



Page of Enlitenment

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Industry News & Information for users of visual communications in the enterprise.

Featuring: **An Interview with Philip J.L. Westfall, Ph.D., President of the United States Distance Learning Association - Thoughts & Perspective on Distance Learning**

Special Notes:

The January 2003 issue of AV Video/Multimedia Producer Magazine includes an article on Satellite Delivery by Steven Klapow.

Eyes to the Skies: Satellite becomes a more attractive dish for business media. www.avvmp.com

Enliten's Randy Palubiak will be the featured speaker on an iLearning web cast March 20, 2003 on *Visual Communications & e-Learning Using Satellite*. Enliten associate Dr. Jolly Holden, Chairman Emeritus USDLA, will join via audio conference as a subject matter expert on distance learning.

IP Multicasting continues to garner a growing amount of attention and utilization in the enterprise, despite the economy. Enliten will provide key & pertinent information, throughout the next issues, about satellite-based delivery of IP Multicasting...the industry, technologies, providers, users, applications & trends.



**Philip J.L.
Westfall, Ph.D.**

An Interview with Philip J.L. Westfall, Ph.D. President of the United States Distance Learning Association - Thoughts & Perspective on Distance Learning

A number of readers have requested Enliten to feature the thoughts and perspectives from industry leaders in addition to providing case studies and overviews on applications, technologies and industry suppliers.

Who better to initiate an "Interview" series than Dr. Phil Westfall, president of the United States Distance Learning Association (USDLA) and network director of the Air Technology Network (ATN), a satellite system used for distance learning which now reaches over 140 receive sites (including Europe and the Pacific) through 5 satellite broadcast centers. Dr. Phil Westfall's complete biography is provided in the first column (left).

Clearly a leader in distance learning (including satellite-based delivery), Dr. Westfall understands how to use various technologies and approaches to meet significant training requirements, whether it be synchronous or asynchronous, satellite or terrestrial based, print or video, live interactive or on-demand. Dr. Westfall has the same philosophy embraced by Enliten: *it is imperative to let the application drive the technology, using a blended approach.*

Over the past twelve years, Dr. Phil Westfall has become a pioneer and leader in distance learning within the Air Force. Phil began government service in 1974 as an Air Force officer. He served as an aviator of tactical fighter aircraft, served as professor of French and flight instructor at the United States Air Force Academy, and in 1990, he was assigned to the Air Force Institute of Technology. There, Phil established and directed the Center for Distance Education and created an interactive television (ITV) network, the Air Technology Network (ATN), which now reaches over 140 receive sites (including Europe and the Pacific) through 5 satellite broadcast centers. After his retirement in 1994, he returned to the Air Force in Civil Service. The continuing expansion of

ATN across the Air Force led to his present position as network director under the newly formed Air Force Institute for Advanced Distributed Learning.

His pioneering efforts and active promotion of ITV within the Federal Government led to the establishment of an interagency ITV network, which he named the Government Education & Training Network (GETN). From a single uplink at AFIT in 1992, GETN has grown into a network of 15 uplinks used by 16 government agencies reaching over 1,300 downlink sites.

Phil is currently president of USDLA, the leading professional association in the field of distance learning. From 1995 to 1997, he was president (and co-founder) of the Federal Government Distance Learning Association, a chapter of the USDLA. Phil is also on the Executive Committee of the Government Alliance for Training & Education, a government organization that promotes the use of distance learning within the Federal sector. A frequent speaker at various distance learning conferences, he has also participated in developing sessions in distance learning for conferences such as the International Distance Learning Conference, TeleCon (East and West), e-learning Conference & Expo, Training 2000, and the annual Government Learning Technologies Symposium.

Phil is the recipient of the Air Force Association's Schriever Award for the Advancement in Aerospace Power and Technology. He is a member of the USDLA Hall of Fame, and is also the first military member inducted into the Teleconferencing Magazine's Hall of Fame. Phil also received the FGDLA Outstanding Distance Learning Network for the year 2000. Phil is a member of Phi Kappa Phi, an academic honorary society. Phil earned a Ph.D. in Educational Metrics and Humanities Education from Ohio State University, a M.A. in Foreign Language Education, and a B.S. in Industrial Technology. Phil resides in Dayton, Ohio, with his wife, Vicki; they have three children and two grandchildren.

USDLA & Related Organizations

Here are a few of the key websites affiliated with, and/or pertinent to, the organizations and associations referenced in the interview with Dr. Phil Westfall.

