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ARTICLES

- **A** Tale of Two State Systems
- Videoconferencing Technology and the Need for Creative Technical Support
- Fighting for the Survival of Higher Education
- Videoconferencing: The Television Connection
- Renewed Choices for Campus and Distance Education
- The Distance Learning Leader: What You Don't Know Could Hurt You

COLUMNS

- **Ends and Means**
- ▲ Sustainability
- New Media, New Learning
- Pedagogy Corner
- A Reports from USDLA
- And Finally . . .



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Contents

DISTANCE LEARNING

COLUMNS

ENDS AND MEANS E-learning Study Skills and Strategies 32 —by Ryan Watkins

SUSTAINABILITY Leveraging Knowledge Assets: Do Less and Accomplish More 35 —by Jonathon Levy

New Media, New Learning That's Entrainment! 37 —by Craig Ullman

PEDAGOGY CORNER Do You Chunk? You Should —by David Graf

AND FINALLY . . . Distance Learning Leaders: Who are They? 48 —by Michael Simonson

Reports from USDLA

USDLA Launches New Distance Learning Accreditation Board ... DLAB 41 —by John G. Flores

USDLA: The Transformation —by Darcy W. Hardy

Women, Leadership, andDistance Education: ABrave New World orDarker Shades of theGlass Ceiling?-by Don Olcott, Jr.

FEATURED ARTICLES

7

11

18

21

24

39

43

A TALE OF TWO STATE SYSTEMS: MODELS OF HIGH SCHOOL COURSE DELIVERY

Mark Hawkes and Jordan Terveen

As the Use of Videoconferencing Technology Booms, so Does the Need FOR CREATIVE TECHNICAL SUPPORT Gary Brown

FIVE SMOOTH STONES: FIGHTING FOR THE SURVIVAL OF HIGHER EDUCATION Steve Wheeler

VIDEOCONFERENCING: THE TELEVISION CONNECTION Robert M. Starr

A DISTANT LEGACY: BLURRED VISIONS-RENEWED CHOICES FOR CAMPUS AND DISTANCE EDUCATION

Don Olcott, Jr.

THE DISTANCE LEARNING LEADER: WHAT YOU DON'T KNOW COULD HURT YOU *Tom Land and Tony Bright*

DISTANCE LEARNING

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IN UPCOMING ISSUES

A Model for Designing Online Collaborative Learning	Anthony Artino, Jr.
A Sense of Place: The Role of Residency in Distance Education	Michael Beaudoin, and Jaime Hylton
Electronic Portfolios	Regina Bobak
Issues in Distance Learning	Regina Bobak, Connie Cassarino, and Calvin Finley
Online & On-screen: Library Resources Come to the Desktop	Marsha L. Burmeister
Motivating Students in Distance Education	Todd A. Curless
Best Practices in Live Content Acquisitions by Distance Learning Organizations	Alan Greenberg and Russ Colbert
Teaching Online: Hints from the Trenches	Pat Kelley and Nancy Maushak
Online Case-based Learning: Components, Applications, and Assessment	Hyeonjin Kim, Michael Hannafin, and Minchi Kim
Should Distance Education Constitute Different Rewards for Faculty?	Lisa O'Quinn and Michael Corry
We Need a Plan: An Instructional Design Approach for Distance Education Courses	Michael Simonson and Charles Schlosser
Selected Strategies for Instruction in a Web Based Course	Annette Sherry and Shirley Yamashita

A Tale of Two State Systems Models of High School Course Delivery

Mark Hawkes and Jordan Terveen

issouri and South Dakota, though somegeographicallv what removed from each other, have much in common. The most notable of their commonalities is the great Missouri River. The Missouri runs straight down the center of South Dakota, serving as the border between Iowa and Nebraska before entering Missouri. For both states the river is a rich resource of energy and commerce. For South Dakota, the river attracts recreation and wildlife enthusiasts. For Missouri,

the river is a major transportation resource.

This recent year, managing the river flow has put the two states at odds. Federal judicial activity has the Army Corp of Engineers—who manages the flow of the river scratching their heads. In 2002, a federal court in Nebraska ruled that the river must have enough water for barges to navigate and power plants to operate. Last summer, however, a federal court in Washington, D.C. ordered the low flows to comply with the Endangered Species Act, which means restoring the Missouri to more natural high spring and low summer flows to encourage fish spawning and bird nesting by threatened and endangered species like the least turn, piping plover and pallid sturgeon.

For South Dakotans, more water upriver in the summer would benefit fish and wildlife and the lake recreation industry, but farmers and residents along the lower reaches of the river in Missouri worry a spring rise would flood homes and farmland and low summer flows would cut into barge company revenues and require consumers along the River may pay more for power in the summer. The events have all the makings of an old fashioned, old west water rights feud.

There is another contrast developing between the Missouri and South Dakota. This time, the object isn't the river, it's room-based interactive video systems. The question isn't who gets them; it's how the systems are used. Fortunately, these diverging approaches to I-TV use creating any hostilities aren't between the states, but they are defining what may be two very interesting models of interactive video application in K-12 schools. This article briefly profiles the I-TV systems in the two states and analyzes the policy and demographic



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environments that are encouraging two different approaches to the delivery of high school instruction.

THE DIGITAL DAKOTA NETWORK

The Digital Dakota Network (DDN) is South Dakota's statewide communications network designed to increase access to education and enhance learning throughout the state. The DDN has 246 fully interactive video sites, including all K-12 school districts, technical institutes, universities, and select state non-educational sites. Through the use of the DDN system, virtual classrooms are created across the enabling South state, Dakota schools to connect with educational institutions throughout the world.

South Dakota's DDN started to take form in 1996 when T-1 connections were placed in every public elementary school and ATM T-1 connections in every middle and high school. In doing so, Janklow provided a telecommunications backbone to which schools could connect. In 1999, Qwest donated \$17.1 million worth of two-way video systems (V-TEL) to the state to pave the way for the creation of the statewide video network.

Every public high school and free-standing middle school (not adjacent to or part of a high school) in South Dakota has its own DDN system. All six state-supported universities are connected to the DDN through a federally-funded Star Schools grant. Both Education and State agencies have unlimited access to the network, and the public is also encouraged to use it.

Many South Dakota schools use their systems extensively, others do not. When it is used, the DDN supports a variety of activities. Those include activities of a logistical kind, like seeding wrestling tournaments and bracketing the state volleyball tournaments. Regional consortia meetings between school superintendents or project meetings for state or federally funded projects (i.e. technology challenge grants, state literacy program) also take place on the DDN. On occasion, the DDN is used by community members for legislative cracker barrel sessions, or by other agencies like mental health care professionals. The DDN also hosts a number of teacher professional development events in the form of courses delivered to individuals or small groups of teachers during evening hours. These courses are delivered by higher education institutions in the state and involve credentialing, certification, or the attainment of advanced degrees.

Some of the instructional uses of the DDN include a host of advanced placement, college, and other courses that are delivered remotely to students. Enrichment experiences like Dr. Seuss Day, or a symphonic band or other dramatic or musical performance, are bridged to elementary students. School/agency collaborations like the Earth Resources Observation Systems (EROS) Data Center "Science to Kids" programs that cover topics from spacecraft construction to the effects of man-induced landscape alterations to the earth like deforestation and urban sprawl. Nationally delivered programs like Aquatic Research Interactive's "Diving into Physics," which introduces the ABC's of physics and chemistry to upper elementary students, are also instructional. Within the state, schools have collaborated on projects like Spanish-speaking language practice and culture studies between high school students. Fourth-graders in the state regularly study Native American themes and using the DDN and often compare their lives with the lives and culture of Native American tribes who reside in the state.

MISSOURI'S MORENET

Missouri, like South Dakota, has gathered state and federal funds to build its interactive video backbone. The Missouri I-TV infrastructure is dense but, unlike South Dakota's, the system does not encompass all school districts in the state. The Missouri Research and Education Network (MOREnet), provides Internet connectivity, technical support, and videoconferencing services to Missouri's K-12 school, college and university I-TV resources.

MOREnet's origin can be traced to the mid 1980s. Its influence on Missouri's education, library, and research community accelerated in the mid 1990s as they began to see increased funding from the National Science Foundation (NSF) and the Department of Elementary and Secondary Education (DESE). With this increased funding, MOREnet began developing a statewide support structure to provide Internet connectivity to Missouri's K-12 schools and universities. By 1999, the backbone had been upgraded to speeds capable of 155 Mbps, enabling full-scale interactive video services and additional multimedia applications.

About three years ago, MOREnet began to encourage the use of the statewide data infrastructure for videoconferencing purposes. While numbers have not been verified in the last year, it is known that more than half of Missouri's 524 school districts have some form of videoconferencing capability. Of Missouri's public and independent higher education institutions, some 90% receive data networking through MOREnet. As in South Dakota, Missouri I-TV use is diverse, with both logistical and instructional applications. For both states, however, the primary use of interactive video systems in terms of hours logged is the delivery of high school level courses.

COURSE DELIVERY MODELS

From a high school administrator in South Dakota came a telling testament of I-TV use: "a school is only as good as its curriculum." A good percentage of schools, especially those in rural and small communities, have embraced I-TV as a resource for enhancing the school curriculum. In many circumstances, I-TV courses are delivered when teaching positions cannot or will not be filled due to budgetary constraints or teacher attrition.

In both states, one by design and the other by default, a statewide approach to high school course delivery is in place. In South Dakota, one public university was designated by then-Governor Janklow as an "E-learning Center." The university, on the northern border of the state, received a significant amount of seed money for funding for equipment and personnel to deliver high school courses. In the 2003-2004 school year, 17 courses are in delivery on either a year-long or semester basis. Figure 1 illustrates the statewide delivery model. The larger star represents the state-designated course delivery center and the smaller stars represent instructional transmission receiving sites.

In Missouri, I-TV use centers on regional rather than statewide interaction. These consortia of schools are groups of geographically-bounded school districts that have organized to address shared needs and promote common interests. Not all Missouri schools with I-TV resources are consortia-affiliated. These schools have independently purchased or written grants to purchase I-TV equipment for their own use._ The difficulty with those schools falling in the "independent" category is that there is no mechanism for organizationally or administratively negotiating classes to send and/or receive. Enter GreaterNET.

GreaterNET is an independent,

member-based entity whose mission is to help K-12 schools all over the state of Missouri effectively use two-way interactive television technologies. How GreaterNET works is, rather than publish a schedule of courses available, schools contact GreaterNET with their needs. GreaterNET then identifies I-TV enabled schools with compatible calendars and bell schedules for a match. If a match cannot be made, GreaterNET makes every attempt to locate a qualified teacher for the class(es) requested.

In its first semester of operation (Fall, 2001), GreaterNET was involved in the sharing of eight foreign language courses involving 15 class sites and eight schools._ GreaterNET is now beginning its third year of operation, and continues to help match or broker I-TV classes across the state for those school without a regional consortia tie that have I-TV capabilities.



Figure 1

MOVING TO A REGIONAL MODEL OF COURSE DELIVERY

With South Dakota's heavy investments in a centralized, statewide I-TV content-delivery model, and Missouri's independently organized state brokerage for I-TV courses, a statewide presence for I-TV application exists. However, schools in South Dakota are opting to develop and deliver courses within regional consortia affiliations as an alternative to the state system. As it is in Missouri, the largest proportion of these developing consortia in South Dakota involves rural and small school districts (see Figures 2 and 3).

Why regional affiliation over a statewide connection? For starters, regionality allows groups of schools to determine course delivery times that are compatible with their bell schedules. Consortia also have greater flexibility to use other blended and distributed technologies (Web-based content, desktop video, etc.) with which to engage students. Also, schools in a consortium are generally within adjoining areas, meaning students may already be familiar with one another through their involvement in inter-school activities. Regionally produced I-TV courses also allow teachers to occasionally travel to a bridging site to originate instruction. The locality of I-TV delivered courses also makes it easier to plan and work with remote site supervisors.

Both states also have a long history of inter-district cooperation. These cooperatives were built on common needs in educational services, insurance collectives, and/or vocational-technical education. With the infusion of interactive video technologies, new life is breathed into inactive and sometimes stagnant consortia. Joining forces around new curricular opportunities has strengthened inter-district ties and inter-faculty/class collaborations.

In consideration of the issues relevant to regional I-TV course delivery affiliation, 11 key elements were identified. Of these elements, nine are applicable to Missouri and South Dakota. This list is not meant to be comprehensive, but it includes contextual realities that encourage a regional I-TV content distribution approach over a statewide approach. These elements, and their applicability to each state, are listed in Table 1.

With two notable exceptions, Missouri and South Dakota are establishing I-TV consortia based on similar interests. For Missouri, that exception is a growing teacher shortage that shared interactive video course delivery will address. For South Dakota, the exception is a shift in demographics for over 90% of the school districts in the state. The shift is caused by the migration of families from rural area and small towns to larger communities. While larger school district enrollments can sustain a varied curriculum program, small schools are turning to I-TV solutions.

An additional consideration that speaks to South Dakota's capacity to quickly integrate I-TV is the state office of education supported "Distance Teaching and Learning"



South Dakota K12 Distance Learning Networks

Figure 2



Figure 3

Element Supporting ITV Consortia Affiliation	South Dakota	Missouri
Bell and school schedule compatibility	✓	v
• Flexibility of interaction technologies used	✓	✓
Long established consortia affiliations	✓	✓
Reasonable access to remote instructional sites	✓	~
Teacher shortages		✓
Demographic declines	~	
• Shared cost of operation (technical support, etc.)		~
• Professional peer group collaborations (professional development, special education, conferences, etc.)	\checkmark	~
• Coordinate extra-curricular interactions (athletics, administrative, etc.)	~	✓
Existing I-TV operation expertise available	~	
• Ability to attract participation of community partners and support	~	✓

Table 1: Issues supporting participation in regional affiliation for I-TV collaborations.

