Corporate E-learning Trends
Abstract

This article provides a working definition of e-learning, discusses some of the related issues, and explores five of the key corporate e-learning trends as identified in the current literature.

There is no absolute definition of e-learning but there are some widely accepted interpretations of the term which are provided in this article. Differences in definitions often stem from the market segment involved and the overt and covert goals behind e-learning projects. While definitions differ, the issues raised in relation to e-learning remain largely the same with the priority and impact of each issue differing depending on who is trying to implement e-learning, for what audience, under what constraints.

While only five trends are discussed in this article, they represent those most prevalent in the literature and those which are already well on the way to becoming a reality. The seeds of each of the trends has been sown and, in some corporations, fruit is being born.
Introduction

While many articles claim to contain predictions on e-learning trends and expectations, few deliver. Instead, most of the writings cited provide definitions of e-learning today and make vague references to a bright, if undefined, e-learning future just around the corner. It is interesting to note that many of the articles simply restated the same predictions and warnings we heard about multimedia and even educational television. Rather than shifting paradigms to encompass the changed and changing environment, e-learning is being considered and discussed in relation to c-learning (classroom).

One thing that makes e-learning more likely to be a growing reality, rather than a passing fad, is the ubiquitousness of the technology. “The technology used for e-learning is as commonplace as the telephone, and almost as easy to use…the transition to e-learning will not require people to buy and learn a special-purpose and complex piece of equipment.” (Rosenberg, 2001, p. 306) Most of the trends cited rely on what is now commonplace technology being used by technologically savvy performers.

Five key trends were gleaned from the literature and are explored further in this article. These are by no means the only trends, just the ones deemed to be most likely to become corporate realities in the short or medium term. The five trends are:

1. Greater adoption of e-learning by small, medium, and large sized companies,
2. Mobile learning (m-learning),
3. Peer-to-peer (P2P),
4. Expanded use of virtual classrooms, and
5. Blended learning solutions.
These trends, along with an increased focus on instructional design and content rather than purely on technology, will define the future of e-learning in corporations. Before reviewing each of the trends in detail, a clearer understanding of e-learning is required.

**Defining E-Learning**

E-learning is a term that means something different to almost everyone who uses it. Some use it to refer to packaged content pieces and others to technical infrastructures. Some think only of asynchronous self-study while others realize e-learning can encompass synchronous learning and collaboration. Almost all agree that e-learning is of strategic importance.

So what is e-learning? The clearest definition discovered comes from Marc Rosenberg’s book, *e-Learning – Strategies for Delivering Knowledge in the Digital Age*, (2001). Rosenberg says “e-Learning refers to the use of internet technologies to deliver a broad array of solutions that enhance knowledge and performance. It is based on three fundamental criteria:

- e-Learning is networked, which makes it capable of instant updating, storage / retrieval, distribution and sharing of instruction or information.
- It is delivered to the end user via a computer using a standard internet technology.
- It focuses on the broadest view of learning – learning solutions that go beyond the traditional paradigms of training.” (Rosenberg, 2001, pp. 28-29)
E-learning is the convergence of knowledge management (the knowledge economy), technology, and radically new approaches to developing and supporting performance.

Knowledge management is concerned with capturing, managing, and disseminating knowledge, in usable forms, as a corporate intellectual asset. “What organizations know will provide them with their single most important edge.” (Shank, 1997, p. 168) Today, product features, quality, and pricing are very similar among competitors resulting in little or no differentiation or brand loyalty based on product. The competitive edge is now knowledge. Quickly capturing and disseminating best practices, radical improvements, and information on key customers is what knowledge management is all about. It is a key component in the shift to e-learning allowing for well-organized and structured information, specific to task, to be harnessed as a productivity enhancing tool, blurring the lines between knowledge management, learning, and performance support.

We are now at a point where technology allows corporations, through learning management systems (LMS) and content management systems (CMS), to tag, store, and display exactly the right digitized information and learning at the job-site at the moment of need. LMS’s provide the functionality to launch and display content and to manage the interaction between performers and the learning or performance resources. CMS’s are data repositories that also may contain authoring, sequencing, and content aggregation tools. A learning content management system (LCMS) combines the learning management features of an LMS with the learning execution and storage capabilities of a CMS. These web-based tools provide the foundation for effective e-learning implementations.
Radically new approaches to the design of corporate learning and performance support are focussing on chunked, repurposable content that relates directly to specific performance requirements. “e-learning will not operate on traditional norms of what a standard education is, rather e-learning will be about meeting the learner’s needs for improved performance.” (Wentling et al., 2000, p. 29)

