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DISTANCE LEARNING

...A Magazine for Leaders

ARTICLES

COLUMNS

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Distance Learning, an official publication of the United States Distance Learning Association (USDLA), is sponsored by the USDLA, by the Fischler School of Education and Human Services at Nova Southeastern University, and by Information Age Publishing. Distance Learning is published six times a year for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional magazine with information for those who provide instruction to all types of learners, of all ages, using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas for readers. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning.

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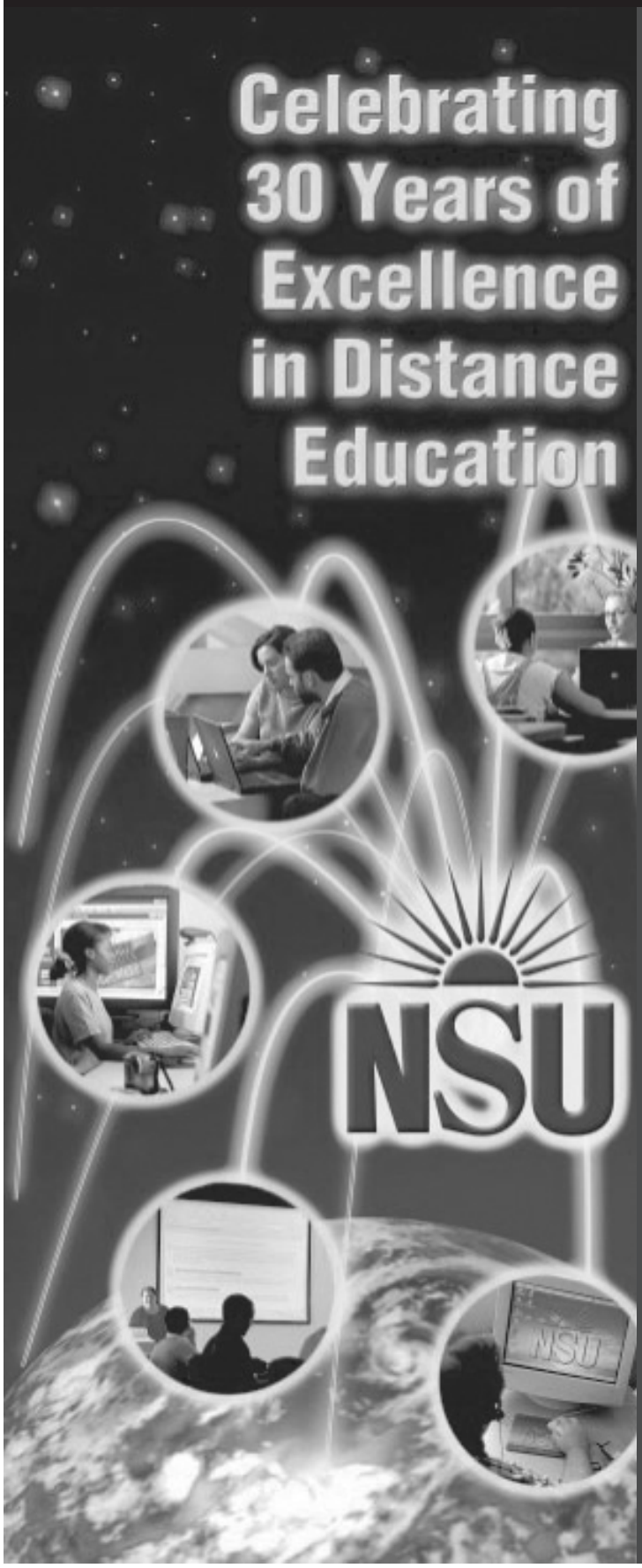

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Electronic Portfolios

Regina A. Bobak

Portfolios have been around for decades. In their simplest form, they are a collection of completed work. Technology has had an impact on traditional paper and binder portfolios. The term *ePortfolio*, also known as electronic portfolio or digital portfolio, has been used since the mid 1990s because of the advancement in technology. An ePortfolio contains information that is collected, organized, saved, and stored in an electronic format (Heath, 2002; Wright, Stallworth, & Ray, 2002). ePortfolios make content easier to organize, accessible to a wider audience (Albright, 2003), transportable, flexible, and can be updated and edited (Heath, 2002). ePortfolios might now be the biggest technology use on campuses (Batson, 2002; Young, 2002) and a significant trend in education (Albright, 2003).

There are numerous terms being used for ePortfolios. Other terms used are Web-based portfolio and webfolio. Goldsby and Fazal (2001) noted a Web-based portfolio as a digital portfolio incorporating Web-based materials. Webfolios have also been known as static Web sites using Hypertext Markup Language (HTML) links where the ePortfolio uses a database-driven, dynamic Web site. The norm for Web developers is a dynamic Web site that is database driven (Batson, 2002). This technology involves the instructional technology and distance education (ITDE) manager.

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Students, Faculty, Administrators

ITDE managers may be involved in the establishment of ePortfolio programs because ePortfolios can be used by students, faculty members, staff, and administrators (Albright, 2003). Students have many reasons for using ePortfolios, not just to meet requirements. ePortfolios give students a place to store their work. Work can be in forms of graphics, sound, digital video, text, and other media. Students have control over the information that is stored, displayed, and accessed, and they can use their ePortfolios to collaborate with anyone in the world (Gathercoal, Love, Bryde, & McKean, 2002). Some students use their ePortfolios for job seeking (Young, 2002) and feel it will help show their technology skills (Wright et al., 2002). Ittelson (2001) suggests creating a central system to collect students' academic records and performance, similar to credit bureaus. Most research on ePortfolios involves students, mainly preservice teachers.

Faculty members can have their students use ePortfolios. It can be more beneficial when other faculty are involved (Gathercoal et al., 2002). ePortfolios give faculty another means of assessing students' learning. A primary benefit for the instructor is to provide a tool to better manage, review, reflect, and comment on student work (Batson, 2002). The role of faculty is changed when ePortfolios are used. The teacher no longer imparts information but helps the student construct meaning through facilitation, becoming a student-centered form of instruction (Gathercoal et al., 2002; Wright et al., 2002). Faculty members can also create professional ePortfolios to document successful teaching and accomplishments for promotions, tenure, grants, publications, consulting, and other professional development activities (Batson, 2002; Heath, 2002).

Administrators can also use ePortfolios for their own professional growth. The overall use by administrators is for accreditation (Albright, 2003; Batson, 2002). ePortfolios create a system for tracking student work over time with reflections between students and faculty. A course can be assessed along with

an entire program of study (Batson, 2002). Formative and summative evaluations can be completed at the course and program level (Gathercoal et al., 2002).

ePortfolio Components

ePortfolios can be merely fancy electronic resumes if not guided by standards and performance outcomes (Bauer & Dunn, 2003; Gatlin & Jacob, 2002). ePortfolios need to be well organized and structured around a set of goals (Bauer & Dunn, 2003). As stated above, an ePortfolio contains a collection of works such as papers, problem sets, reports, simulations, experiments, renditions, or drawings. The works can be in the form of graphics, sound, digital video, text, and other media. These works should demonstrate achievement and competence in relation to the ePortfolio goals.

However, ePortfolios must have more than a collection of works to be complete. There should be areas to indicate future growth based on assessments of past performances and strengths along with reflection (Heath, 2002). According to Heath (2002), "authentic reflection is a process—the process of getting to know ourselves in relation to our profession and then looking at ways we can grow" (p. 20). Reflection may also involve discussion with a coach, mentor, adviser, or peer (Young, 2002).

ePortfolios promote learner self-evaluation along with demonstrating problem-solving skills. In developing the ePortfolio, students make decisions and analyze information; ongoing evaluation also takes place. Students are actively involved (Wright et al., 2002). An ePortfolio can measure Howard Gardner's eight modes of learning—kinesthetic, interpersonal, intrapersonal, linguistic, mathematical, musical, naturalist, and spatial—as a malleable resource (Martin, 2000). A rubric is a good way to ease the evaluation of ePortfolios. Goldsby and Fazal (2001) recommend a rubric containing the key elements, traits, or dimensions to be evaluated. They identified three main elements for evaluation—form, function and usability, and components. In a study by Wright et al. (2002), students felt the ePortfolio was a better assessment of what they know.

Steps in Creating an ePortfolio

There are four main steps in creating the content for an ePortfolio—collection, selection, reflection, and projection (Table 1) (Heath, 2002). The first step is to collect all the materials that are pertinent to the goal of the ePortfolio. Collection can be done by keeping a folder on the computer and a manila folder for documents that need to be scanned later. Once the materials are collected, the selection process begins. Only the materials that best illustrate the objectives should be selected. The third step, reflection, is crucial in turning the collection of information into the ePortfolio. Reflection occurs on the information and with the context of learning. The final step, projection, takes the reflection and carries it into the future. This projection shows what has been learned and how growth will continue.

Now that the content is created, decisions have to be made on presentation and production. The main areas for consideration are the prospective audience, technology skills, and hardware and software needed to produce the ePortfolio. A Web page is a good way to reach a large audience. If the audience is small, a CD-ROM may do. It is good to have two types of ePortfolios: working and presentation. A working ePortfolio is one in which pieces of information are being collected. The presentation ePortfolio is presented to the audience. It is smaller and more focused than the working ePortfolio (Bauer & Dunn, 2003).

Martin (2000) notes that planning is an essential step in creating ePortfolios. Planning should include the type of activities and media being incorporated. One area that can often be left out of a plan is the time necessary to complete the project. Time needs to be considered from

Table 1. Comparison of Approaches to Portfolio Development

	Barrett's Four Steps	Van Wagenen & Hibbard's Three Questions
Content	Collection	What did I do?
	Selection	What did I learn?
	Reflection	What will I do next?
	Projection	
Technology	Presentation and Production	

Source: Heath (2002, p. 23).

the collection step to the actual presentation. Extra time must be taken into consideration if a new software package is used for production.

ePortfolio Tools

ePortfolios can be developed using generic tools or customized systems (Gibson & Barrett, 2002). Generic tools are commonly used productivity software such as word processing, HTML editors, multimedia authoring tools, and portable document format (PDF). The ePortfolios are constructed individually and stored on available digital space, a bottom-up approach controlled by the individual. The custom systems approach uses information technology involving servers, programming, and databases. This approach begins with the organization providing online databases and server space, a more top-down approach controlled by the organization. Administrators use custom systems to prove program results (Gibson & Barrett, 2002).

Each tool has pluses and minuses. Custom systems can

Table 2. Criteria for Development

Generic Tools	Criteria for Development	Customized Systems
Expectations include the digital| documentation and portfolio presence of planning and goal setting and adjustments as part of the story of growth over time.	Planning and Goal Setting	Planning processes are prompted, synchronous or asynchronous conversations are documented, goals can be flexibly linked to standards and other frames of reference determined either by the organization or the individual.
Expectations include the digital documentation and portfolio presence of planning and goal setting and adjustments as part of the story of growth over time.	Framework for Creativity	The application allows learners to customize all digital products. Learners either have CS tools or are expected to use GT to add creatively to their portfolios.
Portfolios show evidence of use of telecommunication tools in planning, goal setting, work improvement over time, and final products.	Communications	Application integrates asynchronous and synchronous communications into all processes and documentation is available to be used in portfolios.
Documentation from generic collaboration tools is prompted and supported in all portfolios.	Collaboration Tools	Application supports multiple group and individual roles and relationships that support self, peer and expert co-creation and dialog about portfolios and their products.
Learners are collaboratively assisted to reflect and create alignment of purpose and audience in more than one portfolio, ideally, a working folio, a program completion folio, and one or more other folios for employment, public and private purposes.	Reflective Processes	Application prompts for and supports multimedia reflections on work and the creation of alignment between purposes and audiences for multiple portfolios.
Learners are expected to extensively link their work to more than one schema, depending upon audience and purpose of a portfolio.	Connection Capabilities	Application facilities maximum use of linkages among and between work products and other representations and multiple sets of schemas. Learners have flexible access to the linkages to make adjustments and create new connections.
All learners maintain more than one way to organize their work collections and utilize more than one organizational framework to represent their work.	Organizational Flexibility	Multiple frameworks are supported and can be deployed flexibly across learner work areas and portfolios.

Source: Gibson and Barrett (2002).

aggregate data for assessment compared. However, the generic tools tend to have lower start-up and maintenance costs. Gibson and Barrett (2002) created a rubric of criteria for development. Table 2 shows these criteria for development and the best possible conditions for each approach. The table represents a broad framework. A more detailed breakdown of these criteria for the scales of minimally present, mixed to fully developed is available at http://it.coe.uga.edu/itforum/paper66/paper66.htm.

