

Running Head: eLearning in Corporate America and Worldwide

eLearning in Corporate America and Worldwide

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*Abstract*

The objective of the paper is to provide a short history of where we were in designing and delivering corporate eLearning from 1990-2010. Is there still value in training employees using eLearning technologies? (The answer is still yes, the type of learning and what the intended outcome is expected for the learner.)

We look at the evolution of early designs of eLearning and where we have travelled from the early '90s to today, and where we truly need to aspire to in our design and development capabilities for tomorrow. Media and Web 2.0 and Web 3.0 are here now. There is no looking back and being hopeful on what was – it is about grabbing the bull by the horns and developing the best quality using advanced learning technologies to retain what is learned in the shortest amount of time. The outcome is to bring fun into the equation by immersing our learners into a true 3D immersive learning experience through experiential and applied learning is truly the beginning of the new tipping point.

This paper explores these ideas and more. This paper entices the 'C-Suite' and the Chief Learning Officer to get involved in the learning process as part of the new wave of change that is sustainable and quietly transforming our workforces. The opportunity to expound on our boundaries are truly limitless and a gift that the Great Recession has provided our executives to provide.

*Keywords:* Evolution of eLearning, Applied learning through 2D – 3D to Immersive Learning Technologies, Engagement of the Learner, Increased Retention and Improved Performance.

## Introduction

### The eLearning Evolution in Corporate America – Worldwide from 1990-2010

I chose the last twenty years for eLearning because so much has changed in the first ten years of those twenty and then in the second ten years the changes seemed to be happening overnight. To quickly summarize the years 1990 – 2000 not only did we have two financial mini recessions to deal with beginning with a hang-over from 1987 and ending with the dot.com bust at the tail-end of the 90's. Also during that time, the Internet was getting its sea legs and the Learning Management Systems (LMSs) were doing the same. The trend of moving people from classroom training to some form of video-taped learning on a cassette was all the rage. Yet it was the beginning of what today we know more lovingly as eLearning. In the primitive years, eLearning was an hour long PowerPoint type presentation, with some type of audio device. The learner sat through an hour long presentation of very dense learning material which the developer of the training thought was wonderful. Beginning with the 2000's the LMSs began to improve, with more flexibility to deliver full catalog systems of learning and to provide an HTML type interface to the learner. The eLearning content technologies became more 2D and we learned as technologies improved – an hour of eLearning was far too long. Twelve to fifteen minutes is a 'sweet spot' depending on the audience and type of content today. LMSs could track attendance registrations; in addition they could keep track of assessments in the learners' history. eLearning is used for performance training and compliance training – yet more recently due to the Great Recession, the eLearning has been used as a method to provide compliance training to

organizations. The types of deliverables have been rather bland with nothing but the basics to meet compliance regulations. Yet what lies ahead are the simulations, the serious games and the 3D capabilities of the eLearning platforms. The value of these types of learning is the ability to address all of the senses of the learner and to hold the retention level within the memory as if the experience of the learning was actually real. Will eLearning be just in time, a push and pull environment for the learner when needed? Will LMSs still be needed? Will there be a need for formal training in the workplace of the future or just informal impromptu learning? The future is here now as these new emerging technologies slowly begin to move into the mainstream. The real question will be how to engage the management staff to see the true value in their organizations as a true learning organization as we move into the 21<sup>st</sup> century. Additionally, how will management and leadership embrace these types of advanced technologies for their own learning?

### **Is eLearning a value in training worldwide employees?**

The answer still is yes both formal and informal learning, yet the world in which we live is changing rapidly and is being driven by technology and social platforms. In reviewing a webinar recently presented and sponsored by the Human Capital Institute eLearning segment, Nilofer Merchant (2009) presents “Banishing Chief of Answers Leading Co-Creators” she is the CEO & Chief Strategist, Rubicon Consulting as she discusses her book *The New How*. “The New How is a book about collaborative work to design and set direction faster and everywhere inside organizations (p 7).”

What we had then was an Air Sandwich. The meat of the sandwich was missing.

The things that complete the sandwich in business – Shared understanding, engagement

of Ideas, Development of Options didn't happen. In practical terms, the key things that cause real change to happen ...the 1000 little decisions that people need to make, they were unprepared to make b/c they were not involved in the formulation of the direction. (p 13)

Nilofer quotes in her presentation, "The future is not created the future is co-created (p 37)."