Advances in these three areas have converged to form e-learning, providing access to content anywhere, anytime increasing the value of the learning experience. E-learning introduces “a new way to think about learning. Learning does not necessarily require training or instruction. People learn in many ways – through access to well-designed information, by using new performance-enhancing tools, through experience, and from each other.” (Rosenberg, 2001, p. 31)

**SUCCESS FACTORS**

Many early e-learning implementations have failed dramatically and expensively because they have treated e-learning as an event rather than a dynamic business process. Six critical success factors have been identified by K. Juhasz of Juhasz Development Group:

- “A well defined strategy and rationale.
- An adequate and appropriate budget.
- An instructional design strategy that recognizes that not all learning objectives should be taught over the internet and that people learn in different ways.
- Senior management understanding, buy-in, approval and direction.
- Sound technological infrastructure.
• A focus on building a solid learning culture, management ownership and change management.
• A sound business case.” (Juhasz, 2002, p. 13)

Without an overall corporate e-learning strategy, implementations will be myopically undertaken, under-funded, and doomed to short or medium term failure. As Marc Rosenberg says, “A true e-learning strategy certainly addresses issues of technology and learning effectiveness, but it also addresses issues of culture, leadership, justification, organization, talent, and change. Finally, a comprehensive and well-defined e-learning strategy puts a line in the sand – it helps you focus your attention … If you want to know if your e-learning initiatives have the potential for success, having a strategy to measure yourself against is a good place to start.” (Rosenberg, 2001, p.32)

Another key point to remember is that most corporations do not have a well thought out, robust, documented, and articulated learning strategy never mind an e-learning strategy. Without taking the time to consider the pertinent factors and make corporate learning decisions based on business goals and strategies, companies will repeat previous mistakes but in a much more expensive and high profile arena.

LOOKING FORWARD
The lines between learning, communications, knowledge management, and performance support will continue to blur. This blurring will facilitate our breaking out of the course metaphor. “Instead of looking at trainings as linear processions with a beginning, middle and end, we must now look at trainings as clusters of independent, stand alone bits of knowledge…Just as you can enter a web site at any page and leave at any point, so too can training consumers.” (Schatz, 2001. p. 2) The nature and speed of business today requires that
critical content be accessible to globally disperse performers immediately and simultaneously while maintaining a performance and people-centric view. The realization that measurable and sustainable performance on the job is the goal will increase acceptance of the importance of information, performance support, and information learning approaches and networks. This will move the focus away from course offerings. “The challenge is to expand our paradigms of what learning and e-learning is.” (Rosenberg, 2001, p. 307)

The combination or blurring of domains is key to several of the trends to be discussed next.

**Trends**

**TREND 1: GREATER ADOPTION BY CORPORATIONS OF ALL SIZES**

Many corporations are looking to e-learning to mitigate problems caused by shorter business cycles, tighter product time to market, high turnover, and rapid skill obsolescence. Keeping a constantly changing and mobile workforce at the performance level necessary to remain competitive, is both critical and complex. “Companies that get new people productive faster will become more profitable.” (Shank, 1997, p. 171) E-learning is being identified as an effective response to the dynamic nature of the products, customers, and technology. “Learning job-specific content and the broader content necessary to innovate on the job is an enormous challenge. E-learning technology enables a revolution in the cost of delivering training that is mission critical and fully accessible.” (Pecaut, 2001, p. 5)

As mentioned by Tom Barron “e-learning is able to demonstrate its value even in a cost-cutting climate” (Barron, 2001b, p. 1) and, as a result, e-learning companies are not as effected by the economic downturn as others in the
information technology market. There is a “huge learning and business opportunity. Last year, $4.7 billion dollars of e-business was done in training and education across K – 12, universities and corporate training. This is a drop in the bucket compared to the $646 billion dollars spent in America alone on education and training. Spending on training will grow to about 18 billion dollars in 2006.” (Pecaut, 2001, p. 5) Companies that invest in training are increasingly seeing knowledge capture and management as being key to competitive advantage. Finally, technological, business, and learning solutions are combining to facilitate the management of such key corporate resources. “Both e-learning and knowledge management (KM) focus on a similar goal of getting the right knowledge and information to the right people. However, where e-learning has focused on delivering courses and testing performance, KM takes a keen interest in capturing the knowledge that exists in employee’s heads and delivering it to others who need it. “ (English, 2001, pp. 1-2)