Government Education and Training Network

Distance Learning through Interactive Television
getn.govdl.org

Topics, Issues, Answers

- [Dr. Westfall's Perspective on Distance Learning.](#)
- [Fundamental foundation of Distance Learning.](#)
- [What is USDLA doing to promote and enhance Distance Learning?](#)
- [Satellite's role in Distance Learning?](#)
- [How are terrestrial and satellite-based deliveries suited for live Distance Learning?](#)
- [Satellite-based Distance Learning versus in-classroom training?](#)
- [Satellite-based vs. web-based Distance Learning?](#)
- [Where Dr. Westfall sees Distance Learning going.](#)
- [The key benefits of satellite-based Distance Learning.](#)
- [How can industry suppliers and users support the USDLA?](#)

ENLITEN: As President of the USDLA, what is your perspective on Distance Learning?

PHIL: There's a lot of excitement about the promises of distance learning in every sector: Corporate, Higher Education, Government, K-12. Indeed, distance learning promises to increase learning opportunities, increase learning effectiveness, and decrease the cost of learning.

Many have predicted a meteoric rise of distance learning and the demise of the classroom. The truth is somewhat less exciting, however. Currently, around thirty percent of all corporate training has gone to distance learning. And, according to recent reports it has plateaued for the time being. Most institutions of higher learning are adding distance learning to their instructional methods. Yet, some institutions have backed out. Few are operating in the black. Government progress, especially within the Department of Defense, is very uneven—some agencies are getting large amounts of funding, while others are still have no concrete plans. Nevertheless, standards are being hammered out for Web-based learning that will influence online learning within the DOD and eventually, it is believed, across the entire distance learning industry. So whereas I believe distance learning, especially its online varieties, have been over hyped, I believe a more mature and realistic view of distance learning across all sectors is beginning to set in. Distance learning is not a panacea, as everyone is beginning to realize. Yet I believe distance learning will continue to grow incrementally using a blended learning approach.

ENLITEN: What is the fundamental foundation of Distance Learning?

PHIL: There is one fundamental truth to distance learning that I see being ignored by many organizations attempting to develop distance learning programs. It is selecting the technology before evaluating its suitability in meeting learning objectives. How often have you heard someone ask, "How can I put my course online?" Instead of "What technologies may I use to effectively meet my learning objectives?" Our imaginations are captivated by the latest technologies and buzzwords—to the detriment of an even-handed approach to media selection. I believe this attitude has hurt the expansion of distance learning and has, in some cases, brought dissatisfaction with distance learning as a whole—which has led, temporarily I believe, to some stagnation. Of course, the current economy and the dot-com failures of the recent past have also contributed to hindering the deployment of more distance learning programs across the board. I believe distance learning will pick up the pace, however, at such time when the process of developing distance learning programs matures, when quality of instruction becomes paramount, and when expectations become more realistic.

Already we are seeing signs of this maturation. A few organizations in the corporate and higher education circles have pulled back from rushing to put all of their training on the web, especially in the corporate sector. Now the latest "novel idea" is the "blended media" approach. Blended learning, ideally, is a well designed mix of media, which will

The Air Technology Network Program
Management Office
Instructional Broadcasting Division
Air Force Institute for Advanced Distributed Learning
atn.afit.edu

Federal Government Distance Learning Association
www.fgdla.org

United States Distance Learning Association
(Check to see if there's a USDLA Chapter in your state)
www.usdla.org

Georgia Distance Learning Association
gdla.net

Tradeshows & Conferences

Training 2003
Atlanta World Congress Center
Atlanta, GA
February 24-26, 2003
www.trainingconference.com

Satellite 2003
Acknowledged as one of the top satellite conferences each year. Many of the satellite manufacturers and service providers will be exhibiting.
Washington Convention Center
Washington, DC
February 26-28, 2003
www.satellite2003.com

Global Shop
March 16-18, 2003
McCormick Place
Chicago, IL
www.globalshop.org

NAB 2003
Can't miss conference for video and multimedia professionals. **Special Note:** satellite manufacturers and service providers will showcase their IP/next-generation products and services.
Las Vegas, NV
April 5-10, 2003
www.nab.org/conventions/nab2003

Collaborate/TeleCon 2003
Jacob Javits Center
New York City, NY
April 7-9, 2003
www.collaborateexpos.com

Learning & Training Week
Washington Convention Center
Washington, D.C.
April 28-May 1, 2003
www.learningandtrainingweek.com

CMMA Conference
(For members & media managers who qualify for membership)
Contact Enliten for information.
Washington, DC

include synchronous and asynchronous components such as interactive video based instruction, printed materials, elearning over the Internet, computer-based training (CD-ROM and DVD) and, of course, classroom training. The idea of blended media, however, is not new, as any instructional designer of distance learning has known for over a decade.