Generic tools are user-friendly and more readily available in organizations than are customized tools. Most organizations have writing applications such as Microsoft Word or Works, an HTML editor, spreadsheet software, graphics software, and Microsoft PowerPoint. HTML is one of the most common generic tools used for ePortfolios because it is a cross-platform environment and media such as text, graphics, sound, and video can be used. HTML coding is not proprietary and is transportable (Bauer & Dunn, 2003). An ePortfolio using HTML can be accessed 24 hours a day, 7 days a week. There are WYSIWYG editors that can be used to develop HTML coding. Using the templates in these editors can make development easier. Some common WYSIWYG editors are Macromedia Dreamweaver, Microsoft FrontPage, Netscape Composer, and Adobe GoLive. Microsoft Word and PowerPoint can even create HTML pages. Macromedia has created a software package called Breeze (www.macromedia.com) that converts Microsoft PowerPoint presentations into Web-based presentations incorporating audio.

There are software packages available to create ePortfolios that contain more animation than the above WYSIWYG editors can provide. Macromedia Flash (www.macromedia.com) is a common tool for creating animated Web pages. However, the learning curve for this software package is steeper than the WYSIWYG editors mentioned above and the viewer must have Macromedia Flash Player installed on the computer to view the pages. Fortunately, this download is free from Macromedia's Web site (www.macromedia.com). Some other software packages that can create animated Web pages are Click2Learn's ToolBook II Instructor, Macromedia Authorware, and Macromedia Director (Table 3). These software packages need a program installed on the viewer's computer to view the pages. However, they are good programs to use for creating CD-ROMs to distribute an ePortfolio.

There are more generic software tools that can be used to create ePortfolios. However, all of these tools create asynchronous ePortfolios. Customized systems can create an interactive ePortfolio incorporating synchronous and asynchronous communication. The customized systems usually incorporate a management system. Organizations can develop their own customized system or outsource companies who create ePortfolio software that can be specifically designed for organizations' needs. Table 4 is a list of some ePortfolio customized systems. Visit each Web site for more information.

Taylor (2003) gives 10 basic requirements to consider when introducing an ePortfolio initiative:

1. Can the students securely store and share materials?
2. Is the assessment or skills competency module flexible to handle a simple comment to paragraphs of information?
3. Is every student able to participate and present a high quality image? Are the features easy to use by nonprogrammers but yet flexible for someone who wants to be creative?
4. Is the display and competency process designed to be audience or subject specific?
5. Is the institution able to introduce each student, manage the quality, and provide protection?
6. Can existing ePortfolios be incorporated into the new system?
7. Can a variety of digital material be gathered and shared?
8. Can special projects be highlighted? Can the students take the portfolio with them when they leave?
9. Can activity reports be generated, customized, and useful to the institution or other organization?
10. Find the true cost of ownership of the system.

If the system or vendor can provide satisfactory answers to the above questions, then it is a good start.

Implementation

Gathercoal et al. (2002) propose 12 critical success factors for implementing ePortfolio systems for academic units:

- Information services cooperation
- Administrative support

Table 3. Software Packages Using Plug-ins

Software Package	Web Address
ToolBook II Instructor	www.click2learn.com
Macromedia Authorware	www.macromedia.com
Macromedia Director	www.macromedia.com

Table 4. ePortfolio Customized Systems

ePortfolio Tool	Description and Web Site
Epsilen Portfolios	An electronic portfolio management system for students, faculty, alumni, IT leaders and professional individuals. Key features: • Easy to use • Portable • Transportable • Next generation • By educators for educators www.epsilen.com
eFolio Minnesota	A multimedia electronic portfolio designed for Minnesota residents to showcase education, career or personal achievements. Product of Minnesota State Colleges and Universities in partnership with CarerOneStop Service Center. Provides five tips for developing a successful electronic portfolio: 1. Reflect 2. Collect 3. Select 4. Build 5. Publish Figure 1 is a screen shot of an example professional portfolio. www.efoliomn.com
Knowledge Media Laboratory (Carnegie Foundation for the Advancement of Teaching)	Using technology to transform teaching and learning. Research and development focuses on making teaching public, building knowledge, and creating networks. www.carnegiefoundation.org/kml
CTE Electronic Portfolio	Johns Hopkins University Center for Technology in Education in a partnership of the Maryland State Department of Education. Online, secure environments where teachers can gather evidence, reflect, collaborate and track progress. There are three different interfaces, the working portfolio, the reviewer interface and the presentation interface. www.cte.jhu.edu/epweb
Professor Portfolio's profport	"A webfolio system hosting lifelong learning portfolios demonstrating mastery of standards." The Portfolio Walk Through provides examples and basic features. California Lutheran University www.folioworld.com

(Table continues on next page)

- Technology infrastructure
- Portfolio culture
- Student learning-centered culture
- Implementing force and project champions
- Implementation milestones
- Training and help resources
- Faculty commitment
- Standards or competency-based curriculum
- Integrated curriculum developed by teams of faculty
- Feedback provided by supervisors and mentors using the ePortfolio

An academic unit may not have the buy-in needed, but individual faculty can begin on their own. Faculty need to be convinced that implementation is in the best interest of the students. Using an implementing force such as an idea, policy, resources, or some other motivators will assist faculty to consider the implementation. Faculty will question the implementation so the implementation team must be knowledgeable about the technology and why it is good. Regular meetings should be held. Batson (2002) recommends four areas—

Table 4. Continued

ePortfolio Tool	Description and Web Site
FolioLive	An electronic portfolio tool created by McGraw-Hill. Create an electronic portfolio using a template or individual design. The individual controls who accesses the electronic portfolio. Instructors can have students purchase electronic portfolios like a textbook. The electronic portfolio resides on a McGraw-Hill server but can be downloaded to a desktop as a zip file. www.foliolive.com
e-Portfolio with RubricMarker	Created by Chalk & Wire Professional Development. Can develop an electronic portfolio in less than 40 minutes as long as the individual can click a mouse and type. Says it is: • Easy to use • Flexible for users • Easy to deploy for IT leaders (they host everything) • Powerful for academic leaders • Totally portable • Cost effective Figure 2 is a screen shot of an example student portfolio. www.chalkandwire.com/eportfolio
LiveText edu solutions	Offers electronic portfolios for K-12 and universities. It is designed to be flexible and customizable templates that can be created for a college, department, or degree. Can decide on who views the electronic portfolios. www.livetext.com
Folio by ePortaro	Provides families and schools with tools to certify, collect, integrate, share, and deliver information in a secured manner. Integrates with Blackboard and there is discussion for integration with WebCT. www.eportaro.com
ePortfolio Manager by Concord	Implements sophisticated student portfolio applications. Incorporates a personal file storage, competency and skills assessment management, and portfolio display. www.concord-usa.com
iWebfolio by Nuventive	A web-based tool for electronic portfolios. The portfolio owner has an unlimited number of customized portfolios in a safe and secure environment. The reviewer can view and provide feedback. The institution can manage accounts and templates. www.iwebfolio.com
ePortConsortium	A collaboration of higher education and IT institutions. They are focused on designing and developing ePortfolio software and management systems. Participation is encouraged and three different levels of memberships are available. www.eportconsortium.org

storage, security, certification, and university and vendor commitment—that need to be addressed for successful implementation.

A study by Gatlin and Jacob (2002) found training issues to be a primary concern. They also found time factors to hinder the implementation and quality of the electronic portfolio. Penta (2002) recommends professional development in the technology but also in the new way of assessing the students. Differing needs and learning styles

must be taken into consideration when offering the professional development (Gathercoal et al., 2002). It is important to remember the students also; some may be fluent with the technology while others need more time. A study by Bartlett (2002) showed that the students felt that learning the technology was important. The organization population must be prepared to use the new tool (Batson, 2002).

SUMMARY

ePortfolios offer a way for students to show clear evidence of their skills in a form that is easy to share, update and store (Bartlett, 2002). An ePortfolio also increases the individual's comfort with technology (Bartlett, 2002; Penta, 2002). Research has shown that ePortfolios are positive, useful, constructivist, demanding, and multifaceted (Bartlett, 2002). Technology is ever changing, and efforts must be made to effectively use the tools for teaching and learning.

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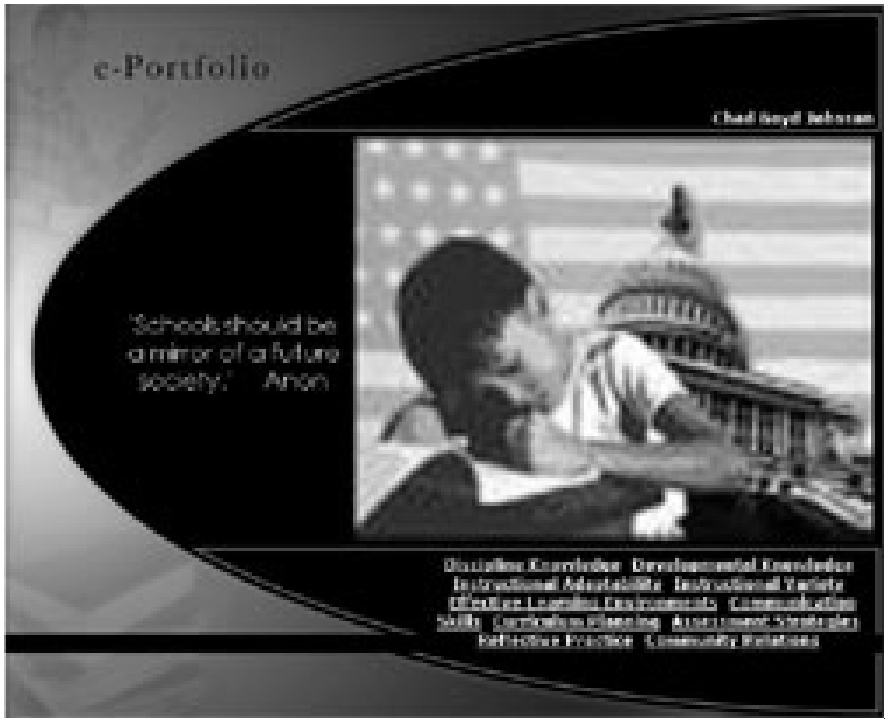
Source: www.joanfarrell.efoliomn1.com

Figure 1. eFolio Minnesota Example



Source: http://dagwood.dgrc.crc.ca/eportfolio/portfolio//1037//10215620611149.html)

Figure 2. ePortfolio with RubricMaker Example

Gatlin, L., & Jacob, S. (2002). Standards-based digital portfolios: A component of authentic assessment for preservice teachers. *Action in Teacher Education, 23*(4), 28-34.

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Considering Product Life Cycles and Business Models in Distance Education

Doris U. Bolliger and Rich Josephson

In this article, the authors outline the experience of teaching and learning in an interactive television (ITV) classroom. Both the instructor and the students experienced significant challenges. The authors relate ITV, thought of as a very mature technology, to product life cycles and business models. Business models focus on expectations of clients, standardization of a process, performance, and efficiency of product delivery. These elements are typically present when a product is in the mature stage of the product life cycle.

Introduction

Educators have taught courses in interactive television (ITV) classrooms for quite some time. These interactive distance learning classrooms are typically equipped with two-way audio and video and connect at least two sites: the main site at which the instructor is housed and one remote site (Reed & Woodruff, 1995). Some of the universities that use this technology own the connected sites; other institutions form a consortium consisting of sites owned by a number of universities or colleges.

Many educational institutions have adopted the technology. Interactive television-based classrooms clearly have been at the maturity stage of the product life cycle for some time. The vast explosion of the World Wide Web and Internet technologies have led to an increase in Web-based course offerings and, therefore, driven ITV classrooms into the maturity, perhaps even into the declining, stage of the product life cycle.

Background

The institution is a comprehensive university located in Minnesota and has approximately 15,000 students.

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It has used ITV for approximately 20 years and is a member of a Distance Learning Network. The network consists of two separate networks and has six members and numerous sites. Members are responsible for providing technical support to users and for the maintenance of the classrooms.

Several of the ITV classrooms at this university are less than 3 years old and are equipped with video cameras, a smartboard, and one computer at the instructor station. The instructor carries a microphone, and the room is equipped with microphones in the ceiling. The remote ITV classrooms are owned by colleges or universities within the Minnesota State Colleges and University System and also have video cameras and microphones. This technology allows the transmission of real-time compressed audio and video. Some of these classrooms are equipped with a computer; other classrooms are not.

