E-Learning: An Application Whose Time Has Come

E-learning is becoming a mainstream application across all industries and disciplines. Enterprises want to take advantage of Web-based learning, but success requires more than moving education and learning to the Web.

Technology-enabled learning has been around for more than 20 years. However, e-learning was made more relevant, feasible and powerful when its reach was extended by Web-based approaches. E-learning is an inherent part of the Web. Numerous surveys reveal that education is a primary use of the Web (by a large margin) over business-focused applications. With more than 500 million Web users, this means there is a tailor-made audience and a natural channel for enterprises to educate, including employees, business partner employees and customers. Enterprises assume that learning delivered in a Web-based format (on an intranet or via a Web site) will find and educate its intended audience.

Enterprises need e-learning. The pace of organizational change in most enterprises requires a constant refreshing of skills and continual development of new competencies. For many enterprises, not choosing e-learning as the primary method to deliver this needed learning means it will not be delivered at all. Remaining competitive requires:

- Continual learning
- An accelerating pace
- Staying economically feasible
- Being widely distributable

This is the formula for e-learning.

Since e-learning seems intuitive, why are so many e-learning programs failing to achieve the great success and anticipated levels of payback for the enterprises that own them? Why is e-learning seemingly more successful in some industries or in some parts of the world than in others? The reasons for an enterprise’s success or failure vary from investment choices to user behavioral changes to the sophistication of the selected technology. Vendor failures are also a source of problems. Some vendors believe that the delivery of traditional learning content via the Web constitutes e-learning — well, yes and no. In this Spotlight, we begin to explore critical success or failure points in e-learning.

Who Has Implemented E-Learning?

We have observed many successful e-learning programs in a variety of enterprises, including corporations, government and military organizations, universities and public schools. We also have seen many programs where benefits never materialize. Understanding where and how technology leaders have created successful programs can help new implementers of e-learning.
In this Spotlight, two case studies present experiences, best practices and critical success factors. Both are of North American enterprises, but their learning and best practices appear to be globally applicable and not exclusive to any geography or industry. These practices include clear objectives, good design, strong management, the right technology and behavioral changes among stakeholders.

The first case study is of a successful corporate e-learning program at Dow Chemical. In 2001, Dow had 600 courses offered and more than 300,000 course completions. The company estimates its benefits for the program to date as close to $30 million, as detailed by James Lundy in “E-Learning Success at Dow Chemical.”

The next case study is for a completely different kind of enterprise. This successful program also provides a look into how employees will experience education in the future. Henrico County, Virginia, has transformed high-school education by outfitting students and teachers with laptops, wireless LAN services and integrated online educational processes. The lessons learned in this endeavor are universal; thus, corporations, universities or any other organization can learn from their experiences. “A Bold Move Into E-Learning: Henrico County Public Schools” by Bill Rust IV describes this rich e-learning experience.

Finally, IS organizations were among the earliest users of e-learning, and IT training has been delivered in electronic form for at least 10 years. In our 2001 and 2002 annual surveys of buying intentions of IS organizations, Gartner asked about intentions for Internet-delivered e-learning. We also included questions about e-learning in other Gartner surveys during the past two years. Bob Igou summarizes these Gartner surveys, identifies consistent trends and analyzes buying intentions vs. actual spending in “Use of Internet Delivery for IT Learning Still Low.”

**What Are the E-Learning Challenges?**

Enterprises expect great things from e-learning, but achieving the expected value is complex. Although some of today’s classroom materials can be moved to Web-based delivery, the investments are broader-ranging than simply buying the technology infrastructure and moving the courseware. What about building Web design skills in your instructional designers? Or building the interactivity experienced in a classroom into your Web-based courses? In theory, e-learning should be more effective than classroom instruction — after all, e-learning, is far more student-centric. Students can choose the path through a course, customize their own courses or curriculum, choose the time and place for learning activities, and practice as much as they need. For a full view of the investments and value propositions of e-learning, see “E-Learning: Value, Benefits and Investment” by Kathy Harris.

