



eLearning

A Key Strategy for Maximizing Human Capital in the Knowledge Economy

A White Paper by

PrimeLearning.com™

“The online training market is expected to nearly double in size every year through 2003.”

W.R. Hambrecht & Co.

Maximizing Human Capital in the Knowledge Economy

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1. eLearning: A New Vision of Learning

Workers today must constantly upgrade both their knowledge and skills if their companies are to continue to compete successfully. eLearning is a groundbreaking paradigm shift in the field of learning that provides high-speed access to knowledge and information. It offers online training that can be delivered anytime and anywhere through a wide range of electronic learning solutions such as Web-based courseware, discussion groups, live virtual classes, video and audio, Web chat, simulations and mentoring. eLearning enables companies to transcend distance and other organizational gaps by providing a cohesive virtual training environment. It is a vital element of success in today's global economy because the most up-to-date skills and competencies are essential for peak performance and competitiveness, and eLearning can provide them just in time.

“ eLearning is a paradigm shift in the way education is viewed and delivered. At the beginning of the new millennium, corporations view learning increasingly as a competitive weapon rather than an annoying cost factor. Business success depends more and more on high-quality employee performance, which in turn requires high-quality training. Corporate executives are beginning to understand that enhancing employee skills is key to creating a sustainable competitive advantage. In the quest to remain competitive in today's labor-tight market, companies are exploiting advances in technology to train employees more rapidly, more effectively, and at less expense than in the past. ”¹

Put simply, eLearning brings learning to the people. Traditionally, the best learning environments provided an integrated mix of synchronous and asynchronous learning activities in combination with dynamic opportunities for collaboration with experts and peers. Well-designed eLearning provides this type of environment, as it incorporates well-established teaching methodologies and proven educational philosophies, and enhances them with a rich mix of interactive media developed in response to rapid growth and changes in business and corporate training needs.

Here is a typical example of how an eLearning solution can impact a company's and an individual's efficiency:

Example

1995:

John, a new salesperson, is sent by his employer to a remote location for instructor led training along with new recruits from other branches. The company provides him with travel and accommodation and John spends a week familiarizing himself with the company's products and sales techniques. At this training course he develops a rapport with his instructor and he meets new recruits from other divisions, making some friends. He sits the compulsory evaluations at the end of the week (these will be forwarded to his manager) and then he returns home to begin work. His next training

1. eLearning: A New Vision of Learning (cont'd)

event will occur in a year. In the meantime, any other training requirements will not be addressed because John cannot spare time from his work responsibilities. New product launches by the company tend to be delayed and then grouped so that training can have the maximum number of participants when it occurs.

2001:

John's training program is now delivered using a variety of training media blending instructor-led virtual classes and self-paced programs including books, CD-ROMs, videos and Web-based programs. The location doesn't matter because most of the training can be done over the Internet. The company saves on travel and accommodation costs. When John does his evaluations, his results are automatically logged immediately in the company's eLearning system. John can still make friends with the other new recruits in the live-virtual classroom he attends to supplement his self-paced training. Additionally, he can establish ongoing relationships with others doing the same job for his company, and they can all exchange and pool their knowledge and resources in their new eLearning community, using chat rooms and discussions. He has been assigned a mentor, so the 'human' personal touch of the instructor-led classroom still remains. Whenever he has a product question – even if he's on the road when it arises – he can return to his online community for assistance. His product knowledge is always up to date because his company simply directs him to the eLearning system for updates and training. He now has the maximum time available to do the very job he was hired to do.

Comparisons between traditional and eLearning approaches ⁱⁱ

	Traditional Classroom	eLearning
Classroom	<ul style="list-style-type: none"> • Physical – limited scale • Time and location dependent 	<ul style="list-style-type: none"> • Unlimited • Anytime- anywhere
Content	<ul style="list-style-type: none"> • PowerPoint slides • Textbooks • Video • Collaboration 	<ul style="list-style-type: none"> • Simple text, audio, animation, video, simulation, printed and online resources, online communities, collaboration
Collaboration	<ul style="list-style-type: none"> • Perishable 	<ul style="list-style-type: none"> • Reusable • Limitless
Personalization	<ul style="list-style-type: none"> • One learning path – lowest common denominator 	<ul style="list-style-type: none"> • Learning pace and path determined by user