(DTL) professional development programs. DTL is a fairly comprehensive staff development academy that trains interested educators to appropriately use the statewide video conferencing capabilities located in the school districts. DTL's major emphasis is on the creation of high-quality interactive curricular content. This program has been the starting base for the instructional use of the Digital Dakota Network. To date, some 400 South Dakota teachers have been through the two-week intensive program. These teachers have taken their new skills and expertise back to their schools to apply and share with their peers.

A Two-TIER DELIVERY MODEL

Can a statewide course delivery model be sustained in light of the preferred and growing model of regional I-TV consortia? The answers are varied. In Missouri, where a statewide brokering service for I-TV courses emerged out of a need for non-consortia affiliated schools to know what was available, it appears that GreaterNET will continue to have clientele. This is especially true in a state with only partial access to interactive video systems, where belonging to regional I-TV consortia might not be logistically and technically feasible.

In South Dakota, the state vendor has been spotted with enough money to service current clients to offer courses. But, the state delivery system currently relies on supplemental funding from the state public university regental system to support I-TV course delivery. If that revenue stream ends or weakens, the current state model cannot be sustained unless it becomes a fee-for-service operation. The present climate of state budget deficits and reduced tax revenue suggests sustainable strength may be with I-TV regional consortia delivery of courses.

A final contextual consideration

supporting I-TV course regionalization focuses on community viability. Regionalizing I-TV courses keeps the teachers in their communities. The current state model relocates teachers to a central site. Rural communities, whose high schoolers are primary clients for I-TV courses, are struggling to remain alive. Rural residents believe keeping teachers and their families in their local schools is a key to community viability. On this basis alone, rural and small communities will support regional over state delivered courses when all other variables of delivery are equal.

If a state model of I-TV high school course delivery successfully overlays the regional consortia model, it will likely be because statewide services have evolved from course delivery to course coordination and brokerage, as is the case in Missouri. Where state-supported course delivery does take place, it will be limited to highly specialized courses. It is an evolving issue that policymakers should study closely.

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As the Use of Videoconferencing Technology Booms, so Does the Need for Creative Technical Support

Gary Brown

INTRODUCTION

ideoconferencing provides for the instantaneous, interactive, and collaborative sharing of information through face-to-face conferencing technology. The information is transmitted and received through multiple high-speed phone lines via the PBX. The conferencing equipment provides educational opportunities that



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would not otherwise be available because of cost, time, and/or distance. The purpose of using videoconferencing is to provide greater availability of learning opportunities to students over a broad geographical area. Another application for this technology is to provide a collaborative forum for discussions between many departments.

Videoconferencing encourages the transfer of information between participants locally, nationally, and internationally. The customers that use distance-learning delivery methodologies in the Broward County (Florida) School District include, but are not limited to: the superintendent, department heads, area offices, principals, students, teachers, media specialists, the magnet program, senior management, staff trainers, human resource department, budget department, Broward Education Communications Network (BECON), and collaborative colleges and universities. BECON is the main content developer and user of K-12 curriculum applications for distance learning classes that incorporate videoconferencing.

The Broward County School District is the fifth largest public independent school district in the country. Its 280,000 children from over 164 countries communicate in 54 languages. The district's operating budget is approximately \$3.5 billion with individual student expenditures around \$4,750 per student. The district employs 28,000 teachers, administrators, and support staff in more than 235 schools, centers, and adult vocational facilities. Broward County is 1,196 square miles and approximately 25 miles north to south and 50 miles east to west, with the bulk of the population living within a 410 square mile area in the east. The western two-thirds, approximately 621 square miles, is comprised of the Florida Everglades. The county has 29 municipalities that account for 88.4% of the population, with the balance of the population residing in unincorporated areas. Between 1988 and 1997, the K-12 population exploded, student increasing 57% in just 9 years.

Videoconferencing technology in Broward County Schools has been expanding dramatically. The school district's distance learning department (BECON) continues to grow and develop state-of-the art distance learning programs that require high-end technical support. While distance education programs are very much in demand in Broward County, there are still many who have not yet discovered these important educational or administrative benefits of videoconferencing. One of many such benefits includes minimizing travel for meetings, which optimizes the workday's productivity time and money. However, adoption of videoconferencing has been slowed by a number of issues such as scheduling conflicts, time conflicts, technology awareness, or are intimidated with technology.

In the future, this application could also be used for disasters and other unforeseen emergencies. The Department of Homeland Security has been rumored to be exploring and funding applications for possible disaster scenarios. Broward County Schools possibly has one of the most extensive videoconferencing networks in the state and with some creative research could yield many unexpected benefits.

TECHNICAL SUPPORT

The most important thing to know about videoconferencing is that it is a "system" that requires all of its components to work seamlessly for a successful presentation. If there are problems in network connectivity, software, hardware, wiring, or even operator error, the technology will fail. Therefore, it is essential to deliver fast, efficient technical support to our customers. This is why the equipment requires continuous and ongoing service via a preventive maintenance program that incorporates routine testing, proactive reformatting where applicable, software upgrades, color-coding of interconnections, labeling of equipment and patch panels to minimize service interruption, continuity tests, and remote diagnostic applications.

Since its inception, the responsibility of managing the network has included the provision of depend-

able, reliable technical support to the district's customers. I have been the sole district employee performing this function for Educational Technology Support (ETS) for the past six years. As little as four years ago, the district's distance education program (BECON) had only 26 videoconferencing systems, primarily used to provide advanced placement (AP) classes for schools with low AP enrollment, as well as special distance learning programs. The use of videoconferencing as both an educational and administrative tool has grown significantly. Many curriculum programs have incorporated videoconferencing into their weekly classes.

During the 2002-2003 school year, videoconferencing was used in more than 1,700 delivered programs, affecting more than 60,000 students. The district's videoconferencing/ distance learning network has exploded to include approximately 150 systems located at school, administrative, and special purpose locations, and a 32-port Lucent/Avaya videoconferencing bridge housed at ETS and scheduled through BECON. The bridge connects multiple sites for student classes, administrative meetings, and staff training. It is important to note here that the popularity and use of this technology is expanding, and close to 90 additional schools are in the midst of acquiring videoconferencing systems. In addition to manvideoconferencing aging the network, I design the installations, schedule repairs, supervise BellSouth video and network technicians, and provide assistance to principals and district administrators. BECON and ETS work in a close partnership providing their customers top-level services in the distance education arena.

Starting in 1997 and continuing through to the present, I developed the program currently used for SBBC's Videoconferencing Technical Support Network. The school district began by purchasing distance education videoconferencing systems consisting of 26 units that cost approximately \$30,000 each. Once installed, the videoconferencing systems came with a one-year warranty. A simple installation required the scheduling of equipment installers and phone company services. Phone services were also required to install high-speed ISDN line connections in order to connect videoconferencing sites. Sometimes installations would require inordinate amounts of time to complete. It became obvious early on that there was a more efficient way of handling the support and installation process. The reason for some inefficiency was that sometimes the equipment needed to be tweaked by the equipment manufacturer and at other times the phone lines and/or PBX software required work by our service provider, BellSouth. In either case, it was not unusual for an equipment vendor/installer to point to the phone company as the cause of a problem, and the phone company would sometimes point to the equipment installer as the cause for system failure. While the finger-pointing continued, it increased completion time of the work order. Another problem that surfaced early on was that, once the videoconferencing system was working, equipment failures occurred, and this took considerable time to diagnose and correct due to the involvement of more than one vendor.

The equipment repair tech person would be dispatched. This required time and coordination with the vendor company and the possibility of a different vendor dispatch if the problem was traced to the phone lines. Additionally, waiting for parts to be shipped, received, and installed meant more down time for the system. Meanwhile, the school would not have access to instruction, and students and staff would be shortchanged as well as having to make schedule adjustments. To make matters even worse, after the first year, the warranties expired and each system required a costly service contract/warranty amounting to hundreds of thousands of dollars. Therefore, besides the support services being inefficient, the cost of repair was high.

Understanding the technical support problems, I worked with the equipment vendors to develop more efficient methods to handle support issues. In the end, I was sent for intensive technical training, attaining the necessary expertise and certifications from the various manufacturers. Classes were held in Austin Texas, Philadelphia, Denver, San Jose California, and Reston, Virginia. After acquiring the necessary certifications and expertise, I was able to provide immediate service for district videoconferencing equipment, thereby closing the service time gap from equipment system failure to repair. The most valuable skills were developed over a six-year period of on-the-job training consisting of installation and diagnosis of multiple systems and platforms. By gaining intimate knowledge of each system, location, contacts, and history, repair and support became extremely efficient. Remote diagnostics implementation while in the start-up stages has already demonstrated that it is a valuable technical support resource. It is important to note that, even though the district uses numerous videoconferencing platforms, all of the systems are compatible and comply with industry-based standards. The district uses H.320 ISDN telephony via the PBX for connectivity videoconferencing for services. While many of the district videoconferencing systems are capable of using H.323 ("video over IP"), most district locations currently do not have sufficient bandwidth to support one 384 connection, let alone

multiple connections over IP. When the initial infrastructure was designed, nobody had envisioned the use of videoconferencing on such a large district-wide level via shared network bandwidth. The concept of shared network access using a convergence of technologies is a current and future mission-critical project. Additionally, the district owns 49 V-Tel videoconferencing systems that use the Windows 95 operating system and do not support the H.323/IP standard. Early plans to refresh some of the older, outdated systems are underway.

BRIDGING

Videoconferencing can be used between two locations, which is commonly called a point-to-point call. However, when three or more locations are in the same videoconference, a special piece of hardware is required to connect all the locations simultaneously. This piece of equipment is called a bridge. A key component of the bridge is the scheduling software known as CRCS. With this scheduling software, the operator can pre-schedule one or multiple events, edit those events even while they are active, allow 3 to 24 locations to conference simultaneously, and provide real-time conferencing monitoring. This application is a key component of distance education because multiple classrooms are provided with simultaneous live interactive instruction. The CRCS scheduling component has been run from ETS, while BECON's distance learning center in Davie schedules all programming and bridge scheduling with technical support from its partner, ETS.

In the beginning, I was directed to produce an analysis of distance learning in Broward County Schools as well as an implementation plan. This report included an in-depth analysis of the bridging technology available on the market at that time. As a result, the bridge was acquired and later expanded. Additionally, a Lucent/Avaya Technologies bridge was acquired--at approximately \$200,000 off the list price. A scheduling system for the bridge housed at ETS was implemented, and my responsibilities include supervision and maintenance of warranty and support services for the bridge. It must also be noted that, with expansion of videoconferencing locations, capacity of the bridge will soon be maximized. Lucent/Avaya will no longer provide support for the bridge within the next two years. The current bridge is also limited to H.320 technology. At the time of purchase, we knew the bridge would have to be replaced due to expansion and possible use of IP videoconferencing in the future. Plans are already in the works to replace and expand the current bridging capacity as well as incorporate the IP and ISDN bridging capabilities.

In addition, the district implemented a program to convert the phone lines from costly ISDN service to a more efficient technology. Working with our phone service provider, BellSouth, we were shown how to provide even greater dependability while providing the district huge cost savings. If the district maintained dedicated ISDN service to all of the more than 140 videoconferencing systems, the cost for ISDN service would have easily exceeded \$500,000 per year for dedicated ISDN line connectivity. By using resources already available on school sites via PRI/PBX digital phone switches, the use of ISDN line-connected sites shrunk to a mere dozen locations. Because of the huge workload, compounded with the use of BellSouth supported school phone switches, the district requested and provided a BellSouth technician to provide additional support services, thereby producing a team approach with the phone company on a district-wide level.

While installing the more than 150 videoconferencing systems, unique challenges surfaced and creative solutions were developed. One such challenge pertained to connectivity between the videoconferencing system and the PBX. When connectivity is attempted beyond the 1,000 linear foot range, degradation of the video signal makes communication impossible. In addition, many campuses have limited capability of their intra-building wiring. The solution was to incorporate fiber optic multiplexers, which convert typical signals traveling over copper lines to light pulses. These signals are translated back onto copper at the termination point, thereby providing service to areas on district campuses that would not otherwise be practical. It must be noted that these devices are not inexpensive, and their use must be justified.

This year the district is using e-rate monies in a bid to acquire additional videoconferencing systems. If the district is successful, approximately 82 more Tandberg Scholar videoconferencing systems will be added and supported. Additional per-system savings of \$3,000 (Tandberg 880) to \$9,000 (Tandberg Scholar System) are realized because I perform the warranty work and installations myself.

FUTURE VISION

While it has taken the better part of six years for numerous distance education models to finally take hold in the district, the next few years should be amazing. Videoconferencing to the desktop is already being tested through a variety of products. Wired or wireless videoconferencing products will provide instantaneous live videoconferencing for room systems, wall mounted flat screens, desktop systems, laptops, and cell phones. Communication infrastructures will be enhanced with a greater spectrum of wireless, wire, and fiber backbones to support these key applications.

Integration of video, voice, and data will provide the district and its customers with a greater variety of delivery methods, instruction, and communications, both synchronously and asynchronously. While all of these wonderful technology enhancements are just a few steps from our front door, none of this can be brought to fruition unless the state's Department of Education provides the school district with appropriate funding.

Five Smooth Stones Fighting for the Survival of Higher Education

Steve Wheeler

This paper argues that the influence of the traditional university is declining due to its inability to adapt quickly enough to the trenchant demands of the information society. Simultaneously, "new concept" universities are flourishing because they can offer flexible, "any time, any place" learning opportunities in a global economy. Distributed approaches to learning, particularly distance education, workplace training, technology-supported learning, and on-campus flexible open learning are in the ascendancy. These methods are set to gain prominence in this new millennium because they are best placed to meet the needs of both students and employers. This paper proposes a strategy for adopting flexible, technology-supported learning approaches, underlining the need for collaboration, diversification, investment in technology and staff skills development in new educational practices, and gives warning of some of the barriers that exist. The paper offers five key strategies that will help higher education to come of age in this information-hungry, technocratic society.