In general, I believe distance learning has a bright future. It's an irresistible idea whose time has come, but as I said, needs to "grow up."

ENLITEN: What is USDLA doing to promote and enhance Distance Learning?

Phil: Simply put, the mission of USDLA is to support the development and application of distance learning. We provide national leadership in the field of distance learning for all sectors, Corporate, Higher Education, Government, and K-12. We do this by being the national advocate for distance learning, by providing valuable information and opportunities to collaborate. We strive to be a catalyst for the formation of partnerships among all sectors. We also represent the distance learning community before government policy and regulatory bodies, and we support charter state chapters of USDLA to serve local interests and collaboration. We also provide annual recognition and awards of outstanding achievements in distance learning and the e-learning Conference and Exposition in April of each year. We also provide our members online publications, such as our *USDLA Journal*, on trends and research in the field. We conduct national policy forums to provide support and focus for our national leadership. We also offer low-cost satellite time to non-profit organizations who need a large telecommunications network to reach a widely dispersed constituency. For more details about our activities, you can go to our Web site at www.usdla.org. We encourage all individuals to join our organization and our chapter affiliates. Membership and corporate sponsorship in USDLA will prove to many to be professionally very rewarding.

ENLITEN: Phil, you mention synchronous and live interaction. How does satellite play a role in this application for delivery of Distance Learning?

PHIL: Satellite delivery, despite all the online hype to the contrary, will continue to be a significant player in distance learning. If we can get away from the idea that the next technology replaces all previously used technologies, I think we can reasonably assert that satellite, like all the other traditional media, has a future. Now, that doesn't mean things aren't changing, but how, when, and by whom these technologies will be employed will change over time. For example, we still use radios, telephones, and print to communicate—distance learning is a subset of communication. So, I don't see distance learning restricting itself to a single medium—such as the desktop computer. What will happen is that some technologies will evolve, as will satellite, to meet evolving needs. For example, live satellite distance learning may grow in use, or it may not; I can't predict the future needs of all sectors in distance learning, but I can see the growing trend to use satellite to bypass the Internet. Satellite can inexpensively transmit to numerous sites enormous amounts of information that demand large amounts of bandwidth. Whether broadcasting live video or transferring large files, the need for this type of transmission is not going away.

ENLITEN: How are terrestrial and satellite-based deliveries suited for live Distance Learning?

PHIL: Certainly, wireline communications have become increasingly efficient, but bandwidth restrictions—and now firewall restrictions—haven't gone away. Most of us realize that the need for bandwidth-hungry applications is growing (in some cases) faster than the infrastructure can keep up with. Let's also remember that with wireline, costs for transmission grow proportionately with the number of sites being reached.

For satellite, the larger the number of sites to be reached, the more cost-effective this technology becomes. Because bandwidth access is problematic, transmission of video (live or delayed) is usually reduced in quality when transmitted by wireline.

The Hilton McLean Tysons Corner
May 17-20, 2003
www.cmma.net

Retail Systems 2003/VICS Collaborative Commerce

June 9-12, 2003
McCormick Place
Chicago, IL
www.retailsystems.com

Satellite Internet Forum

June 17-19, 2003
Renaissance Hotel
Washington, D.C.
www.actconferences.com

DV EXPO East: 2003

Jacob K. Javitz Center
New York, NY
July 7-11, 2003
www.dvexpo.com/east

Contentworld

October 2003
More Info TBD
www.contentworld.com

Industry Related Publications

Satellite Publications

Via Satellite
www.viasatellite.com

Training Publications

e-Learning
www.elearningmag.com

Training
www.trainingmag.com

Video Production/Systems Publications

AV Multimedia Producer
www.avvmpp.com

Broadcast Engineering
www.broadcastengineering.com

Government Video
www.governmentvideo.com

Millimeter
www.millimeter.com

Presentations
www.presentations.com

Video Systems
www.videosystems.com

Let's remember that for military personnel in forward areas, the only means of communication are wireless technologies. Even within our own borders, remote areas require the use of satellite for distance learning or television viewing. Satellite receive sites are easy and cost-effective to deploy. Satellite can transmit not only the traditional video, but can transmit computer-based instructional programs to servers the world over without being hampered by bandwidth restrictions or network firewalls (if originated from within an organization's own firewall). The bottom line should be obvious to all—different needs require different technologies.

