Distance Learning:
Enabling the Race to the Top

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Submitted by:
John G. Flores, Ph.D.
Executive Director
United States Distance learning Association

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INTRODUCTION

About this document

This document was prepared by the United States Distance Learning Association to provide an overview of the current state — the realities, possibilities, and promise — of distance learning today.

About the USDLA

USDLA Sponsors and Members are operating in and influencing the majority of an estimated $913 Billion dollar U.S. Education and Training Market.

The United States Distance Learning Association (USDLA) members are the decision makers influencing the design, implementation, and investment strategies for distance education and training programs globally. Founded in 1987 as the first nonprofit Distance Learning association in the United States, USDLA supports Distance Learning research, development and praxis across the complete arena of education, training and communications. USDLA was founded on the premise of creating a powerful alliance to meet the burgeoning education and training needs of learning communities via new concepts of the fusion of communication technologies with learning in broad multidiscipline applications. The distance education and training constituencies served, and the percentage of membership, include: pre K-12 (26%), higher and continuing education (63%), corporate training (19%), military (11%) and government training (19%), home schooling (7%), telemedicine (6%) and other (8%).

Mission: To serve the distance learning community by providing advocacy, information, networking and opportunity.

In addition, USDLA is focused on international technology based Distance Learning and partners with leading distance learning associations around the world including:

- Observatory of Borderless Higher Education (OBHE)
- European Distance Education Network (EDEN)
- Canadian Distance Leaning Association (CADE)
- Brazil Distance Learning Association (BDLA)
- Global Development Learning Network (GDLN) via the World Bank
- European Association for Distance Learning (ICDE)
- African Distance Learning Association (ADLA)
- International Association for Distance Learning (IADL)

For more information

Please contact:

John G. Flores, Ph.D.
Executive Director
United Distance Learning Association
8 Winter Street, Suite 508
Boston, MA 02108

Phone: 617-399-1770
Fax: 617-399-1771
Email: jflores@usdla.org

DISTANCE LEARNING IS ...

... for every learner, everywhere

One of the biggest and most common misconceptions is that the term "distance learning" applies only to K-12 learners and only to K-12 learners in rural areas. In reality, distance learning today is not just for kids.

It's about using available technologies and technology infrastructures to make *more effective* learning opportunities more accessible to all learners, whatever their age, location, or reason for learning.

For example, distance learning is used by (the):

- U.S. government to train military
- State governments to train emergency responders of all kinds
- Red Cross to train volunteers
- Healthcare associations and providers to educate their employees and patients
- Associations to train and certify entire industries and economic sectors
- Corporations to train their workforce, consumers, distributors, and partners
- Virtual schools to train the next generation of teachers
- Organizations to cut greenhouse gases.

Distance learning:

- allows for a personalized learning experience with regard to the individual interests, achievement level, life circumstance and goals of each student.

- may be accessed from anywhere, at any time, and at any pace, in accordance with the individual needs of each student.

- promotes 21st century skills such as collaboration, civic literacy, global awareness and a constructivist pedagogy facilitating the use of higher order thinking such as creative problem solving.

- most closely resembles the manner in which work will occur and economies will expand in this century, remotely and in collaboration with multiple and diverse stakeholders.

- easily allows for the process of learning to be captured, researched, and archived for continual enhancement and expansion.

- allows for greater quality control and adherence to best practices in teaching and learning as curricula are guaranteed, instruction closely monitored, and assessment rubrics common and consistent.

... leveraging every available technology to enhance learning...

Another common misconception is that "distance learning" refers only to video conferencing or some other specific type of technology. In fact, the term "distance learning" encompasses the full array of current and emerging technologies organizations are using to deliver educational experiences and products.

Distance learning includes e-learning, texting, social networking, virtual worlds, game-based learning, webinars. It's the Internet. It's Google. It's broadband and satellite and cable and wireless. Corporate universities. Virtual universities. Blended learning, mobile learning. It's using our phones and computers and whatever technology comes next, in new ways.

