



**EXPANDING THE CLASSROOM:
MOBILE DISTANCE LEARNING ACROSS AMERICA**

**DR. JOHN G. FLORES, Ph.D
EXECUTIVE DIRECTOR
UNITED STATES DISTANCE LEARNING ASSOCIATION
ADMINISTRATOR AND PROGRAM PROFESSOR
FISCHLER SCHOOL OF EDUCATION, NOVA SOUTHEASTERN
UNIVERSITY**



**EXPANDING THE CLASSROOM:
MOBILE DISTANCE LEARNING ACROSS AMERICA**

**DR. JOHN G. FLORES, Ph.D
EXECUTIVE DIRECTOR
UNITED STATES DISTANCE LEARNING ASSOCIATION
ADMINISTRATOR AND PROGRAM PROFESSOR
FISCHLER SCHOOL OF EDUCATION, NOVA SOUTHEASTERN UNIVERSITY**

The Mobile Learning Opportunity

Though commonly associated with computer technology, distance learning actually traces its roots to the 19th century when the University of London and the University of Chicago decided that mail was reliable enough to use for educating distance students. Towards the end of that century, the International Correspondence Schools in Scranton, PA launched the first of its distance learning programs – ultimately providing millions of students with a wide range of career certifications and degree programs.

From mail, to radio, to television, to film and now the Internet, distance learning has evolved into a major force in education. Over the course of its history, distance learning has supplemented public and private schools from Kindergarten to college and is opening new frontiers for learning for home-schooled children, the military, working adults, and corporate training. Today, another advance in technology — the wireless communication revolution — is taking distance learning to a new threshold by removing the final barriers of time and place that have kept many teachers and students of all ages from the educational opportunities they need and deserve.

The arrival of a new, fourth generation of wireless, or 4G, means that almost every American can take advantage of high-speed, broadband connectivity to connect to virtual classrooms, no matter where they live or work. With 4G service such as LTE, or “long-term evolution,” and WiMax, mobile connections will truly rival wired Internet links in providing the highest quality virtual learning experience. 4G LTE will be capable of providing even greater speeds with reduced network congestion, enhanced streaming, and fewer delays. This technology will enable students to access real-time instruction over an entirely mobile network.

With almost every national and regional carrier either already rolling out or planning to launch these advanced services, the U.S. should soon achieve President Obama’s State of the Union challenge to deliver advanced wireless service to 98 percent of Americans. The only question is whether the promise of 4G will be truncated by a looming shortage of radio spectrum, the essential invisible highway that carries wireless signals to their destination and makes mobile communications work.



Nowhere is this new opportunity more welcomed or more needed than in rural America, where a lag in broadband deployment has kept distance learning from reaching its fullest potential. To be sure, many small rural districts have already opened their arms to distance education as a way to deliver advanced learning opportunities that students might otherwise be denied. However, many of today's distance learning programs are built on broadband, a service that large pockets of rural America live without. According to the National Broadband Map, more than 20 percent of rural Americans do not have access to wired broadband and 8 percent do not have broadband available from any technology, wired or wireless.¹ The Federal Communications Commission (FCC) reports that rural schools are twice as likely as urban schools to cite lack of broadband as a barrier to using Internet-based tools for educational purposes.²

More than mere inconveniences, shortfalls in technology are a major impediment to educational and career achievement in the digital age. In too many remote communities and small towns, where distance learning may be most critical for empowering students of all ages, high-speed Internet and the educational opportunity it can deliver remain a promise unfulfilled.

Education Challenges in Rural America: Short Circuiting the American Dream

In our mind's eye, we may romanticize the rural school. We see eager students and committed teachers who make up for limited resources through the force of their will and dedication. In reality, resources *do* matter and, more often than not, students and teachers who work with fewer tools will achieve less. The numbers tell the tale.

As in the rest of the country, one quarter of rural students quit high school before receiving their diploma, but rural Americans are much less likely than city and suburban dwellers to graduate from college. According to a report by the Alliance for Excellent Education, only 17 percent of rural adults age 25 and over complete college. That is roughly half the college completion rate of urban adults.³

In today's knowledge-based economy, the high rate of drop-outs, and the low rate of college completion, foreshadows economic struggle for rural students, many minority youngsters and the communities where they live. As the Alliance for Excellent Education explains:

“While a high school diploma was once sufficient to secure a stable job with benefits, nearly two thirds of new jobs created in the fastest-growing sectors the economy will require some postsecondary education.