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FIVE SMOOTH STONES

Then he chose five smooth stones out of the brook and [...] his sling was in his hand and he drew near the Philistine. David [....] took a stone and slung it, and it struck the Philistine, sinking into his forehead, and he fell on his face to the earth. (1 Samuel 17: 40 & 49, Amplified Bible)

Surrounded on all sides by a powerful enemy, the small nation of Israel was in imminent danger of annihilation. When the young shepherd boy David walked out to confront the giant warrior Philistine Goliath, he took just one primitive weapon with him. The weapon was a sling; the ammunition—five smooth stones taken from a nearby stream. Few expected the diminutive David to win against the huge and powerful Goliath, but prevail he did, winning a famous battle that sealed the destiny of two entire nations. The names David and Goliath have since been synonymous with unexpected victory and the struggle against all odds. In many ways, traditional universities face similar problems to the biblical nation of Israel. They are now under threat from a looming giant of obsolescence. They are stagnating in their ivory towers whilst the world around them is moving forwards. Unless the giant of obsolescence is challenged and defeated, this author believes that the traditional university will simply not survive. This paper offers a strategy of five key points-the five smooth stoneswith which to defeat the threat of obsolescence, enabling universities to change to meet the challenge and demands of the information society.

A CLIMATE OF CHANGE

We live in an age of change unparalleled in history. Technological, economic, and social upheavals have impacted upon us with regularity and increasing ferocity, radically changing the way we live, work, and learn. These changes have been all-pervasive in education, plunging the traditional university system into crisis (Daniel, 1996; Taylor, 1998). Increasing numbers of academics suspect that traditional approaches are no longer adequate and new approaches to pedagogy must be found and practiced. Laurillard highlights this concern:

The academic system must change. It works to some extent but not well enough. Teachers need to know more than just their subject. They need to know the ways it can come to be understood, the ways it can be misunderstood. what counts 28 understanding: they need to know how individuals experience the subject. But they are neither required nor able to do these things. Moreover, our system of mass lectures and examination ensures that they will never find them out. (Laurillard, 1993, p. 3)

Clearly, the traditional university cannot continue in its present format, because global trends demand alternative methods. One key trend, technological advance, is already contributing to the demise of on-campus university education. Smith & Webster (1997) suggest that new technologies may contribute to decreased demands for residential education.

There is also growing opinion that the very fabric of traditional education must change, purely because it is a system originally set

up to meet the needs of the industrial revolution, and is now hopelessly outmoded. Sociologist Alvin Toffler (1980), for example, argued that our current education system was established as a means to prepare children for work in factories. The industrial revolution demanded synchronization of human behavior with machinery, and mass education was instrumental in preparing generations of regimented workers. New and diverse modes of working require new types of learning in which active learners initiate, control, and apply learning for themselves (Knowles, 1975). More than 20 years ago, Botkin, et al. highlighted the outmoded nature of education provision in a searing attack on the traditional system of education:

Learning processes are lagging appallingly behind and are leaving both individuals and societies unprepared to meet the challenges posed by global issues. This failure of learning means that human preparedness remains underdeveloped on a global scale. Learning is in this sense far more than just another global problem: its failure represents, in a fundamental way, the issue of issues. (Botkin, et al., 1979, p. 9)

There are seven fundamental factors contributing to the decline of traditional university provision:

- technological innovation
- adverse economic climate
- mounting commercial competition
- demands for greater flexibility
- subject proliferation
- erosion of academic staff base
- globalization

TECHNOLOGICAL INNOVATION

There can be no doubt that information and communication technologies (ICT) have already made a significant impact on higher education. Personal computers, for example, have changed the nature of the teaching process and provided a new focus for curriculum development. Current debate now rightly focuses on the extent of this impact (Watson & Downes, 2000, p. 4).

Generally, ICT is already irrevocably changing the face of education provision. This process has been slow but relentless, with technology-supported distance education and open learning now seen as effective alternatives. Academic journals are replete with references to the impact ICT is exerting on higher education, in terms of educational change: "The introduction of Information and Communication Technology into the educational system has been hailed as a major catalyst of the long dreamed-about educational revolution" (Katz, 2000). As Wisher and Priest (1998) noted, "The widespread availability of satellite and terrestrial networks, as well as the increased use of personal computers and the Internet has catapulted distance learning into the forefront of educational change."

From the perspective of educational trends and innovation, Wolcott (1997) noted that "in this new era university teaching increasingly requires reaching across time and distance through on-line courses and 'virtual universities.'"

And also regarding the foreseeable future of higher education, Dede (1996) wrote that "in a few years, high performance computing and communications will make knowledge utilities, virtual communities, shared synthetic environments, and sensory immersion as routine a part of everyday existence as the telephone, television, radio and newspaper are today."

A growing number of graduates, including this author, can claim to have earned their first degree by studying completely at a distance. Most distance learners will confirm this is not an easy route to a degree, requiring great commitment, self-discipline and motivation. Nevertheless, distance education may be poised to supplant much of the traditional "set time, set place" education provision. At the very least, if the higher education system does not change, it will be "partially bypassed" in favor of other more flexible methods (Jarvis, 2000), because it cannot respond quickly enough to the rapacious demands of the information society.

An Adverse Economic Climate

For some time there has been an unfavorable global economic climate. Education has been particularly badly hit. The centralized funding universities once took for granted has been gradually dissipating. Generally, as governments withdraw grant arrangements, prospective students are forced to borrow substantial amounts of money, and this creates a culture of reluctance for many. This is reflected in recent UK trends, with applications for undergraduate places at universities down for the third consecutive year (BBC Radio 4, April 15, 2000).

This presents many traditional universities with an intractable problem: reduced student numbers means reduced government funding. Furthermore, universities now receive the income they "deserve," rather than the income they need. Whereas before, income was "collected" by universities, now it must be "earned" (King, 1995). At the same time, universities must attempt to increase class sizes to compensate for the general shortfall in income. A vicious cycle ensues, as fewer students are willing to attend residential universities. There does not appear to be a light at the end of the tunnel of this present economic stringency, and the sustained assault on the fabric of traditional universities shows no signs of abating.

Universities are thus forced to seek other means of regular, guaranteed income. For some, this will mean incorporating distance education approaches and technology-supported learning in order to increase numbers. For those universities that will not or cannot adapt to global trends and widespread implementation of new technologies, the future looks decidedly bleak.

COMMERCIAL COMPETITION

For the first time in the history of education, universities can enroll students anywhere on the globe. regardless of the geographical location or time zone. Monash University in Melbourne, Southern Australia, may be one of the first global distributed truly campus-based universities. Alreadv boasting four campuses across the continent of Australasia, and partnership campuses in Malaysia, has Monash now established another major campus in Johannesburg, South Africa. Similarly, by 1996, half of all Australian universihad established twinning ties arrangements with private colleges in Malaysia. The situation is similar in Singapore, where several UK universities are represented (THES, March 31, 2000).

The mega-universities also have great impact. Mega-universities, as identified by Daniel (1996), are institutes with more than 100,000 students simultaneously enrolled in higher education courses. One of the better known mega-universities, the UK Open University (UKOU), has been a pioneer of modern distance education, revolutionizing higher education provision for learners. The UKOU enjoys an annual intake of more than 30,000 foundation-level undergraduates. It has achieved this impressive logistical feat by utilizing over 7000 part-time academics and 250 local study centers in the UK alone (Rickwood & Goodwin, 2000). Ten other nations, including Spain (UNED), France (CNED) and Germany (FernUniversitat), have established similar mega-university systems operating on open distance education models. In much the same way as the corner shop met its demise with the advent of the supermarket, small campus-based universities are in danger of being squeezed by the global non campus-based mega-universities.

Privately funded universities such as the University of Phoenix are big players in the huge part-time mature education market. Phoenix enjoys a quarterly profit averaging 12.8 million US dollars, earned exclusively from distance education activities. It enrolls only fully-employed part-time mature students. The industrial sector has also been quick to capitalise on the huge demand for flexible open learning. Cisco Systems, for example, operating a network of bought-in locally-based tutors and classroom resources, awards accelerated diplomas in network engineering, software design, and computer science. IBM has recently approached the New Zealand government for permission to deliver degree level courses, again in direct competition to the established university system on the islands. Here are just a few other examples of recent commercial interest in higher education in the run-up to the new millennium:

- 1997—UK Company Nord Anglia acquires Christchurch Art and Design College, New Zealand.
- 1999—Sylvan Learning Systems purchases a 54 percent holding in a private Spanish University.
- 1999—Commercial company De Vry takes over Denver Technical College and other higher education institutes in the United States.

• 1999—University of Phoenix (USA) opens a campus in Rotterdam, Holland. The university is planning to expand farther into Germany, Spain, and Ireland. (THES, March 31, 2000)

These trends reflect the realization by commercial companies that higher education is a lucrative and expanding global market. Several media companies, for example, have recently invested large sums in the development of online learning. These include News International's WorldWide Learning Ltd., Pearson Group's FT Knowledge, and Addison Wesley Longman Group (THES, March 31, 2000).

DEMANDS FOR GREATER FLEXIBILITY

This sharing out of the global education cake reflects growing demands for greater flexibility from both students and employers. Students who have previously been disenfranchised due to remote geographical location, lack of disposable resources, family commitments, or work schedules, are recognizing that opportunities now exist for part-time study. Employers are demanding highly skilled, flexible, and responsive work forces. They are beginning to recognize the benefits of "just-in-time" training, and are rejecting the "just in case" model. They are discovering that flexible, part-time opportunities for staff training are not as onerous as sending them to universities to receive professional updates and training. Costs are cut because employees can learn at home or in the workplace, using ICT and high-quality distributed learning materials. Smart universities are developing differentiated learning curricula to respond to these "just-in-time" demands, and are reformulating courses into modular, flexible pathways.

SUBJECT PROLIFERATION

The demand for more knowledge has resulted in a major upturn in university applications. Although university applications will have risen by 50% in 10 years, a high proportion of these are from part-time mature students, representing a down turn of full-time enrollments in real terms (CBI, 1994).

Comparison between a current prospectus and a 1990 version from the same university will reveal that there are big increases in the number of courses offered, indicating the diversity in range of subject matter created to meet demands.

Diversification, however, may create problems. Universities may discover there are either not enough specialized lecturers, or student/ teacher ratios become too high to be economically viable. Furthermore, subjects may become so specialized, with limited appeal, that the economy of scale disappears.

Universities must either focus on what they do best, delivering courses that are economically viable and high in quality, or they must diversify using a strategy based on distributed learning. It is a well known economic feature of online courses, for instance, that many more students can be tutored individually than in conventional face-to-face environments (Bunker, 1998). The caveat to this strategy, however, is that online course development can be protracted.

EROSION OF FACULTY BASE

Universities are comprised not of buildings, or resources, but of people. The collective knowledge base of specialists and experts is the most valuable asset of any institute. Yet the practice of casualization by many universities means that academic staff are increasingly being employed on fixed-term contracts, usually three years or less. In the US, tenured faculty are sparse, whilst in the UK, permanent contracts for junior academics are rare. There is uncertainty for the future of conventional university education, because many academics are uncertain of their own career futures.

Universities are also losing a great deal of talented academics to commerce and industry (Shattock, 2001). Academics are being lured away from university life into research, development, and consultancy, because these areas not only promise more lucrative remuneration, in many cases they also offer more permanency and therefore greater security.

For universities to survive, talented and innovative staff must be retained, and this may only be achieved by the offer of more security, higher rewards, and greater job satisfaction. It is ironic that the most valuable resource a university possesses is also often the one that is treated most disdainfully.

GLOBALIZATION

The trend towards homogeneity of commercial products is a familiar phenomenon for regular international travelers. Hotel chains, national airlines and hire car companies, the ubiquitous fast food outlets, soft drink and convenience products, and a multitude of other globally recognized commodities are encountered everywhere one goes. With the all-pervasive nature and rapid development of the Internet, educational products could also begin to trade as global commodities. The "massification" of education provision will follow the same route taken by the global information and media companies, with institutions aggressively tapping the market for new student populations, opportunities for investment, and expansion. Borderless education will become a widespread reality and an international phenomenon, where even the term "institution" may no longer be an appropriate description (Scott, 1998).

Universities that do not participate in this global market will be in danger of missing out on a huge population of students and employers demanding flexible "just-intime" learning.

STRATEGIES FOR SURVIVAL

Although the evidence for the threat to traditional education may prove disturbing reading, there are survival strategies. However, they inevitably involve radical change. An examination of current trends and the market place suggests five key areas in which survival of the modern university lies. Unlike David, who only used one stone to kill Goliath, it will be a mixture of these five key approaches that will enable universities to survive and thrive:

- Collaboration
- Investing in new technology
- Investing in people
- Widening access
- Specialization

COLLABORATION

Collaboration has been a common feature of university life for a long time. Now, however, universities are collaborating in a distributed manner, networking to share resources and expertise, to exploit the growing part-time flexible learning market. The University of Wisconsin was one of the first American universities to exploit the potential of distance learning, offering online courses tutored by academics hired from other universities. Students enroll online from home, and are assigned a tutor and a "group" with whom they correspond in electronic format. Similarly, the lecturer "teaches" online from his base university. Collaboration of this nature overcomes many logistical problems.

Investing in New Technology

Technology on its own is not the solution to the problems of higher education (Ramsden, 1992) but it can make a positive contribution. Furthermore, distance education should never be seen as a means of cutting operational costs in learning delivery, although inevitably, this will happen. Rather, it should be viewed as a means by which learning opportunities can be enhanced and access widened. Investment in new educational technologies must be undertaken with these factors in mind. Wheeler & Vranch (2000) offer comprehensive guidelines for benefits analysis of technology-supported learning and strategies for the deployment of telematics in distance education.

