

(e)Learning for the Knowledge Economy

Introduction

The ubiquity of technology is forcing most organizations to re-evaluate their approach to employee learning and development. For some, this has had large repercussions. Do we buy an LMS? Should we consider a social networking tool for our employees? Can we introduce podcasts or wikis? All of these questions are now commonplace for organizations.

This white paper will present how e-learning can fit within an organization’s support functions. Leading edge organizations embrace technology, but invest equal importance in “high touch” learning interventions. A balance means a better experience for the learner, allows the organization to invest in knowledge, learning and employee development without increasing the number of full-time trainers, which can be costly.

Crafting a Strategy

It is critical for organizations to remember that technology should not drive strategy, business needs should. Recognizing a need for the organization to invest may come from customer feedback, change in share price, competitive market, re-branding, product development or a myriad of other scenarios. The one thing that an organization shouldn’t do is build a strategy around a piece of technology. Organizations thinking about e-learning, can use this paper to help understand what it is and some of the benefits (and down-sides) of e-Learning.

Balancing “high touch” learning, which emphasizes the human aspect of interaction with the “high tech”, at your fingertips, self-driven learning is a way to honour different learning styles and intelligences, while managing the need for knowledge retention in organizations.

High Touch	High Tech
Provides strong human connections that promote learning and development.	Provides more individual and immediate opportunities for information, learning & development.
Skills-training is best suited to high touch	Knowledge transfer can be enhanced through online tools.
Provides nuances of content and reframing for context	Available all the time
individualized feedback for learners with non-verbal communication cues	Can be accessed numerous times, freeing up learning time for higher value instruction, rather than rote instruction
Provides a range of human interactions to adapt to	

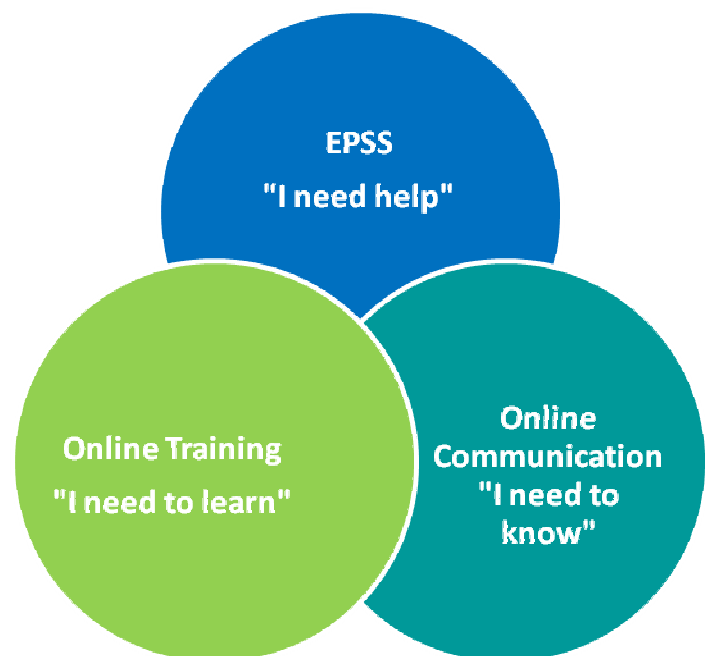
Compelling influences...

- General industry thinking about messages:
 - Only 30% of employee learning happens in a classroom, 70% is on-the-job
 - Messages are received when repeated 3-7 times in a variety of ways
- Adult learning principles are clear:
 - Scaffolding is a critical part of how adults learn – building on previous knowledge
 - Context is important to adult learners, needing to know how and why
- Technology innovations are inevitable
 - Computing power will continue to increase (Moore's Law)
 - The rise of Web 2.0, collaborative, open-models are replacing static models.
 - Mobile devices, such as smart phones and PDAs
- Generational influences –
 - "Millenials" are more technology savvy than their parents would ever hope to be, pushing organizations to explore technological solutions
 - Demographically, the boomers are set to retire "en masse" and this poses a threat of knowledge loss for many organizations
- Geographical influences
 - Outsourcing call centres and production facilities to cheaper countries means a balance between high touch and high tech is essential
 - Telecommuting and small satellite offices are common in many organizations

Definition of E-learning

"... the appropriate application of the Internet, and Internet technologies, to support the delivery and management of learning, skills and knowledge."