Distance learning brings education and training to where students or trainees are connecting their world to worldwide learning communities.

... *already* making a difference for millions of learners every day

Distance learning has advanced nationally and globally to a much higher degree than many people realize. For the 2006-2007 academic year, the U.S. Department of Education reported that

- An estimated 12.2 million learners registered in college-level credit-granting distance education courses…
- Approximately 11,200 college-level programs were designed to be completed *totally* through distance education…
- 66% of the 4,160 2-year and 4-year Title IV degree-granting postsecondary institutions in the nation offered college-level distance education courses…

In addition, many more millions of learners are taking advantage of online learning programs offered by K12 institutions, corporate universities, associations and non-profit organizations. For example,

- More than 2.3 million hours of distributed learning takes place in the U.S. Military every year

  o Deployed military personnel are in more remote areas of the world than our U.S. based learner populations
  o Accountability and quality of this instruction is measured in terms reduced U.S. military casualties and military efficiencies

- U.S. Nurses complete more than 1.7 million hours of distributed learning every year to maintain their certifications and enhance their employability

  o Accountability and quality of this instruction is measured in countless lives saved and patients who regain their health everyday

- More than 3 million U.S. skilled workers annually complete technical industry certification courses (programming, database management, network administration, information technology, HVAC, telecommunications, automotive repair, building trades, etc.) through distributed learning.

- 1.64 million K-12 students were enrolled in at least one online course in 2008
- Every year, corporate universities at leading companies such as Coca-Cola, HSBC, Pfizer, UBS, and Tellabs rely heavily on distance learning to train millions of workers…
- Associations and non-profits from the National Restaurant Association to the American Medical Association and the Red Cross are using distance learning to provide lifelong learning in every sector, and attempting to bridge important learning gaps in our current educational system, from helping workers obtain and maintain certifications in regulated industries to providing critical finance and health education...

… critical to American competitiveness

In today's fast-paced global, economic environment — which requires constant innovation, upskilling, and reskilling — lifelong learning is imperative, and distance learning is the *only* efficient, scalable, sustainable way to build and protect the value of our current and future workforce.

Some historians trace the failure of the Soviet Union to Russia's pre-revolutionary hesitance to implement a national railroad and highway system. The United States today is similarly at risk of losing economic advantage to nations that are more aggressive and swift in their advance along the Information Superhighway.

In the current Knowledge Economy and Conceptual Age, distance learning arguably also presents our richest opportunities for new business and product innovation. Here is just a tiny sampling of how other nations are using distance learning to obtain competitive advantage.

- **China** now has three of the world's mega-universities, institutions in which over 100,000 students use largely distance learning methods. Its Ministry of Education is actively promoting innovative forms of distance education and hopes its strategy for promoting lifelong learning will be adopted worldwide…
- **Korea** via the Korea Education & Research Information Service with 16 Metropolitan & Provincial Offices of Education (MPOE) deployed a Learning System model using 16 different Learning Management Systems (LMS's) to connect 6,147 Cyber Teachers, 1.6 million students and 2,692 parent tutors for an estimated cost savings of $40 billion dollars per year by using the Sharable Content Object Reference Model (SCORM) (U.S. developed) standard.
- **Europe** is aggressively collaborating to achieve integrated distance learning policy and infrastructure across the European Union, including working out the issues in cross-national credentialing, and is behind numerous cross-national commissions and summits on distance learning topic…
- **India** is home to at least 11 open universities in India providing distance education for those who are interested in taking up professional courses or any other educational course of their interest, and over 50 distance learning organizations catering to the needs of higher education in India.
- **Latin America.** The Instituto Latinoamericano de la Comunicacion Educativa (ILCE) is an international organization comprising 13 countries collaborating to provide distance learning programs throughout Latin America...
- **Mexico** launched the National Online University this Fall and enrolled over 35,000 students in two weeks…

... already *green*

Distance learning has a much smaller environmental footprint than traditional educational delivery mechanisms and promotes increasingly green enterprise innovation.