Some commentators are predicting that distance education and, in particular, technology-supported learning, will revolutionize the traditional university. Peters suggests that communications technologies, coupled with the demands for lifelong learning, will cause "transformation of the traditional university into an institution of self-study and distance teaching" (Peters, 2000).

University Websites are now becoming popular first ports of call for many enquirers, and act as "shop windows" for higher education providers. Inevitably, new services will be offered by universities through the Internet, including:

- virtual campus tours
- online enrolment and admission
- specialist keynote lectures via Webcasting
- individualized course delivery
- live links to special events

The above list is by no means exhaustive.

INVESTING IN PEOPLE

Developing the skills and experi-

ence of academics should be a prioritv for any higher education institute. Without staff development, lecturers may be isolated in their work, and unaware of new methods, technologies, and applications. Some lecturers are particularly concerned about the challenges of new technologies on the traditional paradigm. The changes affect the very essence of the teaching process, from course conceptualization through to its delivery and evaluation. Teaching online, for example, requires the teacher to relinquish the role of "lecturer" and take the role of mentor or guide (Forsyth, 1996). Technology influences the way teachers create and develop courses, how they deliver, assess and evaluate, and most fundamentally, how they think about these processes.

All change brings uncertainty and anxiety, and the management of this change must be sensitive. Without these changes, education may be in danger of stagnation, but with them practitioners and learners will be expected to adapt quickly to new knowledge, skills, and modes of Understandably, working. these changes bring with them a culture of uncertainty in which practitioners constantly struggle to keep pace with the seemingly break-neck speed of change. Staff developers have a key role to play in assuaging these fears by providing timely and relevant information on new developments and innovations, and how these will impact on teaching and learning.

WIDENING ACCESS

Instead of students going to university, the successful university of the future will go to the students. The mega-universities have already achieved considerable success in offering cost-effective access to all comers (Daniel, 1996). Many traditional universities have also started this process, investing in computer

networks, developing human infrastructures to support the process, and creating new materials in preparation.

There are several existing guidelines on how to set up virtual and distributed learning environments. See, for example, Katholieke Universiteit Leuven's Blueprint for the Interactive Classroom (BIC) Project (Vanbuel, 1998).

SPECIALIZATION

Institutional specialization will emerge as a prime survival technique. Finding a market niche will offer universities a more sustainable profile in the general mélange of higher education.

In 1999, for example, the University of Plymouth launched a new Bachelor of Science (Honours) degree in Surf Science and Technology. The world-wide surfing industry is, of course, a multi-billion dollar concern, and workers within it are in need of training. To meet these needs, the course consists of an eclectic mix of manufacturing technology (materials, design, and fabrication), ocean science (coastal zone management, marine pollution), biological science (human biology, sports performance), business management (event management, administration, and marketing) and studies in "surf culture." Due to its novelty value, the course attracted high media exposure. Subsequently, worldwide applications were received, and it is now a successful program, attracting substantial funding for the university.

To survive in the increasingly cutthroat business of higher education, smaller universities must aim to work to their strengths, unique characteristics and local cultures, and "in-house" expertise. By gathering intelligence on market trends and demand, and then offering appropriate programs with unique selling points, universities may be able to provide themselves with a better chance of survival in a volatile and highly competitive market place.

CONCLUSION

The survival of higher education into this next century is not in dispute. What is less clear is the format in which it will survive, and exactly who will be the winners and losers in the global classroom. Radical changes in practice, management, and research will drive universities in this new century. New ways of teaching and learning must be developed and nurtured to meet the demands of a society that is in a constant state of change and upheaval. Universities will need to diversify, innovate, collaborate, and invest in human capital in order to survive. Scenario planning, careful economic management, risk and benefits analvsis, and quality assurance evaluation will become essential activities. Doing nothing, however, will no longer be an option.

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Videoconferencing The Television Connection

Robert M. Starr

or most of my 33 years in education, I have been involved in some aspect of video production. From that first encounter early in my career with a reel-to-reel portable videotape recorder and its hand-held black-and-white camera to my current familiarity with desktop video editing systems and DV equipment, I have remained fascinated with all things video. For a number of years I taught classes in video production at a major university in Virginia and operated my own production business on the side. Even with such long-term experience, I have always



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considered myself to be a student of the art and craft of television, albeit an advanced student on occasion. Upon retirement from my university teaching position, I entered government service with the National Aeronautics and Space Administration as a television producer and multimedia specialist. It was in this capacity that I was introduced to videoconferencing and, after years of creating television for passive audiences, the prospect of reaching viewers who could actually interact with presenters renewed my longstanding fascination with video technology.

It became evident early on in my experience with interactive television that the video production conventions and rules I tried hard to follow both in and out of the television studio were not necessarily followed when it comes to videoconferencing. It was clear that many of the people who were using interactive television were not from the video side of things. There seems to be a new breed of video practitioners who have their roots firmly planted in the computer world. Although the video and computer worlds have converged to a great extent, important aspects of television production seem to be left out of the equation. For example, headroom, framing considerations, and even placement of the camera to facilitate normal eye contact are often disregarded. Creative video craftsmanship is standard television practice and can

improve interactive television.

I recall a student making this statement after receiving a low grade on a commercial assignment in an advanced video production class many years ago: "You mean we are required to be creative in this television class?" I responded in the affirmative. The student dropped the course shortly thereafter. It also became clear to me after a few years of teaching media arts that just because people watch television for most of their lives, the grammar and syntax of the video craft does not necessarily register in long-term memory. One of the metaphors I used back in those early days to illustrate the need for video craftsmanship was cabinet making. After showing a picture of a well-made chest of drawers, I asked beginning production students what it would take for each of them to make such a piece of fine furniture. Responses generally ranged from selection and use of appropriate tools to years of experience. I tried to make the point that television was just as much a craft as cabinet making, and the best scripts or storyboards were meaningless unless acceptable standards were applied to the process of transforming ideas and words into effectelevision presentations. I tive maintain that any videoconferencing environment can be improved with the application of a few simple rules that, in the end, may serve to enhance the communication process and thus provide a more meaningful

exchange among the participants.

CAMERA PLACEMENT

Of utmost importance is camera placement. Generally speaking, most videoconferencing systems provide a small, remotely controlled camera with pan and zoom capability. Typically, the camera is either placed to the side or above the television monitor that displays the other site(s). In standard television, if a presenter is not looking directly into the camera, the viewer notices an immediate break in eye contact. Unless a newscaster, for example, looks down at his or her script momentarily, eyes are pointed straight into the lens of the live camera. If the shot is switched to another camera, a well-rehearsed shift to the new live camera occurs immediately and eve contact is reestablished. We are all familiar with the discomfort displayed when a newsperson fails to turn when a new camera angle is presented. We feel the embarrassment of the newscaster when he or she realizes that the wrong camera is being addressed.

So why do we disregard eye contact in videoconferencing? If the main cameras at all sites are not as close as possible to the center of the viewing monitors without obscuring the images on the screen, eye contact is lost or jeopardized. I recently observed a videoconference in which the remote site camera was on a sidewall with a video projector displaying the presenter on the center wall. For almost an hour the presenter watched his class from the side. In Speech 101, we all learned how important eye contact is, and those of us who are experienced workshop presenters or teachers know that effective eye contact is imperative in our presentations. So what is the best camera placement? I typically use a tripod for the main camera and place it in front of the monitor with the camera positioned in the middle and slightly above the bottom of the monitor's display area. This seems to give the closest approximation of normal eye contact as the session participants look at the people at other locations. Until technology development provides us with a tiny camera embedded in the center of a monitor's display area without obscuring images on the screen, we will have to work hard to place cameras in locations that minimize eye contact problems.

LONG SHOT, MEDIUM SHOT, CLOSE-UP

Have you ever made a presentation in a videoconference when the lighting was so poor that you could not see the eyes of your audience? Under typical classroom lighting and with a camera zoomed all the way out to show the whole class, it is virtually impossible to distinguish individual faces. They become little ovals punctuated with three dark spots barely recognizable as two eves and a mouth. When making videoconference presentations, do you have trouble reading audience body language? In normal face-to-face comwith munication students or workshop participants, we are able to see facial expressions, gestures, and other body language that help us interact more effectively with our audiences. Unless attention is given to overcoming the inherent resolution limitations of videoconferencing technology, we lose the ability to read our audiences. Systems that employ automatic voice-activated cameras that zoom to the person who uses the push-to-talk microphone button help us overcome this problem. In many cases, howeverespecially in K-12 environments where automatic zooming capabilities do not always exist-operators at remote locations should provide the presenter with appropriate fields of view so that facial expressions and gestures can be seen and accurately interpreted. Or the presenter can also take the initiative to direct operators to provide appropriate shots for this purpose.

In standard television, a long shot is employed to establish the scene, then medium and close-up shots are used to add detail and clarity to the established environment. Television is a close-up medium that holds our attention on what we want to see and need to see during the course of the presentation. This time-honored convention of television should not be ignored, especially in distance learning situations where we are trying to explain, clarify, and guide the learning process.

EFFECTIVE GRAPHICS

A third problem that seems to be prevalent in videoconferencing deals with the use of graphics. PowerPoint has become the standard presentation program for distance learning sessions, even though there are many other excellent programs available displaying and controlling for graphics. I have seen excellent graphics presentations using word processor-generated documents. The arrangement, clarity, and composition of elements within the visual display make the difference, not the program. We have become used to preparing computer graphics with templates and with default fonts for face-to-face sessions. With the use of a video projector, it is possible to make use of the computer's highest resolution, which can be 1600 X 1200 pixels or greater. A presenter can usually be confident that slides will be seen by all in attendance. Typically, resolutions used for such presentations are either 800 X 600 or 1024 X 768. It comes as no surprise, therefore, that when such resolutions are squeezed down to the standard 640 X 480 resolution that most closely approximates that which is used in standard television, something is lost in the translation. Add to this the further reduction in resolution experienced as the television signal is reduced to fit the available bandwidth allocated for the videoconferencing connection, usually 384kbs or less.

In preparing graphics for use in videoconferencing, it is helpful to attach a regular television monitor to the output of the computer to test the graphics for videoconferencing. Many laptops these days have a composite or s-video connector for this purpose. In the absence of such a built-in converter, the use of an external scan converter will allow for display of the computer output on a television monitor. By seeing the display in this manner, it is easier to compensate for the reduced resolution that is a standard limitation of videoconferencing systems. There is no reason a presenter needs to say,

"I hope you can see the slides" during a session. If properly prepared ahead of time, there will be no reason to doubt the legibility of electronic visuals used in videoconferencing. It is inconceivable that a television news or commercial producer would allow the display of graphics that the viewer has difficulty seeing or reading. And yet, all too often, graphics used for videoconferencing contain excessive text, fonts that are not easily read, and insufficient contrast between foreground and background.

CONCLUSION

I have now been involved in educational videoconferencing (distance education) for more than six years. I suppose I have become a crusader of sorts. I continually insist on using acceptable television production standards in the sessions I present or those that I produce. For the most part, when participants see the results of simple applications of television standards, they get the point. I am sure, however, that there are those who think otherwise, but no crusader has emerged from the pursuit of quality without some dents in his or her armor.

If videoconferencing used for educational purposes is to come of age, we as practitioners in the field need to observe standard television practices. Our viewers are used to high-quality, well-composed video presentations every time they relax in front of their home television sets. It will only add to our credibility as instructional technology and distance education professionals if we follow basic television production conventions that have stood the test of time.



For videoconferening, the main camera should be placed so as to maximize eye contact.



Use layering to achieve depth and interest.

A Distant Legacy Blurred Visions–Renewed Choices for Campus and Distance Education

Don Olcott, Jr.

Where is the life we have lost in living Where is the wisdom we have lost in knowledge Where is the knowledge we have lost in information —T. S. Eliot

INTRODUCTION

S. Eliot's words ring true long after his passing in 1965. He spoke from his own observations of the profound technological advances that emerged during and after WWII. And yet, neither he nor Orwell could have



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foreseen the accelerated technological developments post-1984 that have led the world into the 21st century. If we have indeed lost our wisdom to knowledge and our knowledge to information, then perhaps we have lost more to technology than we know. Where does distance education fit into this picture of truth, knowledge, wisdom, and information?

Distance education has arrived at a crossroads. A decade ago it was the "new" technological panacea to solve many critical issues facing education. Today, we have a continuing and misguided preoccupation with terminology such as distributed learning, e-learning, blended learning, and new variations soon to come. Moreover, we have been unwilling to take an objective look at this evolution and acknowledge that perhaps our focus, our approaches, and our philosophical bases of distance education were well intended, but misguided from the beginning. Is it a wonder our campus leaders and politicians are perplexed, given this level of internal confusion across the field. Olcott (2004) wrote:

> That eminent scholar, Yogi Berra, has summed up the primary problem with this erratic, moving target definition game succinctly . . . if you don't know where you're going, you'll wind up somewhere else. In essence, this has been the endemic and ubiquitous problem for distance education the past decade. Many passionate advocates argued that distance education, with a misguided emphasis on technology, would increase educational quality, reduce expenses, raise revenues, foster more interaction, enhance access, lower your golf score, give faculty time for contemplation and research, and educate children on the value of educational learning over video games.

> And it is true, some people have lowered their golf scores with technology and educational access has been enhanced. Our other aspirations, regrettably, have fallen well short of earlier advocacy and promises. (p. 1)

Before we can suggest a new path for distance education, lets take Yogi's advice and examine where distance education has been.

BLURRED VISIONS

First, our strategy for advocacy was blurred from the start. Distance education advocates argued simultaneously how different these teaching and learning processes were and yet how important that they should be mainstreamed into the core academic culture of the institution, a "separate but equal" philosophy (Olcott, 2004). Most institutions opted for a different philosophy, "separate but different." And who sold this to our campus leaders and faculty? The advocates of distance education.

