

# Arizona: The State of E-Learning

Some forward-thinking companies in the desert are making e-learning... hot, hot, hot.

By Francine Hardaway, Ph.D.



Don't think you are finished with school just because you are an adult. Statistics say the average adult in this century will go through at least three career changes and a constant re-education within each one of them. Educators call this lifelong learning, the price we pay for economic competitiveness in the new "globalized" world. But don't think learning will be the same tomorrow as it is today. Not if Arizona leaders and companies have anything to say about it.

Over the past few years, in Sedona, Arizona, an annual event known as The Sedona Conference has assembled leading educators together with digital and multimedia experts from around the world for an extraordinary examination of multimedia advancements, digital technologies, and educational

themes for understanding the future and higher education in the next millennium. The goal of the Sedona Conference is to assist leaders in understanding and comprehending new developments in multimedia; the merging of education, technology and entertainment; understanding future change; and exchanging ideas and innovations with educational leaders and industry-change agents. Engaging more than 450 leaders from 41 states and 17 countries, the Sedona Conference has proven extremely successful. Its founder, Chancellor Emeritus Paul

Elsner of the Maricopa Community College District, has now expanded the conferences to

Barcelona and Dublin. Its mission is to bring new advances in technology to higher education.

In the more practical realm, Arizona companies like InXsol, KnowledgeNet, NCS Learn, EDT Learning and Corpedia are knocking at the door of one of the largest growth markets unlocked by information technology — e-learning.

There are very few large industries (those with multi-trillion-dollar markets) that haven't yet been automated by information technology. In almost all industries, technology has automated simple manual processes, creating a new working class—the knowledge worker. Think word processing, cash

registers or bank ATMs. But in most cases, that knowledge worker is still educated and trained by a human being standing in front of a classroom, hoping to cause "learning" to happen magically in his or her audience,

repeating the same information year after year.

This is just beginning to change. At the University of Phoenix Online, students can earn entire degrees without ever sitting in a classroom. This is

such a popular way to learn that even in a volatile stock market, shares of the parent company of the University of Phoenix, Apollo Group, have continued to outperform the markets. Currently, Apollo Group boasts revenues in the neighborhood of \$300 million.

Another Arizona company, NCS Learn, which creates software for the K-12 school system, is in the \$140 million revenue range.

NCS Learn is the leader in student information, instruction and business technology solutions for K-12 schools, with more than 50,000 schools using its software. Its new Web-based solution, NCS4School, helps students, parents, teachers and administrators collaborate for improved student performance and to meet the challenges of No Child Left Behind legislation. According to Craig Ashton, supervisor of curriculum, Idaho Falls School District #91, "NCS4School holds the greatest promise to help us achieve our objectives to raise student achievement, to help teachers track student progress and report mastery of objectives, to give administrators information to make sound decisions, and to help parents become partners in their child's education."

Why is all this happening now? Because broadband communications and computer-software technology are now "good enough" to make e-learning a viable industry. The market now demands that learning be accessible and efficacious. From the middle ages until just recently, students traveled miles to a university to sit at the feet of a single professor. Many of them put in the sitting time without much



## WHAT IS GAZEL?

GAZEL (Globalized E-Learning, [www.gazel.org](http://www.gazel.org)), a worldwide organization for e-learning headquartered in Arizona, hopes to hasten technology's penetration into the learning market. GAZEL was started to help e-learning companies find partners to compete for large projects, such as the connection of the entire K-12 system of Arizona to the Internet, and the delivery of content online to Arizona's schools.

However, the sheer pace of change and size of the market—currently \$15 billion and slated to grow to \$150 billion in 10 years, has driven GAZEL to extend its reach worldwide.

Unlike most industry associations, GAZEL is unique because it is proactive, rather than reactive—uniting one of the very few high-growth emerging industries in the state, rather than forming in response to a mature industry. Many of the GAZEL associate companies are innovative, but still small.