I can't emphasize enough that the most important question is: "What is the learning objective?" The mistake many in distance learning continue to make is selecting a technology that is inappropriate for the need or application. People are enamored with what's new, with the latest buzzwords, and look past the tried-and-true. Media selection should never be about what is new, but what is effective. If print materials can best meet certain learning objectives, so be it; if it's to be Web-based, so be it; if it's best by videoconferencing or interactive television, so be it. You don't want instructors to be constrained by bandwidth in using all available multimedia that can be used in the traditional classroom.

So to answer your earlier question, satellite is a flexible, viable technology for distance learning now and in the foreseeable future.

ENLITEN: What is your perspective of satellite-based Distance Learning versus in-classroom training?

PHIL: I believe one of the simplest ways to get into distance learning for courses that are lecture-based is satellite. Interactive television (ITV) emulates the classroom at a distance—it's the transition to distance learning that requires the least amount of effort. Instructors can achieve the same levels of learning they had with their residence courses. If the infrastructure is in place, development costs for ITV may be next to nothing, and time to convert to ITV can be done in a matter of weeks with a modest amount of training for the instructor. In contrast, changing a classroom lecture into a Web based medium may take many months and many dollars to convert, depending on the level of sophistication the courseware will have.

Let me digress on one point, however. Obviously if the class has special psychomotor skills development as part of the course, use of any distance learning medium becomes problematic. On-site, on-the-job training is the work-around for addressing the requirement. Of course, simulation programs can address some psychomotor skill development but the costs of simulator development can be cost prohibitive. I should add that simulation can be done on-line or via satellite.

As far as general effectiveness as a medium, it is consistently reported by users of ITV that student performance is at least equal to residence classes. Costs are very low—especially for those who get large-volume discounts like the Government's GETN consortium. Direct costs (travel and per diem) have been reported as low as 10% of the cost of residence training. If the cost of maintenance and personnel are added, the costs are approximately 20% of residence instruction—savings are significant. (For more details, visit <http://atn.afit.edu>) I should also add that drop out rates are very low—in the 10% range. This is mostly due to the synchronous aspect of learning.

ENLITEN: Please provide your thoughts on satellite-based vs. web-based Distance Learning?

PHIL: Let me begin by saying that essentially all media, when used appropriately, will result in student performance equal to that of residence instruction. That said, however, there is a significant difference in learning outcomes between synchronous and asynchronous learning. Purely asynchronous programs have significantly higher drop out rates in all sectors—many report dropout rates as high as 70%. It's popular to believe

Advertising, Marketing, Promotions Publications

Advertising Age
www.adage.com

Behind the Themes
(Theme based entertainment)
www.themeit.com

Display & Design Ideas
www.ddimagazine.com

Kiosk
www.kiosk.com

POP Times
www.poptimes.com

Sound & Communications
www.soundandcommunications.com

System Contractor
www.systemscontractor.com

Sound & Video Contractor
www.svconline.com

IS-Internet Related Publications

America's Network
www.americasnetwork.com

Baseline
www.baselinemag.com

Communications News
www.comnews.com

CRN
www.crn.com

EBN
www.ebnonline.com

eWeek
www.eweek.com

Information Week
www.informationweek.com

Integrated Solutions
www.integratedsolutionsmag.com

Internet World
www.internetworld.com

Network Computing
www.networkfusion.com

Telecommunications
www.telecommagazine.com

WDM Solutions
www.wdm-solutionsmag.com

that this statistic is mostly attributable to poor course design—undeniably, that is a contributing factor—but I am convinced it is mostly due to the human condition: some are highly self-disciplined but most of us are not. Our “anytime, anywhere” learning program too often turns into “not now, maybe later.”

However, there are clearly some learning activities for which web-based learning would be ideally suited, and where synchronous media would be inappropriate. If indeed we have the incapacity to bring students and instructors together at the right time or the right place, then asynchronous online instruction is a highly flexible medium so long as one has access to the host server. It is especially appropriate for short courses (an hour, perhaps two) required to be taken during work, or where time cannot be easily structured. It is common to see a blend of both synchronous and asynchronous media—for example, ITV courses with references or supplemental material available on the Web.

For longer-term courses, it is obvious that the typical office is a very poor location in which to learn; and the home environment may be only a little better. The classroom is a better environment to learn in than either home or work. For Web based, or elearning, computer labs are effective, providing an environment in which the student is not distracted. An advantage to Web (as well as any asynchronous medium) is that it allows students to pace themselves at a rate in which they can learn most effectively. With satellite, as with any synchronous delivery method—everyone has to learn essentially at the same pace, or find extra time to “catch up with the group.”