Campuses today are embracing all aspects of technology and technology infrastructure planning as part of their core mission to serve all students of the institution. Paradoxically, some distance learning advocates are resistant to having their domain (organizational entities) become a core function of the institution. They have yet to realize that defending their distinctiveness was misguided from the beginning. Education is education is education, regardless of how, when, where, at what pace, and through which medium it is delivered (Olcott, 2004).

A second blurred vision has been the definition debacle. In 1990, distance education's defining characteristic was "separation of teacher and student." Today, students take courses online two hundred yards from the professor's office on-campus... fifteen thousand miles away off-campus. Campus smart classrooms, in fact, utilize all the technologies that are used in distance delivery. Indeed, it seems the separation of teacher and learner concept has been altered forever. It may be most prudent for us to finally accept reality and remove the term "distance" (and its definitional and dysfunctional variations) from the annals of humankind.

Third, from a philosophical perspective we not only missed the boat, the boat wasn't even in the water. As Will Rogers once said, "even if you're on the right track your going to get run over if you just sit there." And we sat there with technology. Our obsessive delusions with the splendor of these innovations shifted our focus away from the primary focus of improving teaching and learning. Yes, we increased educational access but at exponential financial costs, disproportionate incentives for faculty, and unrealistic expectations for revenue enhancement that were never achieved in most cases. We refused to accept the fact that technology, in and of itself, is simply a tool, and in most instances no better or worse than any other teaching strategy or approach. And amidst this evolution, we are simply perplexed that campus leaders, legislators, and the public could actually demand accountability, assessment data, and cost analyses from us. How dare they question our prodigiouness reservoir of knowledge, wisdom and information . . . or lack thereof? C'est la vie, Mr. Eliot.

And finally, the field embraced unrealistic and unnecessary goals. Distance education technologies were going to make teaching and learning "better" than at any time in human history, or so the story goes. Why didn't we simply say that the diverse and innovative uses of technology just make teaching and learning more interesting, enjoyable, and fun with the same academic results. This is analogous to academics denying the fact that students are "consumers" of education and that "convenience" is indeed a powerful motivating force for students in choosing alternative modes of learning today. The academy sometimes

has a hard time with these subtle truths. Olcott (2004) sums up the reason for these unrealistic goals. He writes:

The inherent reason for advocating these unattainable goals was economic investment, or more precisely, return on economic investment. If campuses made major capital expenditures for technology, then the results of the teaching and learning process better exceed all measures of academic achievement, financial efficiencies, and instructional quality than the old ways. Of course, campuses built new football stadiums, remodeled gymnasiums. but never required undefeated seasons as the new measure of quality. Perhaps if we could sell tickets to alumni to attend history, philosophy, art, dance, and music classes, we would have avoided these contradictions. Distance learning advocates got trapped by their own misguided rhetoric rather than arguing the merits of alternative approaches to teaching, learning, scheduling, and embracing the variety of learning styles among students [that can be served by technology] (p. 50)

Is it conceivable that the use of educational technology must be defined by its value as a teaching and learning tool first and foremost. Perhaps a plausible argument to consider.

RENEWED CHOICES FOR DISTANCE EDUCATION

Blurred visions are not necessarily fatal, which is fortunate for the distance education advocates of the world. It does, however, underscore the importance of a renewed vision and purpose for the field. Indeed, if hindsight is 20/20, then we must learn from the past and apply these to the future. It's time to rock 'n' roll into the future.

- *Philosophy*—distance education must center its core values on diversifying teaching and learning for all students, campus and distance. It must abandon its adherence to a "separate but equal" philosophy, dispense with its past view of "distinctiveness," and embrace education as education as education.
- Leadership—campus and distance are blurred concepts that have lost their relevancy. Institutional leaders must build collaborative and seamless approaches to technology planning and implementation to serve all students. Today, nearly all services are available online to both campus and geographically dispersed students. Campuses are using all technologies for campus and distance instruction, and differentiation for protecting "separate but different" organizational entities is not only inefficient economically, but is redundant stupidity for serving our students.
- *Terminology*—we must respectively bury the enigmatic and confusing distance learning dictionary. We embrace a new definition or name when the old ones appear to deceivingly change. This is not scholarly wisdom, but rather our inability to focus technology around the core of teaching and learning.
- Academic Performance—educational technologies should not be expected to "increase" student performance any more than new stadiums will improve the record of football teams. Technology does, and can, diversify the pedagogical art and science of teaching and make it more fun, interesting, and enjoyable for

teachers and students alike. Attaining commensurate student academic performance using technology is a realistic and worthy goal.

- Technology Planning-technology investments must be holistic rather than individualistic. In otherwords, campus leaders must make investments in technology that create efficiencies for all institutional systems-administrative, instructional, and financial. Organizational entities such as academic colleges or information technology centers going it alone are self-serving, turf-driven, fiscally redundant, and devoid of the best interests of the institution, its faculty, and its students.
- Access—the term "access" means different things to different people and institutions. To some institutions it means serving everyone, to others it means clearly defining what "access" parameters are most important for an institution to serve. The latter seems the most prudent choice and campus leaders need to clarify "access" for their institution with and without the use of technology.
- ٠ Governance and Change-the change process for the academy has been described as one of deliberation, consensus, and incrementalism. More precisely, this usually equates with a very slow response to change and innovation. Technology must be framed within the "mainstream" academic governance structures (policy, financial, administrative, instructional, etc.) if it is to become a seamless and integral part of the institution's arsenal in meeting its mission.

SUMMARY

Aldous Huxley wrote that "experience is not what happens to you, it is what you do with what happens to you." What will distance education do with what has happened in the past decade? We have learned that information is not knowledge anymore than knowledge is necessarily wisdom. Today, we have access to infinite information that may or may not result in greater wisdom and knowledge. The one thing that hasn't changed is that we educators continue to have choices.

Distance education, despite its blurred visions of the past, has made invaluable contributions to educational access, organizational efficiencies, and teaching and learning that is fun, challenging, and engaging. Moreover, it has challenged colleges and universities to define the role of technology in macro institutional planning processes, to re-think what and how technology investments serve the greatest number of people more effectively, and has opened the doors of higher education to those previously without access. We now have the information, the knowledge and, hopefully, the wisdom to embrace education as education as education regardless of where, when, how, and via what medium it is delivered. The choice is ours.

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The Distance Learning Leader: What You **Don't Know Could** Hurt You

Tom Land and Tony Bright

INTRODUCTION

n many ways, it is the best and worst of times for distance L learning (DL) programs. It is estimated the e-learning sector will grow to \$83.1 billion by 2006, eventually swelling to over \$212 billion by 2011 (Greenspan, 2003). This is

evidenced by the meteoric rise of such DL pioneers as the University of Phoenix, as the nation's largest private university, with close to 100,000 students scattered among 134 satellite locations across 28 states. Unfortunately, the increased growth and popularity of DL programs is not without risks, as reflected by abandoned university online ventures such as E-Cornell, Virtual Temple, NYU Online, Fathom, E-MBA, and California Virtual University. Despite these risks, the growing widespread acceptance of DL programs by the public, argues for the continued development of this facet of collegiate level instruction (Edelson, 2002).

In order to succeed in this new environment, organizations must continually acquire new skills and new ways of managing knowledge and information: this requires DL leaders to be entrepreneurial while navigating the risks of new educational technology. DL leaders must go beyond distance education (DE) technology to develop their vision, strategy, and business plan to guide their organization into the age of elearning.

John Flores, Executive Director of the United States Distance Learning Association (USDLA), recognized the need for leadership capacity building in DL and engaged Nova Southeastern University's Fischler School of Education and Human Services to create a competency-based leadership program for

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DL leaders. The purpose of this article is to describe a needs analysis developed to identify the duties and responsibilities of DL leaders and a Distance Learning Leadership Certificate Program developed to address these competencies.

REVIEW OF THE LITERATURE

It could be argued that the most important ingredient for a successful DL program is the vision and approach developed by the DL leader and how well this approach aligns to the organizational strategy. Meister (2002) posited that one of the pillars of e-learning success is for corporate learning practitioners to ensure that their staffs have the necessary e-learning skills and competencies. Edelson (2002) supported this notion when he suggested that the success of higher education institutions in the e-learning world is based on their infusion of DE leadership strategies such as creating a vision and embracing an entrepreneurial organizational spirit. Like-Commission wise, the on Technology and Adult Learning (2001) recommended that, in order to succeed in the e-learning arena, individuals and organizations must continually acquire new skills and ways of managing knowledge and information. Despite this, Thach

(1994) recognized the scant attention given to research on DL competencies, let alone research targeted to DL leaders. It is surprising then, given the importance of leadership to the success of DL programs, how little research and programs exists to build leadership capacity. Williams (2003) noted institutions implementing DE programs would benefit from research defining necessary roles and competencies. Limiting his research to higher education, Williams utilized a Delphi study to iden-13 distinct roles tifv and competencies to manage DE. In his study, the role of the leader/change agent emerged separate from the administrative manager role. Building on the foundation established by Williams, the rationale for the current study was based on the need to further identify skills and competencies of DL leaders in higher education.

METHODOLOGY

This study used the DACUM process, a quick, cost-efficient job analysis method used to identify DL leader competencies that "expert workers" believe are essential for performing a specific job or occupation. Initially, a focus group was conducted with six DL leaders representing both corporate and higher education settings. The criteria for expert workers included a self-rating of level of expertise as a DL leader, five or more years of experience, and current employment (in some capacity) as a DL leader. The group defined a DL leader as "responsible for leading the distance learning/elearning initiative in their organization." The DL Leader Job Model was then validated by 27 DL leaders who were members of the United States Distance Learning Association (USDLA) representing a cross section of K-12, higher education, and corporate settings.

The DL Leader Job Model Online Validation Survey contained 91 questions divided into three sections. Section one asked about demographics and backgrounds of the respondents. Section two included a scale requiring respondents to rate job task importance of a DL leader as well as value of training in major duties and tasks. Similarly, in section three respondents rated specific skill and knowledge competencies of a DL leader.

RESULTS

Section One: Background of the respondents

Of the 27 respondents, 50% had doctorates, 42% had master's degrees, and 8% had bachelors

	<u> </u>
DUTIES	SKILLS/KNOWLEDGE COMPETENCIES
Develop DL Business Strategy	Foundations of DL
Provide DL Leadership	DL Technologies
Manage DL Organization	DL Tools and Technologies
Manage DL Budget	DL Curriculum and Instruction
Promote DL	DL Leadership
Provide DL Technology Leadership	
Oversee DL Curriculum	
Manage Development of Student/Learner DL Services	

 Table 1

 Table Major Duties and Competencies of a Distance Learning Leader

Table 2
Table Major Tasks of a Distance Learning Leader

DF	VELOP DI BUSINESS STRATECY	PR	OVIDE DI TECHNOLOGY LEADERSHIP
1	Complete environmental scan to assess DI Pro-	1	Identify DL infrastructure system requirements
1.	aram needs	1. 2	Develop a systems integration plan for required DI
2	Develop the husiness case for DI	4.	hardware software multimedia and collaborative
2. 2	Identify DL key success factors		technologies
⊿	Develop long/short term operational plan	2	Inform lossers on DL access and technical compo
4. 5	Implement plan	5.	ton on requirements
3. (Implement plan	4	Develop DI Web site monlecting structure
6. 7	Manage DL projects	4.	Develop DL web site marketing strategy
/.	Communicate DL strategy to stakeholders	3.	Develop promotional materials
δ.	Update stakeholders on DL implementation	6. 7	Explain DL systems functionality to stakeholders
DD	progress and issues	/.	Maintain liaison with internal (11 and Media) and $\sum_{i=1}^{n} \frac{1}{2} \frac{1}{2} \frac{1}{2} \sum_{i=1}^{n} \frac{1}{2$
PK	OVIDE DL LEADERSHIP	0	External (Vendors) on DL
1.	Develop a DL vision for organization	8.	Integrate DL with organization's knowledge man-
2.	Assess the readiness of organization for DL	0	agement strategy
3.	Implement change management plan to transition	9.	Explore new DL delivery methods
	organization to DL	10.	Maintain system requirements documentation
4.	Establish and promote internal and external DL	11.	Comply with DL industry standards
_	collaborators	12.	Create plan to keep technology infrastructure cur-
5.	Benchmark best practices in DL		rent
6.	Promote innovative DL methodologies	ÖV	ERSEE DL CURRICULUM
7.	Model ethical behavior and comply with copyright	1.	Develop plan to infuse technology across curricu-
	laws	_	lum
MA	ANAGE DL ORGANIZATION	2.	Implement DL course design process
1.	Develop DL organization structure	3.	Provide technical, design, and production support
2.	Determine DL staffing requirements		to faculty/instructors in DL course design and deliv-
3.	Recruit Staff		ery
4.	Hire DL staff	4.	Integrate blending DL technologies with conven-
5.	Manage team	_	tional learning
6.	Project manage and monitor DL suppliers and part-	5.	Program manage DL course design projects
	ners	MA	ANAGE DEVELOPMENT OF STUDENT/
7.	Develop staff	LE.	ARNER DL SERVICES
MA	ANAGE DL BUDGET	1.	Identify DL student/learner service requirements
1.	Develop DL financial model		(e.g. advising, registering, library, financial aid,
2.	Identify DL capital requirements		bookstore services)
3.	Monitor and revenue performance to budget plan	2.	Develop DL service plan
4.	Adjust financial plans to meet budget goals	3.	Coordinate with student service providers to ensure
5.	Demonstrate return on investment		that DL students are aware of and receive same
PR	OMOTE DL		level of services as traditional students
1.	Develop marketing plan	4.	Provide resources to develop services
2.	Promote DL concept to administrators and faculty/	5.	Assess student/learner services
	instructors		
3.	Inform leaders on DL access and technical compe-		
	tence requirements		
4.	Develop DL Web site marketing strategy		

5. Develop DL promotional materials

degrees. Most respondents described their expertise as a DL leader as high or very high. The respondents were employed in Fortune 500 companies, federal government, K-12, financial services, health care, and higher education. Most of the respondents had more than five years experience with ten years experience as the average.