As we move into the future organizationally and via our learning programs developmentally as to how they are co- created, the questions will focus around the content and how different formats and governance will be monitored organizationally.

In terms of our leadership, they need to buy off on the idea of virtual leadership skills and management skills and learning to help their teams co-create as the next generation demands to be the new tipping point and the solution and being aided by the technology and social media platforms and driven further by the Great Recession in present time.

### **Evolution of design and development of eLearning**

In Senge's book (2008), *The Necessary Revolution* there is a quote about change that sums up the wave of the next evolution, "Never doubt that a small group of thoughtful, concerned citizens can change the world. Indeed, it is the only thing that ever has, said Margaret Mead. To which we would add, "Depending on their ability to build larger networks (p 225)." I love this quote by Margaret Mead due to people like herself and her studies of people; history does have a way of repeating itself yet evolving in such a way to keep up with the times and truly expanding our connectivity worldwide. Our next mission in our second worlds will be the challenge to expand our mind-sets beyond the current boundaries.

Formal Learning and eLearning still has value in the workplace yet it depends on the subject matter and the purpose of the training. Curriculum roadmaps include skill levels, competency based training; career paths includes training plan, role, skill level and metrics. The question will be can we transfer to more performance type training once companies return to their normal operating budgets from the Great Recession? The cost of design and development of any type of learning is expensive, the question goes to how strategic will the company be? Will the new focus be on retention of Baby Boomers? Or will the focus be on Generations X, Y and the Millennials and the new advanced learning technologies? Or will there be an effort to provide for all five generations that are present in the workplace today?

The type of Learning Management System (LMS) implemented will be able to provide very granular test results and analytics to the management team. The LMS can be leveraged to host and collect data on the social networking informal sites as well. The question will be how much will this data matter? In the past the analytics although sought after were not really performed due to the expense in bringing together the systems. However, with the new SaaS and cloud technologies the costs to obtain analytics may be less to retrieve and therefore more available.

### **Evolution of 2D to 3D to immersive learning technologies**

Bersin's (2004) Blended Learning Book provides a historical view of where learning started, "In the evolutionary steps which led us to where we are today, we start with traditional instruction-led training:

(Figure 1.2) The Evolution of Technology-Based Training

Instruction-led training-ILT - Mainframe-Based Computer-Based Training 1960s – 1970s - Satellite of Ground Based Video “Distance Learning” 1980s-1990s - PC-Based CD-ROM “CBT” 1980s-1990s - LMS Beginnings AICC Standards - First Generation Web-Based Training Virtual Classroom “E-Learning” 1998-now - ?? Integrated Blended Learning Web, Video, Audio, Simulations, ILT, and more... 2002 (p 2).”

Bersin’s book is an excellent resource to helping anyone who truly wants to understand the nuts and bolts of how to build eLearning curriculum and to build eLearning curriculum correct. I used Bersin’s book as my reference bible to check on terms and the historical facts of what works and what doesn’t work. I have been incredibly successful in building eLearning programs using Bersin’s fundamental blended learning technologies. Bersin also does an incredible job providing the historical nature of where we were, and where we were going at the end of 2002. In just a few short years, technology bloomed after the dot.com bust for the learning industry.

Many mergers and acquisitions of the LMS companies occurred and the merging of some of the functionality in the HRM systems occurred with some companies. Finally, these systems by 2005 were really up to date with the latest technology and integration was easier than it was in the previous generations of the product releases. Human Resources (HR) as we are learning have not always been strategic and they have not always managed all of the training for organizations. HR has managed the legal compliancy training typically and many times training was managed by an operations team. From my experience, there has been a normal pattern in organizations of centralization and decentralization that seems to swing back and forth approximately every eight years or so. As HR learns to be a more strategic partner to the

business it will be of interest to see where training other than compliancy training will reside with them. In the last organization I worked for the realignment and the reorganization went from decentralization to centralization and moved all the training operations under the HR umbrella to improve operational costs.

As evolution moves on with *Learning in 3D* (2010) O'Driscoll & Kapp discuss their viewpoints about evolution as it applies to a preoccupation with productivity, they break this learning into two form factors:

Evolution: At the most general level, learning can be broken into two primary form-factors:

(1) teaching people how to do things we already know how to do and (2) creating collaborative environments that allow people to develop new ideas and concepts to address unanticipated opportunities or challenges.

