



# DIRECTIONS

*Technology in Special Education*

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## Distance Learning: As Advertised?

by Dr. Richard E. Riedl

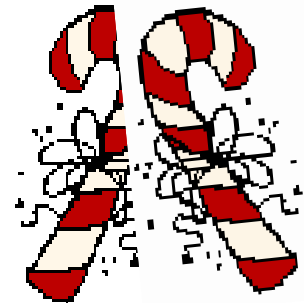
Source: *The Catalyst*, Fall 2001, Volume 18 #1

*Distance Learning has been heralded as a boon to people with disabilities who may lack easy access to schools, colleges, or job training. But how effective is it? Dr. Richard Riedl takes a hard look at glowing claims and arrives at some surprising conclusions.*

In the last issue of *The Catalyst*, an article entitled “*Distance Learning Offers Numerous Benefits: An Interview with France Belanger*” was included (Vol. 17 #4, p. 18). It was taken from an online press release and addressed issues mostly related to business but included editor’s notes on how various elements of distance learning that were mentioned in the article could also serve K-12 education. As such it was an informative page that introduced the reader to some key concepts and beliefs of distance learning and its potential as an educational medium.

But I think it is important that we don’t stop there. Distance learning has become a significant issue at all levels of education and has the potential to become big business. There are a number of individuals, businesses, educational organizations, and government entities that are banking on the latter happening. There are others moving into distance learning because they believe they will lose their students if they don’t...in other words, distance learning is perceived to be very attractive to students, so it is one of those “join in or lose out” mind sets. And, of course, there are people and institutions that believe this is a truly viable learning atmosphere that offers benefits that are unique and valuable.

Some businesses and the United States military are offering employee training opportunities via distance learning. Many community and junior colleges and four-year colleges and universities are offering courses and degrees by distance learning and there are even some businesses that have been formed to become “for profit” distance learning institutions. And there are high schools and high school courses that are online.



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But how can you tell the hype from the real? Is distance learning really so good that we should be embracing it whole-heartedly? Or is this just another one of these flash-in-the-pan fixes for education that will reveal itself at some point to be more wishful thinking than anything of substantial benefit to learners? Distance learning becomes an important topic for discussion among educators because there is potential for doing good; and because there is potential for doing bad. But do we know how to tell the difference?

The first type of distance learning to be offered was correspondence study. After all, there has always been a need to serve individuals who could not participate in traditional forms of education. Going to school has usually meant that a person needs to go to the location of the school and has to devote a significant block of time attending classes and doing coursework, and that is just not possible for everybody. The advent of computer communication technologies, beginning with text-based email and growing into the World Wide Web, with chat, bulletin boards, images, animations, audio and video, has created an increased interest in serving populations that have been under-served by traditional educational institutions. Distance learning also looks very attractive to the business world anxious to provide training opportunities for employees that involve less time away from the work place.

Basically, the belief is that the use of computer communications technologies can create a viable learning environment which is not dependent on location or on when a

person can work on the activities required for learning to take place. Opportunities for students to interact with the teacher and to interact with each other would make the learning experiences more like a classroom, providing a community of learners, and would break down the isolation that students taking correspondence study experience.

But right now that is all we have: a belief. The following is taken from an article entitled: "*Sink or Swim? Higher Education Online: How do we know what works-and what doesn't?*"

At best, one may find anecdotal accounts of successful online classes. Professors claim, 'I did it in my class and it worked great!' or 'the students noted on the end-of-course survey that they enjoyed the course; therefore it is good.' Occasionally, one may find reports that draw upon commonly shared theories, such as 'having control over more of one's own learning should produce better learners,' as proof of effectiveness. Such insights are valuable, but they don't provide the kind of understanding needed to make truly informed decisions about the value of online education.