SECTION TWO: DISTANCE LEARNING LEADER JOB MODEL AND RELATED SKILLS/ KNOWLEDGE COMPETENCIES.

Three questions were addressed in this section:

- Question 1: What are the major duties and responsibilities of the DL leader?
- Question 2: How do DL leader experts rank the most important tasks and the value of training?
- Question 3: How do the DL leader experts rank the most important knowledge and skills?

QUESTION 1: WHAT ARE THE MAJOR DUTIES AND RESPONSIBILITIES OF THE DL LEADER?

The DACUM panel identified eight major duties and five skill/ knowledge competency areas for the DL leader (see Table 1). The eight major duties are a combination of leadership and managerial duties including: leading and developing the business, technology, and curriculum strategies, managing the organization, budget, marketing/promoting and managing support services. The five skill/knowledge competencies included the foundational knowledge of DL, learning delivery technologies, tools and learning management technologies, and reiterated DL leadership.

For each of the eight duties,

respondents identified from 5 to 12 major tasks (see Table 2).

For each of the skills/knowledge competencies there were three to six domains identified by respondents (See Table 3)

Quantitative methods were employed for questions two and three. For question two, respondents were asked to rank the importance of specific job tasks and training value as related to their role as a DL leader. Similarly, in question three, the importance of specific competencies and training value related to job performance were ranked. Importance levels and training values were ranked on a fourpoint scale that included, 4 = Critical, 3 = High, 2 = Moderate, and 1 =Low. To clarify terminology, the following definitions were provided to respondents prior to ranking the competencies:

- Competency is an underlying characteristic (knowledge, skills, and traits) of an individual that is causally related to effective performance in a job.
- Knowledge is data, information, or concepts that you have in your head in order to perform the task. This knowledge may be used actively in carrying out the tasks, or could be background information that helps you get started.
- Skills are abilities that you have to be able to demonstrate in performing the task. These differ from knowledge items mainly in that they usually involve doing rather than just knowing.
- Tasks are underlying parts of your personality that are consistent responses to situations and information that task performance relies on (Spencer & Spencer, 1993).

To identify which task and competencies were deemed most important and had the highest training value, Means and Standard Deviations were calculated; results revealed a Mean of 3.1 and Standard Deviation of .3. A task was rated as "most important" if the overall ranking was 3.4 or higher for both importance and value of training.

QUESTION 2: HOW DO DL LEADER EXPERTS RANK THE MOST IMPORTANT TASKS AND THE VALUE OF TRAINING?

DL leaders ranked those tasks aligned to executing their DL strategy as the highest and most important tasks (see Table 4), including: implementing DL plans, managing projects, managing the team, and monitoring costs. Leadership behaviors, including ethical modeling, visioning, and innovation, were also ranked high, but lower than "handson make it happen" approach. Support and technology integration plans, though critically important to the success of DL programs, were ranked lower. Interestingly, several DL programs have been derailed because of shortcomings in these areas.

QUESTION 3: HOW DO THE DL LEADER EXPERTS RANK THE MOST IMPORTANT KNOWLEDGE AND SKILLS?

The highest-ranked skills and knowledge competencies of DL leaders were related to content, and included: copyright, design, and learner differences. Ranked slightly lower, leadership competencies of developing a vision and championing DL in the organization are also highly valued. The highest-ranked skills and knowledge competencies and training values are presented in Table 5.

Table 3 Table DL Leader Major Skills and Competencies

FOUNDATIONS OF DL

- 1. Definitions of DE
- 2. History of DE
- 3. Theories of DE
- 4. Research in DE

DL LEARNING TECHNOLOGIES

- 1. Self-directed Web-based training
- 2. Facilitated Web-based training
- 3. Web-conducted classroom course
- 4. Discussion group seminars
- 5. Telementoring and e-coaching
- 6. Videoconferencing

DL TOOLS AND TECHNOLOGIES

- 1. DE software knowledge (e.g. Dreamweaver, Flash)
- 2. Understanding of video, audio, and post-production
- 3. Understanding of Learning Management Systems (LMS) (e.g. Docent, Pathlore)
- 4. Understanding of Content Management Systems (CMS)
- 5. Course authoring programs
- 6. Webpage authoring programs

DL CURRICULUM AND INSTRUCTION

- 1. Instructional and curriculum differences for distance and traditional education
- 2. Unique learning requirements of the distant learner
- 3. Copyright and fair use guidelines in DE
- 4. Effective design of DL materials

DL LEADERSHIP

- 1. Develop a DL vision
- 2. Champion DE
- 3. Partner and form alliances with other DE businesses and educators

THE DISTANCE LEARNING LEADER CERTIFICATE PROGRAM (DLLCP)

With the initial step of defining and validating the Distance Learning Leader Job Model as well as identifying the most important tasks and duties and their associated competencies, Dr. Michael Simonson, Program Professor of Instructional Technology and Distance Education, led a design team to develop an instructional strategy for certification of DL leaders. The team developed the K-D-M-L-V Distance Learning Leader Model to address specific tasks and competencies. This model includes the following five competencies: (1) Knowing, (2) Designing, (3) Managing, (4) Leading, and (5) Visioning. Competencies and outcomes are presented in Table 6.

The DLLCP is designed for professionals in a wide range of positions including chief learning officers, higher education/university DE directors, training directors and managers, educational technology directors, and teachers who are currently leading or interested in being a leader of DL program.

INSTRUCTIONAL STRATEGIES

The program combines two full days of face-to-face instruction and six weeks of part-time distance instruction. Distance instruction

DL Leader Tasks	Importance / Training Value
1. Manage DL projects	3.7/3.6
2. Implement plan	3.7/3.5
3. Develop DL vision	3.6/3.4
4. Develop organizational structure	3.7/3.3
5. Manage DL team	3.7/3.3
6. Develop long/short term operational DL plan	3.6/3.6
7. Role model ethical behavior and comply with copyright laws	3.6/3.3
8. Monitor cost and revenue performance	3.6/3.3
9. Promote innovative DL methodologies	3.5/3.4
10. Identify DL key success factors	3.4/3.5
11. Provide instructor/faculty support	3.5/3.4
12. Develop DL financial model	3.5/3.4
13. Implement DL course design process	3.5/3.3
14. Develop technology systems integration plan	3.5/3.2

Table 4Table Most Important DL Leader Tasks

Tuble Most important DE Ecader oknis and knowledge Competencies		
	DL Leader Skills and Knowledge Competencies	Importance / Training Value
1.	Copyright and fair use guidelines in DE	3.8/3.6
2.	Effective design of distant learning materials	3.8/3.6
3.	Unique learning requirements of the distant learner	3.7/3.7
4.	Instructional and curriculum differences for distance and tradi- tional education	3.6/3.5
5.	Develop a DL vision	3.6/3.2
6.	Champion DE	3.5/3.2

 Table 5

 Table Most Important DL Leader Skills and Knowledge Competencies

Table 6 Table KDMLV Model

DL Leader Competencies and Learning Outcomes	
Knowing DE	
Define and trace the chronology of DE definitions.	
Understand the terminology used by distance educators.	
Explain the technologies used for DE—synchronous and asynchronous.	
Apply appropriate copyright regulations to the practice of DE.	
Understand and apply the KDMLV model for DE leaders.	
Designing DE	
Explain the U-M-T Approach for designing DE.	
Name several important instructional design models used in DE.	
Understand the design structure of DE courses.	
Managing DE	
Explain important activities of the manager of a design team.	
Discuss the process of managing a distance learning project.	
Explain the components of a DE policy document.	
Understand the process of producing a DE policy statement.	
Discuss the process of working with clients and vendors.	
Leading DE	
Discuss the process of managing people through change.	
Understand and explain examples of leaders implementing a DE project.	
Discuss a business view with case studies for leading a DE/training organization.	
Visioning DE	
Understand an approach for and explain case studies of visioning for DE.	
Discuss distance learning today and tomorrow from a corporate perspective.	
Explain the characteristics of and a process of developing a vision statement.	
Write a vision statement for DE.	

includes a six week follow-up delivery to on-site instruction including threaded discussion to review business plans, discussion with DE leaders, audio conferencing, and respondent-led presentations of organization vision and business plans.

RESULTS OF PILOT

In February 2004, 27 USDLA member DL leaders attended the ini-

tial pilot in Ft. Lauderdale, Florida. One of the key design considerations for the program was to offer a hybrid design of on-site instruction with online follow-up. This afforded the leaders with an opportunity to network and share ideas across corporate, higher education, and K-12 boundaries. Program benefits of the DL leader certification program recognized by respondents included: cutting-edge DL leadership skills you can use today; ability to communicate DL vision and strategy more effectively; interaction with businesses and higher education leaders with a wide range of perspectives and insights; and ensuring learning technology dollars are invested wisely.

CONCLUSION

This article described how the DL Leader Certificate Program was

developed by identifying the most important competencies leaders of DL need for their programs to be successful. Leading DL programs is not for the faint of heart. We are in the early stages of fully realizing the dramatic paradigm shift DL will have on the way education and training programs are delivered. As of yet, there are no standards for leaders of DL programs, yet it is perhaps the most important success factor. More research needs to be conducted in the important area of identifying duties and responsibilities of DL leaders.

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WHAT IS A DISTANCE LEARNING LEADER?

A LEADER IS A VISIONARY CAPABLE OF ACTION WHO GUIDES AN ORGANIZATION'S FUTURE, ITS VISION, MISSION, GOALS, AND OBJECTIVES. THE LEADER GUIDES THE ORGANIZATION AND ITS PEOPLE WHO HAVE FAITH IN THE LEADER, AND HAVE A CLEAR UNDERSTANDING AND ACCEPTANCE OF THE ORGANIZATION'S WORTHWHILE AND SHARED VISION AND GOALS. A DISTANCE LEARNING LEADER HAS COMPETENCE IN KNOWING, DESIGNING, MANAGING, LEADING AND VISIONING DISTANCE EDUCATION.

Ends and Means

E-learning Study Skills and Strategies

Ryan Watkins

he study skills and learning strategies that most of us have developed throughout our educational experiences are our most valuable resource as we transition from the traditional classroom to the e-learning online classroom. Yet, for instructors and learners alike, success in traditional courses does not always translate into success in online courses. Often, the same study skills and learning strategies



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that have been the foundation of our success in the past must be updated or modified in order to have the same positive impact on our learning when we move into a virtual environment.

As a result, for both instructors and learners, two fundamental skills that a necessary for success in e-learning are: (a) the ability to adapt traditional study skills into online success strategies, and (b) the capacity to adopt new techniques for learning and communicating effectively in the online environment.

For most of us, online success does not come from applying the skills and strategies that we have developed through our previous experiences that were rooted in the traditional high school, college, or training classroom. The new e-learning environment requires that we reexamine the strategies we use to achieve success.

For example, through our previous experiences, most of us have formed many useful techniques for developing positive working relationships with our fellow learners in the classroom, which typically translate to success when we are asked to work together as teams or when study groups are formed. From making a good first impression to staying organized, we habitually strive to exemplify the skills that lead to success when working with others.

Yet, when the environment moves to online discussion boards and chat rooms, many of these strategies we have developed for the face-to-face environment must either be adapted for the technologies or new tactics must be adopted. To make a good first impression online, learners (and instructors) should:

- Take a few extra minutes to check, and recheck, the grammar and spelling in their initial e-mails. Proper grammar and spelling can go a long way toward making a good impression.
- Take time to personalize their e-mails. Making a good first impression typically requires a personal touch.
- Provide fellow learners with their contact information (i.e., the e-mail account you want them use, your instant messenger name, or even your phone numbers if want them to call you). Being able to contact each other is a first step in developing positive relations.

- Make a conscious effort to substitute for the non-verbal cues that they regularly rely on for building successful relationships in the traditional classroom, by using common emoticons, abbreviations, and other online communication techniques.
- Include specific information regarding what should happen next (for example, indicating when they will respond to an email, proposing next steps to be taken, asking questions they would like to have answered in the next communication). By illustrating their organization and planning, they can develop positive relationships with their online peers.

As you can see from this limited example, the strategies and skills for online success are often a combination of adapting habits from the traditional classroom, along with adopting some new talents.

The secret to our success, and the success of our learners, is therefore being able to develop effective study skills and learning strategies for this new learning environment. For each new technology that we use to communicate online, there are a variety of study skill and learning strategy considerations that instructors and learners should consider in preparing for success. Below are 10 essential study tips and learning strategies that can be used effectively by online learners when participating in online discussions:

ONLINE REAL-TIME CHATS

Synchronous or real-time chats provide learners with one of the few online experiences in which they can receive immediate replies to their questions or comments, thereby allowing for a conversation to develop with the spontaneity of the traditional classroom. For that reason, learners will want to use these unique opportunities to take advantage of the matchless benefits of the technology.

- 4. Access the chat software the day before the synchronous discussion to verify that everything is working properly. Often, chat features in online courses will require additional software (called plug-ins). If you do not have access, by checking the day before you will have time to contact technical support.
- 5. Before the chat discussion. prepare a list of questions that you would like to ask during the chat, as well as any comments that you want to make in the discussion. Write these in a word processing program first so you can cut-and-paste from the document during the discussion. For long contributions, this will especially save you the time of typing and editing the comment before sending it. In addition, this technique will also help you avoid grammatical and spelling errors.
- 6. Create a good studying environment for the chat (for example, turn off the television, ask your family or co-workers not to interrupt you, turn off any instant messaging programs, turn off your e-mail, etc.)
- 7. Review any rules, agenda, and/or etiquette guides provided by the instructor.
- 8. Each of the comments and questions posted in the discussion do not require your response. Respond only to those that address you specifically or when your response will make a valuable contribution to the discussion.