Learners and instructors who participate in distance learning travel less often and far. The designers and manufacturers of distance learning products and services are increasingly able to work from home, reducing need for travel and heating and air conditioning office spaces. Digital education products produced by a number of companies are inherently "paperless" and reduce economic and environmental costs of transporting and storing textbooks.

A few interesting statistics include (Survey by the Association of Corporate Travel Executives):

- Global Knowledge prevents more than 4.4 million points of CO_2 /month (20 pounds of CO_2 equals burning one gallon of gasoline).
- Global Knowledge saves more than 200,000 gallons of gas per month
- 35 percent of organizational travel departments now require carbon emissions information be provided, up from 20 percent in 2006,
- 36 percent reported reduced travel as a measure for supporting sustainability, up from 23 percent a year earlier.
- Distance Learning supports these green initiatives.

DISTANCE LEARNING HAS POTENTIAL…

… to create millions of great jobs

A common myth is that distance learning *replaces* workers. Actually, as with every major technology innovation, distance learning is creating some of the most interesting, flexible, and rewarding jobs on the planet.

Distance learning requires every type of knowledge worker, and lots of them, from business, technology, and education leaders to professional writers, artists, software engineers, teachers, trainers, sales people, project managers, advertising and marketing specialists, and hundreds of other professions whose names are only now emerging. Distance learning professionals are developing highly transferable skills, frequently able to work from their homes, and producing products that advance our national interests.

… to deliver unique advantages over "old-school" models

Unlike traditional educational models, distance learning:

- Is not bound by geography *or* time – and can therefore reach more people more conveniently
- Automates many administrative functions so educators can focus on quality of teaching and content
- Enables instantaneous aggregation and analysis of immediate and historical learner data, from individual to small group and national group performance
- Allows for unprecedented customization of the learning content and experience to learner needs and preferences
- Makes it harder to accidentally leave any give learner or class of learners "behind," while allowing learner who are able and motivated to fly ahead unfettered
- Can be updated, improved, and deployed far more quickly and cost effectively, as needed to accommodate change and keep learning content current and relevant

… to take "assessment" to a whole new level

Online assessment is inherently more efficient and valuable than paper-based methods because it permits instantaneous tracking of data and introduces opportunities to aggregate and analyze data as needed to inform continuous improvement at every level. It also better lends itself to authentic, project-based assessments focused on higher order thinking and the use of common quality rubrics.

Innovation in online learning however, is taking the very nature of the conventional standardized test to a whole new level. Traditionally, learners complete a paper-based test to demonstrate to others what they know. New and improved online assessment models take advantage of the testing opportunity to inform learners and advance their learning. For example, one program factors in "degrees" of knowing to provide analysts more informative and useful data about the QUALITY of knowledge, while channeling learners to learning activities associated with each test question so they can take advantage of the teachable moment and learn from the testing experience.

Confidence and mastery-based learning models are only possible online, and are extremely critical to highly regulated industries, such as healthcare and national security, where not taking the opportunity to expose and correct confidently-held misinformation has dire consequences.

... to increase student achievement and performance

Research data on increases in student achievement and performance when using distance learning versus the traditional classroom has been overwhelming positive. The North Central Regional Education Laboratory's (NCREL) report, *Synthesis of New Research on K-12 Online Learning* outlined that *:* "One conclusion seems clear: On average, students seem to perform equally well or better academically in online learning." (p. 17)

And, the United States Department of Education, *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies (May 2009)* confirms the positive impact *of* online learning with its conclusion that *"*The overall finding of the meta-analysis is that classes with online learning (whether taught completely online or blended) on average produce stronger student learning outcomes than do classes with solely face-to-face instruction."