Jim DiPerna (co-director of The Clipper Project) and Rob Volpe conducted a review of research that produced nearly 250 potential articles concerning the evaluation of Web-based instruction over the past 10 years. However, after eliminating duplicate citations and irrelevant articles (i.e., articles merely describing a Web-based course, articles offering guidelines for designing a Web-based course, or

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articles explaining a particular Web-based technology), only a dozen articles existed. Of the 12, 11 were based solely on students' self-reported attitudes or perceptions regarding Web-based instruction. Amazingly, only one directly assessed the impact of Web-based technology on student learning (as measured by randomly selected essay performance and letter grades) across subjects.

In other words, we have a lot more hype than substance about distance learning right now.

At this point I think the best thing I can do is to go back to the interview with Dr. Belanger and offer some comments and thoughts that might make some concepts more clear and help us understand the issues that are before us.

The first thing we need to do is understand the different forms that distance learning can take. Dr. Belanger did not make any distinctions between forms of distance learning nor between the use of web environments for delivery of training of a course and the use of web environments to enhance face-to-face training or course experiences. Both are critical distinctions.

There are many ways to provide distance learning. Dr. Belanger seems to have focused on the use of web page environments when responding to questions. But another form of distance learning, used for corporate training and in higher education and K-12 schools to deliver courses, is video-based. Videoconference rooms are established that allow two way video and audio communication. They are used by college teachers to teach

classes from the college campus to students located in other locations; high school teachers to deliver classes to other schools who may not have the staff to deliver such a class; and corporate trainers to deliver training to company sites around the world.

This form of distance learning is close in appearance to a face-to-face classroom. The students can see and hear the teacher and the teacher can see and hear the students. Students at one location can even see and hear the students at another location. But it is dangerous to assume that it is actually like a face-to-face classroom. Those who use such systems have to learn what is the same and what is different and then adapt their teaching practices to accommodate those differences.

Such videoconferencing systems are usually expensive and require the participants to meet in certain places at certain times to carry out their activities. But they do distribute the capabilities of an organization to deliver training or classes to a broader community. They tend to have a familiarity (similar visual and audio cues) to which students and teachers can reasonably easily adapt. I have found that, for small groups with a pre-determined set of tasks, these systems work very well. For larger groups and for participation by more than one location with students, the dynamics become more difficult to understand and manage. In such complex settings the lecture frequently becomes the primary delivery method.

As the capabilities of the Internet increase, we can project a day that such videoconference delivery can be

done to the desktop computer or television set of the learner, thus reducing the need of the student to travel to a videoconferencing site, but also reducing the interplay of participants who have gathered at a common location for the same purpose.

Web-based distance learning, upon which Dr. Belanger focused in the interview, provides the opportunity for anybody who has access to the World Wide to participate in courses or training activities regardless of location. An editor's note rightfully indicated that this can provide opportunities for home-bound students and students in institutional settings. However, some early course completion data for web-based courses indicates that such courses require a degree of self-direction and desire to pursue study. Basically, there are indications that a lower percentage of students complete a web-based course than complete a face-to-face course. There is also no clear evidence that a web-based course and a face-to-face course afford equivalent learning opportunities.

We do know that there are people who don't have access to traditional education because of location, employment, family commitments, and any number of other reasons. My experience has been that those people who make the best of opportunities provided by such mechanisms as web-based distance learning courses are those who would have no avenue for further education or training otherwise. But we have a long way to go before we really know what works and what doesn't work.

However, that is not stopping organizations and colleges and universities from going ahead full bore.

Below is a recent announcement about a new initiative in Virginia:

### **Virtual University would let students create their own curricula**

Virginia is planning to create Virginia Virtual University, an online institution that would help students build personalized curricula that blend traditional and electronically delivered courses from both in-state and out-of-state schools and businesses. Participants would present their personalized curricula to the virtual university's faculty for approval, explained John H. Milam, Jr. of the University of Virginia's Center for the Study of Higher Education. Students would pay tuition costs, while academic counseling expenses would be charged on an hourly basis. The project is expected to be officially approved by the higher education council on September 11, and executive director Phyllis Palmiero said the university should go live in July 2002. Old Dominion University President Roseann Runte, however, expressed concern that the virtual university might have too much in common with her school's distance-learning network. Note the concern from Old Dominion University. This reflects the highly competitive nature of this "new business." One institution that has already shown a great deal of success in the business of distance learning is the University of Phoenix.