¹ Bennett, Richard, “Rural Broadband: Are We There Yet?” Information Technology and Innovation Foundation (ITIF), May 2011, <http://itif.org/publications/rural-broadband-are-we-there-yetA>

² Federal Communications Commission, “2010 E-Rate Program and Broadband Usage Report,” http://transition.fcc.gov/010511_Eratereport.pdf

³ Alliance for Excellent Education, “Current Challenges and Opportunities in Preparing Rural High School Students for Success in College and Careers: What Federal Policymakers Need to Know,” February 2010, <http://www.all4ed.org/files/RuralHSReportChallengesOpps.pdf>



“In addition, higher level skills are needed to meet the growing diversity of the rural workplace as local markets expand beyond natural-resource-dependent industries to adapt to a knowledge-based economy. In a rapidly changing workforce, the quality of high schools has a direct impact on the future economic success of both rural communities and the nation.”⁴

Distance Learning Can Boost Rural Schools

The small size and limited resources of many rural school districts create a number of challenges. Smaller student bodies *can* have advantages when they translate into smaller classes and more individualized attention for students. However, when money is tight, rural school districts cannot afford their ideal number of teachers, negating the possible gain from smaller student-to-teacher ratios. More significantly, in good budget times or bad, small districts may be unable to address the special needs of their most talented students for Advanced Placement, International Baccalaureate or specialized curriculum such as Chinese language or advanced math courses. Too often, cash-strapped rural school districts — and poorer urban ones — simply do not have the dollars for courses that will benefit only a small percentage of their student population. Indeed, given budget issues nationwide, every school district can potentially benefit from the cost efficiency of distance learning.

Rural students, however, are sometimes faced with other obstacles given limited broadband availability. More than 30 percent of rural students attend high schools where Advanced Placement courses are not available, compared to about seven percent of city students and four percent of their suburban counterparts.⁵ This can be a significant disadvantage when seeking admission to college, as many talented rural students simply do not have the academic records to match up to urban peers or meet university expectations.

Once they get to college, some may need to take remediation courses in order to operate at the same level as students from larger and wealthier school districts. Indeed, as many as one-third of students entering higher education enroll in some sort of remedial or developmental course, a class in the basics of reading, English or math covering material they should have learned in high school, according to a recent report by the Alliance for Excellent Education.⁶ Community colleges offer another alternative path for rural students who need to fill gaps before moving to a four-year college or university. While large numbers of rural students continue to dream big and draw on their own determination to succeed in college, too many others swallow their aspirations or shy away, their potential unfulfilled.

⁴ Alliance, *ibid*

⁵ Alliance, *ibid*

⁶ <http://www.suntimes.com/news/education/5189336-418/report-over-a-third-of-students-entering-college-need-remedial-help.html>



Distance learning is part of the answer. By delivering high-end college preparatory coursework as well as classes for students with unique interests, distance learning enables students in thousands of school districts across the country to learn at a cost that every school system can afford. Spreading costs in this way enables school districts to enjoy the benefits of scale, no matter their size or budget limits. With 4G wireless networks now reaching into parts of America that have had limited — if any — broadband, distance learning can play an even bigger role in giving students the opportunity to enjoy the academic options and coursework necessary to succeed in the 21st Century.

Timothy Snyder, executive director of New Mexico’s state-supported Innovative Digital Education and Learning Initiative puts it this way, “Students from small schools just did not have the same opportunities as their peers at larger schools,” says Snyder. “This program certainly served as an equalizer and reduced that gap in opportunity.”⁷

Similarly, an administrator in a small rural school district told Babson College researchers: “Being a small district with limited revenue sources we are looking at ways to increase our course offerings for students without the expense of hiring costly personnel. Affordable online classes would help us offer more opportunities for our students.”⁸

Distance Learning is Quality Learning

Distance learning is not a second choice or “better than nothing” alternative; it is a quality option and real solution for students in all districts whether they are rural, suburban or urban. As noted in previous publications from the United States Distance Learning Association (USDLA), a range of studies shows that distance learning, either as a stand-alone offering or combined with on-site classroom instruction in “blended” courses, matches or exceeds traditional school in meeting students’ needs.⁹ Distance learning has a track record for higher student completion rates and greater student satisfaction, and it has yet to reach its limits. As with every form of education, distance learning is a continuous journey of evolution to enable even more effective learning and uncover instructional techniques to match individual learning styles.