ENLITEN: Looking through a crystal ball, where do you see distance learning going?

PHIL: I believe that distance learning will see slow growth for the foreseeable future. The slow, poor economy will continue to have a negative impact, of course. Funding of distance learning will continue to be a problem.

However, distance learning is just too beneficial and cost effective to be overlooked by anyone. Over time, technologies will fall in and out of popularity. Technologies such as satellite-based distance learning will continue to prove their value. Especially as IP multicasting via satellite becomes more prevalent.

Refer to ENLITEN NOTE below for comments on IP multicasting.

ENLITEN: In summary, what do you see as the key benefits of satellite-based Distance Learning?

PHIL: First, satellite-based interactive distance learning has a global reach. It is a highly effective force multiplier, which means that it can reach virtually anybody, anywhere, anytime with any course whether video, computer based, or print.

Second, it preserves academic quality, supports all levels of learning. In addition, it meets learning objectives that require high quality video and high levels of interactivity. It's timely, responsive to frequent updates and facilitates rapid dissemination. The course conversion is relatively simple. Also, satellite-based interactive distance learning experiences relatively low dropout rates.

Third, satellite-based interactive distance learning saves typically 80% the cost of travel and per diem versus in residence training. For other approaches, it may take years to recognize this degree of savings. Return on investment (ROI) is immediate—development costs in most cases are negligible.

Fourth. It can be interoperable. At least for the government sector, through GETN, departments and agencies are able to fully interact with each other. Resources, both physical and human, can be shared, avoiding needless duplications of programming.

Organizations & Associations

Communications Media Management Association
www.cmma.net

Government Education and Training Network
Distance Learning through Interactive Television
getn.govdl.org

Federal Government Distance Learning Association
www.fgdla.org

Society of Satellite Professionals International
www.sspi.org

Teletraining Institute
www.teletrain.com

United States Distance Learning Association
www.usdla.org

So... You think You're a e-Learning Professional?*

If a homeless person asks you for spare cash (cache), do you give him 16Mb of RAM?

Do you know that LMS is not a Chevy truck?

Do you know that F2F (face-to-face) is not an acronym for a swear word?

Do you know that a chat room is not a room in your home?

If your distant cousin asks for your address and you give him your URL?

Do your kids refer to you as mommyanddaddy@home.com?

*Dr. Jolly Holden's Points to Ponder

Feedback

We encourage your feedback and input in making **Page of Enlightenment** an effective means of providing you with information on industry related trends, solutions and suppliers. Please forward your suggestions or requests to us at enliten@enliten.net regarding the topics, products, services or companies that you would like us to include.

For more information on the topics presented in this communication, please visit the Enliten web site (www.enliten.net) or contact an Enliten representative at 770/590-1590.

ENLITEN: How can industry suppliers and users support the USDLA?

PHIL: Let me encourage all suppliers and users of distance learning to join with us in a mutually beneficial professional relationship. As our membership and sponsorship increase, we are better able to meet the mission and goals of the organization thereby increasing exposure of our supporters to more lucrative commercial associations—through conferences, speaking and demonstration opportunities, and exposure on our Web site. (USDLA pops up first on a Google Search for Distance Learning.) We gain from exposure by those corporate sponsors who benefit from their association with us—word gets around. Keep in mind, that the USDLA is the only organization dedicated to promoting, advancing distance learning.

ENLITEN NOTE: Phil makes excellent points: the economy is taking its toll on distance learning; nonetheless, IP multicasting over satellite is establishing a foothold. In the past year, the number of IP satellite-based multicast networks has nearly doubled, albeit a relatively small number at this time. This technology transition is similar in duration and manner to previous significant upgrades, including analog to compressed digital and then to MPEG2 and DVB.

IP multicasting technologies have matured and the enterprise users have identified their applications. IP multicasting technologies are the logical, if not ideal, next generation solution:

- **Quality transmissions at less bandwidth**
- **Content management and tracking**
- **Streaming to the desktop**
- **Caching (storage) of content**
- **On-demand playback**
- **Electronic Program Guides**
- **Digital display, digital signage**



An overview of GETN can be found at the Enliten (www.enliten.net) and GETN (<http://getn.govdl.org>) Web sites.

Information about the iLearning web cast March 20, 2003 on *Visual Communications & e-Learning Using Satellite*, featuring Enliten's Randy Palubiak and Dr. Jolly Holden, will be provided in the next issues of Page of Enlightenment. The program is part of iLearning's ongoing **KNOWLEDGE** Transfer Online Seminar Series.