### **Students logging on to University of Phoenix**

The University of Phoenix Online has found success as an Internet education provider. At the end of May, 25,700 students were enrolled in degree programs, an increase of 86 percent

from last year. Recently, the Education Department moved to begin joint testing with the university to assess the effectiveness of online education. If the results are satisfactory, getting financial aid for online courses could become easier. University of Phoenix President Laura Palmer Noone said the most popular online programs are in business and technology. Students usually look for something career-based, according to Noone. Some 60 percent of students receive tuition reimbursement from their companies, she said, which seems to indicate that employers accept online learning.

The numbers cited in this news brief are impressive. We don't know how many of those students will successfully complete the courses they are in, but these numbers and the willingness of employers to reimburse employees for online courses indicate that discussion of effectiveness of distance learning classes may be pushed into the background. It will be interesting to see how the U.S. Education Department and the University of Phoenix go about determining the effectiveness of online learning, but my guess is that even negative results may not be enough to slow the current ground swell of web-based course offerings.

So what does a web-based course look like? The answer to that can be quite varied. The tendency is to try to make the course as much like a face-to-face course as possible. That is, there is a syllabus that outlines the goals and the activities in which participants will engage. There is a schedule that participants are expected to follow with appropriate due dates for assignments.

Reading assignments are made, and there may be a requirement to post short summaries of reading that has been done, or there may be a quiz. There may be lectures that appear in the format of text, audio, or video presentation, and they may be accompanied by Power Point slides or some other graphic display.

Discussions may be held in a number of ways. There may be online chat sessions (requiring students and teacher to get online at the same time to participate), or there may be email exchanges through a listserver (software that distributes an email to the participants who have subscribed to the list), or there may be a bulletin board system which allows participants to post comments and which organizes responses to posts on a web page such that it is obvious what posts are replies to what comments. Tests may be given, but more often written papers are expected.

All of these activities are conducted through web pages or email, and the participants never have to come together in the same place at the same time, except virtually through the various web-based tools that are used. Not all students like this, but there are large numbers of students who have grown up with computers for whom this is a very attractive scenario.

My colleagues and I in the Instructional Technology Program at Appalachian State are under some pressure to put our program online. And we could do that easily. We have the technologies at our fingertips and we know how to do it. However, we have resisted doing so. We do have components of our program online and we do deliver courses via video

conferencing. But we have also committed to a path that we think is much more valid and will lead to a course of action that will ensure that our program maintains its quality. Quite simply, we acknowledge that, no matter how much one tries to make a videoconference or web-based course look like a face-to-face course, it is not the same thing. Conversely, we have chosen not to assume that everything done in a face-to-face course is good or the best way to teach. As a result, we have chosen to analyze what we are really trying to do in our program and in our courses and to make decisions that will lead to our of and our students' engagement in activities that truly lead to the goals of the program.

This is hard, and can lead to a severe challenge of long-held assumptions. As a teacher you have to say to yourself just because you have done something a certain way and that you are comfortable doing it that way, it does not mean it is the best thing to do for students. For Pete's sake, I know that just because I say something in a class does not mean that my students believe it or, much less, have learned anything from it. But it sure feels good to me if I can say it. How often do I do things in my classes that are for me and not for my students?

On the other side, even though a bulletin board that arranges student comments by topic and by reply threads can be construed to be like a classroom discussion, it is not. There is a clear qualitative difference. If we want certain types of student-to-student interaction to take place in a learning setting because we believe it will enhance the opportunity for students to learn, then we need to

understand the dynamics of a classroom discussion and a web-based discussion and be willing to understand what each can do. We need to use each to accomplish the things it can do and not expect it to do something it can't. This is a time-consuming task that may be uncomfortable at times. And we may lose students to those who are quick to put web-based programs out there, but we have a really good program and are not willing to compromise it just to get into the distance learning market.