2. Why Consider an eLearning Solution?

Maintaining a Competitive Edge

In the 21st century, employee training will become a key competitive strategy for companies wanting to capitalize on their human and intellectual capital. Company staff may excel at their jobs right now, but the speed at which knowledge and information is circulated today may cause their expertise to rapidly become perishable. Organizations have the potential to become less competitive almost overnight. The Internet provides the most efficient and effective method for distributing knowledge rapidly. To stay ahead of competitors,

companies need to obtain, manage and disperse knowledge quickly throughout their organizations. Technology-based training, fueled by the increasing popularity of eLearning, is growing rapidly. IDC estimates that eLearning's share of the overall IT training market almost doubled from 4 percent in 1999 to nearly 8 percent in 2000. ⁱⁱⁱ Why? Because eLearning presents a blend of the best offered by traditional training methods with the added benefits of the immediacy that the Internet provides, and the variety of delivery mechanisms it affords. In 1998, instructor-led training accounted for 77% of the market but in 2004 it will only account for 35% and Cushing Anderson, a program manager at IDC, says this shift in the business skills training market is happening because of the need for reduced cost of delivery, the need to generate better training solutions and a broader range of content for a more dispersed workforce. ^{iv} eLearning is rapidly becoming the preferred training method because of its convenience, cost effectiveness and flexibility.

Key Benefits of an eLearning Solution

Characteristics of eLearning	Benefits
Learning is a continuous, integrated part of work	Training is no longer distinct from work or an additional 'burden'
Just-in-time access to knowledge/ currency	Information is always up to date
Training can occur anywhere	Substantial travel and time cost savings
Learning can be easily directed to targeted, supplemental resources	Instruction has more meaning for the learner
Learning is 'holistic' and blended	Enhanced learning experience
Instruction becomes learner-centric	Learners have more responsibility for their personal success
Addresses the needs of all learner types	Information retention rates increase

2. Why Consider an eLearning Solution? (cont'd)

Tight Labor Market

With unemployment rates at an all-time low, corporate strategies to recruit and retain employees have become crucial. ‘Training to retain’ is proving to be a productive and cost effective means for a company to attract and retain its employees, and the growth of technology-based training reflects this.

John Chambers, the president and CEO of Cisco Systems Inc., said in an interview with Online News in November 2000 that “the thing that’s slowing down our momentum in any market right now is our ability to educate our employees quickly ... technology is moving too fast for companies’ traditional hire-and-train methods to work ... electronic learning is too important, the payback too large, for corporations to ignore it.”^v

Companies are now taking on the role of learning organizations in response to a fundamental shift in the average worker’s attitude towards training. In the past, work-related training was sometimes seen as a distraction from the very job it was provided to enhance. But this attitude has changed, as training is now viewed as a key factor in a job’s attraction and a company’s ability to retain employees. Companies today hire and keep their skilled labor by offering up-to- the-minute training and support.

eLearning Increases Retention

Learners can often forget what they have learned very quickly. Leaving someone in isolation to read a book will suit certain types of learners but not all. Similarly, in the past, a learner would very often depart the ILT environment and be left without any ongoing support.

The Research Institute of America found that 33 minutes after a lecture is completed, students usually retain only 58% of the material covered. By the second day, 33% is retained, and three weeks after the course is completed only 15% of the knowledge is retained.^{vi} The table below illustrates that this percentage continues to fall with distance from the learning.