Part of the trend to greater adoption of e-learning is the linking of e-learning to business goals. As mentioned earlier, many companies do not have an e-learning strategy which solidly links to and supports corporate goals. Since the initial cost of implementing robust e-learning can be high and the cycle-time long clear ROI must be established. There must be a clear and concrete link to individual and corporate performance. To establish ROI, a clearly articulated e-learning strategy is required. To make an e-learning strategy palatable to executives it should be sold based on the established cost of competency for that particular corporation; the drive to maintain high standards of performance and customer satisfaction; and, the time it takes for employees, using current approaches to reach adequate and then full competency. (Rosenberg, 2002) Greater adoption is coupled with some key shifts in the requirements of e-learning buyers. (Barron, 2001a, p. 4) Customers now expect e-learning
providers to demonstrate the cost savings realized when e-learning replaces instructor-led training (particularly when it entails employee travel).

Customers are becoming more vigilant, sending out detailed RFPs and requiring that vendors submit to comparison tests before winning contracts. Increasingly, market leaders are winning the contracts over the smaller, newer vendors. This is fuelled by uncertainty and the fragility of the .com financial markets. In addition, price, content breadth, and quality of service have become the three main requirements. For the first time, the instructional quality of the content is becoming a key factor. Despite much lip-service having been paid to instructional design in the past, the technology always ended up driving the product. Now, especially with learning objects, content is becoming king. This is in part due to the corporate value being placed on knowledge capture and management.

Customers are also looking for integrated, end-to-end solutions, often including hosting. Even the larger corporations see the value in turn-key, off-site hosted solutions rather than custom builds that reside on the corporate intranet. Time, cost, security, and reliability of the technology is driving these solutions.

The bottom line is, corporations may not have a choice but to embrace e-learning. “if its employees have to wait until the instructor and the classroom are available, the corporation becomes less and less competitive.” (Maisie, June 2001, p. 3)

**TREND 2: MOBILE LEARNING (M-LEARNING)**

Internet access is now possible without being wired up to networks or telephone lines using a protocol called Wireless Application Protocol (WAP). This
combined with the widespread adoption of handheld computers and organisers, known as Personal Digital Assistants (PDAs), opens the door to mobile learning. (English, 2001, p. 1) M-learning resides at “the intersection of mobile computing and e-learning that includes anytime, anywhere resources; strong search capabilities; rich interaction; powerful support for effective learning; and performance-based assessment.” (Abernathy, February 2001, p. 1) As David Metcalf (2002, p. 1) points out, wireless and handheld technologies are reshaping many industries, including e-learning, and are fast becoming part of a blended solution. This is key – part of a blended solution; not the total solution in and of themselves.

The target audience for m-learning is anyone who is ready and willing to learn and receive task-based support on the fly. This audience is comfortable with digital media and is looking for just the right information at their defined moment of need, at their immediate location. To date, however, I have only come across examples of mobile reference or mobile performance support. While many of the vendors, and even some of their clients, are calling these types of implementations m-learning it is not learning at all. Not to say that they are not distributing extremely effective performance support -- it is just not learning. Even the proponents in the field admit that it is very difficult to find a real customer who is using a PDA for learning.

Some of the issues surrounding using mobile devices for learning are:

- Size of screen: not only are the screens small but the size of screen differs from device to device. In addition, there is no consistency in colour depth or text formats.
- Slow processing speed.
- Limited storage.
• No standardization between mobile tools resulting in device management issues related to connectivity, scalability, and synchronization.  
  (Harris, 2001, pp. 1-2) (Metcalf, 2002, p. 2)

There are also some fundamental shifts in thinking required before the power of m-learning or m-support can be unleashed. There needs to be a fundamental shift in the learning model. How people define learning must change for m-learning to take off. Critical to this change is the shift to a performance support orientation: A move to just-in-time, just-in-place paradigms. If one considers that the only business reason to train an employee is to change or improve the performance related to specific revenue-generating tasks, then a shift to what was previously considered support rather than training makes sense.

Another shift is to an acceptance as valid of short segments of learning that are measured in seconds rather than hours or even minutes. And, perhaps the most difficult shift for many traditional instructional designers to accept, is the move away from assessment as part of the learning to changed performance being assessed on the job, in the real world.