I do disagree with Dr. Belanger on two points. She suggests that traditional education and distance education are complementary. I think the relationship is quite competitive and may get more so as time goes on. And she includes the use of web-based tools that are used to enhance a face-to-face classes as apart of distance learning. I think it is a mistake to collapse distance learning and computer communications tools used to enhance a "regular" class into the same category. In a distance learning class I may use a bulletin board to conduct class discussion. In a face-to-face class we may have a discussion when we are all in the same room together and we may use a bulletin board to carry on further interaction when we are not in the same place together. To suggest that we are using distance learning technologies to enhance a class suggests a kind of ownership of those tools by distance educators and detracts from the notion that teachers are looking for ways to improve the learning opportunities in their classes through the use of a variety of tools. This may be a minor bone to pick but it may be that there is an important distinction to be made if we are to understand the role of various computer-based technologies in learning settings.

Despite this, the general thrust of the

interview and the editor's notes are on target. We are seeing computer communications technologies that offer some real potential to address key accessibility issues for education. We are fortunate to live in a country in which we care about making educational opportunities available to all. Some of these technologies may go a long way to making education more available and affordable to groups and individuals who have been isolated from such opportunities. But caveat emptor. There are many pitfalls to which we can succumb in the process of embracing distance learning.

We don't know if distance-learning classes are as good as, worse, or better than traditional classes. We need to avoid terms frequently used in discussions of distance learning such as "cost effective". As far as I am concerned, cost effectiveness is a concept of which to be highly suspicious when discussing education. And certainly we should put the concept of learning effectiveness ahead of cost effectiveness in any discussion. And we have to understand that right now, anyway, those who have access to most distance learning opportunities are not necessarily the people who need it the most. Distance learning, and web-based distance learning in particular, is highly dependent on computer technology and we live in a country in which there is not an even distribution of access to computers and the Internet.

Distance learning is certainly an intriguing notion when coupled with

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# HalfthePlanet News

## **HALFTHEPLANET WELCOMES ITS NEWEST PARTNER - JOB ACCOMMODATION NETWORK (JAN).**

The Job Accommodation Network (JAN) is an international toll-free consulting service that provides information about job accommodations and the employability of people with disabilities. Through JAN's web site at <http://janweb.icdi.wvu.edu/>, employers and people with disabilities can ask questions about accommodations or can explore various accommodation options for persons with disabilities in the work setting. JAN can also be reached by calling their international toll-free number at (800) 526-7234 (V/TTY).

## **THE JOB ACCOMMODATION NETWORK (JAN) INTRODUCES A NEW WEB RESOURCE CALLED CONSULTANT'S CORNER**

The Job Accommodation Network (JAN) has a new web resource called Consultant's Corner. Consultants' Corner is your resource for helpful hints, techie tips and innovative ideas regarding job accommodations and the Americans with Disabilities Act. To view the latest edition of Consultant's Corner, to register for regular update notifications, or to search the archive for other issues, please visit the Consultant's Corner at: <http://www.jan.wvu.edu/corner/index.htm>. This month's edition is particularly important in light of the national tragedy on September 11. The topic is "Emergency Evacuation Procedures for Employees with Disabilities."

## **ADAPTIVE ENVIRONMENTS PLANS A UNIVERSAL WEB DESIGN CONFERENCE**

Adaptive Environments and the Rhode Island School of Design (RISD) are jointly planning a two-day conference on October 17 & 18, 2002. Its focus will be to educate web designers on how to integrate the concepts of universal design in the design of web sites. For more information, contact Lenie Kuit, 617-695-1225, ext. 29.