The cameras in all ITV classrooms are voice activated and allow for interaction between students and instructors at the different sites. However, the instructor is able to view only one of the remote sites at a time if more than one remote site is connected with the main campus. On the other hand, audio is transmitted from all remote sites. Instructors control the volume and may mute the microphone; students at the remote site may only mute their microphones. The instructor has the capability of switching between two cameras at the main campus: one camera displays either the instructor or desktop applications in use; the second camera shows the students facing the instructor station.

Many students find an ITV course convenient because it eliminates the need for commuting to a distant campus. Individuals who reside in rural areas might not have access to the courses if they were not offered via ITV. Unfortunately, there are several disadvantages to this delivery system. One disadvantage is the limited instructor-to-student and student-to-student interaction identified as extremely important in distance education (Moore & Kearsley, 1996). Another drawback is the dependency on technology, which is the case in any technology-supported distance education setting.

Experiences in the ITV Classroom

The instructor who taught in the ITV classroom of this university during spring semester 2003 had previously taught in this educational setting. He had taught the course many times and used established course materials such as a syllabus, activities, and assignments. The course was a requirement for school media licensure, and four remote sites were connected to the campus where the instructor was located. Fifteen students were enrolled in the course. One of the sites had only one student present.

Instructor

While teaching this ITV course, the instructor experienced many frustrations associated with the technology. Numerous times, he entered the classroom and found not all sites were connected. During the first class session, one site did not come online until 1 hour after the session had begun. The instructor and students at the main site had difficulties in hearing comments of students at remote locations on a continuing basis. Students at the remote site did not fare much better.

The instructor arrived approximately 15 minutes before class started in order to ensure that the technology was working properly. He never knew what to expect when he entered the classroom. During most class sessions, the technology did not work as expected. In fact, according to him, the technology got in the way of teaching the course. Negative experiences continued throughout the semester for the instructor and for the students. While these may have been isolated problems not typical of most instructors' ITV experiences at this university, the expectation is that these issues should not occur with a product that has entered the mature stage of the product life cycle.

The instructor mentioned several possible future improvements of the ITV setting. One was better communication with administrative services. Persons who schedule courses and classrooms should clearly communicate how many sites will be connected, which was not the case here. Another element is to supplement the course with a course management system (CMS). Placing course content in a CMS and utilizing communication tools may enhance the students' educational experience. In case the technology in the ITV classroom does not function properly, the class session can be conducted in a chat room and supplemented with a threaded discussion forum. The use of these communication tools will allow more flexibility for instructors and students.

Students

At the end of the semester, students completed a course evaluations questionnaire. Items on the questionnaire related to the technology, the instructor, and the overall ITV experience. The majority of respondents (82%) indicated that they strongly disagreed or disagreed that the ITV system was always properly working at the beginning of class. However, 88% of students agreed or strongly agreed the classroom in use was

comfortable and well equipped, and at least 92% agreed or strongly agreed with positive-stated items used to rate the quality of the instructor.

Participants also were asked to offer suggestions and provide other relevant comments in the form of open-ended questions. When asked to describe their ITV experience, four students indicated that they took the ITV course because of convenience. One student wrote, "I found it to be convenient in that I did not have to drive."

Three students complained about the poor sound quality and mentioned that the audio and video were not synchronized. Other comments included that ITV is not the best learning environment. One remark was, "Something does get lost in the remoteness of it all." They thought too many remote sites were connected and daily troubleshooting efforts required of them were disappointing. One student wrote, "I was greatly disappointed in having to turn on and troubleshoot ITV every time I came to class."

The most frustrating elements the class reported were clearly technology-related issues—technology problems and audio difficulties. One critical fact was that the technology used in a technology-based course was not working properly. However, students also commented that they appreciated having ITV courses as an option, they would take another ITV course, and that it was a good experience overall. One student wrote, "It [ITV] was still better than driving to campus." Recommended improvements by respondents were: decreasing the number of connected sites, using better equipment, improving the sound system and technical support, and rotating the instructor between sites.

Product Life Cycles and Organizations

Based on the instructor and student experiences, the authors questioned in which stage the ITV technology fit into a product life cycle. The four stages of the product life cycle are: (1) introduction, (2) growth, (3) maturity, and (4) decline. When a technology product enters the maturity stage of the product life cycle, the product has moved from cutting-edge technology to an established technology tool. At this stage, products usually have been improved through the addition of new features (Peter & Donnelly, 1998). The investment of resources is decreased because the majority of resources were allocated during the introduction or growth stage. One can assume a product in the maturity stage is consistent, predictable, and reliable. In the decline stage, high product quality is continued to support the product's good reputation while costs and distribution outlets are being limited. One can argue that ITV technology is either in the mature or decline phase. This technology is well established, due to the length of time it has been on the market and the investment expenditures of producers. In either case, students and instructors should expect to receive or deliver a good product, respectively, in the ITV classroom.

Not only do technologies go through a life cycle, organizations go through life cycles as well. As technologies and organizations reach the mature stage, one expects predictability, efficiencies, and customer satisfaction. Business owners have the same goal, because the profitability rate of a business or product is highest at the maturity stage.

In business settings, the goal is to reduce the time a product takes to reach the maturity stage. Franchising offers a model for trying to establish a mature business in a short amount of time and in a predictable manner. Franchise owners use standardized processes in order to deliver the same quality product at individual locations. They make extensive use of efficiency, economies of scale, and standardization, and promise the consumer the quality of experience with a product or service they have come to expect.

Rationale for the Application of Business Models

Whenever consumers purchase a product, they have certain expectations pertaining to quality, efficiency, and standards. In an educational setting, students who view themselves more and more as customers have the same expectations. When instructors use new, emerging technologies, difficulties and occasional glitches are expected. However, when they use technologies that have been well-established—systems or tools in the maturity or decline stage of the product life cycle—they have expectations that the delivery system will be functional the majority of the time.

Business models focus on expectations of clients, standardization of process, performance, and efficiency of product delivery. Perceived quality is one major component in branding strategy (Peter & Donnelly, 1998). Without the application of a business model, every good experience pertaining to a product or service is a result of random events and, therefore, cannot be reliably duplicated. Is it possible that we can learn from the business world and apply these models in educational institutions? Can we gain from examining these business practices and integrate them? We think the franchise model is particularly interesting and could

be applied in the adoption of technologies and development of support materials and services in higher education.

Many books address issues businesses face at various stages. Gerber (1995) examines how entrepreneurs successfully start and grow small businesses, and addresses lessons learned from franchising. We could argue that faculty who develop new courses or experiment with integrating new technologies into their classrooms could be thought of as entrepreneurs even though they do not face the same risks true entrepreneurs face. However, their goal should be to move their product to a mature, dependable, and efficient model.

The advantage of following a business model in education is that the *institution* gains efficiencies in the mature technologies and services so that *instructors* have time to explore and experiment with emerging technologies and services. For example, the instructor who taught in the ITV classroom during spring 2003 devoted much time to surviving in the ITV classroom instead of exploring Internet capabilities. What should have been routine tasks required the same time and effort, as would adopting and exploring new technologies.

Conclusion

Are we sure that the ITV technology is moving toward the end of its product life cycle? The writing is most certainly on the wall. Unless the technology is frequently updated and properly maintained, it is likely to become extinct. However, this is the case with any other technology we have used in the past. But after the investment of thousands of dollars in this technology, it would be premature to "throw out the baby with the bathwater."

We suggest that newer technologies should be combined with ITV. For example, a course delivered in the face-to-face environment could be enhanced with the use of ITV and Internet tools. Many educational institutions already offer hybrid courses. Many adult students appreciate flexible course schedules but have determined that online courses are not for them. Why not combine several delivery methods if they are available to us?

The course will dramatically change because the course content must be modified and the course will require the instructor to acquire additional skills in order to assure instructional quality. The instructor needs to be comfortable with this "companion technology," but has the opportunity to round out an existing program and contribute to quality teaching by enhancing student skill levels.

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"Unless the technology is frequently updated and properly maintained, it is likely to become extinct.... We suggest that new technologies be combined with ITV."

What I Wish I Had Known *Before* I Made My Student Instructional Video

Sharon Hancharik

A sense of relief washed over me as I slipped my instructional video assignment into an overnight envelope and handed it to the postal worker. As my head cleared, I started to think of how I *could have* made my video better, what I *should have* done in preparation, and what I *would have* done differently.

Instructional videos are fast becoming a staple of distance-delivered courses. They are used as an effective way to present material, in addition to being used as an instructional exercise for developing instructional technology and distance education (ITDE) educators and administrators.

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As students and employees we have all had the experience of viewing "talking head" videos. Recently, I participated in a hospital new employee orientation, where I was subjected to a long video of an infection control officer reading her PowerPoint presentation. Next, I endured a 90-minute video of a registered nurse standing in front of a classroom lecturing about various detoxification topics. The presenter shot off her presentations in a rapid-fire manner. Although the content was excellent, I do not remember much of what she said.

Why did both of these videos fail to fulfill their purpose; that is, fail to instruct/facilitate learning? What did I learn in making my instructional video that I *should have*, *could have*, and *would have* done? What advice can I give students and new instructors in developing videos for distance-delivered courses?

The most important aspect of making an instructional video is to select a suitable topic. I had a vague understanding of my topic which, for the purposes of this article I will call the "New Computer Devices (NCD) Project" at my former hospital located in the Midwest. I contacted the project director and asked for permission to make my video on the computerized patient care documentation initiative. I looked up the hospital's corporate Website and found a short description of the NCD project.

I *should have* thoroughly researched the topic for a clear, thorough understanding of the topic and how it was being implemented at the local hospital.

I contacted the hospital's training coordinator, as instructed by the director, and met with him and two of his staff, the nurse liaisons, to discuss how the NCD Project was progressing and how the project's training would be done. Unfortunately, the training coordinator admitted that he did not know how or when the training would be implemented in the near future.

I *could have* seen the red flag or heard the warning siren that I would have trouble doing this video on the NCD Project training. It is impossible to have a clear understanding of a topic if there is not one visualized by the principal players.

I made an appointment to shoot my video while interviewing the NCD Project team members. I thought that through the interviews I would better understand what the

project was and how it was being played out.

After researching the topic, I *should have* better planned how to make the video. Storyboarding using PowerPoint or a video editing program helps in visualizing the video. Because a video is both seen and heard, it is imperative to plan both, I *could have* made a storyboard incorporating both, instead of just the visual scenes.

I made a narration and constantly revised it to fit the video clips I had.

I *would have* had an easier time if I had a well-thought out, well-researched narration/script that I had run by the NCD Project team. I *could have* incorporated their input to clear up misconceptions and discover if any inaccuracies existed.

I made a second date to shoot the NCD Project team and record the three new computerized devices. When I arrived I saw that only the auxiliary nurse liaison was in the room with the three devices. Even she did not know that no one else was coming until they didn't show up.

I learned that it is very important to see your location for shooting beforehand. I *could have* checked the lighting, devices, my equipment, and scanned the room for physical or auditory barriers to taking a good shot. I *should have* made some practice shots to check the lighting on my subject and the three devices. If I *would have* rehearsed my talent describing the three computer devices, I *could have* eliminated the jerky camera shots I ended up with. I *should have* worked with my talent on finalizing a script before the shoot date. This *would have* given me the timing necessary for the video clips beforehand.

I had no experience as a photographer using a camera or a camcorder. I purchased a digital camcorder the night before I was to do the first scheduled shooting. I ordered the Roxio Video Editing program right before I needed it. I had no idea how to make a video.

The video was not due until 2 and a half months into the semester. I *should have* and *could have* made a schedule of what I needed to do in order to complete the assignment. I *would have* made a schedule as follows:

Week	Activity
1-2	Review or learn how to use a digital camcorder and camera, a tripod, lighting, and anything else you might need to make your video. If necessary, find articles or books on video making. Order your video editing software, if necessary.
3-4	Select a topic from several applicable choices. Do some preliminary research to make sure that you have a clear understanding of the topic and you can select three or four key points to showcase in your video.
5-8	Plan your video considering and coordinating the visual with the audio. Your narration/script must be fine-tuned now for a professional result.
9-10	Select the talent and location to shoot the video. It is important to rehearse the talent and to examine the location beforehand. To determine suitability of the location, you must consider lighting, distractions such as busy wallpaper or vertical lines, and acoustics. Can you hear noise from adjoining rooms? You need to bring all of your video equipment to the practice shoot—camcorder and an extra battery, tripod, and additional lighting.
11-12	Learn or review the editing software. Edit your video. Turn in your video to your instructor.