This paper treats e-Learning as an umbrella term which encompasses the inter-related domains of communication (information/knowledge), training and performance support. Each of these facets under the eLearning umbrella are concerned with ensuring that the target audience has received a message. Smart businesses realize that knowledge is an organizational asset.



A suggested approach

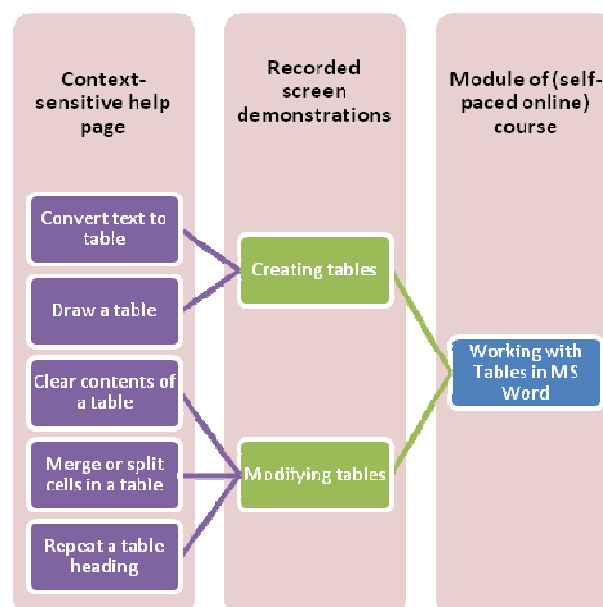
Our approach is predicated by the following guiding principles:

1. Business need is the primary driver.
2. Select appropriate e-Learning vehicle for the need – neither training nor technology is a panacea, be judicious about using both.
3. Balance stakeholder needs – has to make sense for the organization and the learner
4. Create once, use many times (across the organization) – shared content model will reduce duplication, increase collaboration and improve customer experiences through consistency.
5. Maintain a mix of build and buy strategies. Ensure that there is ability to design some e-Learning in the organization and not rely on external providers to produce all e-Learning.

Re-Usable Learning Objects

When thinking about e-Learning in this broad manner, it is most effective when you base it on the idea of re-useable learning objects. Think of these like pieces of “Lego”, which you can use in various combinations to build different structures, yet they can be considered structures as a single piece and they always fit together. They are strong when you put them together, but they are also easily separated and re-used.

E-learning can conceptually be the same. Organizations need to determine what the smallest learning object (Lego piece) is for their organization and determine how they can be grouped to form useful structures for employees to use. The follow section breaks down the overlapping disciplines of performance support, online training and communications/information and provides some examples of how these fit in the overall model. The key for organizations is to consider which ones might support their strategy and how they can incorporate the guiding principles we’ve suggested, or principles of their own.



Three Facets of E-Learning

1. Electronic Performance Support Systems “I need help”

Electronic Performance Support Systems (EPSS) can be defined as:

*"an integrated electronic environment that is available to and easily accessible by each employee and is structured to provide immediate, individualized on-line access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit job performance with minimal support and intervention by others."*¹

An electronic performance support system can also be described as any computer software program or component that improves employee performance by:

1. reducing the complexity or number of steps required to perform a task,
2. providing the performance information an employee needs to perform a task, or
3. providing a decision support system that enables an employee to identify the action that is appropriate for a particular set of conditions.²

Electronic Performance Support Systems can help an organization reduce the cost of training staff while increasing productivity and performance. It can empower an employee to perform tasks with a minimum amount of external intervention or training. By using this type of system an employee, especially a new employee, will not only be able to complete their work more quickly and accurately, but as a secondary benefit they will also learn more about their job and their employer's business.