One interesting aspect of m-learning is that the instructional design implications of learning mobiley are already being considered. Questions such as how can learning be instructionally designed and chunked so it can be displayed on a tiny screen, in grey tones, without taking up much memory, and without requiring fast processing are being raised. This questioning is taking the ideas of chunking and learning objects to an even more minute level! These issues are perhaps why m-learning should really focus on m-support, especially to enable sales and technical support personnel to access the most up-to-date information on the move and on demand.
**Trend 3: Peer-to-Peer (P2P)**

Peer-to-peer or P2P relates to the incorporation of collaboration tools and designing collaboration into e-learning programs. It is a “networking technology that enables the sharing of resource. The “peers” are individual computers that make up the network.” (Hofmann, 2002, p. 1) This technology allows learners to share data by allowing one PC to link directly with another PC on a network without going through a file server. This linking can create shared workspaces in which learners can collaborate, share ideas, and communicate. By the same token, and as with any other self-directed tool, P2P requires discipline and rigour. “To create a working knowledge community, users must make content available and functional, and community members must take the time to search for content, clarify information, and provide feedback as to its usefulness.” (Hofmann, 2002, p. 2)

P2P appears to hold considerable potential for those competencies which require collaboration as part of the job task and who are not concerned with the restrictions of synchronous interventions. In fact, one area identified as a potential market for P2P is the collaboration of work groups or learners who are in different countries. “A P2P network doesn’t care where a resource is located. When a peer (computer) requests a resource, the network supplies the resource from another peer that happens to have it. The more distributed the resources, the more useful P2P networks become.” (Hofmann, 2002, p. 2) One must question, however, how this collaboration will work with individuals operating from different cultural stand points.

Peer-to-peer offers an un-moderated environment that lends itself to informal information exchange rather than formal training. As more peers join the network, opportunities for more information to be stored, accessed, and exchanged increases. According to Hofmann “the very existence of P2P
encourages a low level of collaboration between users. Learning comes in to play when peers start to create communities of practice and make related content available across the network.” (Hofmann, 2002, p. 2) Given the recent interest in finding ways to foster less expensive and more effective informal learning, P2P appears very enticing. However, this fledgling trend is not free of concerns, two key ones being:

1. If anyone in the P2P link can create, change, and update shared information, how can the accuracy and validity of the available information be assured? As with the internet, there is a flood of information available but how much of it is true, valid, and worth the trouble of locating.

2. Once the PCs are linked through P2P technology, how can any one PC on the link be secured. How can one ensure that others on the link cannot browse through all the contents on one’s PC?

Based on collaborative tools, peer–to-peer is “seen as a way of improving the learner experience by fostering a shared learning experience and peer learning opportunities.” (Barron, July 2001, p. 5) Time alone will tell if peer-to-peer will become a vital collaboration tool or a fad that passes into oblivion.

**TREND 4: VIRTUAL CLASSROOM**

A rapidly growing trend is the use of synchronous tools or Virtual classrooms to create and deliver content. The technology allows synchronous lecture, demonstration, discussion, and peer collaboration via the web. “Geographically dispersed users can “come together” online to listen, view and interact with a live instructor and other learners in a scheduled event.” (Maxey, 2002, p. 3) The technology is affordable, is often present in the organization in
some format, and it is somewhat easy to use. However, the move to virtual classroom is too often driven by financial rather than instructional reasons. Companies are lured by the promise of a dramatic reduction in travel time, the cost of travel, and the cost of replacing the performer while they are away at training.

Just because we have the technology, should we use it? “While the technology does offer teacher-student and student-student interaction, it’s not as personalized or as casual as it might be in a regular classroom. So if high levels of interactivity or teamwork is critical, relying solely on a “Web-ized” class may not deliver all that you are looking for. In addition, the number of students that can participate in an online class and still have some level of interactivity is often lower than in face-to-face situation. So some of the cost savings are mitigated by a potential increase I the number of times the program must be offered. “ (Rosenberg, 2001, p. 140)

It is cheaper to develop virtual classroom interventions than asynchronous web-courses and there are times when, instructionally, virtual classroom could be the best solution, for example:

- Coaching on a new software implementation.
- Short instruction on a key proves change.
- Providing access to a specific expert for a short time with the technology allowing a larger, geographically disperse group to participate)
- Encouraging communities of practice.

However, as with many learning interventions, the success or failure of virtual classroom depends on three factors:
1. Content appropriately designed for the audience, the task, and the delivery mechanism,
2. A facilitator trained and skilled in managing the technology and the learner experience, and
3. Reliable technology.