One of the key characteristics of the distance learner is that we take responsibility for our learning. Our professors treat us as professionals and assume that we will take the initiative to fill in our knowledge gaps. Knowing where to look for knowledge gaps hopefully *could, should*, and *would* facilitate learning for the video maker and viewer.

"Instructional videos are fast becoming a staple of distance-delivered courses. They are used as an effective way to present material, in addition to being used as an instructional exercise...."

A Picture is Worth a Thousand Megs: Developing Music-listening Skills by Using Technology to Engage the Senses

David Stuart

At the dawn of the twenty-first century, combining the visual and the literary ("a picture is worth a thousand words") has been expanded and enhanced by diverse technological advancements, such as computer assisted instruction, video games, virtual reality facilities, and MTV.

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Concepts and Skills in Learning

How does combining the senses—visual and aural—assist in developing critical listening skills in music? The word *skills*, rather than *concepts* is used here purposefully. Conceptual or fact-based knowledge can be learned and parroted back. *Knowing* what a musical pattern is—what it is called, how it works in a piece of music—is a concept. We *know* it or know about it. (For example, the blues is based on a 12-bar (measure) chord progression.) In contrast, musical skills, usually refers to something a person can do, such as playing a musical instrument well, or perfecting a beautiful singing voice. But also of vital importance are skills *in* listening: recognizing and identifying musical patterns as we hear them. These skills are vital for musicians, but are also important for the average listener to increase the enjoyment of a musical experience. Incorporating listening skill-building components into music listening courses for the nonmusician has become increasingly important in school curricula.

The Eye can Help the Ear

The eye can help the ear to learn better, and twenty-first century technology gives us more tools to link the two senses. By pairing a visual event with an audio event, the sense of sight can be used to *cue* the ear by association. Developing listening skills is a complicated procedure requiring that a knowledge (cognitive) of musical concepts and terminology will be immediately recognized (triggered) through an auditory response. For example, when a student is listening to a musical excerpt, it can be structured so that a graphic image changes at precisely the moment in the music where we want the student to

notice a significant sound change. This technique can be used for an initial presentation of musical materials so students' ears are cued by sight from the very first hearing. This methodology is also effective for producing exercises that may be played over and over to help students drill until recognition comes easily. Similar audio drill packages have been used for years via audiotape and computers to teach ear training skills to music students.

Developing Multimedia Tools to Teach Listening Skills

Helping the nonmusician to develop skills to recognize musical forms by ear can be a daunting task. Combing a tried and true method developed by Hungarian composer and pedagogue Zoltan Kodály with current audio/video computer technology can make this easier. Kodály believed that the ability to read and reproduce musical notation (musical literacy) could become as universal as language literacy. His approach involves teaching children through their own folk and children's songs. Whatever the culture or society, children are closely connected to their own songs. By systematically introducing the musical elements (pitches, intervals, rhythms) through songs the children know by heart, it is possible to teach these elements as separate skills. Today's young people have an amazing familiarity with popular music from the past 50 years. By using a combination of video and graphics together with a familiar popular song, we can take advantage of a student's informal knowing a song by heart and build on this to develop the formal skills necessary to recognize these same musical elements in unfamiliar pieces.

Computer speed and storage capacity now easily permit audio, video, and graphics to be integrated into presentations programs such as PowerPoint; graphic images can be produced with software such as Adobe Creative Suite; and media software such as *iMovie* and *Final Cut Express* 2 make possible manipulation of all of these. Following is an example of how such a presentation was created to help students in a general music listening class develop skills to aurally recognize *ternary form* used in pop music.

Learning to Aurally Recognize *32-Bar Pop Form*

Ternary form (ABA) is a common structure used in popular music, jazz, musicals, and in western European art music. Listeners of all ages have heard songs in this form. In popular music, the first section (A) is almost always repeated so that the structure is actually AABA. ("As Time Goes By" from *Casablanca*, Buddy Holly's "Maybe Baby," and "Tequila" are all in this form.)

The typical number of measures (bars) in each of these four sections is eight, making the whole format 32 bars long. In songs from tin-pan alley to Broadway and film musicals, to pop and rock, this AABA format is so widespread it has become known as 32-bar pop form.

The 32-bar pop form is an excellent example of a musical term that can be tested as either a concept or a skill. As a *concept*, students might be asked on an objective, multiple-choice exam to identify the typical ternary form used in popular songs and to select the correct answer from several choices, one of which is 32-bar pop. This information could be learned by reading about it, hearing it in a lecture, or from some other source. As a skill, students would be asked to listen to several songs and identify which excerpt is 32-bar pop only through listening (by ear).

Developing a Multimedia Presentation for 32-Bar Pop

How can we help students learn to recognize this musical form aurally? This aural skill could certainly be acquired though rote learning of a single song, but the ability to apply it to unfamiliar material would require some sort of *connection* between the cognitive and aural sense. This is where today's new technology can help immensely. The process of creating a presentation involves several steps: (1) finding a song that is typical of the formal structure we are trying to teach; (2) developing a clear graphic representation of that structure; and (3) combining them in real time so the final product *shows* the student where the *sounds change*. An early Lennon/McCartney song, "From Me to You," filmed at the Royal Variety Performance on November 34, 1963 is a perfect, textbook example of 32-bar pop structure. This example is especially engaging to students because it shows early film footage of a live performance by the Beatles.

1

It is assumed that the reader has some experience with basic audio and film editing techniques, so the description of the following project focuses on combining an audio/video recording with changing graphics.

The film clip (don't forget to license the film first!) is recorded and edited with iMovie so only the first four bars of the introduction and 32 bars of the first verse are used (see Figure 1).

Figure 1.

Figure 2.

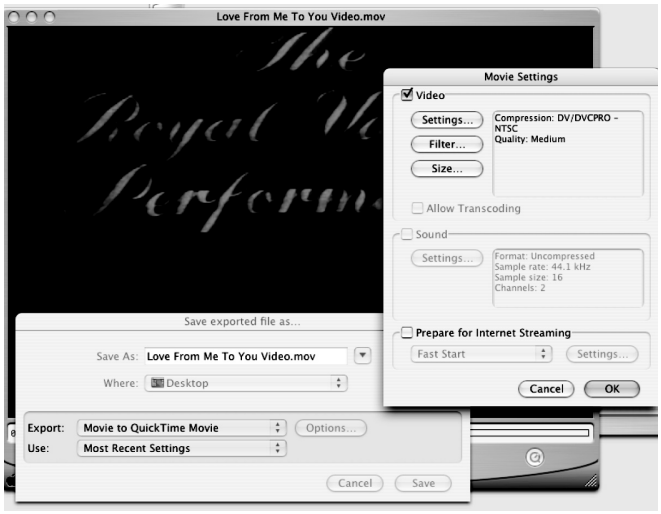

Figure 3.

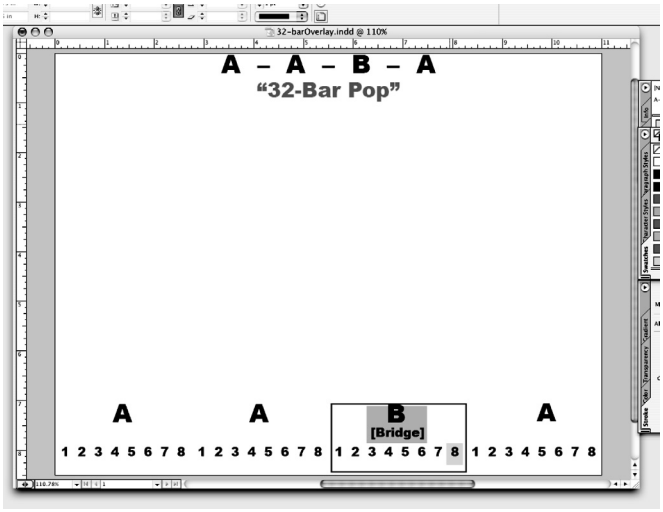

Figure 4.

After editing the movie, use the "extract audio" feature (see Figure 2) in the advanced menu to create a separate audio track. This will result in better sound quality in the final presentation, and will allow exporting audio and video tracks separately. This is necessary in *Final Cut Express 2*. Save (share) the project as *QuickTime*, full-quality DV.

Using the "options" button from the export menu, export the QuickTime movie twice; once as a video file and once as an audio file (see Figure 3)

2

Create a graph of 32-bar pop format showing the larger sections (AABA) in one line, and the individual measures (bars) on another in Adobe *InDesign*. There will be 33 individual slides for the presentation; one graph for the introduction, plus 32—one for each bar of the verse itself. These pages must be saved as a high quality JPEG so they can be imported into *Final Cut Express 2* on a video track. The introduction page is used only once, but the basic 32-bar template will be altered and saved 32 times. Each bar (1-32) of the song is highlighted as well as the sections (AABA) on a separate slide. Note the space in the center that will be used to show the video performance of the song (see Figure 4).

After creating the two *QuickTime* movie files (audio-video) of the song and 33 JPEG slides of the individually highlighted song-form graphics, we are ready to assemble the project in *Final Cut Express 2*.

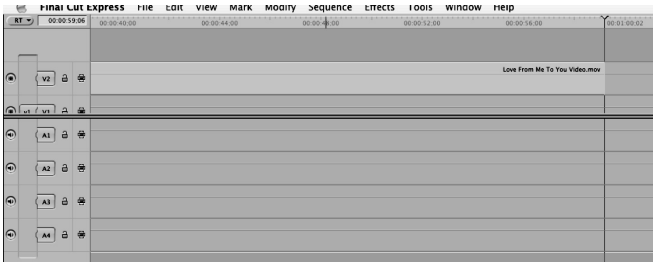

Figure 5.

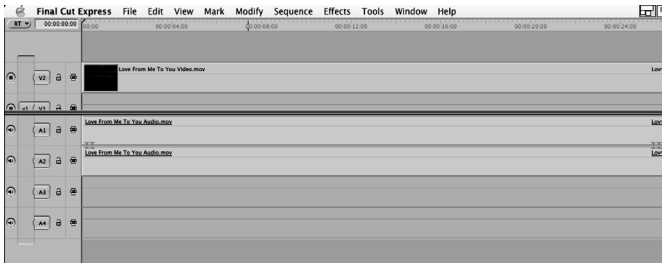

Figure 6.

Figure 7.

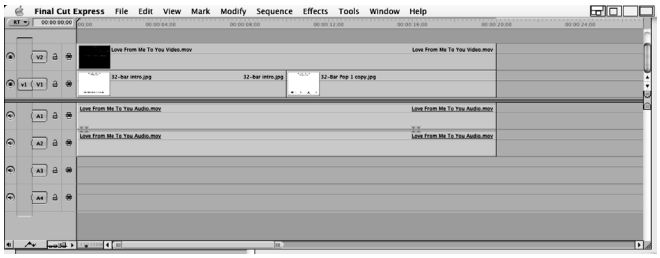

Figure 8.

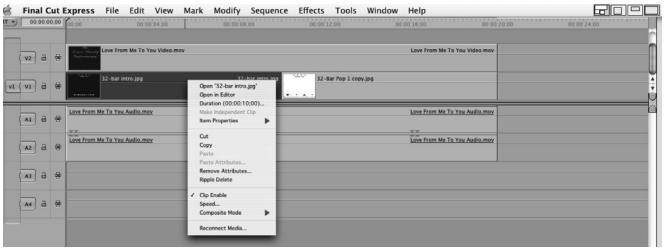

Figure 9.

3

Create a new project in *Final Cut Express 2* and drag the *QuickTime* video file onto the sequence page in the v2 track (see Figure 5).

Now drag the *QuickTime* audio file to the a1 and a2 tracks (see Figure 6).

The empty v1 track will now be available for the song-form graphics. Double click on the audio tracks to bring up the audio screen. There is an accurate timer (in milliseconds) in the upper right that will allow you to make an accurate count of the real-time length for each bar of the song (see figure 7).

Now drag each of the song-form graphics slides, in order, onto the v1 track, remembering to return the time-line cursor to 00:00 each time before dragging the next slide (see Figure 8).

Right click (control click) on each of the slides in v1 to access duration (see Figure 9).

Adjust the duration of each of the slides to correspond to the real-time duration of each bar of the song (see Figure 10).

Double-click on v2 to get the screen in Figure 11.

Adjust the size of the image with the cursor by dragging corner arrows so it fits in the center of the screen, leaving sufficient space for the upper and lower graphics of v1 (see Figure 12).