Tell Me How	Show Me How	Let Me Try
Online Help <ul style="list-style-type: none"> • Context sensitive • Step by step process 	Remote Software and wizards	Training Databases <ul style="list-style-type: none"> • Copy of a production database for practice
Frequently Asked Questions (FAQ) <ul style="list-style-type: none"> • Dynamically manages questions 	Demonstrations <ul style="list-style-type: none"> • Record the screen (with/out voice over) 	Embedded <ul style="list-style-type: none"> • Use in other training
Knowledge Base <ul style="list-style-type: none"> • Diagnostic trouble-shooting 	Video clips <ul style="list-style-type: none"> • Record the person (real video) 	Emulation & Simulation <ul style="list-style-type: none"> • Mimic functions

¹ Glory Gery, Electronic Performance Support Systems.

² Performance Support Systems, Josh Bersin and Karen O'Leonard

2. Online Training – “I need to learn”

Online training relies on electronic technology to design and/or deliver training. The most common delivery mechanism is through the internet, which means that it is available continuously. These can be as simple as html pages, just like websites for online stores and as complex as a complete virtual simulation. The most common is an online self-paced tutorial, which can be accessed through a “url”. Often these are launched through a corporate Learning Management System (LMS), and these may contain basic pages of text or have video clips, sound, pre and post tests, embedded demonstrations and links to other online resources. Mobile learning is an emerging aspect of elearning – small nuggets of learning dynamically delivered to a PDA, cellphone or other handheld device.

Technology is an enabler, however the tool itself will never replace good instructional design. Organizations must always match the learning need with the right application. The overall intent of e-Learning is to allow learners to shift time or location.

Online training can be broken down into two broad categories: synchronous and asynchronous.

	Live (Synchronous)	On-demand (Asynchronous)
Purpose	Location shifting	Time shifting
Benefits	Learn at work Simulates classroom	Modular, individualized, consistency, learn at own pace
Appropriate for	Raising awareness, sharing information & expertise	Knowledge Transfer

On my own	In a Group	With an instructor
Task based tutorial <ul style="list-style-type: none"> Learn new software 	Online desktop webinars <ul style="list-style-type: none"> Live or on-demand 	Modularized program <ul style="list-style-type: none"> Distance learning
Operational/Technical <ul style="list-style-type: none"> “Core Skills” for new employees 	Cohort learning <ul style="list-style-type: none"> Fast Track programs for high potentials 	Combination of self-study and project work, with or without guidance
Business/General Skills <ul style="list-style-type: none"> Professional Development (i.e. Project Management) 	Business games and simulations <ul style="list-style-type: none"> E.g. Play the stock market game 	Assignments and feedback (e-coaching)

3. Online Communication “I need to know” or “I need to connect”

Blogs. Facebook. MySpace. Second Life. These are all considered “social networking” tools, a way to enable social connections via technology. While these aren’t necessarily always appropriate for corporate communications, they can provide positive influences for incorporating innovative ways to communicate using technology.

In a knowledge economy, much of the competitive advantage is tied up in human capital. Organizations are successful because of the people. Ensuring that employees have access to the knowledge and systems to support this type of business model is essential.

Providing the means for employees to share best practices is the cornerstone to innovation and the key to continued success in a hyper-competitive market. Creating the environment where employees are encouraged to not only share their ideas, but to improve and implement new ideas is dependent on using technology to foster the ideals. Creating more performance support reduces the time employees need to do tasks, thus freeing up both time and “brain space” for higher order thinking and higher value activities.

Through the use of technology, organizations can address issues of two-way employee communication and information overload, through better bundling and targeting of information. These contribute to better organizational learning, which in turn creates a more open environment for individual and team learning.

To do my job	To feel connected	To exchange ideas
CMS/Document Management System (i.e. Sharepoint)	Bulletin Boards Customizable home page on intranets	Online surveys, polls & feedback forms
Organizational directories; forms on demand, self-service tools	Internal & External News <ul style="list-style-type: none"> • Weekly E-mail newsletter • Subscription news 	Discussion boards/Communities of Practice, Email lists
Manager’s Intranet site	Blogs & Live Chats, podcasts	Wikis, Instant Messaging

Why e-Learning?