The first form-factor focuses on productivity. It seeks to drive efficiencies and maintain the status quo. The goal of productive learning is to get everyone in the organization to regress to the mean of optimal productivity in performing work activity.

The second form-factor focuses on growth. Growth comes from innovation and generating collective insight into the market that competitors have not yet seen. This insight emerges from connecting networks of individuals and helping them develop a collective point of view on the future that none of them could have come up with individually. (p 28-29)

My hope from the evolution of 3D and advanced learning technologies is to spur individuality and let those people who tend to hide come out of their shells and feel they can contribute their ideas and be more readily accepted in a collaborative team. If people are able to either create their own persona as they choose they may create a persona of who they would like to see themselves in the group rather than how others see them in the group. If there is a game part of the fun is not to be anonymous, therefore if there is a skill that is being developed and the



participant excel at these skills and get the most points the value for the participant is an overwhelming feeling of self-confidence. If this participant knew that they were not good at this particular skill they could also play without shame knowing they would not be 'outed' until there was improvement. In other words the environment can be set up so it is very safe for the learner to make mistakes and learn.

One of the methodologies that occur in simulations and gaming is people being able to push and pull their personal boundaries. In the research article, *Emotional and Cognitive Self-Regulation Following Academic Shame* (2008) Turner and Husman and others explore what it means for a student to be motivated to learn and what failure means to that individual, and what shame from that event has been created. For students learning in Serious Games they may have an opportunity to work out these issues and see the results of their successes for themselves and minimizing their doubt and self-worth. In the opening and closing sentence within the first paragraph of the article, "However, research has not revealed *how* students recover (or not) from shame experiences with respect to their cognitive, behavioral, and affective processes to resume their goal-striving or to shift their goal-striving (138)."

The other issue this article speaks to is behavior. How does the person interpret failure and how do they demonstrate that failure or success via their behavior in their environment. I am going to take the leap and say in their work environment, using performance reviews as a teachable moment in the so called 'bad' employee. If a bad employee was able to work out their failures in a non-threatening game environment or a 3D world and we could then understand the failure; is it then not conceivable that the person really is not a bad person but does a terrible job

behaviorally with failure? I am not saying that HR training departments solve the world's ills yet if there were a solution to identify a 'bad' employee and reduce overhead costs by not letting the person go and rehiring another person, would this solution be worth investigating?

Senge's book, p 45

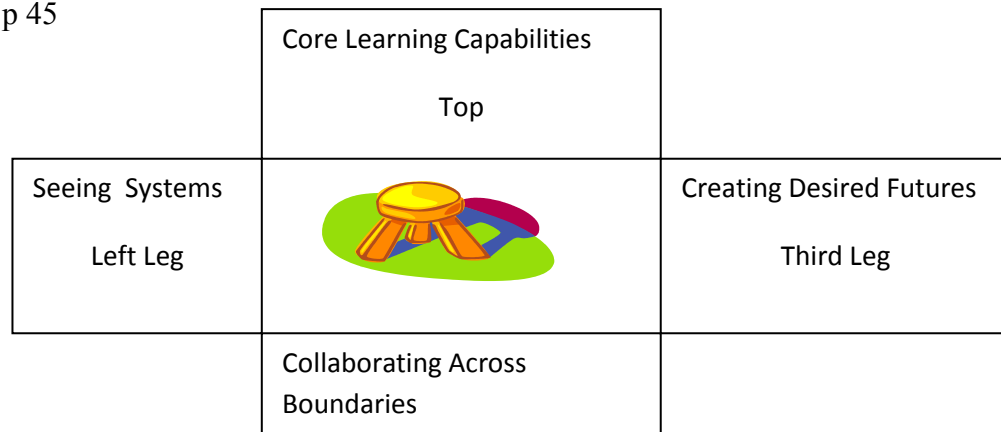


Figure 4.1 Learning Capabilities for Systemic Change

In Senge's book (2008), *The Necessary Revolution* and the idea of system change and collaborative change are still part of the message as a learning organization. "All three legs of the stool are needed for creating regenerative organizations, industries, and economies; take away any one, and the stool collapses (p 45)."

Systems thinking is widely espoused today, but many organizations lack the capacity because they lack the commitment to build the skills and the tools to help them do so. Buckminster Fuller used to say that if you want to teach people a new way of thinking, don't bother to teach them. Instead, give them a tool, the use of which will lead to new ways of thinking. (p 46)

Yes and give people a new tool – and a new way to think! I truly have hope that with the advanced learning technologies that people will see the value in skill and behavioral development and begin to see these tools as a beginning of the tipping point to incorporating systems thinking into organizations in the 21<sup>st</sup> century.

