of mandates has grown to the point that the police academy now averages over 900 hours of which 664 hours and 18 separate subjects area are required by legislation.

Historically, these organizations have looked to the Community College system to meet their training needs for several reasons

- ability to respond to training needs; existing classes can be easily modified or new ones created,
- cost effectiveness; a typical one day class may cost only $2-3.00 per student compared to $100-300.00 for a private presenter, and
- many counties have several Community Colleges minimizing travel for the students.

Changing student demographics

The end of the military actions in Korean and Viet Nam resulted in many adults returning to school with veterans benefits for education and training. In addition, many adults are finding that their jobs and job
changes emphasized the need for continuing education. These adults returned to the classroom with both the need for constant updates and different sets of expectations. With the veterans another set of students entered the college, those disenfranchised from more traditional educational opportunities. With the opportunity came increased success in the workplace of these “adult learners.” A recent study at Rio Hondo College, Whittier, California, reported that almost 50% of the students indicated that they had not taken a needed class or had to drop a class because of child care or work conflicts with the class schedule.

The concept of an adult learner is not new. Authors have described the adult learner as one who chooses to be in a given learning situation.\(^4\) Reportedly the term was used in Germany in the early 1800s.\(^5\) However, it was some 100 years later that these adult expectancies lead to an inquiry by Malcolm Knowles and others.\(^6\) These studies produced the term “andragogy” (adult learning theory) to describe the adult learner compared to “pedagogy” (child learning theory) which described the child. The differences were summed up as

- problem-centered rather than content-centered,
- active participation in learning,
- integration of past experiences with new data and new problems,
- collaborative as opposed to authority-oriented,
- mutual planning between the learner and the instructor,
- mutual evaluation that leads to reappraisal of needs and interest which leads to redesign and brand-new learning activities, and
- experimental and active involvement, not passive “transmit and absorb” as in pedagogy.\(^7\)

Movement into computer technology

An information distribution system, the Internet, has been available since its inception in the 1970’s as an outgrowth of a project by the US Department of Defense Advanced Research Projects Agency (ARPA). The system was designed to be a non-reliable network service for computer communications over a wide area involving research and educational efforts.\(^8\) However, the use of the system was limited from a “user” perspective until the development of the World Wide Web.

The World Wide Web is a hypertext\(^9\) based information service providing access to and links between multimedia, complex documents, and databases. The Web, as it is colloquially known, is one of the most
effective methods to provide information because of its visual impact and ease of use. This hypertext based document system acting as a distributed information service over the Internet in March 1989, when Tim Berners-Lee of CERN (a collective of European high-energy physics researchers) proposed the project to be used as a means of transporting research and ideas effectively throughout the organization. After the original proposal, the National Center for Supercomputing Applications (NCSA) began a project to create an interface to the World-Wide Web. One of NCSA's missions is to aid the scientific research community by producing widely available, non-commercial software. The NCSA's Software Design Group began work on a versatile, multi-platform interface to the World-Wide Web, and called it Mosaic. In the first half of 1993, the first version of NCSA's Web browser was made available to the Internet community. Because of the number of traditional services it could handle, and due to its easy, point-and-click hypermedia interface, Mosaic soon became the most popular interface to the Web. However, in recent years Mosaic has been outdistanced in sales by Netscape as a Web browser.

With the advent of a friendly way to access the Internet and the graphics based Web, computers have become faster, cheaper, and also relatively easy to use. It has been estimated that there are 16.1 million computers in 176 countries, almost 16 million hosts of which over 408,000 are Web based. These numbers appear to be growing at an annual rate of 70% leading some to speculate about the collapse of the Internet—but that is a different topic.

Enlightenment Begins

Distance Learning

Learning at a distance (or away from the walled, "second wave" factory of education) is not anything new. There have been study at home programs since Abraham Lincoln studied law in a cabin by candle light, or so legend reports. What makes current applications in distance learning exciting is the ability to combine several components. These include new

- roles for the learner and teacher, or facilitator,
- paradigms of learning,
technology which
- increases accessibility of the facilitator and resources,
- allows for learner control of the process,
- heightened performance in activity,
- uses both synchronous and asynchronous interaction which allows for more thought,
- gives greater access to more resources by using the Internet and Web, and
- fosters discovery of new knowledge through a process of self-direction in the study process.

Each of these components, with the exception of technology, have existed for a long time. As one author stated “In the middle ages and colonial North America, the classroom technology of choice was the scholar’s board, a paddle-shaped piece of wood upon which a student would inscribe a lesson being dictated. Like a modern computer, the scholar’s board was interactive and would display text and images...it could be transported from place to place. But it was slow—infinitely slow by modern standards.” Technology has added the major dimension of speed. With the advent of computers and a delivery system, the Web, the “virtual” classroom became a reality and a usable resource.

As we began to discuss the possibilities, immediately the resistance to change occurred. Not everyone feels comfortable with changing the “tried and true” methods. The milestones were many and laborious overcome, as any journey worthy of undertaking.
- administration, keepers of the resources,
- faculty, Academic Senate and Curriculum Committee,
- colleagues, support and assistance,
- students, demonstration of the need and methodology,
- technology, and
- time.

Administration
Several key administrators were supportive from several perspectives. Several of the Deans were involved in distance learning programs for advanced degrees and were able to inform their peers. The new College President was oriented toward technology and
reaching out to students. The Dean of the Public Service Department had just completed his advanced degree in a non-traditional program and had the vision for the program.