Reduce Cost (Off the Shelf e-learning vs. Classroom example)

2220 staff x \$15per user = \$33,300 for 3 years / 3 = \$11,100 per year

Instructor & Facilities = \$500
(Wage + Prep) (Room-Heat-Light-Coffee)

Student + Travel = \$60 x # of students15 = \$900
(3hrs x \$15 per hour)
(mileage cost \$10)

Total ----- \$1400

To bring all staff back in for refresher training vs. using an off the shelf e-learning course:

\$1400 per session x 148 sessions (15per session) = \$207,200 total cost per year x 3 years = \$621,600

Classroom= \$621,600

Online training = \$33,300

Savings \$588,300

In a competitive employment market, it is essential that organizations invest in the skills of their employee base. For an organization, which primarily promotes from within, it is vital that employee learning is both robust and accessible. As many managers are aware, the labour pool is shrinking and will mean most organizations will have to invest in developing employees. By creating a blend of classroom or instructor led and online training, the organization will be able to accommodate a more flexible intake system (continuous hiring) and ensure that new employees are “up to speed” more quickly, but that they can also take control of their careers by self-selecting development opportunities. Organizations are also able to prepare employees for promotion by having a more individualized and self-paced model with online training. Managing talent needs to be more individualized to be successful.

From a compliance and a service perspective, using online training allows for a more consistent knowledge transfer as well as a better framework for continuous education. As organizations grow, it becomes more complicated (and expensive) to serve a larger and more geographically dispersed employee base without technology, including online options is scalable.

Increase Employee Engagement

These factors are considered global drivers to employee engagement³. Providing more access to learning and development and focusing on communication will have a positive impact on engagement scores. High employee engagement has direct correlation to turnover (costs incurred) and strong individual performance.

- The work itself, including opportunities for development
- Confidence and trust in leadership
- Recognition and rewards
- Organizational communication

Increase Productivity & Positive Impact on Revenue

- Geographical nullifier!
- Employees can access learning from their desktop, reducing the time away from the job for some learning needs (opportunity cost).
- Consistency and timing of information can reduce likelihood of errors and increase service recovery response.
- Creating once and using for multiple purposes enables organizations to use e-learning as a piece of knowledge infrastructure.

Provide Continuous Learning

Broadening the tools for learning provides more access for employees to learn, share ideas and help themselves. This puts less emphasis on a training event (classroom session) and more on the process of employee learning, which is based on individual motivation. Self-directed learners are more likely to be innovators. Broadening the tools also allows for more continuous education, which is key in a knowledge economy.

Consistency & Quality

- E-learning will give you an organizational standard which can make it easier to train to or manage against.
- We all know that learning with an instructor or hearing an announcement from a manager means that there will be variability in the content. The printed material is the same, but the emphasis, examples, nuances will all be different. E-learning provides you with a more consistent option.
- Just as there will be variability with the content, there is also variability with the quality when relying on an instructor or manager to communicate. Some are great and let's face it, some are not. E-learning will smooth out those rough spots as well. Great delivery can mask mediocre design, but great design will ensure that your message gets through every time.

³ Engaging Employees to Drive Global Business Success, 2007, Mercer What's Working report

Governance & record-keeping

- E-learning can give you an automated system for record keeping, which is critical for any aspects that an organization needs to have firm data for training, such as safety or compliance
- Automated testing/knowledge confirmation is also a benefit
- Refreshers – certain industries are heavily regulated and expect employees to complete refresher courses on subject matter. E-learning is a great way of doing this.
- Workforce planning efforts can also use records that tell organizations which employees have demonstrated proficiency in which areas and may be ready for promotion or a rotational assignment.