The FCC observes in its National Broadband Plan of March 2010:

⁷ Rapp, Dennis, “Tech Goes Rural,” Administrator Magazine: Technology, <http://www2.scholastic.com/browse/article.jsp?id=3751488>

⁸ Picciano, Anthony G., and Seaman, Jeff, “K-12 Online Learning: A Survey of U.S. School District Administrators,” Babson Survey Research Group – Hunter College-CUNY, 2007, http://sloanconsortium.org/publications/survey/K-12_06

⁹ Flores, John, “Enabled by Broadband, Education Enters a New Frontier,” John Flores, U.S. Distance Learning Association (USDLA), November 2010, http://www.usdla.org/assets/pdf_files/OnlineWhitePaper-V10312.pdf



“There is strong evidence that online learning classes do not sacrifice quality of instruction for convenience and efficiency. For example, students attending Florida Virtual Schools (FLVS) earned higher AP scores and outscored the state’s standardized assessment average by more than 15 percentage points in grades 6 through 10.

“Students at Oregon Connections Academy met or exceeded state achievement averages and students in the Florida Virtual School consistently outscored state test averages. In its first year, the Missouri Virtual Instruction Program showed significantly improved achievement for its students compared with the same students’ achievement in the same subject the previous year; greater percentages of these students scored 3 or higher on AP exams than their peers.”¹⁰

Indeed, an increasing number of educators and other social observers argue that distance learning techniques, combined with a range of online resources that students can access with their mobile devices can provide an important new model for education in the 21st Century. No matter where you live, distance learning, made possible by advanced wireless broadband, is changing the way we learn and think. As USDLA notes in November 2010:

“With the continuing evolution of technology and the growing experience with digital resources, teachers and students in traditional classrooms are increasingly using online tools for “blended learning” — a combination of online class and offline interaction — that enables them to combine traditional learning with online work to broaden their horizons. Visiting lecturers by online experts and teachers, virtual tours of historic sites, science labs, or museums, and Twitter dialogues are becoming part of the classroom experience — just as earlier generations embraced voice recording, radio, television, and video to their educational toolkit.”¹¹

Expanding Learning Beyond the Classroom

From course and degree offerings from long-established distance learning institutions, to online video learning from initiatives like TED, distance learning is empowering educators to try new approaches tailored to their own students and classrooms.

For example, students can watch instructional videos, take virtual tours of museums, or visit Websites such as TED to watch world-renowned speakers from home or elsewhere on their mobile device and use the classroom for discussions that dig in deeper and share their own thoughts.

¹⁰ Federal Communications Commission, National Broadband Plan, pp.227-228, March 2010, <http://www.broadband.gov/plan/>

¹¹ Flores, op.cit.



Distance learning also offers a way back to school for dropouts, older citizens, workers, and others for whom attending a classroom full time may not be practical. Says one school administrator:

“This is a way to differentiate for students. It should allow for students to extend learning beyond the regular school day or provide alternate learning environment for students who do not do well in the school setting.”¹²

To Athabasca University (Alberta, Canada) professor Mohamed Ally, distance learning should be a fundamental part of the educational toolkit. As he wrote in his award-winning book on mobile learning:

“Mobile learning through the use of wireless mobile technology allows anyone to access information and learning materials from anywhere and anytime. As a result, learners have control of when they want to learn and from which location they want to learn. Also, all humans have the right to access materials and information to improve their quality of life regardless of where they live, their status, and their culture.

“A major benefit of using wireless and mobile technology is to reach people who live in remote locations where there are no schools, teachers, or libraries. Mobile technology can be used to deliver instruction and information to these remote regions without having people leave their geographic areas. This will benefit communities in such places since students and workers will not have to leave their families and jobs to go to a different location to learn or to access information.”¹³

Distance Learning in Rural America

Many school districts and state governments are already working hard to enhance educational opportunities in rural communities and small towns, with some online school programs such as the CyberSchool Project in Eugene, Oregon and the Florida Virtual School now well into their second decade.

Among newer initiatives are the New Hampshire Virtual Learning Academy, launched by the New Hampshire Board of Education in May 2007, to expand course options for the state’s largely rural student body; New Mexico’s Innovative Digital Education and Learning in New Mexico (“IDEAL – NM”); and North Carolina’s eLearning Program.