GAZEL is comprised of companies all along the value chain of the global e-learning industry. From connectivity providers such as Cox Communications to content providers like Learning Station, GAZEL unites people and companies who need to know each other and collaborate to succeed. With an army of volunteers, GAZEL is developing an Internet portal for the e-learning industry based on a knowledge management system pioneered by another Arizona company, Digital Concepts. The portal will be a "Who's Who" of companies in the industry and what they offer, and is being designed to facilitate global deal making and partnering across all enterprises in the value chain. - F.H.

result. Research has already shown that over the next 10 years, as e-learning is fully deployed (with intelligent tutors, simulation, voice and other emerging technologies), the C student will learn at the A- student level (efficacious) from anywhere, at any time (accessible). Every parent who has ever put a child in front of a computer knows this intuitively.

And GAZEL Arizona (Globalized E-Learning, [www.gazel.org](http://www.gazel.org)), the local affiliate of the worldwide GAZEL organization, is well on the way to position the state as a leader in this nascent, but fast-growing field.

In Tucson and southern Arizona, where the development of high tech industry clusters and the improvement of K-12 education have become two top priorities for economic development, e-learning has become an important tool for creating new business-development opportunities, enhancing K-12 education, and enabling new workplace training and professional development programs for cluster members and K-12 teachers, principals and students. Gazel Arizona, in cooperation with the Southern Arizona Industry and Aerospace Alliance, is recruiting partners to support the implementation of an e-learning initiative to demonstrate how e-learning can deliver education and workforce development programs to the six high-tech industry clusters and K-12 principals in southern

Arizona. [Http://www.tucsonlink.org/GAZEL\\_elearn/](http://www.tucsonlink.org/GAZEL_elearn/). The targeted industry clusters are bio-industry; information technology; optics; environmental technology; plastics and advanced

project through courseware access and, in inXsol's case, use of a Learning Management System.

Phoenix-based inXsol offers customized e-learning solutions that are tailored to a client's system, machine, device or process. The training is provided to employees, sales, customers and suppliers and displaces all or part of an instructor-led class.

Creating simulations for clients' products is another inXsol strength. CEO Henry Ryng says, "Our clients ask us to build simulated environments when tasks or operations are best learned by doing. For example, operating a machine's controller for startup, shutdown, normal and malfunctioned conditions. Training often cannot take place on live equipment



composite materials; and industry and aerospace. <http://www.futurewest.com/economy/index.htm>. GAZEL's project will also coordinate with the Southern Arizona Industry and Aerospace Alliance cross-cluster training initiative.

This is a case where the potential market has not had access to the product samples or to assistance in integrating the products with their training philosophy. GAZEL and the participating e-learning companies have devised a way to make a curriculum available to these smaller organizations. ElementK, KnowledgeNet, inXsol, EDT Learning, SkillSoft and Honeywell are fully supporting this

because it ties up an expensive asset, or the training involves malfunction or failed modes." The company's Learning Management System provides access and record keeping and has several firms to insure regulatory compliance.

A good example of the kind of company GAZEL was created to help is LearnKey, a 15-year-old media publishing company making significant advancements in both international and national markets. In one week last summer, the company booked an all-time high revenue of more than one million in e-learning. LearnKey has signed significant partnerships with Sylvan Learning and Osborne McGraw-Hill as well as major universi-

ties and school systems.  
([www.OnlineExpert.com](http://www.OnlineExpert.com),  
[www.LearnKey.com](http://www.LearnKey.com)).

In Arizona, GAZEL builds on twelve years of work to get appropriate technology into Arizona's schools. Starting with the Phoenix Futures Forum in 1988, and extending through the Arizona Strategic Planning For Economic Development initiative and the resulting Governor's Strategic Planning for Economic Development focus on industry clusters and the foundations to support those clusters, civic leaders drew a blueprint for what is now e-learning. Working with the legislature through foundations like the Arizona Technology and Infrastructure