**Evolution of design and delivery methods**

In Mello’s book, Strategic Human Resource Management (2006) in chapter 9 the evolution of training and development are addressed, specifically a segment on eLearning:

Despite its popularity, there are some drawbacks to computer-based instruction. First, learners must be self-motivated and take both initiative and responsibility for their learning. Second, the cost of producing online, interactive materials can be quite high. The content of the learning can become outdated quickly and require revision and possible of the entire online learning environment. Finally, the lack of both interaction with others and two-way communication may work against the needs and preferred learning styles of many employees, particularly adult learners. (p 409)

Although some of what Mello says I agree with, yet the areas of audio, visual, memory, kinesthetic and the sense of smell are all incorporated in eLearning today. As we move further in simulations and advanced learning technologies we can add full immersion and interactions with others as part of our social learning for adult learners. Below are two tables that are typically used in planning our training curriculums, what will need to be added to these tables are the informal learning processes as well.

Exhibit 9-1: Strategizing Training (p 405)

<b>Assessment</b>	<b>Objectives &amp; Measures</b>	<b>Design &amp; Delivery</b>	<b>Evaluation</b>
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Organization		Interference -On the job	
Task		Transfer - Off the job	
Individual		- Online	

What I have seen missing at Cisco, my last place of work was the objectives, measurement and the ability to provide and evaluation of the program. In so doing, I really felt the training had no value (at least to me as the designer). There was a level two form using a Likert scale, yet it truly had no true value in its meaning to management. Something I learned while I was at IBM, the management valued the measurement of the training programs. There was a bit of competition between the brands and the sales brands paid for their training. Therefore, the measurement did mean something. I do believe when something is provided for free, people unconsciously attribute that it has less value. When the managers let the people out of the field even to take the eLearning program, there was value attributed to that time and the measurement of that program.

**Evolution of content**

Exhibit 9-2: Levels of Needs Assessment (p 406)

<b>Organization Level</b>
How does the training relate to organizational objectives?
How does the training impact day-to-day workplace dynamics?
What are the costs and expected benefits of the training?
<b>Task Level</b>

What responsibilities are assigned to the job?

What skills or knowledge are needed for successful performance?

Should the learning setting be the actual job setting?

What are the implications of mistakes?

How can the job provide the employee with direct feedback?

How similar to or different from the training needs of other jobs are the needs of the job?

**Individual Level**

What knowledge, skills, and abilities do trainees already have?

What are the trainees' learning styles?

What special needs do the trainees have?

**Evolution of metrics**

In Josh Bersin's (2004) Blended Learning Book, he discusses metrics and the value measurement and metrics are to the process of learning. Below are a collection of questions he poses in his text:

- How is learning using technology to drive skills and be effective?
- How do we leverage key content and knowledge through the combination of technology and learning?
- How can learning extend beyond the classroom, blended with the classroom and infused with informal learning? (Distance Learning methodologies)
- How can we recover a return from our technology investments in the learning arena?
- How do we start to manage learning rather than manage learning technology? (p15-30)

As mentioned I used Bersin's book as a reference and I really became an assessment designer when writing content, thanks to Bersin. I believe that the content does need to have some value to the audience, listener, and student as so many times the content that was designed served so many different needs. In writing a good objective, and then a test question I could deliver content that made sense regardless if the content ended up being a webinar, eLearning or face-to-face training because the content had a flow to it. People did walk away from the final deliverable with learning something, even if it was one objective.

In an article entitled *Assessment of Student Learning Through an Online, Competency Based University* (2008), the author Alec M. Testa describes the challenges at Western Governors University (WGU) and the promise to help their students, "achieve their dreams for a degree and career success by providing a personal, flexible, and affordable education based on real-world competencies (p 1). They do this by the students only making progress via competency based-exams. I find this rather interesting as it means the student would really have to learn a skill. What I would like to understand is how a student in this setting would apply this competency in a simulated environment? Additionally, in comparison to students taking the hourly coursework in knowledge areas and then putting this to a test in a simulated environment to apply what they have learned would be of interest. I would surmise that the competency-based online student actually learned their skill set and were able to apply what was learned a bit higher than those that were hourly coursework.

