

Evolution of and Current Trends in Training

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Abstract: The evolution of training and the impact of technology driving that evolution are discussed. It is pointed out that changes in computer technology are driving that change. Various methods of training methods are explained and how they came about or evolved. The more recent computer phenomenon such as social media, YouTube, and Twitter applications are discussed and applied to training. Recent research is reviewed on the effectiveness of use of these recent training trends.

Key words: training evolution; training trends; e-learning; YouTube; social media

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1. Introduction

Globalization and economic shifts are being accelerated by technological changes with the Internet as the primary catalyst (Mathis & Johnson, 2008). This explosive growth is transforming jobs and organizations and is not only altering the way they do business, but also the paradigms by which human resource functions are managed as well.

One recent internet-related phenomenon, social networking, is currently making its imprint on society. Social networking can be defined as an internet-based social interaction in which users primarily produce, rather than consume, web-based content known as social media (Mills, 2011).

Currently, social networking accounts for approximately 11% of all time spent online in the United States (Anonymous, 2010). Facebook has amassed over 500 million users worldwide and its growth remains unabated (Facebook, 2010). The use of social networks is even creating a metamorphosis in political systems both domestic and internationally. In the 2008 presidential election more than \$66 million dollars were collected via social media (Livingston, 2010), and social media has been credited with being a central catalyst in continuing political unrest in the Middle East that has led to at least one government change (Bagley, 2011).

Many organizations, including private enterprises, are now exploring the benefits of social media and other online technologies. For instance, social media has been shown to be a useful tool in recruiting (Galagen, 2010; Anonymous, 2010).

Management and human resources can ill afford to lag behind in embracing the Internet-related-technology shifts that are unrelentingly transfiguring the business environment in much the same way the computer and Internet did after they were first introduced. To that end, this article investigates the business applications of recent

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Internet technologies and their applications to training.

2. Historical Perspective

Training has been around for ages. Its earliest roots can be traced back to the Middle Ages in the form of apprenticeships (Shane, 2012). These evolved into vocational schools in the early 1800's (Desimone, Werner, & Harris, 2002). The advent of the mass production and factories further transformed training. Apprenticeship programs were shortened and what is now known as job instructional training (JIT) was developed around the First World War (Desimone, Werner, & Harris, 2002). It wasn't until the twentieth century that training became a profession and formal training as we know it, became the norm (Shane, 2012; Desimone, Werner, & Harris, 2002).

The work of Fredrick Taylor in the field of Scientific Management in the early 20th century encouraged companies to create formal training programs and procedures. The idea that best practices could be developed and used to train employees to be more efficient created corporate education and specialized tools for the first time in many companies. The instruction was often one directional. For example, an engineering department might develop the best way to do a job, and then the procedure was required to be followed by all. Methods ranging from the size of a shovel to how one's desk should be organized would be dictated in the form of one standard policy.

The 1970's forever changed training to become what we know it as today. The workplace was filled with many different types of people: war veterans, Great Depression survivors, and young baby boomers. This forced employers to deviate from "one type of training fits all" and move towards an individual focused training approach. As training continues to evolve to become ever more efficient, the workplace will likely never return to an era of "one training program fits all". The workplace is even more diversified today than it was in the 1970's. Luckily, as technology advances it makes meeting specific training requirements of each employee easier to address.

3. Evolution of Training Methods

A variety of training methods have taken shape over the years. The introduction of the Prussian method of education to the United States played a critical role in training in the workplace. This system has formed the basis of much of the traditional educational system in America. It tended to be a body of knowledge communicated from the top to bottom in a uniform format. While such an educational structure may not create a nation of Steven Jobs-type leaders, it was a very good system to train the workforce to meet the needs of the industrial revolution.

Lectures/demonstrations are the oldest forms and most traditional means of training. Hence, they are the most frequently used and relied upon training methods. In their basic form, lectures and demonstrations simply present information from the trainer to the trainee (Blanchard & Thacker, 2009). On-the-job training (OTJ) is the next most widely used training process. OTJ is considered another form of traditional training, occurring in the workplace and consisting of methods such as apprenticeship, internship, mentoring, etc. (Blanchard & Thacker, 2009).

As audio visual enhancements evolved, they also began to provide a means for the trainees to not only absorb knowledge in a conventional manner, but to also gain insight by exploiting other modalities for conveying instructional information. In this case, retention is more easily transferred to the job when lecture is supplemented by visual inputs (Blanchard & Thacker, 2009). Today, audio visuals are made available by computer technology. It is hard to imagine the workplace, much less employee training, without computer-generated assistance. Low-cost, high performance, user friendly computers are a fairly recent development. Yet, with recent, rapid advancements, they have revolutionized the work culture into a more technically sophisticated society.