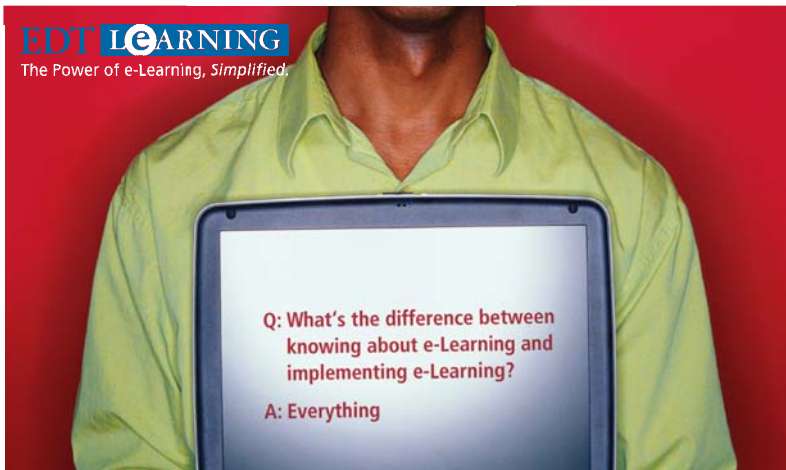
**Why is all this  
happening now?  
Because broadband  
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Council and the Arizona Learning Technology Partnership, those same civic leaders sought to lay the groundwork for the much broader cluster

that is now GAZEL.

GAZEL Arizona members have already seen value from the organization. The top educational software company in the United States, headquartered in Washington, D.C., has set up a west coast headquarters in Phoenix. Blackboard ([www.blackboard.com](http://www.blackboard.com)) employs 165 people in Phoenix. It provides course management tools that let instructors build an online course using their own course materials, community Web portal tools, and the "smart" cards you use on campus to gain access to dorms, purchase food in the cafeteria, or check out books in the library.

By revenue, Blackboard is the



**e-Learning. Knowledge is one thing. Know-how is another.**

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largest e-education software company in the United States, with more than 2,400 clients in all 50 states and 70 countries. Its Arizona-based clients include the University of Arizona at Phoenix, Arizona State University, Estrella Mountain Community College, Central Arizona College, American Graduate School of International Management, Embry Riddle Aeronautical Institute and the Peoria K-12 School District.

One of the foremost e-learning companies in Phoenix, Learning Edge was acquired last year by EDT Learning, a \$19 million provider of training programs. EDT Learning offers comprehensive e-learning solu-

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tions that include content, technology and services, as well as an integrated suite of human resources performance management tools. This unique combination of products, in tandem with EDT's custom orientation, delivers a larger array of solutions than any other e-learning provider.

EDT actively works with several clients inside and outside of the Fortune 1000 to create custom e-learning solutions for specific business issues. Some of those clients include American Express, Bank of America, Federal Express, Hewlett-Packard, International Paper, Lexus, Toyota Motor Corp. and Wells Fargo.

# Advanced Strategy Center

At Pinnacle Peak

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for Strategic Group Planning and Input Sessions*

The **Advanced Strategy Center**, located in Scottsdale in the high Sonoran desert near the base of Pinnacle Peak, offers clients an innovative off-site strategic planning facility that incorporates advanced laptop-based electronic brainstorming tools for simultaneous and anonymous input for groups of 15-25 professionals. This is the ideal combination of **high tech and high talk** that allows groups to create focus and consensus on key issues and automatically captures/documents the results. Session agendas are carefully planned and professionally facilitated. The Center is ideal for:

- Strategic planning sessions for senior management or functional teams
- Customer and employee-based feedback sessions on strategy/direction
- Leadership development sessions and employee skills training
- Product development and ideation sessions, concept feedback/testing
- Market development, culture assessment and brand development strategy
- Political strategy and input on important community and social issues

**Douglas S. Griffen** is the Director of Strategy/Facilitation at the Center and is widely regarded as one of the top group facilitators in the country. He has personally facilitated over 1000 laptop based sessions at the Center and other locations using the Center's mobile lab technology. "Strategy matters," he notes. "This is a time when every organization, business or government, is rethinking their strategy, their market/community position, and their strategic messages and relationships. This Center and our process can accelerate that activity and build buy-in on the plans and actions."