Time to “market”

- If your organization is dependent on agility as a critical aspect of your strategy, E-learning will increase your agility and allow you to get products to market quicker. Often the biggest delay in product development is ensuring all your employees can sell/support/deliver a product. E-learning has proven that it can reduce this significantly.
- If you have high turnover business (call centres), then E-learning will help you train and orient new employees, protect you against brain drain and not divert managerial energy toward the time-consuming tasks of new employee training.
- Turnaround – if your organization is lagging or finding that your competition is further ahead than your organization, E-learning can be part of a turnaround.

Things to consider:

- Impact on organizational culture. E-learning may not fit with your culture. Your employees may not be ready to embrace it, you might want to consider a “readiness” assessment as part of your exploratory phase.
- Learning styles & demographics – your organization may not have a learning style which is conducive to elearning. You may also have a workforce that doesn’t consider it of value.
- Return on Investment – the business case – you may have a strategy that suggests elearning is a good option, but do the numbers, if it costs more than the benefits it provides, don’t do it, or scale it back. Go big or go home is only an option, not an imperative
- Partnering with IT – you may decide that a certain element of elearning is perfect, but it is essential that you bring in your IT people, who may point out shortcomings or issues
- HR – don’t forget that opening up learning to an “anytime/anywhere” mentality might just contravene policy or even legislation or collective agreements protecting employees against overwork. Do your due diligence here!
- Other stakeholders in the organization – marketing, employee communications, help desk, product development, quality assurance, all have a stake in an e-learning strategy – you need to engage these folks early in the thinking process to determine if there are organizational initiatives underway, resources that can be pooled, resistance to explore, etc. Don’t be the lone pioneer unless you have to. E-learning is an organizational initiative and should be treated as such, not as a pet project of a training department.

Ensuring e-Learning Success

Creating the right environment where E-learning can be successful can be broken down into the following categories for creating an E-learning Organization, along with some tips on how to use them.

Learning (Individual, Team, Organizational)

1. Individual Learning is continuous and conscious, start with programs that affect new employees, who will then consider learning as part of “normal” day-to-day operations.
2. Reward learning (create incentive to learn through knowledge points)
3. Team Learning – encourage sharing of best practices at staff meetings
4. Organizational Learning leads to Innovation; try a new way of learning and promote it

Organization (Culture, Vision, Strategy)

1. Build it and they might come, but figure out what will draw them to it
2. E-learning is cross-functional, structure and processes should support that
3. Embed learning into workflow
4. Hook it into existing cultural components, like new employee induction or employee rewards programs

People (Staff, Management, Customers)

1. Employees need time and place to learn, commit to some numbers
2. Employees empowered to learn
3. Enhance management’s coaching skills
4. Customer feedback gives direction to content (through surveys)

Knowledge (Acquiring, Sharing & Storing)

1. Design with many purposes in mind
 - “Lego” chunks allow for re-configuring as necessary.
 - Content is owned across organization (marketing, IT, etc)
2. Distinguish between:
 - Memorization
 - Familiarization
 - Reference
3. Build with intent to make available to customers (to blend with marketing efforts)
4. Shared guidelines, standards and protocols

Technology (Learning delivery, Sharing knowledge)

1. Distribution – how will employees access?
2. Platform (hosting) – where will you store content?
3. Tracking (learning management system)
4. Security & privacy

Conclusion

Most organizations know that technology and learning are reality but knowing and doing something about it are different things. It is important to have an idea of what the whole picture looks like and determine a plan. Often organizations fall into two camps: planners and doers. Planners spend infinite amounts of energy thinking, planning, and managing, wanting things to be perfect before “launching” anything. Unfortunately, they waste time and miss the opportunities to help employees. The doers, on the other hand, realize that speed is important and produce a learning product that helps employees learn what they need to, but can’t track, replicate, host or assess the solution. Be smart and become a planner and a doer, create a framework for the infrastructure, but plan to get something in front of employees quickly and successful, build on the small successes to create momentum. Most importantly, create a strategy to guide why you are choosing what to do, what impacts it will have on your organization, both positive and negative, and involve as many people as you can in the planning stages.