In an article from the World Future Society entitled, *The Art of Foresight, Preparing for a Changing World* (2004) I marvel at the ability to be able to spot trends and bless those people

who are on top of thinking ahead of the pack. As quoted in the article, “Foresight is the secret ingredient of success, because without foresight we cannot prepare for the future (p 1).” I agree! As a point about our new generation coming into the workplace, the Millennials will bring with them new ways of doing things as technology has sped up their lives. Gaming and simulations in Education is an area where we will begin to see the rapid development of the foresight of technology leap to the forefront and create opportunities that have not ever been seen in our present lives in the workplace. We only have dreamed of such things happening in the world of the Jetzons.<sup>1</sup>

**Evolution of 2D to 3D to immersive learning technologies**

Lastly, as we begin to discuss the evolution and revolution in social learning, we begin to discuss the relevance of O’Driscoll and Kapp’s work in the newly released book, *Learning in 3D: Adding a New Dimension to Enterprise Learning and Collaboration* (2010) and how this all ties together with the new organizational structure mentioned in the book *The New How and The Necessary Revolution*. As the technology on the internet continued to evolve so did the companies and services with their offerings.

Figure 1.1 The Three Webvolution Waves (p 8)

1994 – Webvolution Waves  
 Web 1.0 (Access, Find)  
 Web 2.0 (Share, Participate, Collaborate)  
 Web 3Di (Co-create)

Internet Service Provider (ISP) AOL, Prodigy, Lycos, WebCrawler, Yahoo, Google, Amazon’s Jeff Bezo (p 8)

In the Webvolution brains have surpassed brawn as the engine of enterprise. The perennial challenge of the learning function

within the enterprise is to ensure that human capital investment yields a workforce capable of innovating faster than the competition and work processes that allow the organization to adapt to changes with minimal disruption. This suggests that the learning function should become increasingly strategic to the enterprise. (p 22)

The question taken from ThinkBalm's whitepaper, "What is Enterprise Immersive

<sup>1</sup> Jetson reference: <http://www.imdb.com/title/tt0055683/>

Software? Enterprise immersive software is an emerging technology category that is core to the Immersive Internet evolution. An Immersive Internet is a collection of emerging technologies combined with a social culture that has roots in gaming and virtual worlds (p 4)."

The enterprise immersive software market also has gone through its turbulent times during the Great Recession being an emerging technology. Due to the economy some of the smaller start-up firms were acquired and some did layoff many of their staff, yet the market is still emerging and pressing on. ThinkBalm whitepaper has hi-lighted four categories, 1) Small, 2) Volatile 3) Fragmented and 4) Fast-Changing. Each of these software developers are making rapid changes and taking on small pilots and use cases to engage the market. (p 5) The toughest part for some of the smaller business is the credit crunch they currently face. They may employ 25-50 people with high-end technical skills which mean that the average salary is a minimum of \$70K. Meeting payroll for these businesses is going to determine by the end of 2010 whom the players are and where the markets will develop. In closing, the value in this white paper is the step by step guidance and questions to ask prospective businesses that would consider doing a pilot and the vendors that might best serve that type of project are provided.

As someone who has a passion for learning and being invested in the new wave I am glad to hear there is still room for me as a learning manager and an instructional designer as noted in the paragraph below. Taken from O'Driscoll's book, 3D Learning (2010).



3DLEs allow instructional designers to come full circle in their learning approaches by applying this new technology to move back to a learning model by which content and context no longer has to be decoupled. The instructional methods employed to design effective 3DLEs are closer to an apprenticeship in which learning in and through interactions with others while collectively engaged in work activity becomes a core design principle. (p 56)

### **Summary**

In closing I see the evolutionary process for eLearning to expand to both compliance and performance based training and take the bigger leap into Advanced Learning Technologies (ALTs) to assist with the performance, skill and behaviorally driven change management if we are to make the change in our virtual leadership and managers in the 21<sup>st</sup> century. I am a believer that change starts first with leadership. We truly need our Chief Learning Officers to engage with the entire C-Suite and for the Human Resources to become strategic and on the level with truly developing their people. I do believe we are at a tipping point in our history and our workplaces need to embrace this fundamental change. The Great Recession has given us an opportunity to cut out the wasted operational spending. Now is the time to re-engage and push out the boundaries to a world wise mind-set and engage our people.

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