As you play the completed movie with graphics, you may have to preview it a number of times to adjust the durations of the individual graphic slides in v1 so that the highlights change precisely at the beginning of each bar. (In "From Me to You," for example, the introduction slide was 6:09 seconds, and each of the 32-bar slides was approximately 1:20 seconds.)

Once all the timing adjustments have been made, export the file using QuickTime conversion (see Figure 13).

Using the options and then settings buttons, adjust the video to best quality and key frame rate to 24; and the audio to uncompressed, 44.1 kHz, sample size 16, and 2 channel (see Figure 14).

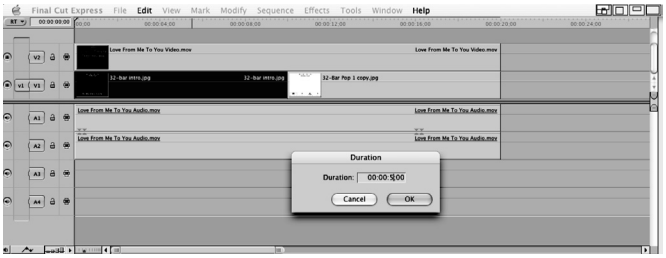

Figure 10.

Figure 11.

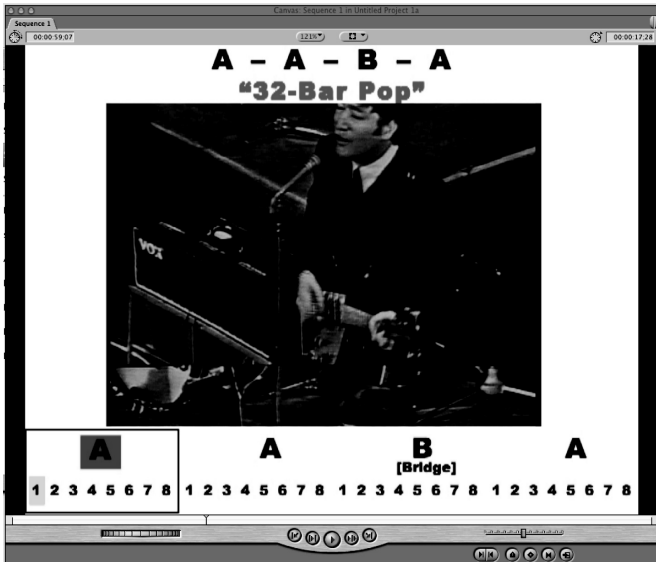

Figure 12.

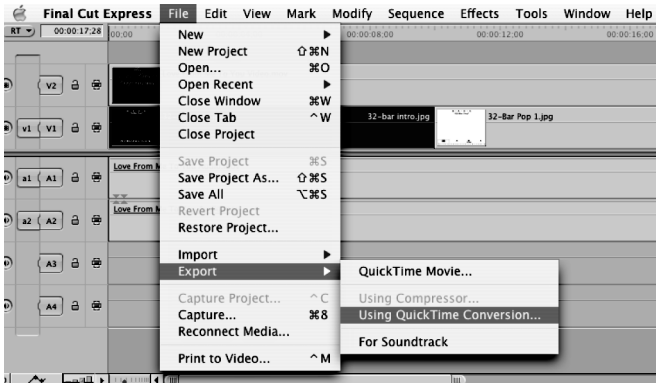

Figure 13.

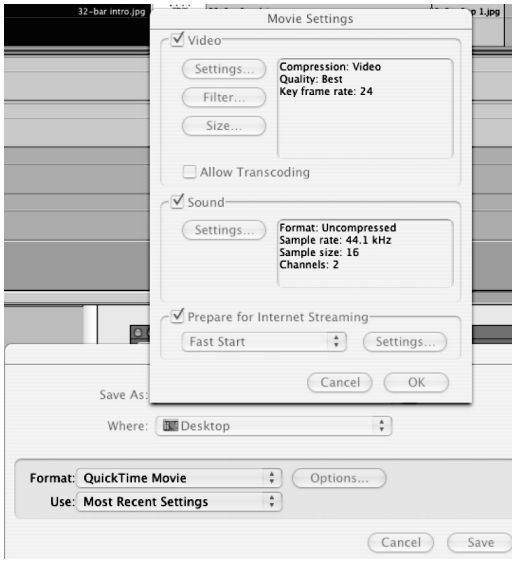

Figure 14.

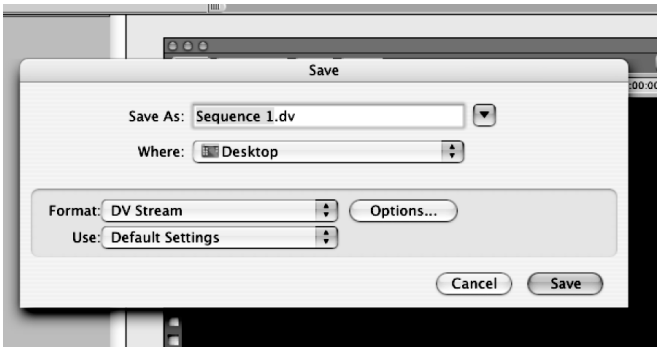

Figure 15.

Save the project as DV stream (see Figure 15).

One final step: open the QuickTime DV you have saved. It will open in QuickTime; under the movie menu, select get movie properties (see Figure 16).

Select video track from the left menu and quality from the right menu, then check the high quality enabled box (see Figure 17).

Figure 16.

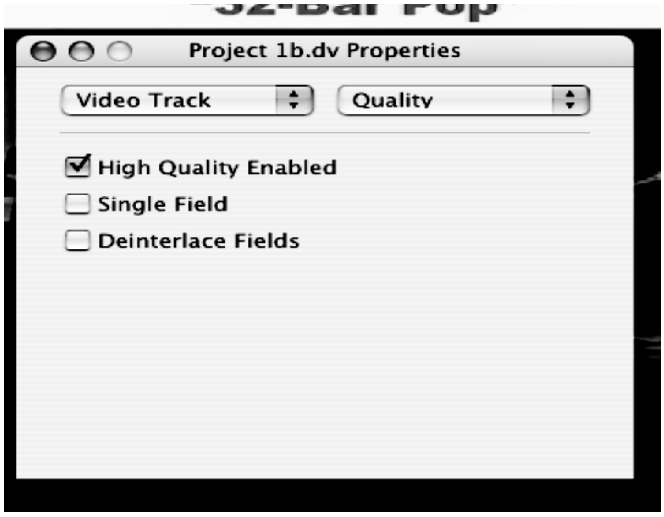

Figure 17.

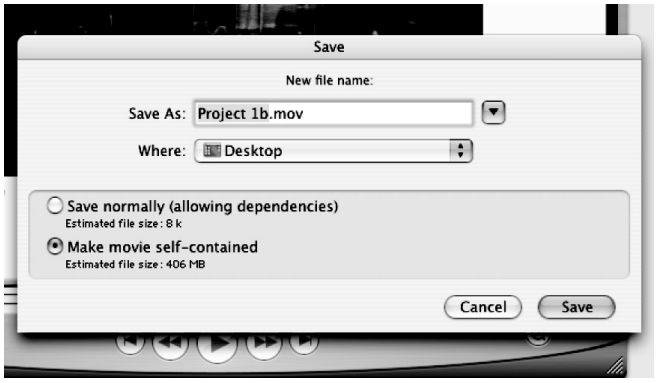

Figure 18.

Save the project by checking the "make movie self-contained" box (see Figure 18).

Once saved, the video project is now ready to be used as a stand-alone movie viewed through a computer or converted into a DVD. It can also be incorporated in presentation software such as PowerPoint. As either a stand alone for students to use as drill material, or incorporated in a presentation, it will help students learn to *hear* a common music structure by using visuals (the eye) to trigger a response to an audio event.

"THE EYE CAN HELP THE EAR TO LEARN BETTER, AND TWENTY-FIRST CENTURY TECHNOLOGY GIVES US MORE TOOLS TO LINK THE TWO SENSES … THE SENSE OF SIGHT CAN BE USED TO CUE THE EAR BY ASSOCIATION."

Using Inexpensive Collaboration Software for Delivering Effective Online Synchronous Training

Carmen Taran

Introduction

Recent Internet-based technology has revolved around creating interactive meeting (or collaboration) software, which allows geographically-dispersed individuals to work together on the Web. Anyone with a reasonable Pentium processor or PowerMac, an Internet/intranet connection, and a browser can use such software that provides an array of collaboration features, ranging form simple chat rooms to complex audio, streaming video, and multimedia interaction.

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The most frequently used and inexpensive collaboration tools are NetMeeting, CentraNow, HotOffice, eRoom, MagicalDesk, and TeamWave Workplace. These software tools allow users from remote locations to share and work on the same applications in real time, exchange ideas during threaded discussions and white boards, and even answer polls on critical issues.

Due to the large range of interaction capabilities and information-sharing that these Web-based interactive meeting software offer, and particularly because of their low costs, training organizations have started to use them for providing online synchronous instruction to students. Most of this software is either entirely free (e.g., NetMeeting), free for a minimum of users (e.g. eRoom and Vicinities.com), or offered at a very low price (Agillion, CentraNow, MagicalDesk, TeamWave Workplace, HotOffice).

While synchronous distance education appeals to educators and trainers because of its ability to provide student-student interaction (peer learning) and student-instructor interaction (mentored learning), its implementation requires expensive equipment, complex infrastructure, and technical support personnel with specialized skills. Such requirements lead to increased costs of operation and ownership.

Corporate training departments and academic training organizations prefer to maintain the benefits of synchronous instruction, yet implement it at reduced costs due to constantly decreasing budgets allocated to training endeavors. Consequently, many trainers prefer to use low-priced live meeting software for training purposes.

The problem of using inexpensive collaboration tools for providing synchronous training is that such applications are not properly equipped to produce and provide a sound instructional experience for students. This article outlines the features and limitations of inexpensive collaboration tools and how technical and instructional drawbacks can be avoided.

Features of Inexpensive Collaboration Software

Below are listed the most commonly available and used features of low-cost collaboration tools (e.g., NetMeeting, Agillion, CentraNow, HotOffice, eRoom, MagicalDesks, and TeamWave Workplace), along with the impact that such features have on learning and instruction.

Program Sharing: This feature allows sharing of multiple programs between meeting participants. During a training event, the instructor can enable students to view shared programs in a frame, which makes it easy to distinguish between shared and local applications on students' desktop. Instructors can also switch between multiple shared programs, approve students' requests to work in a program, and allow or prevent others from working in an application. From an instructional perspective, this feature promotes learning because it allows students ample opportunities for hands-on practice.

Whiteboards: The whiteboard feature allows real-time collaboration with others via a graphic interface, which is typically similar to Microsoft's Paint program. When the whiteboard feature is invoked, it will typically appear in a window that can be seen by all users, and all users can collaboratively work on the document/object. Using the Whiteboard feature, students have the ability to:

- review, create, and update graphic information (e.g., GIFs, BMPs);
- manipulate contents by clicking, dragging, and dropping information on the whiteboard with the mouse;
- cut, copy, and paste information from any application into the whiteboard;
- use different-colored pointers to easily differentiate between students' comments; and
- save the whiteboard contents for future reference or for distribution among students in the class.

Real-time Chat: This feature supports real-time typed (text-based) conversations among an unlimited number of people. The chat feature allows students to type text messages to communicate with others during a class session, or to chat with one person or a group of people across multiple computers. The instructional value of this feature is that students can send a private message to instructors, thereby avoiding potential pressure to reveal their question to the entire class. Students may also exchange private opinions and/or questions among themselves. The real-time chat feature mimics the traditional classroom environment, and it enhances it by providing better student privacy.

Audio/Video Conferencing: This feature allows the sharing of training content and applications using video and audio. Even though most inexpensive collaboration software tools do not provide optimal video/audio capabilities, at the bare minimum they do offer the ability to:

- send and receive real-time video images at low resolutions;
- send video and audio to a user who does not have video hardware;
- use a video camera to instantly view objects, such as hardware devices, that are displayed in front of the lens; and
- ensure that people hear each other by adjusting the automatic microphone sensitivity level.

From an instructional perspective, the use of video may be effective when presented in the beginning of the training, to enable students and instructors to connect and give each other a visual reference. Video may also help when used to demonstrate psychomotor skills (e.g., repairing a piece of equipment), or when used to motivate and change someone's attitude (e.g., presenting the story of an expert performer who is monetarily recognized for top behavior on the job).

File Transfer: This feature allows the instructor to send one or more files to everyone attending the class, or to one or more selected participants. A practical example of the instructional value of this feature is illustrated in a teacher's ability to send a file to a student who can work on it and send it back during the class session.