All too often virtual classroom content is cut and pasted from a classroom course and the classroom facilitator is plunked in front of the console with little training and no time to become familiar with the environment. These factors are often acerbated by learners experiencing great difficulty connecting into the classroom or the environment shutting down. Combined these result in a discouraging and painful experience for all. When virtual classrooms work they are a thing of beauty; when they fail they tend to fail monumentally.

Once a corporation has stabilized the technology, developed appropriate content, and trained facilitators virtual classroom can become a key component of the next trend to be discussed: blended learning. When offered as part of a LCMS or LMS the virtual classroom is able to share content with other delivery methods and to provide a viable, cost-effective alternative to other e-learning methods and c-learning.

TREND 5: BLENDED LEARNING SOLUTIONS

At client sites, at almost every conference, in every e-learning book, and in many current articles the phrase blended learning is brandished hopefully and consistently as the panacea for corporate learning woes. Since blended learning is really just good instructional design, one wonders why so much hype is attached to it. Perhaps it is because by giving an old, trusted concept a new name suddenly there is an e-learning approach that people can espouse without
taking too big a leap into the unknown. Blended learning is quite simply using different approaches to meet different content, learner, and organizational needs. This sounds familiar to instructional designers since it is also called good learning design. What is perceived as making this NEW is that some of the solutions in the blend are now E!

Successful blended solutions are grounded in a clearly defined corporate learning architecture. “A learning architecture is the design, sequencing, and integration of all electronic and nonelectronic components of learning to deliver optimum improvement in competence and performance.” (Rosenberg, 2001, p. 118) The architecture should include guidelines around when and where, given the nature and goals of a specific organization, e-learning is appropriate and not appropriate and when and where it is effective and not-effective. The architecture should also deal with how e-learning, c-learning, knowledge management, and performance support should be blended for best results. Blended assessment techniques, including the incorporation of on-the-job real world assessment strategies should also be considered as part of the architecture.

A typical blended solution might have some pre-work distributed as web-learning a week or so before the course. The core intervention might be offered in two formats: facilitated classroom learning for those geographically close and virtual classroom for those whose time or distance constraints make that option more viable. A print job aid might have been sent via e-mail. Post-intervention support could be offered through an intranet-based performance support system accessed through the participants’ personal learning portals or through the participants’ PDAs. Good design, well executed.
Blended learning is sweeping the market place. “Almost every organisation we visit is doing more blended learning than the industry is talking about…” (Maisie, July 2001, p. 2) Blending c-learning with e-learning is letting corporations quickly gain some of the financial and performance benefits provided by the internet and intranets without having to completely re-engineer their learning departments and without disenchanting the performers. Design each of the content pieces as learning assets and objects, tag them well, and house them in a high-end learning content management system and you get reusable, flexible content ready to deploy in any aspect of the blend at the click of a few keys.

Over time, the blend will have less and less classroom and more and more virtual leaving face-to-face, high-cost, high-touch facilitated learning for the kinds of high level skills for which it is best suited and most required. However, “classroom learning will fill a unique role within a learning architecture, but it will be a different role than in the past. Group interactions, business problem solving, performance evaluation, expert observation, culture building, and teamwork are all critical attributes of an overall learning system that, in many cases, is still best suited for classroom experiences.” (Rosenberg, 2001, p. 120) The e-learning parts of the blend will increase and the nature of learning in organizations will shift towards developing and supporting performance to meet business goals.

Conclusion

All five of the trends discussed are grounded in one concept: E-learning is about agility, speed, meeting business needs, and creating on-the-job performance (Rosenberg, May 2002) E-learning is of strategic business importance despite the lack of e-learning strategies in most companies. It is not
something that is happening to or in the training department. E-learning is a core contributor to corporate success in the marketplace.

With the three segments of the e-learning market: content, technology, and services continuing to align and as the quality of the e-learning offerings and options increases, use in corporations and in educational institutions will exponentially grow, providing just the training required in whatever format best suits the performer and their environment. Corporations will be able to cost-effectively reach multiple audiences from internal performers to suppliers, partners, and customers. The same content organized and delivered in different ways will let companies keep their suppliers constantly up-to-date on requirements and their value-add distributors informed of key product and pricing information. Even customers can be provided with easy access to clear, concise, well-displayed information.

The five trends focused on are those (based on the literature) that are most likely to become entrenched in corporations. Each is practical, implementable, flexible, scalable, and can be used to support business strategies and financial goals. Each approach or technology discussed can be implemented in conjunction with existing learning and with other e-based solutions. All we can do now is wait and see what unfolds!
References