... to produce better teachers, schools, and principals

Online learning is producing better teachers. According to the North Central Regional Education Laboratory's (NCREL) Synthesis of New Research on K-12 Online Learning:

Teachers who teach online reported positive improvements in face-to-face, too. "Of those who reported teaching face-to-face while teaching online or subsequently, three in four reported a positive impact on their face-to-face teaching." (p. 25)

Our schools are better because online learning is meeting the specific needs of a much wider range of students, from those who need extra help and credit recovery to those who want to take Advanced Placement and college-level courses. Availability of online learning in rural school districts is a lifeline and enables them to provide students with course choices and in some cases, the basic courses that should be part of every curriculum.

With online learning teachers facilitate learning through a high quality, guaranteed curriculum and the use of common assessments. Choice, performance-based funding, and an emphasis on customer service promotes personalization and an engaging learning experience for each unique student.

Distance learning focuses the mission of schools on student achievement and creating the conditions in which each student has a personalized, high quality learning experience. This focus places school administrators in the position of instructional leaders.

Distance learning is the most seamless process for students to move from "classroom" to workforce, life, and community, as distance learning is, by its very nature, already immersed in each.

... to deliver more per dollar invested

Distance learning is cost-effective, as it focuses resources on student achievement rather than transportation, facilities and other overhead and capital expenses. It is an efficient process, facilitating learning through the use of technology rather than expensive, physical spaces and places, saving time and money.

... to contribute to national security

Distance learning can contribute to emergency preparedness, emergency response and all areas of health education. It can be used by federal, state and local authorities to respond to large and/or unprecedented attacks on our nation. It can be used to continue continuity of services if a terrorist organization or pandemic outbreak disrupts our entire country or city school district, or community. For our nation's security, all Americans should be able to network with the ability to access alternative procedures to assure continuity of education, work, health care and government operations.

KEY CHALLENGES AND OPPORTUNITIES

Ensuring interoperability of technologies

The technology industry must use and embrace a suite of technical standards (eg. *Sharable Content Object Reference Model, SCORM*) that enables web-based learning systems to find, import, share, reuse and export content in a standardized manner. These standards are aimed at all technology vendors so their tools conform to these standards. These standards create a uniform way for describing learning resources so there can be interoperability between learning solutions and domains and also between other domains. Technology growth, stability, and communication depend on interoperability across computer systems.

Eliminating the "digital divide" (aka "the last mile")

The Digital Divide is defined as the gap between those individuals and communities that have, and do not have, access to the information technologies that are transforming our lives, and there is considerable work remaining to bridge the "last mile".

Eliminating the digital divide is critical to keeping America strong and competitive. *Unfortunately, the U.S. is already starting to lose the race. The U.S. ranked an extremely disappointing #19 in the top countries with the highest Internet broadband penetration rate in the world in 2007. Additionally, the U.S. also ranked a sad 7th in the top world countries with the highest Internet Broadband subscribers.* If this is not bad enough, Forrester estimates that European broadband penetration will reach 71% by 2013. Actually, by 2013 the Netherlands and Denmark will lead broadband penetration with 85% for each. The UK is predicted to have 82% broadband penetration with Germany facing 72% and France expecting to reach 69% broadband penetration. America's economic future hinges on ensuring that underserved individuals and communities can access education and tools to improve the quality of their lives.

One consideration might be to author legislation that would introduce a new concept for "Free and Reduced Connectivity" for secondary and post-secondary learners who remain in school. This program would encourage learners who qualify for "Free and Reduced" lunch to identify themselves in order to achieve the level of connectivity (broadband/3G/WiFi/WiMAX/Satellite/etc.) necessary to achieve their education and social objectives. A higher level of identification in secondary and post-secondary learner populations will result in more funding for all schools. The impact on learning could be profound! The digital divide would be dramatically reduced. Results would serve as an added incentive to stay in school as well as directly contribute to the workforce readiness of all students.