File Storage: Using this feature, students and teachers have the ability to store and access information and create a secure, shared space that holds documents. Some collaboration tools will even allow version control features and keyword search. This feature is instructionally practical because students may work on documents simultaneously, save their work, and retrieve it when back on their jobs.

Security. Most inexpensive collaboration applications provide user authentication, password protection, and data encryption. Consequently, students and teachers are able to store and access data in a secure manner.

Some of the aforementioned collaboration software tools provide unique features, such as the ability to poll participants (CentraNow), schedule sessions automatically, route documents through a predefined cycle (eRoom), password-protect documents for certain users (HotOffice), offer multiple language capabilities (MagicalDesk), and the ability to customize the look and color of your workspace (Vicinities.com). All these features have the ability to boost the instructional experience during a synchronous online class.

Limitations of Collaboration Software When Used for Synchronous Online Instruction

The limitations of inexpensive collaboration software, when used for synchronous training, are noticeable in the technical arena. Unfortunately, technical limitations translate into lack of instructional soundness when training is delivered via such tools.

For instance, most low-cost collaboration software tools do not provide the ability to quiz students and check their comprehension levels, which makes it difficult for instructors to evaluate students' progress as well as the effectiveness of a course. In addition, these tools do not allow instructors to use any pretest options, which would indicate the current level of students' knowledge/skill and enable instructors to adjust the pace, flow, and content of the class according to pretest results.

When using inexpensive collaboration software, students do not have the ability to "raise their hands" (using more expensive virtual classroom software, students can do this by pressing certain icon options provided in the application). This feature would enable increased classroom interactivity; it would also allow students to ask the teacher to modify the pace or flow of the instruction, which would directly impact training effectiveness.

Inexpensive live meeting software tools do not enable the "breakout groups" capability, which allows students to be divided into teams and interact around a specific issue. Being able to divide students in small teams and assign to them varied group tasks rests at the foundation of collaborative learning.

Scheduling, tracking, and/or recording mechanisms are also missing in low-cost live meeting software. Such tools do not have the capability to link to a learning management system (LMS) and do not allow the storing of students' training history (e.g., course completions, scores/grades, training path, need for reenrollment, etc.). In addition, these tools do not enable the recording of a class session so that students who are absent can replay it or so that the instructor can include prerecorded sessions in new classes when taking a break.

Furthermore, when using inexpensive live meeting tools, instructors do not have the ability to *see* who is absent (which student has either left the learning space or is not paying attention to the class). This defeats the purpose of an instructor-led environment, which is supposed to offer better class control and the assurance that everyone leaves the classroom with improved knowledge/skills.

Audio and video capabilities are underdeveloped in most inexpensive collaboration software, which makes it more difficult for instructors to avoid the stilted nature of online training and mimic the traditional classroom atmosphere.

In addition, most inexpensive collaboration software tools do not allow students to engage in asynchronous activities (e.g., starting threaded discussions prior to live meeting sessions and continuing them after the training is complete). A balanced combination of asynchronous and synchronous training options would benefit students who are not always able to align their schedules so they can be present with others in a training event at the same time.

There are currently several providers of virtual classroom solutions that do offer students the optimal classroom experience from a distance, overcoming most of the limitations listed in this section: impeccable video and audio quality, taking control of the classroom, accessing administrative software on a web server, and so forth. Examples of virtual classroom providers are Centra, Interwise, Lotus Learning Space, Avalon Information Technologies, Pathlore, Horizon Long Distance Learning, and others (Wells, 1999). However, these sophisticated options for synchronous distance education come with very high price tags, mainly due to the high costs for servers and access license fees.

As previously mentioned, training organizations undergoing austere financial times are currently striving to avoid increased costs related to adopting sophisticated distance learning technology. The following section outlines ideas on how to overcome limitations of inexpensive collaboration software when used for training purposes.

Solutions for Overcoming Limitations of Using Inexpensive Collaboration Software in Training

Even though economical collaboration technology may be instructionally imperfect, it may still be engineered to provide active student participation, engage deeper levels of thinking, and, in short, positively transform educational practices at low costs.

Whenever possible, if using inexpensive collaboration software in training, the classroom event should be delivered via high-speed connections to ensure seamless data, audio, and video transmission (preferably a corporate intranet or local area network, LAN) or, at a minimum, offered via high-speed

cable. Fortunately, current technology is advancing and soon training providers will have access to increasingly sophisticated wireless connection schemes. Such capabilities will offer smoother video and better-synchronized audio over digital phone lines and LANs.

However, superior technology is not the only ingredient in a robust instructional experience. Technology needs to be balanced by solid instructional design theory and principles, and it needs to match the instructional goal that a class is set to accomplish.

To overcome instructional limitations of low-cost collaboration software, both instructional designers and instructors need to attend specialized training for learning how to create and deliver training delivered via such media. It is essential that instructors and instructional designers know how to best choreograph an entire classroom event using new technology, from figuring out the right proportion between lecturing, application sharing, to offering students ample question and answer opportunities, as well as chances to effectively use available interactive features.

Following are several suggestions for overcoming technical and instructional limitations of low-cost collaboration software. Because not every training provider has the luxury of high-speed connections and sophisticated hardware, these suggestions assume that, during a class event, students and instructors connect via a separate audio bridge (conference call) and no video conferencing is being used.

When using inexpensive collaboration software for providing synchronous training, the instruction should be divided into the following (Wells, 1999):

- activities led by the instructor, which include clear visuals, brief presentations, and prepared questions;
- activities initiated by participants, which include questions and discussions; and
- activities practiced by the group, which include case studies, role-plays, and collaborative application of ideas to real job issues.

Each training segment provided via collaboration software should be kept relatively short (no more than 1 or 2 hours). Students grow weary of watching the screen while listening to a disembodied voice. In addition, participants learn and retain more when training is scheduled in small chunks rather than in day-long sessions. Keep the number of students to no more than 15 per session.

In an environment where students cannot get a visual of others, it becomes even more important to keep them motivated. Because students and facilitators cannot *see* each other, emphasizing the relevance of the course materials to recipients becomes even more critical than in traditional instruction. The course design should contain frequent references to how materials can be easily and immediately transferable to students' jobs or real-life situations. Including student-suggested activities is also a great idea for maintaining their motivation and ensuring course relevance.

Instructors should clearly organize and streamline course discussions. In an electronic learning environment, students may become quickly overwhelmed by too much information. Clear organization of course materials eliminates confusion and builds students' confidence.

Classes delivered via collaboration software should provide structured activities (e.g., courses should provide guidelines for posting material, how often to interact with others, when breaks are scheduled, how to take control of an application and share it with the class, etc.). This will avoid situations where students may be stumped by online tasks, may lack Web expertise, misunderstand directions, or are unsure what is expected of them.

To overcome the lack of quiz abilities in low-cost collaboration software, the course could point to independent online quizzes for practice and to final reviews that are developed via tools that enable a link to an LMS. This way, at the conclusion of a NetMeeting-based course, for instance, students may be asked to access a URL to a final review that has the ability to submit results to an LMS.

One of the common complaints from students when using inexpensive collaboration software for training is that peer camaraderie is lacking. Students tend not to reach out to each other online as fully as they do face-to-face. To overcome this complaint, teachers should assign online buddies and pair up students to help each other troubleshoot problems and respond to questions about course content.

Another difficulty that stems from using inexpensive collaboration software is the inability to form a *community of learners* online. Because students cannot see each other, it takes time for them to build trust and speak freely. Instructors should encourage students to interact casually and enable them to create discussion threads or areas for hanging out and holding personal introductions.

The course design should ensure that instructors cannot fall into lecture mode when using collaboration software. Instructors should be required to ask students to initiate discussion topics and take turns in running discussion threads. They should also stop regularly during the presentation to ask if there are any questions, as the presenter has

no visual clues for judging whether students understand the content.

Instructors also need to work on their facilitation skills. Because, when using collaboration software, students cannot be seen most of the time, they have the tendency to ask more questions and comment on other participants' suggestions (Jones, 2001). An instructor should be prepared to balance such interaction and fit it within the class schedule and flow. Instructors should also know that preparing for delivery of instruction via synchronous online courseware may require 20-30% more time than preparing for a traditional class (Jones, 2001).

Inexpensive collaboration tools may often be based on shaky technology. This is why instructors should be prepared for technical errors. Students' computers or intranet connections may malfunction, or glitches may plague online discussion software. Instructors should check in regularly to see whether students need help using the discussion software or whether technology support personnel should be consulted about more serious software problems. Instructors should also have a backup machine ready to deliver instruction in case of a computer crash.

Final Remarks

If these suggestions are taken into consideration, using inexpensive collaboration tools for synchronous training may be a sound solution to fixing performance problems. Compared to standalone Web-based training, for instance, a synchronous session is scheduled as part of a student's day (thus guaranteeing commitment) and it also offers personal contact with peers and students. When used effectively, it can ensure thoroughness of material coverage and spontaneity of ideas, which feeds creativity; it can also change attitudes, motivate mastery, and encourage more effective behavior on the job.

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"… USING INEXPENSIVE COLLABORATION TOOLS FOR SYNCHRONOUS TRAINING MAY BE A SOUND SOLUTION TO FIXING PERFORMANCE PROBLEMS."

"WHEN USED EFFECTIVELY, IT CAN ENSURE THOROUGHNESS OF MATERIAL COVERAGE AND SPONTANEITY OF IDEAS, WHICH FEEDS CREATIVITY; IT CAN ALSO CHANGE ATTITUTDES, MOTIVATE MASTERY, AND ENCOURAGE MORE EFFECTIVE BEHAVIOR ON THE JOB."


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Building Skills for E-Learning Success

Ryan Watkins

For many, the years spent sitting behind desks in both academic and training classrooms have molded their perceptions of what learning is, where learning takes place, and how to be successful. From these perceptions, many of us have actually become quite effective in our skills for interacting, learning, and assessing our progress from behind the desk of the traditional classroom environment. E-learning, however, typically challenges each of these perceptions about learning and, as a result, the transition from the traditional classroom to the online classroom can be difficult for many learners.

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In response, e-learning courses can (and should) offer learners both the opportunities and resources that are necessary to build useful learning strategies, skills, and techniques for adapting to the online classroom. By building on the achievements of "student success" programs (like those offered at more than 800 colleges and universities in the United States), e-learning courses and programs can achieve improvements in both the persistence and achievement of learners. According the Joe Cuseo (n.d.), professor of psychology and Director of First-Year Seminar at Marymount College, student success courses, tutorials, lectures, and activities have been shown to increase student retention, improve academic performance, and raise the number of students progressing toward graduation.

These programs, which typically focus on developing both study habits and life-long learning skills, can also be adapted for online learners to improve the odds of their retention and achievement. For online educational programs and corporate training alike, the success of e-learners is central to their goals and objectives, and the persistence of learners toward the completion of online courses is therefore a necessary requirement for success. Online courses cannot, however, always depend on the study skills and learning strategies that learners bring from the traditional classroom to translate into success in online courses.

While technologies have changed many aspects of how learners study and how courses are taught, the metrics of persistence and performance continue to be used by institutional decision-makers in defining success. Consequently, it is both to our benefit and the benefit of the learners to design online courses that include components intended to improve the study skills of e-learners. From course activities that develop time management skills to examples of effective online communication strategies, as instructors we can help learners develop functional e-

learning study skills as an integrated part of our curriculum.

For most online learners, the development of effective study skills is critical to their achievement and retention (i.e., their success and our success). After all, "[s]tudents enrolling in an e-learning class must not only master the course's subject matter but also possess the technical skills to participate in the course and study effectively" (Arabasz, Pirani, & Fawcett, 2003). And, while many traditional study habits can be adapted for application in online courses, the development of new high-tech learning skills is also necessary for e-learning success (Watkins, 2004; Watkins & Corry, 2005).

For online instructors, concerns of student readiness for distance education are central to how we plan and deliver online courses. While many learners come with remarkable skills for searching retail Websites and downloading music from the Internet, few have experience or knowledge of how to effectively use online technologies to advance their studies.

In a report prepared for Educause, Morgan (2003) affirmed that, despite the popular myth that students are technologically savvy and converse mainly through instant messaging and e-mail, the study illustrated that faculty members discover that many students are not proficient with technology. As a result, building skills for communicating effectively when using e-mail, synchronous chat rooms, or asynchronous discussion boards, are among the basic study skills that many online learners must adopt to be successful in the high-tech classroom. While formal courses or tutorials on developing e-learning study skills may be a desirable first option, most of us (and our students) can not afford to wait for the development of comprehensive courses or tools.