Retention rates and the typical learning experience

Time From First Learning	Percentage of Material Remembered	Percentage of Material Forgotten
After 1 day	54%	46%
After 7 days	35%	65%
After 14 days	21%	79%
After 21 days	18%	82%
After 28 days	19%	81%
After 63 days	17%	83%

(Spitzer 1939)

2. Why Consider an eLearning Solution? (cont'd)

Addressing Learning Styles

In the past, most learning centered around the instructor. The main drawback with this approach has always been that a variety of learner types and styles found themselves faced with just one teaching style. The assumption on the instructor's behalf had to be that all students were equally motivated and prepared. Of course this view was impractical. eLearning confronts a reality of teaching that ILT could not – it recognizes learner types and styles and teaches across and through them so as to maximize retention for the various types of learners. ^{vii}

Maintaining and Enhancing Skills

At the corporate level, it has long been recognized that a lack of skilled labor is what drives the need for learning. With low unemployment rates and a widening skills gap, corporations are now competing fiercely for skilled workers. According to PriceWaterhouseCoopers, 70% of Fortune 1000 companies cite a lack of trained employees as their number-one barrier to sustaining growth. Business managers realize that the corporations that offer ongoing education and training enjoy a higher rate of employee retention and the benefits of a better-skilled workforce.

Supply Chain - Value Chain Learning

Many companies are also recognizing the importance of their partners' success. Because of the nature of eLearning and the ease with which it can be deployed, companies are extending their learning process along the value chain to include partnership companies. This improves partner relationships and solidifies a commitment between companies, helping to homogenize standards across partnerships.

Compliance Training

When an industry is regulated, the importance of being able to provide timely, consistent and accurate training for employees and/or partners is crucial. The ability to assess, test and track the results of thousands of learners may also be compulsory. Failure to demonstrate that employees received a required /regulatory training program might result in expensive fines and/or lawsuit settlements. eLearning responds to the need for compliance training better than any other approach because of the time frame in which it can teach.

Return On Investment and Costs

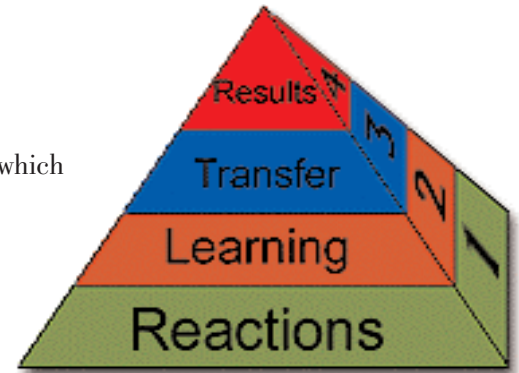
Another benefit of eLearning over other forms of training is the manner in which it facilitates measurement of Return on Investment and reduces costs in ways that were not possible before. Employee training is a substantial investment for any company so it is essential to be able to evaluate the return on that investment in both quantitative and qualitative terms. A clear and well-documented ROI process helps to determine:

- If training has impacted and taught the learners (reaction and learning)
- If learners have applied the learning back on the job (behavior)
- If there is any measurable business impact (performance change)

2. Why Consider an eLearning Solution? (cont'd)

Kirkpatrick's model

Kirkpatrick's model of training evaluation (which originated in the 1950s) states that each successive evaluation level is built on information provided by the lower level. ^{viii}



There are many things to be factored into the ROI calculation and some elements will no doubt vary from company to company. The following table shows some comparative results that six companies who have switched to online training have determined.