Re-tooling our workforce (including teachers)

Re-tooling will require high-tech skills and tools as well as sector-level collaboration.

A priority issue is that distance learning must also lead to a meaningful credential, whether it is a certificate of completion, certification or degree. Employers must be active partners. Since 1998,

some industries have made great strides in collaborating to develop and provide education and training to entire industries through Industry-Based Online Learning Initiatives. Each initiative

- Targets both incumbent workers and those new to the industry
- Partners with carefully selected high-performing online education and training providers;
- Is led by a broad-based industry coalition
- Provides curriculum content co-developed by industry and educational experts, and
- Reaches participants nationally and internationally

Increasing expectations and standards for quality

Instructional innovations always face the challenge of demonstrating they do not negatively impact the quality of instruction. It is important to collect and disseminate research that distance learning is an enhanced experience, not a weakened substitute for the traditional classroom.

The myths that distract and deter local and national distance learning initiatives must be dispelled once and for all. The truths, backed by research, indicate the following:

The Top 10 Truths about Online Education

Truth #1:   Cyberschooling is much, much more than homeschooling
Truth #2:   Cyberschools are for all students not only middle class white kids
Truth #3:   Cyberschool teachers admit they become better classroom teachers after teaching online
Truth #4:   Full-time online students are very interactive and do not sit in front of a computer all day
Truth #5:   Online schooling is not cheaper than traditional schooling
Truth #6:   Full-time online schools are more accountable than traditional
Truth #7:   Full-time online schooling is hard (especially for cheaters!)
Truth #8:   Cyberschooling is appropriate for younger students
Truth #9:   Full-time online schools have better test scores
Truth #10: Online students enjoy as much if not more socialization than traditional students

Structure of educational agencies

The structure of educational agencies necessitated by current federal/state/local requirements often exacerbates competition among different education segments within a state for funding and can be a disincentive to establishing benchmarks that address economic and societal needs. There is a need to facilitate cooperation among educational agencies to promote the fact that distance learning promotes education as a learning continuum, not a series of destinations.

One size does not fit all

Distance learning and the latest brain-based research can bring cutting edge, advanced, and effective technology-based educational solutions to in-class, blended and on-line distance education. The creation of pedagogy, instructional design, technology, social networking, 3-D visualization, mobile learning, simulations, animations, assessment and evaluation products that impact individualized global educational needs can be accessed by every student by distance learning. Some new technologies allow curriculum to be personalized to a learners' learning

style. Research data indicate that by using technology to structure individualized learning pathways there is an increase in learning effectiveness and efficiency as well as improvement in student engagement and evaluation measurements. With distance learning, education does not have to be a "one size fits all".

Teacher training

Although thousands of K-16 teachers and faculty take professional development training created to support virtual schooling, all teachers need to develop a comfort level using technology tools and distance learning.

U.S. teachers should be able to use online tools to:

- incorporate constructivist teaching strategies for engaging learners in a virtual environment,
- use data analysis techniques designed to assist in individualizing instruction and assessment
- differentiate instruction (i.e., learning styles, adaptive/assistive technologies, pacing, supplemental activities and remediation),
- use appropriate and effective multimedia tools and technology in instruction,
- involve, communicate, and connect with students, parents, teachers and administrators in a holistic learning environment,
- Reuse and share best practices and improve content.

Some universities and Schools of Education are moving in this direction. An example is Nova Southeastern University, Fischler School of Education and Human Services in Florida which is creating a new certification program in eTeaching. Courses include:

- Principles and Pedagogical Framework for eTeaching
- Emerging Technology for Effective eTeaching
- Advanced Instructional Design for eTeaching Courses
- Social Construction in eTeaching Practice
- Assessment and Evaluation for eTeaching

NATIONAL EFFORTS NEEDED

A voice for the $913 billion dollar U.S. education and training market

Billions of dollars are spent annually in distance learning and the education and training market.