In lieu of a formal study skills program (e.g., course, tutorials, mentoring), I suggest that we should build into our course lectures, activities, and assignments a number of strategies and techniques to improve the study skills of learners. For example, this can be done by including models of useful note-taking strategies in the course materials or by designing activities to require the application of effective online communication skills for their completion.

For instance, instead of requiring learners to merely submit a paper at the end of an assignment, instructors can require within the assignment the demonstration of effective note-taking skills, appropriate outlining techniques, or the use of peer-review strategies. In another course, learners could contribute to the rules and policies that will be used to structure the course's synchronous or asynchronous online discussions. By involving learners in the development of guidelines related to online etiquette and protocols, e-learners can be given the opportunity to reflect on the other strategies they will be using to communicate online with their peers and instructors.

For every course there is a variety of techniques that can be used to incorporate the development of effective e-learning study skills. By adding these to the design of our online courses, we can often improve both the retention and performance of our e-learners. As an alternative to more formal and independent study skills courses or tutorials, this is one option we have for improving the capacity of learners to successfully make the transition from the traditional to the online classroom.

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Disruptive Technology and the Tyranny of Metaphor

Craig Ullman

A few years ago, someone wrote a tongue-in-cheek academic paper with the thesis that if people kept storing old issues of *National Geographic* magazine in their garages, the weight of all those issues will eventually sink North America into the ocean.

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The paper was funny because it was true (even though it wasn't). If you just extend the line representing the growth of magazine storage on the graph—if we can assume the future will be just like the past—then the graph and the conclusion are valid.

This mock study is based on what's actually a common fallacy—assuming the future will be just like the past, only more so. Think of how wrong Malthus was when he predicted in 1798 that population growth would soon outstrip food production. It's the same fallacy as the gag paper on *National Geographics.*

Change, for good and ill, is not a smooth process but a disruptive one. Suddenly, an old and reliable product, idea, or trend is gone, replaced by something totally and radically new. Very often, we desperately search for that new thing, but still somehow expect it to be cloaked in the rags of the old idea. That's what I call *the Tyranny of Metaphor.*

Take, for example, the very concept of distance learning. As satellite delivery of video extended to the classroom, the tyranny of the metaphor of the classroom took hold, and educators simply recapitulated the organization of a physical classroom in cyberspace—an awkward use of the affordances of the new medium (if 500 students are in the virtual classroom, what percent of them can actually interact live with a teacher?).

This pattern was repeated when video conferencing came to schools—classrooms were still run in largely the same way as they were in a traditional classroom, rather than completely rethinking the educational experience to fully take advantage of the new technology.

A more encompassing example is the historic search for "The Textbook of the Future." Many fine educators have spent most of their careers in pursuit of this Holy Grail,

moving from the format of a book to a CD-ROM, from a CD-ROM to a DVD, and so on. This search has gone on for decades, yet most students still use a traditional textbook as the organizing principle of their coursework.

To my mind, what has diverted the search and frustrated this particular attempt at innovation has been the tyranny of the metaphor of the textbook—an enclosed, total system that has been produced and distributed by one company and authored by a relative handful of people. All three points of that triangle are under attack now by the organization of the Internet and the tyranny of the metaphor of the *networked society.*

It makes perfect sense that people want the new thing to be just like the old: humans are all about minimizing cognitive load (you can insert any reference you want about the past election here). But as educators, we are stuck needing to think beyond our silent, self-imposed limitations.

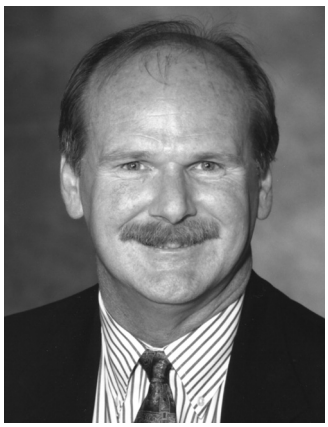
Damn!

The Leadership Dynamic for Distance Education: Keys for Success

Don Olcott, Jr.

L = *Listen*

How well do you listen as a distance education manager? Distance learning managers and "techies" are passionate about their work; the problem is that faculty want them to listen to their concerns and understand the demands placed on most faculty in today's university. Advocate, yes, but next time you visit a department, listen just a little bit more closely.



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E = *Empower*

Distance education can not only empower academic units, it can empower student success and institutional success. Distance education leaders often underestimate the potential impact their leadership can have on the educational process and environment. Technology, in and of itself, is not distance education. People are distance education and people must be empowered and shown the possibilities. Who have you empowered recently on your campus? How did you do this?

A = *Advocate*

Advocacy of anything must be managed. Distance education managers often forget that patience and small steps are essential components of the larger advocacy process. A related issue is what is it you are advocating for in the first place? If it is that technology will solve all the challenges of the academy, you may want to pause and reflect on this. Instructional technologies, first and foremost, should be sound instructional tools that make teaching and learning challenging, reflective and, yes, fun. Academic excellence and innovation must go together.

D = *Decide*

Decision making is essentially choosing from among alternatives, and often this is not an either–or proposition, but a synthesis of available alternatives. Which programs have the greatest success potential for distance delivery? What college has the most receptive faculty to using instructional technologies? Like any unit, distance education managers have to prioritize how they spend their time and energy. Moreover, many decisions must be viewed contextually: where does the institution stand on distance delivery? Are institutional resources available for a major programmatic initiative?

E = Educate

It is true that many faculties on campuses across the country have elevated their computer skills to email, period. As a distance education manager, you are not just an advocate, you are an educator, and faculty, staff, administrators, and students expect you to be able to articulate essential information about distance delivery, programs, student services, and the continuum of related distance learning services. Your familiarity and expertise are powerful tools, provided you do not assume everyone else knows and believes everything you do about distance education. For example, the research over the past 15 years clearly has shown equivalent academic achievement by campus and distance learners. However, faculty, legislators, provosts, and deans do not believe it; you have to educate them and show them the data.

R = *Reciprocate*

Who are your partners, on campus and off? Do you explore ways to help them, not just ask them for their help? Building your campus linkages and partners is probably one of the most important responsibilities of effective distance educate managers. Remember that they have an agenda just like you, but theirs may be very different. You cannot spend too much time nurturing these relationships and collaborations if you wish to expand the distance education base on your campus.

S = *Share*

You do not have infinite resources at your disposal. You have to develop a strategy for resource-sharing with your key partners on campus. You also need to share your expertise personally with faculty, administrators, students, and staff. Just because you are the organizational leader, do not delegate the need for you to be visible on campus to your subordinates.

H = *Honor*

You may be perplexed how *honor* relates to your leadership role. Actually, it is a quintessential responsibility of all distance education managers. First, you have to honor the academic process and respect the processes and procedures in place. To be sure, many of these may need to be changed, but approaching them from a critical-only standpoint will get you nowhere, particularly with faculty, governing bodies, and administration. Second, you have to honor those people around you: staff, students, faculty, and fellow managers across the campus. Honor is essentially showing respect to all those around you, embracing different viewpoints, and certainly embracing diversity of thinking, process, and innovation.

I = *Integrity*

Distance education managers must personify personal integrity as well as professional integrity in promoting and supporting distance learning that enhances teaching and learning that reflects positively on the institution and its academic units. Do faculty trust you? Do faculty believe you understand their challenges? Have you earned their respect? There is no greater compliment to any professional than to have one's peers say "he (or she) has integrity." What does integrity mean to you, what are its attributes, and who are your role models on campus who personify personal and professional integrity? This human quality is also a major reflection on your organization by your peers.

P = *Plan*

Dwight David Eisenhower once said that "the plan is nothing, planning is everything." General Eisenhower was referring to the adaptations to the main plan that had to take place on D-Day, June 6, 1944. His comment is not an exercise in semantics. Planning never stops and you as a distance education manager must engage your unit in planning—short-term and long-term on a continual basis. How does your plan fit with the academic colleges and the institution strategic plan? What are your contingencies? In other words, what if a major program initiative fails; where do you go next? What do you downsize if funding you were counting on does not happen? You should be thinking about these options in advance and how you and your organization will respond.

The Leadership Dynamic

L = Listen
E = Empower
A = Advocate
D = Decide
E = Educate
R = Reciprocate
S = Share
H = Honor
I = Integrity
P = Plan

USDLA Quality Standard Certification

John G. Flores

Enhancing professionalism within the distance learning community is a long-time emphasis of the United States Distance Learning Association (USDLA). For this reason, informational activities—workshops, conferences, and journals—have been an essential part of our association since its founding in 1987.

As distance learning has flourished, the association has kept pace by working more proactively to enhance professionalism. Thus, in the last 2 years, USDLA has begun credentialing distance learning practitioners and programs. In fact, the association now offers a triad of credentialing services.

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In 2003, USDLA, in conjunction with Nova Southeastern University, began offering the Distance Learning Leader Certificate Program (DLLCP) for individual distance learning practitioners.

In 2004, the association, through its subsidiary, the Distance Learning Accreditation Board (DLAB), began offering an accreditation service. The service is designed for both U.S.-based and international degree-granting distance learning programs.

The USDLA/Quality Standards (USDLA/QS) certification is a new standards-based program that recognizes excellence in a variety of distance learning settings.

The developments in this area are a logical response to the explosive growth of distance learning and its prominence in global education. They recognize that greater visibility and influence carries with it parallel responsibilities for conduct and professionalism. Indeed, a passive, laissez-faire approach in this area leads only to marginalization. None of us can afford that. Rather, we must offer a solid benchmark of quality—something to measure against, something to aspire to—and that is what we are now doing.

Deploying this triad of services is a major achievement for our association and, even more important, marks a noteworthy maturing of our industry. These services complement one another. Let me briefly describe each one.

The DLLCP is for *individuals*—key people who are leaders in distance education. In the course of this program, candidates acquire a specialized body of knowledge related to distance learning, including principles of best practice. This is not just high-sounding theory. We take a real-world approach and feature the richness and the diversity that characterize current distance learning practice.

The DLAB accreditation program is for the distance learning component of *degree-granting institutions* in the United States or abroad. DLAB is a serious program—self-study, on-site peer review—the whole gamut. It is not for the faint-hearted. It is ideal where degree programs cross national boundaries and there may be questions about comparability or suitability. It is great for a school that wants its dis-

tance learning to excel. Achieving DLAB accreditation is an important accomplishment.

The third and newest element of our triad is the Quality Standards certification. Its power stems both from its breadth and flexibility. USDLA/QS can work for any distance learning provider—K-12, higher education, government, industry, continuing education, domestic, or global. The provider may or may not offer a degree or diploma.

DLAB, on the one hand, uses peer review because that is accepted practice in accreditation circles. QS certification, on the other hand, uses a small team of experts who examine how a school measures up to a known set of standards. It is a thorough review—everything from technology to transcripts, from recruiting to regulatory compliance. Successful completion of the QS review provides the basis for an ongoing relationship. Our goal is to thereby foster a climate of continuous improvement. This is a *quality* certification and it delineates certain standards, so we reserve the right to pull the certification of a school that no longer meets our Quality Standards criteria.

Let me summarize this triad by noting that USDLA credentialing initiatives serve two complementary functions, one facing inward, one facing outward.

Our internal goal recognizes that, while distance learning has been around for more than a century, it only became a potent force with the development of new technologies in the last 20 years. Anything thus born has a steep learning curve associated with it. Out of that experience, though, has come an understanding and a body of accepted practices. The field is dynamic; no one could ever know it all. We do, though, know some things that consistently lead to stronger, more effective distance learning programs. This real-world knowledge is a vital component in all of our credentialing services.

Our external goal recognizes a public trust. The explosion of spam-based diploma mills has tested the credibility of any institution operating in an online environment. Simply put, people need to know who is real and who is fake; "Who can I trust?" This is a new role for us but, increasingly, people—in fact, thousands each year—are posing that question to us. Our credentialing services give us a credible basis for responding.

Voluntary self-governance has a long tradition in U.S. higher education. USDLA's work aligns nicely with accepted practice in this area. We have a broadly-based association whose members share a commitment to excellence and professionalism. We jointly identified a range of successful distance learning techniques. Then, we distilled those approaches into a set of unifying principles called *best practices*. In this way, we have developed a powerful tool for quality improvement.

Our having done so marks an important milestone in the development of your association. That, though, is never an end in itself. Rather, it is another example of the value that flows from a committed group of professionals working together for the common good. Together we will make a difference.