Faculty; Academic Senate and Curriculum Committee

As the curriculum was presented to the committees the only concern expressed was that the distance learners receive the same instructional support and quality as the on-campus learners. A number of reports were obtained to address the issue of quality. At virtually any meeting the issue was raised.

As in Lin-chi (or “sudden enlightenment”) several events occurred. An article in Syllabus led us to a study which documented over 248 studies from 1928-1996 which found no significant difference between traditional and distance learning. More recently, January of this year, a study was conducted at California State University at Northridge which examined the difference between students who were randomly assigned to a social statistics class, traditional and on-line. The students who took the course on-line scored 20 points higher than their counterparts. The Governor of California, Pete Wilson, has supported the use of distance learning by directing the State University and College systems to develop distance learning projects and evaluate the outcomes by 2001.

The Public Service Department, Rio Hondo College, accounts for over 15% of the total students and is recognized as being innovative in curriculum and teaching techniques. Departmental faculty members are active participants in the college community activities. Facilitation of curriculum development and approval was greatly assisted by the participation of two members on the Curriculum Committee. Faculty members of the department have been past presidents of both the Academic Senate and the Faculty Association. One of the current department members is an officer in both the Curriculum Committee and Faculty Association.

Colleagues

Members of the department were involved in both on and off campus classes on the Internet and Web. Several members had personal computers and were currently “on-line” with AOL and Internet services. Three new faculty members had recently been appointed to
fill positions vacated by retired members. They all expressed interest in teaching on-line, and two were teaching on-line for other institutions.

The Dean subscribed to a number of journals and magazines that were oriented toward teaching on-line and made sure they were distributed to each faculty member. Several workshops were conducted to gain input, support, and agreement for the direction the department was taking. One faculty member was given the project as a full-time assignment with the assistance of another member part-time.

Students
Several needs assessments were conducted both with the Training Officer associations that represented peace officers in our geographic area (North East Training Officers Association and South East Police Training Association), the Training Association that represented the State Peace Officers (California Association of Police Training Officers), and a variety of specialized associations. The California Commission on Peace Officers Standards and Training (POST) supported presentations at the annual training needs assessment and invited us to present the on-line program to their staff. Materials were distributed to several related groups seeking their input and support. In each case we were successful.

The presentations were critical since we would seek certification by POST to approve the on-line course as meeting inservice training requirements. POST agreed to certify each course as meeting 8 hours of training of the 24 hour bi-annual mandate.

Technology
As we began this journey technology has changed in ways to support the project. The College purchased a server that can maintain a Web presence. The 1996-1997 years have seen faster Web browsers, internet connections, and Pentium computers. Connections to the Internet have become faster with ISDN, cable, and satellite dishes.

Several studies of successful on-line programs have found a number of items in common

- on-line syllabus; allows for rapid changes and can include hypertext links to resources,
- personal home pages; creating a sense of community for the students,
• interactively; connections with other learners and faculty with a variety of communications methods including e-mail, forums, and on-line chat rooms,
• assignments; reading, homework, and exams,
• announcements; communicating new information,
• testing; on-line drills or practice test to reinforce course work,
• course management; keeping the page updated, and
• content; the most difficult and important part.17

Time

As with any new venture the time needed to accomplish task was underestimated. Meeting with the Curriculum Committee was one of the major task necessary to offer the classes for credit, and obtain funding from the State. The initial meetings started in early 1996 but approval did not occur until October 1997. Meeting with POST in December 1996 resulted in a commitment to certify the courses but was not official until February 1997. Initial Web page development began in June 1996 but was not complete enough to advertise until February 1, 1997.

One study listed six items necessary to create internet training
1. knowledge of Internet technology,
2. knowledge of instructional design for technology-based material,
3. knowledge of subject matter,
4. knowledge of interface design,
5. talent in graphic design, and
6. development time.

The author of the article suggest that it will take one-month of development time per hour of instruction, if the developer is knowledgeable in the subject area.18 Fortunately, the College provided support for the computer and software development. We were able to obtain the service of a computer graphics consultant who added much to the page development, HTML coding, use of and development of graphics, and general page design.

Page Development and Format

The main Public Service page represents the strategic mission of the department; Administration of Justice, Police, Fire, Corrections,
Hazardous Materials, Private Security, and the link to our on-line courses LEO (Learning Experiences Online). The LEO page presents the on-line courses that are currently available and those suitable for future development.

Each on-line course page is designed to look and feel the same to facilitate the "learning curve" for use by learners; course title, description, learning goals, activities and assignments. Each page has its own unique links to resources and shared links to common resources.

The Journey Continues

As 1997 begins the on-line program is now under way with 12 certified courses using video tapes, delivered via mail. The web pages for the professional update courses using only Internet resources represent twenty-four courses which can be taken for .5 unit, twenty-one have been submitted for POST certification.

In addition to POST we are approaching the State Commission for Standards in Training for Corrections (STC) for similar certification for Corrections officers. We have been assured that they will certify the same course that POST has recognized.

Future milestones include development of Web pages for the
- Core and Elective Course; the Associate of Science and Associate of Arts Degrees in both the Administration of Justice and Corrections programs, and
- Fire Technology program; professional updates and the Associate of Science and Associate of Arts Degree program.

During 1997-1998 we will expand the Web presence to include other Community Colleges in our service area that wish to enter into a consortium. POST has agreed to sponsor the involvement of those program in law enforcement. The journey continues......


3 California (1970). Penal Code, Title 4, chapter 1, Article 1, Sections 13500-13532


9 Hypertext is a form of multimedia document incorporating text, graphics, annotated voice, special programs, links to other documents and other special features.


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