## **NEW GUIDEBOOK DESCRIBES PERSONAL COMPUTER ADAPTATIONS FOR INDIVIDUALS WITH DISABILITIES**

Joseph J. Lazzaro's *ADAPTIVE TECHNOLOGIES FOR LEARNING AND WORK ENVIRONMENTS* Second Edition is a comprehensive guide describing how to select, install and support assistive technology. The text covers adaptations for Windows, Macintosh, and Unix computer platforms, and shows how to operate PCs using keyboard commands and shortcuts. The book spotlights built-in accessibility utilities found on personal computers and is a solid guide to facilitate accessible learning, working, and independent living. This completely revised edition breaks down the latest hardware and software for making information technology accessible for all! To learn more about the book's contents and to obtain this indispensable reference, go to <http://www.ala.org/> and click on "ALA Online Store."

## **CRPF CREATES A RESOURCE CENTER AND ANNOUNCES JOB OPENINGS**

The Christopher and Dana Reeve Resource Center will be a clearinghouse for information, referral and educational materials, as well a leader of health promotion and quality of life activities

for individuals with paralysis. The Center is seeking exceptional candidates for the positions of Project Director and Operations Director. The Project Director will be responsible for creating and managing all aspects of the Center including the development of information, education and outreach resources as well as the design and implementation plans to collect research on paralysis. The Operations Director is responsible for the administrative and support activities of the Center including hiring and supervising staff, financial planning, budgeting of the Center's infrastructure including MIS and supported applications. Full job descriptions and qualifications are available at <http://www.paralysis.org/news/release.cfm>. To apply submit a cover letter, including salary requirements and the position applied for, and resume in MSWord in confidence to [Merrmanco@aol.com](mailto:Merrmanco@aol.com).

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Comments, suggestions, and questions about this newsletter are welcome. Please send an email to [info@halftheplanet.org](mailto:info@halftheplanet.org). Past issues of this newsletter are available at <http://www.halftheplanet.org/departments/newsletter/index.html>.§

# Press Release - AAC Product Announcement

Prentke Romich Company

Contacts: Russell Cross, Manager:  
AAC Products (800) 262-1984  
Ext. 245 rtc@Qrentrom.com

## Pathfinder Includes New 32-Location Unity Program

Effective September, 2001 the Unity 32 program is now a standard feature of the Pathfinder communication aid. The Unity Tour Guide and Vocabulary Sort include documentation to support the new software. Designed specifically for the Pathfinder, Unity 32 makes full use of the hardware and software features of the device. Unity 32 actually includes two integrated versions, a "single-hit" program that provides a very simple introduction to the vocabulary and a "sequenced" version that allows access to an expanded vocabulary by sequencing icons.

**Who will benefit from Unity 32?**  
Any individual with visual or motor

impairments may find the larger graphics and larger keys easier to access. This program may also be a starting point for very young augmented communicators and those users with moderate to severe cognitive challenges.

### How many words does the program contain?

The Single-Hit vocabulary contains 2100 "root" words. Adding word endings in Unity 32 expands the vocabulary very quickly. The Sequenced version contains the 2100 root words plus 200 "core" words and phrases. With the Sequenced version access to vocabulary requires fewer keystrokes.

### Transitioning with Unity

Unity software allows users to expand their vocabulary without learning a new system. These programs use the

same icons, the same icon sequences for vocabulary and similar icon locations. Unity 32 includes: **Sentences, Songs, Games and Activities, Spelling and Word Prediction, Notebooks, Computer Access, Environmental Controls**

### How can I obtain Unity 32?

Unity 32 is included in every Pathfinder beginning September, 2001, as a standard feature. A 32-location keyguard is available as an optional extra for \$95.00. To obtain a Pathfinder, call the Prentke Romich Company Sales Office at (800) 262-1933. To add Unity 32 to a Pathfinder you already own, call PRC Service Department at (800) 262-1990. For information on our other AAC products including the new dynamic display product, Vantage, please call the PRC Sales Office at (800) 262-1933. §

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today's computer driven technologies. I first began playing with it in Alaska in the 1980s and the technologies for doing it have only gotten better over time. But our understanding of distance learning doesn't seem to have kept pace, either with the technology or with the hype that accompanies it. I believe distance learning offers some important benefits, but I am very concerned by the rush to do it and the apparent reluctance to understand what we are doing.

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