"THE DLAB ACCREDITATION PROGRAM IS FOR THE DISTANCE LEARNING COMPONENT OF *DEGREE-GRANTING INSTIUTIONS* IN THE UNITED STATES OR ABROAD. DLAB IS A SERIOUS PROGRAM—SELF-STUDY, ON-SITE PEER REVIEW—THE WHOLE GAMUT."

What a Great Year: Going Up?

Marci Powell

As I entered the elevator of the tall bank building, I faced forward as did everyone else. We dared not make eye contact. The ride was silent. It wasn't until the young child boarded and seemed rather scared that we began to interact. The joy he had found playing on the elevators as his mother took care of her business had turned to fear once he realized he was lost. He had no idea what floor his mother was on. The quiet elevator became a place of compassion and understanding. Collectively, the group knew what each floor had to offer. After much prodding, the nature of his mother's business was discovered and a properly aligned company and its floor were matched. We successfully delivered the frightened child to his mother's arms.

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Many step on board the elevator of distance learning … some with the fear of not knowing where they are headed and what benefit each level can bring. Others ride in confidence, knowing what their level of distance learning brings, but not what is beyond. Collectively, our experiences and time spent on various levels of distance learning is great. Stepping on board the distance learning elevator journey … and sharing together can provide great benefit to all. Collectively, our national and state members have explored many floors.

This year, hopefully, I have provided you with an overview of the various levels of distance learning from our national and state members' perspectives. As I write my final column as Senior Vice President of Chapters, I would like to provide you with an update of happenings in the chapters as well as snippets of things learned from each other and the great discussion shared this year. It has been a jam-packed year of changes and growth.

Regular chapter presidents' calls were conducted monthly. Well attended, the calls served to keep all informed of chapter and national events. Many of those participating in the calls reported successful activities and conferences this year. California had a 40% increase in attendance at their summit last spring, while Texas had nearly 700 in attendance at their spring conference that boasted more than 100 breakout sessions. The Washington Metropolitan found it beneficial to members to partner with various organizations for several outstanding conferences and delivered regular news alerts keeping their membership highly informed. The Pan Pacific DLA was a key player in the success of the Global Learn Day, a 1-day virtually-attended conference using the Internet to connect distance learning professionals from across the globe.

At the invitation of President Darcy Hardy, several board members served as guest speakers on our monthly calls. Denzil Edge, Paul Bardack, Andy DiPaolo, Don Olcott, and Julie Young presented either an overview of the committee they chaired or an overview of the pro-

gram they oversee at their respective institutions. Presentations were highly informative and well received.

For example, Paul Bardack, Public Policy Committee Chair, shared insight into current distance learning legislation and lobbying activities in Washington. Paul met with members of the Appropriations and Authorizations Committee and the House Subcommittee on Education, among other groups. Additionally, Reggie Smith, cochair, met with the director of the U.S. Department of Education, Office of Educational Technology. The USDLA Board issued a directive to focus on the Higher Education Act reauthorization, which needs updating in vocabulary and is currently focusing on the 50% Rule, the Financial Aid 15 Hour Rule, and the Americans with Disabilities Act. The Distance Learning Act will bypass states. The committee has become proactive by negotiating with the National Organization of Colleges and others to co-op lobbying expenses through coalitions.

USDLA board member Julie Young, chief executive officer for the Florida Virtual Schools, an Orlando-based organization, shared information about her organization. Employing more than 250 and serving over 30,000 students with over 80 courses, Florida Virtual Schools has grown at a rapid rate. They recently had more than 75,000 registrations for 2004-2005, from which they expect to have over 30,000 course enrollments. Some students change their minds or find something else while on a waiting list. Serving all students free of charge, they receive funding on a performance-based, credit completion basis. Currently, they have a 90% completion rate. Ongoing research and development projects are funded from the state.

Don Olcott, Jr., of Western Oregon University, shared some observations about the field of distance leaning and provoked much discussion. He asked chapter presidents, "[h]ow has the mainstreaming of DL in universities helped us to understand the utilization of technology?" He then stated the belief that today's university is more comprehensive in nature, serving all students and staff, compared to the 1990s, when we were separate but equal. Other important factors include financial implications, political and strategic positions, identifying and cultivating champions, the role of blended learning in DL, integrating technologies into instruction, and advantages to mainstreaming DL across the university and how it effects the flow of money. He then asked, "[h]as our perspective of DL changed, noting that DL may now take place 5,000 feet away from the professor's office as well as 5,000 miles?" A variety of insightful comments ensued.

Andy DiPaolo, executive director of the Stanford Center for Professional Development (SCPD) and senior associate dean in the School of Engineering at Stanford University, spoke on "Challenges and Strategies in Online Learning." Andy provided an overview of his graduate-level distance education program at Stanford University, which has an enrollment in excess of 15,000 students and maintains a major focus on research. Located in Silicon Valley, they are a test bed for many of the world's best-known technology companies. Cisco Systems originated at Stanford, as did Sun Microsystems, Yahoo, and Google. They began offering distance learning courses via standard television broadcast, then transitioned to streaming media about 8 years ago. One of their early systems, called VexStream, has evolved into today's Microsoft Media Player. They were the first university to offer an online master's degree in electrical engineering and now deliver over 12,000 hours of online distance learning course work per year. Currently, 20% of Stanford's MA degrees in engineering are awarded via distance learning.

Andy was asked if respect for online degrees was as high as the respect traditional degrees receive. Andy replied that all students at Stanford enroll following the same process and are then offered distance learning opportunities as well as standard classroom-based instruction. All classes offered at a distance have the same expectations as residential programs, and there is no indication on the student's transcript that the course work was completed or the degree earned online or traditionally The program has proven so popular that the university now requires companies to become contributing members before an employee can enroll. Many companies, such as Boeing, put these individuals on the fast track for promotions.

I found it most fascinating that Stanford shares all profits on distance learning courses, with one third going to the faculty member, one third going to the department, and one third going to the Office of Technology Licensing. The faculty member who develops the course also receives royalty payments every time the course is taught in the future even if they leave Stanford.

Presentations such as those mentioned have proven to be highly educational, providing a deep insight into best practices. The calls enabled communication and collaboration opportunities among states and institutions across the country. Chapter presidents have been able to take back information to share with chapter members.

We have 18 active chapters serving, four new chapters forming, and three expressing an interest in establishing a state chapter. Active chapters include Arkansas, Califor-

nia, Federal Government, Florida, Hawaii, Indiana, Iowa, Kentucky, Missouri, Nebraska, North Carolina, Oklahoma, Pan Pacific, Pennsylvania/Delaware/New Jersey, Tennessee, Texas, Washington Metro, and West Virginia. Still forming are Kansas, Louisiana, Oregon, and New York, with Michigan, Colorado, and Illinois inquiring.

I encourage you to get involved in your state chapter and, if you do not have one, consider starting one. Great benefit is found in networking with other distance learning professionals, both regionally and nationally. Don't face forward on the distance learning elevator and miss the great value of interacting with those who share your journey.

Finally, I wish to express what a joy it has been to share with you through this column in each issue. I will leave you in good hands, as Bill Jackson, former Florida DLA president, becomes the next Sr. Vice President for Chapters. It has been an honor to serve with such wonderful distance learning leaders from across our great country. It has been a great privilege to board the distance learning elevator with you and explore what each floor has to offer. All aboard!

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.

—Simonson (2004)

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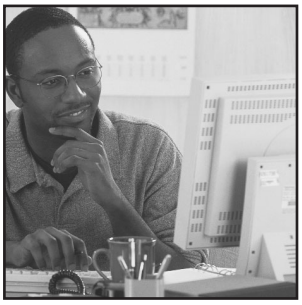

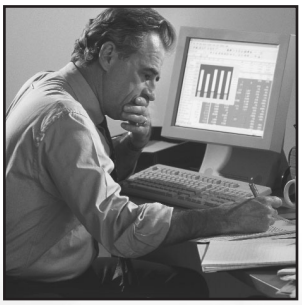

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The Classics are Coming Back!

Seven classic publications in the field of instructional technology are once again available. These seven are a must for professionals in the fields of instructional technology or distance education.

Extending Education Through Technology, a collection of writings by Jim Finn, long considered the "father of educational communications and technology," features articles written by Finn decades ago that are still widely quoted and directly relevant to the issues of the field today.

The history of the field, *The Evolution of American Educational Technology*, by Paul Saettler is *the* basic reference for how the field has grown and become the driving force in education and training that it is today.

Three books on this list of classics, Ball and Barnes' *Research, Principles, and Practices in Visual Communications*, Chu and Schramm's *Learning from Television*, and Ofiesh and Meierhenry's *Trends in Programmed Instruction*, are the primary sources for research and design in instructional technology and distance education. Some claim, and they are probably correct, that much of what are considered "best practices' today can be traced directly back to the conclusions provided by these three extremely important monographs..

Robert Heinich's often quoted and rarely found classic, *Technology and the Management of Instruction*, is a masterpiece of writing and advice about the field that resonates strongly today. This monograph may be Heinich's best work.

With little doubt, the 20 years of Okoboji conferences set the stage and provided a platform for leadership development and intellectual growth in the field. The Okoboji conferences have been often mimicked but never duplicated. This summary of the 20 years of conferences by Lee Cochran, the driving force behind them, provides a comprehensive overview of the Okoboji experience

Extending Education Through Technology:
Selected Writing by James D. Finn on Instructional Technology
(1972) AECT. ~334 pp. **$25.95**

The Evolution of American Educational Technology
Paul Saettler, (1990), ~570 pp. **$29.95**

Research, Principles and Practices in Visual Communication
Ball, J. & Barnes, F. (1960). AECT. ~160 pp. **$25.95**

Learning from Television: What the Research Says
Chu, G. & Schramm, W. (1967). NAEB. ~275 pp. **$25.95**

Technology and the Management of Instruction – Monograph 4
Heinich, R. (1970). AECT. ~198 pp. **$25.95**

Trends in Programmed Instruction: Papers from the First Annual Convention of the National Society for Programmed Instruction
Ofiesh, G. & Meierhenry, W. (1964). NEA. ~290 pp. **$25.95**

Okoboji: A Twenty Year Review of Leadership – 1955-1974
Cochran, L. (1975) Kendall Hunt .~300 pp. **$25.95**

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A Comet, Or a Tiger, Or ...?

Michael Simonson

James J. Duderstadt, president emeritus of the University of Michigan at Ann Arbor, opened the 2004 Educause conference in Denver by saying the future of colleges and universities was more than uncertain in the digital age—it might be downright threatened. He went on to quote business guru Peter Drucker as saying that campuses will be "relics" in 30 years. Duderstadt also quoted Frank H. T. Rhodes, president emeritus of Cornell University as having said that colleges in the digital age are like dinosaurs looking up at the incoming comet (Carlson, 2004, p. A34)

Duderstadt is quoted in the *Chronicle of Higher Education* as saying that: "Faculty members have not kept up." "Xbox gaming consoles have more processing power than most faculty have ever seen in their lifetime.... [T]echnology is like a tiger, chasing down institutions.... The sense is that we are on the edge of another great change in higher education, except this time it's global." And "[w]ill the university as we know it now exist a generation from now?"

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To be sure, emeritus presidents of universities have an interesting role to play in academe. They no longer possess the incredible power they wielded as president, yet they are sometimes revered for their insights and experiences. They certainly make interesting keynote speakers, at least at Educause.

What is less clear is how the emeritus president, or anyone for that matter, can divine the future. It is one thing to claim the demise of any institution in "30 years," especially when it is likely the person making the prediction will not be around that long. Certainly, it would be easy to criticize those who foretell the "eve of destruction" of universities—venerable institutions that have withstood the changes of centuries of new ideas and innovations.

Normally, we in the field of distance education would not pay too much attention to these prophecies, as most often they are meant to capture the attention of often-distracted conference attendees. However, because distance education is being referred to as the *comet* bearing down on the dinosaurs, and the *tiger* chasing down institutions, those in our field have a right to pay close attention—even to feel a little upset.

It is obvious that many do not really understand the potential of distance education. Sure, the infusion of communications technologies will be critical to changes in education and training at all levels, even in universities. Just as certain, at least to this editor, is the unending importance of good ideas, instructional content, and quality teaching. Instruction using technologies to reach students distant in location and time is exciting and promising. Just as certain, teachers, teaching, and important ideas will remain the most basic component of education, especially distance education.

And finally, next time you hear someone say that distance education is going to change the future, and that distance education is bringing the apocalypse, ask them how they know. Their answer might be interesting—but probably not.

Reference

Carlson, S. (2004, October 29). Technology threatens colleges with extinction, ex-president warns. *Chronicle of Higher Education*, p. A34.