Each state chose an approach designed for their unique local circumstances.

¹² Picciano and Seaman, op.cit.

¹³ Ally, Mohamed, “Mobile Learning: Transforming the Delivery of Education and Training,” AU Press, 2009, http://mlearning.danysto.info/library/files/99Z_Mohamed_Ally_2009-MobileLearning.pdf



New Hampshire set up a stand-alone online school that grants class credits and awards diplomas to individual students who seek admission to the school. Students work at their own pace, so that a strong math student might zip through algebra in 15 weeks, while a weaker student might take more than twice as long. The virtual school “provides students with flexibility, choice, a personalized learning environment, and the opportunity to learn using the latest technology,” the academy website notes. “Most importantly, the Academy provides every NH high school student with an equal learning opportunity.”¹⁴ Among the academy’s biggest challenges is the limited availability of broadband in some parts of the state.

New Mexico eschewed the stand-alone model because it did not want to “compete” with existing schools. Instead IDEAL – NM provides an inventory of classes that school districts can include in their offerings. To gain access to the courses, school districts pay a small portion of a teacher’s salary. Spreading the cost across multiple school districts enables each district to offer its students a wider range of classes at a much lower cost than hiring full-time teachers to work in a single local school. Founded in 2006, the program offers some five dozen courses in order to “expand educational opportunities, close achievement gaps, support college and career goals and prepare students for global competition.”¹⁵ It also notes that classes “can be accessed at any time during the day or evening by students.”¹⁶

North Carolina created eLEARNINGNC, to address life-long learning for all ages. In addition to course work for elementary and high school students, the program also offers online course work for college credit and career training for those already in the workforce.

Among the beneficiaries: Chelsea Moore of Bostic, NC, who was able to earn a two-year associate college degree and her high school diploma at the same time. Says Chelsea upon finishing high school in 2010: “I think this will be a very memorable time in my life; one that I will always remember by receiving a two-year degree along with my high school diploma. I will be the first out of my family to earn a college degree.”

A second Bostic student, Erin Bridges, shares Chelsea’s enthusiasm, “Not only will I have my two-year degree by the time I graduate high school, but I now have a better understanding of what is expected of me when I enter a university next year...By being exposed to college classes during high school, I am better prepared for my future at a four-year university.”¹⁷

¹⁴ Virtual Learning Academy Charter School, “Frequently Asked Questions”
http://www.vlacs.org/pdf/press_kit/FAQ_StudentsParents_VLACS.pdf

¹⁵ IDEAL – NM, http://www.ideal-nm.org/p12/get-content/content/about_us

¹⁶ IDEAL – NM, <http://www.ideal-nm.org/p12/>

¹⁷ ELEARNINGNC, http://www.elearningnc.gov/about_elearning/nc_elearning_success_stories/



In Greene County, NC where students were provided a laptop computer to support online and in-classroom learning, high school proficiency scores rose from 53 to 78.4 percent and the college application rate climbed from 26 percent in 2002 to 84 percent in 2007.¹⁸

Another model is provided by Virtual High School in Maynard, MA which has been working with brick and mortar high schools for more than a decade to expand course offerings. Students at existing schools can take up to three courses a semester at VHS, working at their own pace — adhering to set deadlines and schedules, but accessing course work at the time of their choice seven days a week.

Helping Teachers Grow, Too

Students are not the only ones who can benefit from online learning; technology can help teachers move forward, too. Every year, more and more teachers are choosing distance learning options to advance their own professional development. For teachers in rural America in particular, distance learning offers many of the same benefits it delivers to students, wider choice in courses and the ability to learn at any time from any place thanks to advances in mobile broadband capabilities.

One study documents a 94 percent participation increase in online development by teachers between 2008 and 2010 and reports that more than half of teachers had taken an online or blended course to advance their development. Nearly one-third of teachers surveyed said they took part in a fully online course for a credential, certification, or post-graduate degree.¹⁹

Like their students, large numbers of teachers, about three quarters, cited the scheduling benefits of online courses and more than four in ten also said they enjoyed the ability to customize their learning and review materials at their own pace. Distance learning is also beneficial for those who live long distances from a brick and mortar institution, cannot afford to move to campus or are pursuing professional development during the middle of the school year.²⁰