Another challenge for many enterprises is sourcing decisions for courseware. Options include building courseware in-house, purchasing off-the-shelf courseware, and using an outside service provider to custom design and build the courseware. One increasingly popular source of custom-built or premium off-the-shelf courseware is universities or other higher-education institutions. Enterprises clearly recognize what a university partner can bring to the table: expertise in course design, instructional techniques for analytical as well as skill-based courses and proven products (degree programs, logistics, certification of skill levels and more). As e-learning becomes more popular in universities, it will become more feasible and cost-effective to extend courseware and practices to the corporate market. However, corporate and university partnerships also bring different cultures together, and bridging this cultural gap remains a challenge. Lessons from successful ventures on how to structure and execute these programs are reviewed in “Effective Corporate-Academic E-Learning Partnerships” by Ron Yanosky and Michael Zastrocky.
Finally, e-learning brings one more content management challenge into enterprises. Content elements include learning objects, courses (multiple objects), curriculums (multiple courses) and even degree programs (multiple curriculums). Content types include text, video, audio and multimedia. Archiving and records management are also required. Debra Logan and James Lundy analyze and make a case for linking e-learning and content management in “E-Learning Content: A Web Content Management Challenge.”

And ... What About Technology?

Obviously, e-learning requires technology — very sophisticated technology. Much of Gartner’s past research on e-learning has focused on technology, and for this Spotlight, we choose two of the most critical technology topics for analysis: learning management infrastructure and the virtual classroom.

The traditional vendors for learning management infrastructure have focused exclusively on the e-learning market and had it all to themselves until the last two to three years. However, the global market is experiencing hypergrowth and we expect it will be as high as $35 billion by 2005. Therefore, the e-learning marketplace will never be the same in size or in the sophistication of the technology. This battle for the market was brewing quietly through 2001, but it quickly escalated in 2002 with acquisition and consolidation on the horizon. For a look at today’s and tomorrow’s vendors, see “E-Learning Infrastructure: The Battle for the Market” by Kathy Harris, Debra Logan and James Lundy.

Virtual classroom technology is the second critical area of technology and is the differentiator that determines whether e-learning courseware is widely used and highly effective or just one more set of shelfware. Virtual classrooms provide the Web-based user place for learning, for example, student access, user interface and experience. The requirements for this virtual learning place may be filled by meeting-focused Web conferencing systems or by learning-focused Web classroom systems. Although Web conferencing may suffice for early forays into e-learning, as use accelerates and course complexity increases, so will the demands for more sophisticated classroom experiences. For an overview of the current differences in Web conferencing and Web learning environments, and for a look at the future of virtual classrooms, see “Virtual Classroom: A Step Up From Web Conferencing” by Kathy Harris.

Additionally, e-learning course design is a challenging but critical new skill for enterprises. E-learning is not the same as classroom learning and should not be assumed to be so. E-learning will offer new opportunities for highly creative instructional design, more robust interactivity and more experiential learning than is possible in a physical classroom or from a live instructor — the student can focus the learning where he or she needs to go. For an early look into simulation as an emerging form of e-learning instructional design, see “E-Learning Simulation Goes Mainstream” and “Simulation May Be Your E-Learning ‘Killer Application,'” both by Kathy Harris, Debra Logan and James Lundy.

Features

“E-Learning Success at Dow Chemical” — The approach, benefits and success factors behind Dow Chemical’s broad adoption of e-learning are evident. By James Lundy

“Bold Move Into E-Learning: Henrico County Public Schools” — Experiences at the leading edge of e-learning programs in K-12 education offer beneficial lessons. By Bill Rust IV

“Use of Internet Delivery for IT Learning Still Low” — Many enterprises intend to use the Internet to deliver IT-focused e-learning, but relatively few are actually doing so. By Bob Igou
“E-Learning: Value, Benefits and Investment” — A full view of the investments for e-learning initiatives is essential. By Kathy Harris

“Effective Corporate-Academic E-Learning Partnerships” — Both sides of course content sourcing partnerships can benefit if they heed key success factors. By Ron Yanosky and Michael Zastrocky

“E-Learning Content: A Web Content Management Challenge” — Effective e-learning requires clear decision criteria on when and how to formalize content management. By Debra Logan and James Lundy

“E-Learning Infrastructure: The Battle for the Market” — Vendors are providing infrastructure support for e-learning as market leadership is evolving. By Kathy Harris, Debra Logan and James Lundy

“Virtual Classroom: A Step Up From Web Conferencing” — Virtual classrooms and Web conferencing applications’ capabilities are different today, but their requirements may converge. By Kathy Harris

Recommended Reading and Related Research:

“E-Learning Simulation Goes Mainstream” — Some forms of simulation available today will be more functionally complex in the future, boosting corporate e-learning’s quality and impact. By Kathy Harris, Debra Logan and James Lundy

“Simulation May Be Your E-Learning ‘Killer Application’” — Simulation in corporate learning has value in 2002, and will be even more important in the future. By Kathy Harris, Debra Logan and James Lundy