ONLINE DISCUSSION BOARDS

discussions Asynchronous (normally in online bulletin or discussion boards) offer the opportunity for learners and instructors to carry on a conversation at convenient times. Because each participant in the discussion may select a time to reply to the latest addition to the conversation, the flexibility in pace and length of the conversation can vary greatly. Learners can, however, use this additional time to respond to messages to clarify their comments or questions to ensure that there are no miscommunications.

- Determine how formal or informal your contributions to the discussion should be. While informal postings (like those that you would write to a friend) are common, most often the clarity and precision of formal communications will be desired in order to avoid miscommunications, as many of the non-verbal skills you rely on in the traditional classroom are not present in online discussion boards.
- 2. Create a schedule for each day (or week, depending on the length of the e-learning course) to participate in the asynchronous discussions. Include in this schedule how much time you will spend reading the postings of others, as well as time for responding to those postings.
- 3. Use the writing techniques (for example, paragraphs should have an introduction, supporting facts, and conclusion; correct spelling and grammar; etc.) you have been taught since primary school, and at the same time don't write a book when a short, well-written paragraph or two will do.

- 4. Try not to read too much into comments made by other learners; miscommunications are common in online discussions. In addition, stay away from the use of sarcasm, idioms, jargon, slang or other communication techniques that can easily result in miscommunication.
- 5. Cut-and-paste links to Web sites into your postings in order to reduce the number of inverted letters or missing periods in links.

Developing effective study skills and learning strategies for online courses is essential to the success of learners. These are just a few of many techniques that we should help learners develop on their path to success in e-learning. Study skills in time management, technical trouble-shooting, e-research, online group dynamics, taking online exams, as well as effective communications using email, listserves, and online whiteboards are all critical to the success of online learners.

Study and Technology Tips are Taken from:

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Leveraging Knowledge Assets Do Less and Accomplish More

Jonathon Levy

The illiterate of the 21st Century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.

or many years I have used that quotation from Alvin Toffler's *Future Shock* in most of my public speeches. No matter what the theme, I would try to find a way to work it in, because the quote is so powerful and appropriate.

In the late 1960s, the prevailing paradigm was "go to school, get a



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degree, go to work." The knowledge you acquired on-campus was pretty much all you needed for your entire career. Or so we thought. Toffler was one of the few futurists at the time who pointed to continuous immersion in the field of knowledge as a way to cope with the unprecedented rate of change initiated by new technologies. He played a major role in shaping my lifelong quest to locate the spark where technology, knowledge, and awareness converge.

What prescience he must have had back then, to redefine literacy not in terms of what you know and do, but rather in terms of what you can know and may do, in terms of pure potentiality. Dynamic learning and just-in-time knowledge are only now becoming widely recognized as requirements for corporate learning in an age of rapid change. Today, "sustainability" means more than just providing information and training; increasingly, it means developing a company's knowledge workers' collective potential to learn and relearn, to develop their intuition and their

conscious capacity to know. Toffler knew that in the late '60s.

Recently I had the honor to present a lecture in Sao Paolo in the same venue where Toffler, now 76, delivered an inspiring keynote to 3000 Latin American managers. His focus, as before, was on the transformational need of our time. but now described in much finer detail within the context of The Third Wave, which clarifies the original concept. According to Toffler, the First Wave of change was launched by the agricultural revolution. The Second Wave-the Industrial Revolution-gave rise to a new factory-centered civilization that is still spreading in China, Mexico, and other parts of the world. "But even as the Second Wave plays itself out on the global stage," Toffler explained, "America and other countries are already feeling the impact of a gigantic Third Wave partly based on the substitution of mental power for muscle power in the economy." The Third Wave is more than just technology and economics, more than just being "digital" and "networked." It marks our transition from a brute force to a "brain force" economy.

The Third Wave suggests a next stage in two evolving themes of human history: leverage (doing less but accomplishing more) and networking (employing the collective value of what we know). In the first instance, leverage and networking were played out thousands of years ago with the advent of the first tools and the first villages. The tools leveraged our physical power and the villages functioned as hubs of knowledge networks that gathered and redistributed new information. In the 1900s labor-based economy, businesses developed power tools to leverage the muscle power of their workers and assembly lines that relied not on a single worker but on the collective efforts of many. The evolution of that theme has given rise to today's knowledge-based economy in which state-of-the-art knowledge systems converge both tools and networks into a single powerful system that leverages the mental power and collective wisdom of knowledge workers.

It is the same evolutionary tendency displayed first with machines, then with electronic technology, now with ideas. At each stage, the introduction of a subtler level of influence has resulted in a more powerful level of solution. Tools such as faster computers and "smart," portable technology are now wirelessly linked to robust networked databases to broaden the scope of what the knowledge worker can see in a single instant. New technologies link the knowledge workers with a field of collective knowledge and leverage their mental processes through intelligent filtering, recognizing patterns, and accessing required knowledge in real time.

This new wave of technology, a wave that was described in the last "Sustainability" column in *Distance Learning*, will begin to define the outer limits of digital technology knowledge systems. Once that boundary has been reached, it is likely that the next major wave in human capital development will involve the teaching of techniques to expand the conscious capacity of the mind itself, enlivening the potential and thereby increasing the efficacy of knowledge workers. Even now, we are starting to see companies introduce mental technologies such as meditation in the workplace, to further empower knowledge workers by decreasing stress and enhancing the signal-to-noise ratio in human consciousness.

The focus of these mental technologies, the technologies of expanded awareness, is on the extension of the container of knowledge-the human mind-as the other side of the coin of human potentiality. Investment in the knowledge workforce is extending beyond the knowledge systems to the users of those systems, the knowledge workers themselves. This "next step" seems to yield very practical results. For example, one of the world's leading pharmaceutical companies, AstraZeneca, has instituted the practice of group meditation for a few minutes before important executive meetings get underway, the theory being that decision-makers whose minds are clear and free from stress will make better decisions.

In a rapidly-changing field, it is easier to "skate to where the puck will be" if the trajectory of the change cycle can be seen clearly. Once we see the principles of doing less and accomplishing more, of the collective value of the network, then we are able to predict the next step of human resource development when the technologies of knowledge have taken us as far as they can go. In ancient times, great masters like Aristotle and Plato facilitated the expanded awareness of their disciples, focusing less on what they knew and more on their own self-knowledge. We may be coming full cycle; ancient technologies from ancient bodies of knowledge such as the Transcendental Meditation (TM)

program are now available to address companies' very contemporary need to develop the full potential of knowledge workers.

This may well prove to be the avant-garde in human resource development. The lawyers in a Buffalo, New York, law firm begin their weekly meeting by meditating. "It's our universal experience here that much more can be accomplished in the practice of law if we are doing it in a thoughtful and quiet manner rather than in a frantic manner," says David Pfalzgraf, a partner at the firm. Business Week reports that "There are no hard numbers on how many companies have added meditation benefits, but the anecdotal evidence is mounting . . . (at) AOL Time Warner Inc., where the sales and marketing group was reduced from 850 to 500 people three years ago, meditation classes were incorporated to help employees deal with the new 12-hour days."

Corporate blue-bloods such as McKinsey, Deutsche Bank, and Hughes Aircraft are joining tech outfits like Apple Computer, Yahoo!, and Google in offering meditation to "Companies their employees. increasingly are falling for the allure of meditation . . . offering free, on-site classes," adds the Business Week report. "They're being won over, in part, by findings at the National Institutes of Health, the University of Massachusetts, and the Mind/Body Medical Institute at Harvard University, that meditation enhances the qualities companies need most from their knowledge workers: increased brain-wave activity, enhanced intuition, better concentration."

Twenty-three years ago IBM's then Sr. VP for Human Resources, Walton Burdick, suggested that, in the future, the best companies in the world would be differentiated by the degree to which they relate to their employees holistically, as whole human beings. It seems that Walt's prediction may be coming of age.

New Media, New Learning

That's Entrainment!

Craig Ullman

here's a handy little neologism making the rounds these days, and I think it's key to understanding instructional design for interactive media: *entrainment*.

Based on the Old French entrainer, which meant "to drag," entrain has been used for some time in English as a rather obscure verb meaning "to pull or draw along after itself." The meaning of the word was extended into chemistry: "to carry along in a current."

It's one of the pesky complications of civilization that words morph (like *morph*, for instance); they change meanings, they drop



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meanings, and sometimes they end up meaning completely the opposite of what they originally meant. This previously obscure word has taken on an exciting new obscure meaning: entrainment, for interactive media, has come to mean "the internal rhythm of an experience."

Perhaps the purest example of entrainment I've seen is the old video game, Pac-man. As you might recall, Pac-man was a two-dimensional maze. A yellow circle the user controlled had to go through the entire maze, appearing to eat all the dots that line the maze. The ravenous little circle was chased by brightly colored gumdrops called ghosts. If the gumdrop reached the yellow circle, the circle withered and died to a sad sound effect. However, there were four large dots near each corner of the maze called power pills. If the yellow circle ran over a power pill, the ghosts would turn blue, and the vellow circle could then chase and eat them. The object of the game was to survive long enough to clear the maze and go to the next identical one.

The anthropomorphism was vague at best; while brightly colored, there was no suggestion of depth, and no real purpose. Pac-man was an inordinately trivial game. And yet, a legion of fans played the game to the point of tendinitis (they called it "Pac-man elbow," and no, I'm not bitter.)

So why, you ask, would someone spending a fortune of someone else's money going to grad school ruin a perfectly valid arm just to play with circles and gumdrops?

Pac-man was an Uber-exercise in entrainment. You got a jolt of anxiety as you ran from the ghosts, barely making it to a power pill, and then the table is briefly turned—relief—and you chase them. The ebb and flow of tension, the entrainment of the game, made it utterly hypnotic.

Perhaps the interchange between relief and anxiety reaches some pre-historic memories locked in our DNA: stalk the mastodon...stalk the mastodon...run away from the mastodon!.. RUN AWAY FROM THE MASTODON!

Perhaps that's why a twitch game like Pac-man and its many descendants are played mainly by boys (or grad students). Whatever.

Or perhaps not.

In any case, Pac-man holds a key to our conceptualization of interactive educational content: not because it's a game, but because it hews so well to its entrainment. The structure of any interactive content needs to have a similar flow of tension (answering questions and other kinds of user actions) and relief (more passive transfer of knowledge). Too much tension causes frustration, too much relief causes enervation. The trick is to find a balance that's appropriate to the affordances of the medium you're using. Just as importantly, the end of the experience what's required to get there and what it is—needs to be clear from the start. Interactive educational content requires a more complicated entrainment than a video game. Mere repetition is not a sufficient motivation for an educational experience. Rather, the ebb and flow of tension needs to have a direction, to mount, until a culminating experience is achieved. So, for educational content, there are really two levels of entrainment: the moment to moment flow and, just as in any narrative, the overall flow of beginning, middle, and end.

One distance learning leader had this collection of books about the field on his bookshelf.

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Pedagogy Corner

Do You Chunk? You Should

David Graf

et's face it, the problem with many online courses is I that we ask students to read page after page of electronically generated text. Faculty who take the step of transitioning a face-to-face course to an online environment tend to take existing content and convert it into an electronic version of what they have been doing in their classrooms. For the most part, that simply does not work. We need to move beyond feeding students page after page of text. And to do that, we need to find ways to change the delivery of 50 minutes worth of primarily ver-



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bal content into easily absorbed "bits" of information.

One way to begin is to look at how the content of your online course is structured. One of the more accepted structures follows a unit-module-topic approach. Each unit of the course would be the equivalent of one semester hour of content. And each unit would contain 3-5 modules. Each of the modules would have 3-5 topics, with each topic having a single learning outcome. Using this approach, a typical three credit-hour course might have 3 units, 12 modules (approximately one per week), 48 topics, and 48 learning outcomes.

This type of structure both assures and enables a designer and/ or faculty member to *chunk* course content. The concept of chunking is not new and has been applied to instructional situations for quite some time. Simply put, the concept of chunking refers to breaking information down into chewable segments. Recent literature suggests that a chunk is no more than 2 or 3 "screens" of paged text. Given that the smallest item in our course structure is a "topic," this would mean that each topic in the course might be considered to be a chunk. One rule of thumb is to limit your chunk to things students can assimilate in no more than 15 minutes.

There is much you can do to chunk course content. Let's begin

with the task of transitioning an existing face-to-face course to an online environment. Begin by closely analyzing the content of the course. Break it down (roughly at first) into manageable segments that approach the module concept described above. Next, take a close, critical look at each of the resulting "modules" with the express purpose of breaking the information down even further, where possible. Then begin the process of "building" the course in your online learning environment. As you do this, ask yourself a series of questions:

- If your course has a textbook, how will you make it a resource for students, as opposed to reiterating its content?
- What portions of the course content can best be delivered electronically in text format?
- What portions of the content might better be delivered using various forms of multimedia?
- What is it that you are asking students to do—and how does this affect the design and structure of course assignments?
- What Web-based resources are available to supplement the content you are making available within your online course?

With conceptual answers to these questions in hand, you can

turn your attention to the actual structure of the course. While there are many course structure models available, you might find my "5 A's" model useful:

- <u>Aims</u>: the learning outcome(s) for the topic.
- <u>Advance</u> Organizer: a preamble of sorts, that provides students with information about what they are about to study.
- <u>Activities</u>: your content plus things students will do as they navigate their way through the content. These are your "chunks."

- <u>Assignment(s)</u>: those things your students will do to earn points in your course.
- Assessment: quizzes and tests.

My suggestions are merely starting points. All I have written here and everything you do as you transition your course to an online learning environment—has been with one thought in mind: what is best for the students who will take this course?

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- Course Outline and Production Form. University of North Texas Center for Distributed Learning: http:// www.unt.edu/cdl/services/ prod_form.htm (Note: the production form found at this link may be helpful to you in conceptualizing the "chunks" of your course.)