Towards that end, the United States Distance Learning Association encourages the administration and the Secretary of Education to incorporate dialogue and discussion from the Office of Technology in School Programs in all decisions pertaining to distance learning. In past Administrations this office was viewed as a crossroads for all technology related deliberation and investigation.

National standardization and accreditation

The science, technology, and industry of distance learning are badly in need of the same level of standards, definition and professional accreditation that govern other industries.

To compete globally as a nation and establish a leadership advantage, the U.S. quickly needs to:

- Establish a national consensus on best practices of distance learning technologies
- Support standardization of data-sharing protocols and other characteristics of distance learning technologies, for example, to ensure interoperability and data security
- Create, administer, and continuously improve a normative evaluation process for online and blended programs of national importance
- Define standards for accrediting distance learning professionals and institutions
- Disseminate statistically-validated data on highly successful implementations of distance learning programs in every sector

Creation of a National Normative Database

A *National Normative Database* should collect data about the pedagogical effectiveness of all current online courses and programs offered by universities, government, and corporations, and compare them on one nationally accepted scale (e.g., 4.0 cumulative grade point average for degree programs). The United States Distance Learning Association is in the design stages of this critical national initiative. It would include the creation of:

- A national consensus on best-practices that will lead to the creation of a nationally accepted evaluation methodology to assess the pedagogical effectiveness of online and blended programs.

- An evaluation instrument that provides simple-to-use online web-services to allow colleges across the United States to evaluate their online courses and degree programs at no or nominal cost.

- A *National Normative Database* that will provide a:

- Consumer Reports on learning technology practices of the participating institutions.

- Network of leading (exemplary) institutions in blended and online learning achieving the highest learning outcomes using best-practices.

- National repository of a distance educational utilization database for further discovery of knowledge.

This United States Distance Learning Association initiative, subject to funding, will have significant national impact on the improvement of the online and blended learning offered by education, government and corporate providers. ***It will collect the necessary data to evaluate and establish best practices at the national level (normative database), identify leading exemplary institutions, and provide a "consumer report" of online and blended learning based on solid statistical data for all consumers at the national level.***

National distance learning summit

To achieve the objectives of creating a national standardization and accreditation of distance learning as well as a National Normative Database, it is imperative to establish a stakeholder body that has the expertise and knowledge to draft the standards and protocols that are so badly needed.

The United States Distance Learning Association proposes the establishment of a National Distance Education Steering Committee (NDESC) which could draft a set of White Papers proposing standards and present them at a National Distance Education Summit. Institutions attending the Summit would have an opportunity to comment on the White Papers, the proposed national standards, and the construction of the National Normative Database.

Strategic partnerships, alliances, and ventures

Our educational infrastructure is analogous to the national highway system and supply chain. Our current structure is outmoded, underdeveloped, and not serving our national interests sufficiently. Entire sectors of our population are underserved, and for much of the learning we all need, we have no public or commercial channels for deploying it to the masses. We need entirely new channels for delivering educational products, not just through schools, but in the general economy.

As a nation, we need to encourage and support innovative industry and sector-level collaboration, as well as commercial ventures aimed at addressing these structural and systemic weaknesses.

International collaboration

The distance learning ship has already sailed and infrastructure and collaborative efforts are underway in most nations of the world. The U.S. needs to establish itself as a leader in the global distance learning community in order to stay abreast of international endeavors, to learn from them, and to create possibilities for putting them to our own national advantage.

Vehicle and budgetary reforms to promote lifelong learning

What about everything else we need to learn that falls outside of any structured school program, setting, or delivery channel? We need vehicles and budgetary reforms to stimulate innovations and collaborations that promote a healthy education supply chain and broad access to all other types of learning.

Conclusion

The United States Distance Learning Association stands ready to assist in the design and implementation of the President's distance learning initiatives. Our membership provides leadership, advocacy, recognition, partnerships, access, equity and diversity in the global distance learning community.