*"The process provided a level playing field, allowing all an even opportunity to participate. We may be coming from different directions, but we are (now) on the same page. Quick consolidation of issues and answers."*

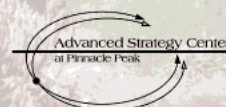
*"Great format, quick, anonymous, efficient use of time and information...this was one of the most powerful team development processes I have ever been through."*



Contact Douglas Griffen, Founding Partner  
of the Center and Director of Strategy  
and Facilitation, for more information:

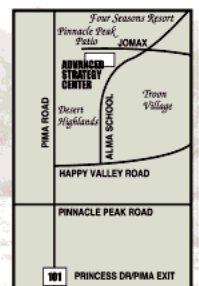
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## The State of Arizona Listens to New Tech Pacesetters

Emerging technologies influence every aspect of business — shaping how we design, produce and deliver goods and services; how we gather and transmit information; how we track, acquire and manage supplies, inventory, finances, customers and personnel. Commerce once depended on proximity to rivers, highways or railroads. Today it flourishes based on access to global communications networks.

The Arizona Department of Commerce (ADOC) is supporting telecommunications assessments outside major metropolitan areas. "State government can't and shouldn't do the necessary build out in Greater Arizona but, with accurate information, we can develop clearer policies and engage the private sector to improve the technological infrastructure statewide," says Commerce director Margie A. Emmermann.

She knows Arizona can excel in this technology-driven environment both now and into the future. ADOC focuses business attraction and development efforts on high tech, software, bio-industry, aerospace, and environmental technology — strategic industry sectors building on existing assets. "Arizona has been home to a number of first-generation technology companies: Intel, Raytheon, Motorola, and Honeywell. We can't rest on that advantage. We must encourage the future by listening to the next generation of pacesetters." To do this, Emmermann created the Office of Innovation, Technology and Entrepreneurship headed by Sandra Watson.

"We've convened technology sector leaders from throughout the state to prioritize our agenda," says Watson. "We're enhancing communication among all tech sectors, improving ways to access venture capital, building supply chain industries and better promoting the richly diverse tech advantages in place and evolving quickly statewide."

As for Arizona's place on the e-learning curve, Cisco Systems Networking Academies founder, resident and native Arizonan George Ward says that "All curriculum, assessment, support systems and Internet delivery models for the academies are developed and housed — along with web servers — in the Phoenix metropolitan area." E-learning pioneer Tom Graunke, founder of KnowledgeNet, says "Arizona has been able to create a positive, rich corporate environment that allowed us to grow very quickly, with a well-educated and skilled workforce."

Making the most of human capital and answering this primary need for business is the job of the ADOC Workforce Development Division. "We're coordinating more than \$200 million in resources statewide," says director Steve Partridge. "We support Local Workforce Investment Boards, the Governor's Council on Workforce Development and administer the Arizona Apprenticeship Program, the Job Training Program (providing reimbursement grants to businesses), and the Information Technology Tax Credit."

For more information, visit [www.azcommerce.com](http://www.azcommerce.com)



Another Arizona e-learning innovator is Unicon, Inc. Founded in 1993, Unicon is actively involved with designing and implementing the latest e-learning technology solutions. Unicon partners with colleges, universities, schools and corporations to design, build and support high-quality learning communities.

The company has a strong history in the application of innovation and systems expertise to solve challenging educational and technical problems. It created the Cisco Networking Academies online learning technology and developed CLI Virtuoso™, Cisco Learning Institute's delivery and management system.

UNICON understands how to address issues such as scalability, performance and availability of Web sites. UNICON solutions manage more than 700,000 student accounts in 151 countries via 10,000 learning institutions. Currently, courses are delivered in 11 different languages and more than 200,000 active students receive up to 43,000 exams per day. More than 900,000 certifications have been awarded.

At the end of the day, everyone's hope is that GAZEL's efforts in Arizona will put the Grand Canyon State on the map globally as the center for this exciting new industry—the learning industry. **b**