One of the early pioneers in distance learning for educators is the Nova Southeastern University Abraham S. Fischler School of Education located in Fort Lauderdale, Florida. Since 1982, Fischler has offered distance learning course work to students, taking advantage of continual technological change to expand the scope and diversity of its offerings. Today, Fischler grants education related certificates and degrees from Bachelors to Doctorates in numerous education areas of specialization. Through its many degree programs and concentrations, Fischler serves over 16,000 education students across the U.S. and more than a dozen countries. As stated by Dr. H. Wells Singleton, Dean of the Fischler School of Education “Distance learning, driven by new

¹⁸ http://wirelessnetworkchannel-asia.motorola.com/pdf/canopy/2.8%20Case%20studies/Green_County_NC_Case_Study.pdf

¹⁹ Blackboard K-12, “Learning in the 21st Century: 2010 Trends Update, http://www.tomorrow.org/speakup/learning21Report_2010_Update.html

²⁰ Blackboard, *ibid.*



technologies and faster internet speeds, continues to expand and broaden the horizon and boundaries for today’s educators.”

Fischler’s path is being followed by others, especially in remote communities where local options for continuing teacher development and learning may be limited.

Recognizing the potential of distance learning for teachers’ professional development, the Arkansas Department of Education developed “Education for Arkansas Schools,” a program teachers can use online to meet the state’s requirement of 60 hours of professional training every year. Deborah Coffman, associate director of professional development in the Arkansas education department, says the program enables teachers to fit courses into their schedule with minimal disruption: “They can go through a little faster, on their own time — so they can be in their classrooms more,” Coffman explains.²¹

E-Learning for Educators, a 10-state program created by the federal government also helps open distance learning options to support teacher development. A 2010 Boston College study found that the initiative was effective in improving teachers’ skill sets, improving their instructional techniques and expanding their knowledge of their subject area.²² Interestingly, only four percent of teachers said they received specific instruction in teaching online classes as part of their teacher training programs, suggesting a possible area for improvement in teacher education as online learning becomes more common.²³

Broadening Horizons

Distance learning and other technology-based learning experiences extend beyond the classroom to the world of business and work. For high school students it offers a way to identify opportunities that may not be obvious in a small community where the economy may be built around a single large employer or local product such as coal or corn.

But, by providing links that extend well beyond their communities’ geographic boundaries, online learning can stoke a sense of possibility that drives students to aspire to achieve at a university and beyond. For example, in North Carolina, the Futures for Kids (F4K) program uses online technology to connect young students to a range of real people and companies beyond their own community. FK4 provides online tools that enable young students to assess their interests and aptitude, explore a variety of careers, and connect directly to distant career coaches who can provide valuable perspective on jobs and help them explore education, training, internships, and scholarship options.

²¹ Rapp, op.cit

²² O’Dwyer, Laura M.; Masters, Jessica; Dash, Sheralyn; De Kramer, Raquel Magidin; Humex, Andrea; and Russell, Michael, “e-Learning for Educators: Effects of On-Line Professional Development on Teachers and their Students,” Technology and Assessment Study Collaborative, Lynch School of Education, Boston College, June 2010, <http://www.bc.edu/research/intasc/researchprojects/eLearning/efe.shtml>

²³ Blackboard, op.cit.



Similarly, Roadtrip Nation, an innovative career exploration program, offers a new online interactive curriculum that takes advantage of broadband to facilitate self-discovery and inspire students to take the educational steps required to identify and achieve their career goals. Museums from the Smithsonian in Washington, D.C. to a range of local institutions are also taking advantage of online technology to open their doors to students no matter where they live.

For parents, distance learning can enable them to see beyond town borders, enabling them to enroll in career training or academic coursework, or identify job opportunities that can help them climb the ladder of opportunity and build a better life for themselves and their children.

By feeding dreams and spurring both students and parents to greater achievements, distance learning can help build the skilled and knowledgeable workforce to attract a wider range of businesses to a community. This is just one more way that distance learning can help rural economies diversify and grow.

Building the Future through Online Opportunity

Advances in mobile communication are providing unprecedented new opportunities, even in remote rural communities that have not enjoyed broadband before. The emerging deployment of 4G means much higher transmission speeds and greater capacity so that users can enjoy high quality video and other services with little fear of the interruptions that hampered earlier generations of wireless.