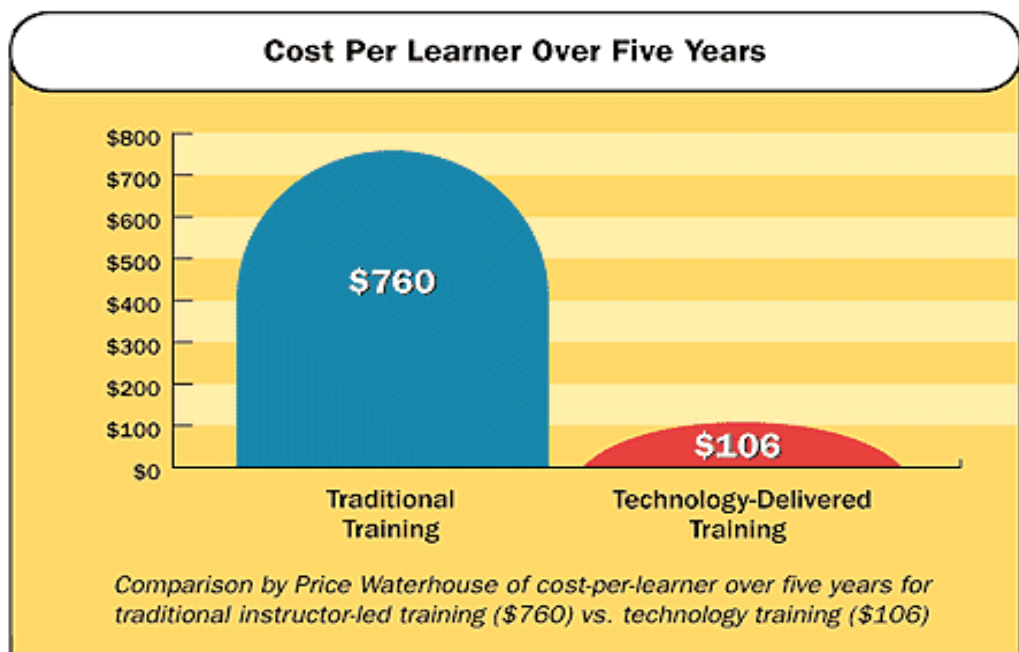
Company	No. of employees trained	Original costs of training	Costs after switching to online training	Total savings including travel expenses
Buckman Labs.	–	\$2.4million	\$400,000	–
Hewlett-Packard	700 engineers	\$7million	\$1.5million	\$5.5million
Aetna	3000	–	–	\$3million
MCI WorldCom	3825	–	–	\$5.6million (237% ROI)
Cisco	–	\$1200-\$1800 /learner	\$120/learner	\$1080-\$1680 /learner
Novell	–	\$1800/learner	\$700-\$900	\$900-\$1100 /learner

(William Horton, "Designing Web-based Training"; 2000)

2. Why Consider an eLearning Solution? (cont'd)

“ All of the benchmarked organizations that were far enough along to measure cost savings/avoidance and return on investment reported positive results. This includes IBM's \$200 million savings from eLearning in one year. The company provides five times as much training at one-third of the cost in its management development program. ” ix

The benefits in dollars are clear but there are other important factors to be considered when calculating ROI. These are all covered by Kirkpatrick's model, which has more meaning today in the ROI process than it did in the past because the four levels can each be more easily measured in an eLearning environment. Corporations can save between 50% and 70% when they replace ILT with eLearning. Housing and travel costs account for the majority of these savings, though lost productivity and revenue can actually be higher if you consider that classroom days include not only travel time, but also the total time away from the office.



Source: brandon-hall.com. "Return on Investment and Multimedia Training." (1995).

2. Why Consider an eLearning Solution? (cont'd)

A breakdown of traditional training costs is illustrated in the following diagram:



Source: WR Hambrecht & Co.,
"Corporate E-Learning: Exploring a New Frontier,"

“The total cost of training includes the cost of development and the cost of delivery.

Interactive training has a higher cost of development and a lower cost of delivery, while traditional training has a lower cost of development and a higher cost of delivery.

The lower delivery cost for interactive training results primarily from a reduction in training time and the elimination of travel.”

The flexibility of modular eLearning allows the student to attend to business and then learn when he has the time to concentrate. The company benefits as the employee keeps work on schedule, and the student benefits by being able to progress with valuable course work at his own pace.

3. Choosing an eLearning Solution

The first step a company should take is to perform a needs assessment in order to establish its training requirements and the appropriateness of implementing an eLearning solution.

To begin its needs assessment formally, a company should determine its business goals and then proceed to identify the learning and training targets that can help to achieve those goals. This will support a tailored learning solution that meets the unique needs of each organization and its learners.

Identifying Business Goals: Some Key Questions A Company Can Ask

- Do we need to increase the level of employee productivity?
- Do we need our employees to perform a broader range of tasks?
- Do we need to improve our employee attraction and retention figures?
- Do we need to find ways to reach a wider employee and/or customer audience with information about our products and services?

Performance analysis can be an integral component of needs analysis because it determines both your present and your desired performance levels, so helping you to formulate a learning strategy.

Setting Performance Goals: Some Key Questions A Company Can Ask

- What performance is needed if our business goals are to be realized?
- What is the current capability of our employees to demonstrate the required performance?
- What training and work environment actions will be needed to change performance?