Reports from USDLA Executive Director

USDLA Launches New Distance Learning Accreditation Board . . . DLAB

John Flores

For many years, those of us in the distance learning industry struggled for respect among our more traditionally-based colleagues. During that time, we were compelled to offer numbers and statistics to illustrate that technol-



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ogy-driven distance learning was a sound alternative to the physical classroom. I'm not sure how many converts we won, but the figures at least kept the critics at bay and prevented us from being relegated to the backwaters of academia.

All of that has changed now. No longer are numbers or justifications required. Distance learning has come from the fringe to the forefront of education. Indeed, distance learning has become almost as common among colleges as are email accounts among our friends. Rarely do you have to ask . . . it's just *there*! As a result, vast and untapped new constituencies are now accessible to the knowledge industry.

Certainly the early pioneers welcome this growth—vindication is so sweet! At the same time, though, these visionaries recognize that real growth not only consists of getting bigger, but also of becoming better, more focused . . . more effective. We know that change is inevitable and that is especially true when one is bound to a technical platform—the shifts in technology drive a certain level of change. At any rate, some changes are good and some merely mask endemic flaws in our programs; hence, the need for a *system-atic* approach to improvement.

Probably the strongest impetus for improvement comes when there is a system of accountability. In this context, I'm obviously not alluding to surface questions recited from a clipboard. Rather, I speak of an insightful process designed by an international group of experts in the field of distance learning. The critical element is having an understanding of both technology and learning processes-and knowing how the two can best combine to effect student achievement. There is not a simple formula for doing this. It varies with the subject and varies with the students. Yet, with all of the differences, our experience shows that certain broad principles apply.

The United States Distance Learning Association, founded in 1987, was the first nonprofit distance learning association in the United States to support research, development, and praxis across the entire spectrum of education and training. Our consistent focus has been on quality approaches and professional growth. We have served as a focal point and clearinghouse for some of the great innovations in our field. It is fitting, then, that the Association should now engage its segment of the education industry in the quality improvement process.

The globalization of learning is an inescapable trend that underscores the need for standards of quality at the international level. Just as we saw in the US that distance learning allowed schools a natural expansion across state lines, we now see a similar dynamic with programs extending across national borders. And, just as the first surge of expansion raised issues of quality and equivalence, so does the second-but in ways perhaps more challenging. Thus, USDLA's growing interest in connecting with its international counterparts to facilitate quality assurance in the global learning community.

The USDLA Board considered the issue of accreditation and certification several times in the past. We were reticent to become directly involved because we recognized the magnitude and importance of this job. Yet, the need is great. Thus, in the last year we have begun a program to credential individual distance learning practitioners.

As we take this step, it is important to acknowledge the support we have received from friends with an affinity in this area. Chief among these is Glenn R. Jones of Jones International, Ltd., who had underwritten the development of international quality standards for distance learning under GATE, the Global Alliance for Transnational Education. His generous gift of this well-developed material to our non-profit association came at a strategic moment and made USDLA's task far more manageable. The Association owes Glenn Jones its deep gratitude for his vision and support. Moreover, Jim Vautrot, CEO and President of BAF Satellite and Technology Corporation, has contributed his company's manpower in helping USDLA move this opportunity forward. A debt of appreciation is due him, too, from all USDLA members.

Melding the GATE standards

with our own insights and practical experience has led to a strong program, one that addresses particular needs in the academic and corporate areas of distance learning. Not only should this approach provide a basis for recognizing equivalence between programs, but also should foster communication and improvement throughout the industry. To that end, we are quick to recognize that our standards and procedures cannot be rigidly fixed but are themselves merely a strand within a larger, dynamic process.

If you are a member of a learning organization—pre-college, college, or corporate—we invite you to contact us about how we can help you further develop your program. The end product of a process such as this is not a certificate hung on the wall. That is only an artifact. Rather, our end product is students and institutions: better prepared, stronger, and more vibrant in their mission.

If a call to excellence resonates with you, then I hope you will be in touch with us. Together we will make a difference! **Reports from USDLA...**

USDLA The Transformation

Darcy W. Hardy

his month I want to talk about USDLA. As the current president, and someone who has been aware of the organization for about 15 years, I'll start by being honest with you. At the time I was elected to be a member of the USDLA Board of Directors, I was a former state chapter president who had wanted to defect from USDLA during my presidency. Not just me, but my whole state chapter. Let me tell you why I felt that way, why I



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changed my mind, and why I'm now glad I did.

For many years (from my perspective as someone involved in higher education), the USDLA represented corporate partners, particularly videoteleconferencing partners. It wasn't that this was a bad thing, but it didn't seem to fit my reasons for joining the organization. And, at the time (as it does now), the Texas Distance Learning Association (TxDLA) had a large number of members from higher education and we were working to build a strong K-12 membership as well. I felt that USDLA represented the "training" side of distance learning, but not the "education" side as much as I would have liked. One could argue that training and educating are the same thing, but most people know there is a difference.

When I was elected to the Board, I was hesitant to serve based on my past perspective and experiences. But I accepted the position and have been amazed at how much the organization has to offer—and how much it has changed. There has been new leadership at the national level since 1999. Members of the Board who have been part of the organization for many years have led a revitalization effort, and new members have provided fresh and innovative ideas. I have seen a true transformation. We now have a much more equal distribution of corporate, higher education, K-12, and military/government members, both on the Board and within our general membership. And what a wonderful set of new ideas and processes have come about as a result of that membership.

... President

I truly believe that USDLA is the premier organization for distance learning professionals-regardless of your job or career choice. Voices are heard from across our membership, members are invited to be part of committees usually reserved for Board members only, and we are growth continued seeing in state-affiliated chapters as well as special interest groups, such as the American Council for Virtual Education, spearheaded by Mary Beth Susman. The change is phenomenal. Our colleagues in higher education and particularly K-12 now look to USDLA more than they have in the past. Corporate sponsorships continue to grow. Our military and government representation is also on the rise. People are noticing a difference. USDLA is the one organization that embraces the various "silos" we find in the field and brings them all to the same table.

I know that there are many national organizations that address distance learning in some way (and we all seem to belong to several). I have my own personal favorite organizations and conferences that deal with distance learning. I'm sure each of you has yours as well. But, I would venture that whatever the organization or conference, it is focused on your type of organization (corporate or public), your mission (training or education), or your technology (online, broadcast, videoconferenceing, print-based, etc.).

Okay, so what has USDLA done lately? Well, for starters, we've launched this great new practitioners' magazine, and you're reading it now. Spread the word. This is one of the first magazines/journals about distance learning that I can and will actually read cover to cover. Let's face it folks, while many of us tend to think of ourselves as researchers or "academics," how many of us really have time to read heavy research-based articles? Don't get

me wrong, I believe that solid research is what leads us to re-design, re-create, and evolve our field. But realistically, I also want and need to know what's going on in the real world today—while it's happening. I want to hear about new models that are being created and, probably more importantly, what models my colleagues are copying. Who are the people taking risks and trying new things? What are we learning from practical applications in distance learning? I believe that USDLA, through this new publication, hits that niche.

There are other things happening within USDLA that show forward thinking, such as the International Forum for Women in E-Learning (IFWE) that will be held September 13-15, 2004. The forum targets women who are leaders in distance learning as well as those women who are up-and-coming leaders in the field. But IFWE is not going to be exclusively for women only. I encourage men who are interested in women's issues in distance learning and their leadership roles to attend. There have been many articles about the "glass ceiling" over the years this conference will address how women have risen above that glass ceiling in our field and why. It will also involve a great deal of mentoring and networking, and an opportunity to share experiences. The speakers are outstanding! Space is limited to 200 participants, so register early. This event will be unlike anything you've experienced. See www.usdla.org for details, and register NOW!

So, as president of USDLA, this is my pitch for you to become a full professional member if you aren't already. I'm a practitioner and I can tell you this is a "new" organization, and it's based on effecting change in the field, helping and mentoring each other across the various areas we represent, and then bringing together under one roof all the silos that exist in distance learning. If you aren't a member of USDLA now, think about joining. If you are, tell your friends. We are a forward-thinking organization. Together, we can be the future of this ever-changing field.

Women, Leadership, and Distance Education

A Brave New World or Darker Shades of the Glass Ceiling?

he information revolution has precipitated one transformation after another across colleges and universities. One emerging development is the increasing number of women in technology-related positions. And,



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while this emerging trend cannot be attributed solely to distance education, one can make a convincing argument that distance education has been a catalyst for attracting more and more women into the technology-related professions. What is less apparent is whether this trend has resulted in more women assuming high-level leadership positions or whether we are seeing new manifestations of the glass ceiling. Perhaps both perspectives are valid, with the latter being somewhat perplexing.

Today, on nearly every university and college campus, you will see more women in positions that directly or indirectly support the application of information technology in teaching and learning. There are more women serving as instructional designers, evaluation specialists, online program developers, distance education marketing specialists, directors of technology partnerships and campus centers, and certainly many more women teaching with the vast arsenal of

Don Olcott, Jr.

modern educational technologies. At first glance, it appears that a brave new world has evolved for women in distance education and information technology professions. Or has it? As Mark Twain once remarked, "of course truth is stranger than fiction . . . fiction has to make sense."

The contemporary truth that doesn't make sense is this: there is still a disproportionate number of men in engineering, business, and science faculties and even fewer female deans, vice presidents, CIO's, provosts, and presidents on the majority of campuses. These disturbing facts are accentuated further when one considers the gap between white males in top leadership positions and their minority male and female counterparts. This brave new world isn't quite as brave and things are not all-white (all right) in the hallowed halls of the academy.

Given we cannot fix the aggregate socio-ethnic-gender disparity in American colleges and universities with one silver bullet solution, lets focus on distance education and information technology. Let's start with some guiding assumptions for women to consider in opening the leadership doors for themselves:

- American higher education's historic culture, governance, and policy infrastructure was created, reinforced, and sustained by males. Given that women are commonly labeled as the emotional gender, it is ironic that the persistent dysfunctions of the academy historically are the creations of males.
- Males make the rules and when the rules don't work, men break the rules or create short-term status quo protection strategies that don't work either. Why? Because the system that has sustained their careers and rewarded them is broken; severely broken, as a matter of fact, and the only answers they have are embedded in the past. Boys will be boys and there is not one male on the planet who doesn't hope that his daughter will be given every opportunity to shine in her career and personal life.
- The only thing more fragile than quicksand is the male ego, and when men don't have the right answers, fear sets in and academic paralysis is pervasive across the academy. Retrenchment replaces leadership.

• None of these have anything to do with visionary and empowering *leadership*. The primary reason that there is a leadership void in higher education, and society in general, is that our male leaders still believe the art of leadership lies in the past. Women have figured out that visionary leadership lies in the future.

So, ladies, for those of you in distance education, engineering, science, business, and the information technology professions, here's what you need to do. Send your male counterparts shopping and try these on for size:

- Recognize first and foremost, that the female attributes of empowerment, collaboration, and relationship-building are invaluable attributes for creating distance education and information technology partnerships. Colleges and universities with viable and thriving technology programs are characteristically build around partnerships.
- Network, network, and network some more. Women in the academy across all professions need to build professional networks among themselves. Professional associations provide periodic renewal and opportunities to network with other women, but collective influence and leadership must emerge and solidify at the

institutional level to make real change.

- Scope out professional development opportunities that focus on women and leadership (USDLA 2004 IFWE Conference in Phoenix). The traditional male models are obsolete, so all of us, men and women, must create new models of leadership that work in an information society.
- If you work in the distance education profession, use this as a springboard to discuss all career possibilities with young women, your daughters and, yes, the men in your life. In an age in which we are in desperate need of new role models, you can begin being a role model for those in your life.

So it's up to you to create new leadership opportunities for women in distance education and the technology-related professions. Are you going to wait for males to do this for you? If we are to relegate the glass ceiling into the history books, then your choices, your networks, and your visions have to be heard. Silence is only golden for protecting the status quo, no matter how antiquated and obsolete the status quo may be. Remember, history does not, in fact, repeat itself: foolish people repeat history. A brave new world is waiting for you. The choice is yours.

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Distance Learning Leaders— Who Are They?

ecently, a program of study leading to a certificate as a distance learning leader was held at Nova Southeastern University. At the core of the six week long program was the definition offered of a leader.

A distance learning leader is a visionary capable of action who guides an organization's future, its vision, mission, goals, and objectives. The leader guides the organization and its people who have faith in the leader, and have a clear understanding and acceptance of the organization's worthwhile and shared vision



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and goals. A distance learning leader has competence in knowing, designing, managing, leading and visioning distance education.

The whole idea of training to develop leaders is an interesting one. The military trains its officers to be leaders during intensive sessions such as the U.S. Marine Corps' Basic School, a six month immersion in all that one could imagine for the new junior Marine Officer. The Navy has the Surface Warfare Officers School in Newport, RI, which is a series of schools for officers of various ranks who attend several times during their naval careers. Without exception these schools are months long, and totally dominate the time and the of those in attendance. Then, we have West Point, Annapolis, and the Air Force Academy-certainly colleges, but also designed to produce military leaders.

Are we naïve to think we can prepare leaders of distance education organizations in two days and six weeks of online follow up? Or, are there a common core of skills, competencies, and ideas that can be taught, shared, and learned that will produce a new leader. Certainly the idea of certification programs to prepare leaders is becoming wide spread, and if the marketplace decides, then these many and varied programs must be doing something right. We at the *Distance Learning Magazine* would love to hear from our subscribers and readers about his topic—are leaders trained or do they emerge? Let us know your thoughts, and if you have specific insights or experiences, write an article.

AND FINALLY, as Walter Lippmann said "the final test of a leader is that [the leader leaves behind] in others the conviction and the will to carry on...the genius of a good leader is to leave behind a situation which common sense, without the grace of genius, can deal with successfully." If distance education distance teaching and distance learning-is to become mainstream, then many leaders in a multitude of locations will be needed. Informed leaders who believe in high quality and in the rigorous application of sound teaching principles to the learning process.