For teachers and students, this means access to a whole new range of online instruction, including real time, interactive sessions with specialized instructors from around the country, and instructional or informational media. For those whose distance learning options were limited by lack of broadband availability, the enhanced capabilities and the growing availability of 4G wireless means the classroom door will open wider. For those already experiencing distance learning at a fixed location with a wired connection, mobility adds a powerful new dimension, the ability to literally take the classroom with you wherever you go and learn at a time and place of your choice.

But the path is not without obstacles.

Some still question the premise of distance learning and remain wedded to the traditional classroom as the right way to teach. Others worry that the ability to move at one's own pace may be a recipe to underachieve for students who lack motivation. In some instances, state education policies and government funding rules discourage distance learning. Says one school official who believes government restrictions often get in the way, "There are times we feel encouraged to do creative work and then are told to get back in the box."²⁴ The FCC's National Broadband

²⁴ Picciano and Seamen, op. cit.



Plan noted that difficulties in obtaining course credit and teacher licensing rules can prevent an instructor in one state from teaching an online course to students in another state.²⁵

Some technological pitfalls also hover such as a potential shortage in radio spectrum, which FCC Chairman Julius Genachowski said could effectively cap wireless capabilities and compromise 4G service if exploding consumer demand outstrips the spectrum supply. As President Obama observed in a June 2010 memo: “America's future competitiveness and global technology leadership depend, in part, upon the availability of additional spectrum.”²⁶

To address this challenge, President Obama and Chairman Genachowski asked Congress for legislation to free up additional spectrum for wireless services. Until that happens, a spectrum question mark will hang over distance learning.

Climbing over those barriers will enable distance learning to help wipe out the disparities in educational opportunity between students who live in the city and those who grow up in rural communities. By combining the power of technology and our own ingenuity, we can deliver a world class education to every student. To help achieve this goal, USDLA and its Board of Directors identified a few basic policy measures to help get the job done. As stated by Dr. Denzil Edge, President of USDLA, “the intent of USDLA’s policy initiatives is to drive the agenda forward in the overall development and implementation of new distance learning technologies, programs, and opportunities for all students of all ages in all locations.”

Towards that end USDLA strongly recommends the following:

Measure 1: Educators and education officials at every level, including the U.S. Department of Education, should move forward with the development of online based curriculum and the digital content to support it.

Measure 2: Policymakers at every level should review accreditation rules, teacher licensing requirements, copyright law and other laws and regulations and modify or eliminate rules that that may unintentionally limit the effectiveness and use of digital technologies in the classroom.

²⁵ FCC, National Broadband Plan, pp. 230-231, op.cit.

²⁶ Presidential Memorandum: Unleashing the Wireless Broadband Revolution, Office of the Press Secretary, June 28, 2010, <http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>



Measure 3: Teacher training, certification, and professional development programs should include significant instruction in the use of technology as an educational tool, including the incorporation of distance learning and blended learning into the classroom, and the benefits of mobile communications in academic exploration.

Measure 4: Public policymakers should redouble efforts to deliver both wired and wireless broadband connectivity to achieve the President’s goal of advanced wireless service to 98 percent of Americans by 2020. Achieving this goal will open the door to the highest quality online learning to almost every American and help eliminate disparities in educational opportunity among urban, suburban, and rural students.

Measure 5: Technology policymakers should explore measures, such as the creation of a universal broadband support fund, to enable the deployment and adoption of broadband in high-cost areas. Policymakers should avoid policies and unnecessary regulation that can raise costs and make it harder for less affluent school districts and individuals to fully adopt broadband technology.

Measure 6: Policymakers should support the spread of advanced wireless communication and enable it to achieve its fullest potential by enacting measures to allocate additional spectrum for wireless services and to enable wireless providers to maximize the efficiency of their spectrum holdings.

Time to Close the Rural Learning Gap

For students and their families in rural America, it is time to tear down the barriers and deliver the educational opportunities they deserve. With the advance of technology, including a mobile communication revolution that will spread advanced broadband into new areas, world class learning can and should happen everywhere. Every school district, no matter how small or limited its resources, will be better able to give its students access to the coursework they need to dream big, achieve their college dreams, and build the future they want.

For a century and a half, distance learning evolved with technology to blaze new paths in education and expand the reach of the classroom. Today, the virtual classroom means there are no walls or limits on who can learn or where they can learn it. We have the tools at our disposal. It is time to grasp them with energy and ingenuity.

Whitepapers and research such as these are made possible by our various global sponsors and supporters. Please visit www.usdla.org for more information.