Of course, on the ground, the bottom-line performers are the employees, and these must be asked a variety of questions about their jobs and training so that an audience profile can be assimilated into the needs assessment also. This will contain crucial data on people's attitudes to technology and training as well as some key information on the success of existing support structures and the success of the present work environment.

To be most effective a company's training should be targeted, appropriate, integrated and engaging. In fact, when developing a learning strategy, a company should consider each of these areas carefully. With a needs assessment done, a company can set about generating a learning strategy that is tailored to its specific needs. By targeting specific

3. Choosing an eLearning Solution (cont'd)

skills that are important to performance and that promote development among learners, companies will get the greatest direct return for their investment.

But Which eLearning Solution Should You Choose?

If a needs assessment leads to a decision to implement an eLearning solution then the company must ask some important questions to ensure they choose the right solution.

Selection Criteria for an eLearning Solution:

The solution that enables your company to answer YES to the following questions is the one that will best provide for your training needs:

- Will our new training be ongoing and supported?
- Will it be integrated and engaging?
- Will it enhance performance both for the employee and the company?
- Will the learning always be appropriate and targeted?
- Will it focus on the learner?
- Will it help us to meet our desired performance levels?
- Will it be collaborative and will learners have access to knowledge pools?
- Can the learning be done anytime/anywhere?
- Can we customize it?
- Will it respond quickly to changes in our industry?

The most effective training will be that which meets the needs of the learners and the company together. Perhaps some elements of the company's existing training solution are very effective and can be left in place to complement your eLearning solution? This is often the case. Indeed, a blended solution comprising some eLearning components and some instructor-led training (ILT) or other components is becoming increasingly popular among businesses.

To optimize your company's intellectual capital, PrimeLearning.com™ recommends you provide a 'holistic' training solution that offers a blend of instructional styles. It would not be true to say that ILT is being replaced by eLearning. What is true is that the companies that utilize eLearning most effectively are those that recognize the value of the hybridization that is occurring as eLearning and ILT settle into a dynamic pattern of instructional cohabitation. This blend can reduce the time and travel costs associated with traditional ILT, while enhancing the learning with the new strengths that eLearning brings.

4. Conclusion

eLearning enables your online learning to be much more than just a simple content resource. In fact, your company's site can become a whole corporate community, a center of growth for your employees. Through this community, learners can interact with their mentors and with each other, they can attend live virtual classes or pop in to see what the hottest discussion or chat topic in your industry is. In this community, learners grow and develop – and so does your company.

Notes

- i** Urdan, Trace A & Cornelia C. Weggen, 2000, [CORPORATE ELEARNING: EXPLORING A NEW FRONTIER](#). W. R. Hambrecht & Co. (See pg. 5)
- ii** Table is adapted from [Improving The Top Line Using eLearning](#), a white paper from [wbtsystems.com](#)
- iii** Brennan, M., & Anne-Sophie Dankens, 2001, [IT Training Needs Uncovered](#) <http://www.learningcircuits.org/2001/feb2001/dankens.html#2>
- iv** Anderson, Cushing (Manager of IDC's corporate eLearning research program) from the ITWeb Newsroom 8/4/2000
- v** [Online Learning](#) February 2000, by Computer Partners. <http://www.compar.com/infopool/articles/news2vs12.html>
- vi** Quoted in [Corporate Drivers of eLearning](#), an article from <http://www.forbes.com/specialsections/elearning/e-03.htm#c>
- vii** See [Learning Design Philosophy](#) (2001) , a PrimeLearning.com™ white paper on its philosophical approach to the eLearning process
- viii** Winfrey, Elaine C., [Kirkpatrick's Four Levels of Evaluation](#) published at <http://coe.sdsu.edu/eet/Articles/k4levels/start.htm>
See Also Donald L. Kirkpatrick, 1998 2nd Edtn., [Evaluating Training Programs : The Four Levels](#), (Berrett-Koehler, San Francisco, CA.)
- ix** Quoted in [Benchmark Study of Best Practices](#), an article from <http://www.forbes.com/specialsections/elearning/e-05.htm#b>
- x** Source: PrimeLearning.com Website news release.

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