4. The Computer Era

It is not clear as to when the first official “computer” was introduced on the world stage, but nevertheless computers have been evolving for longer than one might think. Simple mechanical devices can be dated from the early part of the AD era. Charles Babbage, known as the father of the modern computer, introduced the first automatic engine which computed mathematical calculations in 1822 (Wilkes, 1992). The typewriter was invented in 1874 with speech through the radio (wireless) breakthrough at the beginning of 20th century (Giudice, 2000). The work of Howard Aiken and Grace Hopper for the U.S. Navy in World War II on the first electronic calculator started the dawn of computing as we know it today. While very crude by today’s standards, it was the first baby steps toward employing the computer as a working tool in business. Nevertheless, over the years, it has transformed how we live, work, and play. It has also, revolutionized how training is conducted in the workplace.

4.1 Move towards Computer-Generated Training

Companies today rely more and more on computer-generated training such as simulation or virtual computer training techniques. These types of training become critical especially as companies search for ways to make training more cost efficient and effective. The military became an early adopter as it became evident that computer-based training could be much more economical, safer, and effective than traditional methods. Today, a number of computer-based training approaches have arisen and continue to develop (Blanchard & Thacker, 2009).

4.2 Computer-Based Training/E-learning

Dating back to World War II, computer-based training (CBT), known today as e-learning, found itself most useful in private industries and the government. “E-learning refers to the delivery of training or education through electronic media” (Blanchard & Thacker, 2009, p. 265). Presently e-learning has been incorporated into numerous training programs and modes of delivery, but not all training programs should incorporate an e-learning format. Instead, training programs should reflect the individual company’s specific training needs (Blanchard & Thacker, 2009). CBT use as simulation has made its way to the forefront of technical breakthroughs during the time of the Second World War when analog and digital units could compute a number of different mathematical outcomes for government research such as The Manhattan Project. This technique shifted into military use and continues to evolve. Simulations represent the manner in which a company may actually function with respect to real world problems and situations (Blanchard & Thacker, 2009). Effective computer simulations along with games made their debut as the emergence of the computer age began to escalate and will be discussed more thoroughly later in the paper.

4.3 Programmed Instruction

In the 1950s, B.F. Skinner introduced programmed instruction (PI) with his patented teaching machine. Initially, his teaching machine would recognize correct answers and progress to the next question. If an answer was wrong, the machine would explain the correct answer (Magliaro, Lockee & Burton, 2005). Typically, information to be learned with PI is taught in focused segments. Trainees are tested after each segment of material is presented. PI has developed more so as technology has advanced. For instance, PI can be seen in the latest training technologies such as online courses.

4.4 Intelligent Computer Assisted Instruction

After commercial computers were released in the 1950s, IBM launched the Coursewriter 1 in the 1960s. This is considered to be the first paradigm of intelligent computer-assisted instruction (ICAI) (Koschmann, 1996). Based on the trainees’ interactive responses, this type of CBT is personalized in that it tailors assistance to the trainees’ needs with characteristics similar to that of a human tutor. ICAI helped cultivate intelligent tutoring

systems (ITS). These systems are a spinoff of the ICAI and demonstrate a more advanced approach. ITS operates in a way that “learns the best methods to facilitate training based on the trainee’s responses” (Blanchard & Thacker, 2009, p. 265). Employees have found this method to be advantageous in that ITS effectively corrects wrong answers or perceptions.

4.5 Simulations and Virtual Reality

Soon after the 1970s’ emergence of Atari “Pong”, the first ever video game, and the introduction of the IBM PC-DOS, personal computer, in 1981, simulations rapidly developed. As mentioned earlier, simulations mimic real world job situations for trainees and hence are more effective (as long as it mimics the actual job situation). A more sophisticated simulation is known as virtual reality (VR). It was established in the mid 1980s when Jaron Lanier coined the term “virtual reality” as he sold VR goggles and gloves to a number of organizations (Steuer, 1992, p. 73). Computer simulation in the form of virtual reality often requires the trainees to wear specialized equipment and interact with objects in a virtual environment that is similar to the situation that will be encountered back on the job. An example of VR is aircraft training. Pilots in training are placed in aircraft simulations with light, sound and motion factors added in. Although this type of training method is most similar to the job, it is quite costly.

Before choosing any choice of educational methods discussed, an organization should always perform a needs analysis, determine its strengths and weaknesses and then decide on a training program that best fits its goals. Typically, small businesses, often due to the cost and developmental time, maintain a traditional mode of training tailored to its particular needs. However, larger firms are finding CBT to be more effective and accommodative within their organizational structure (Blanchard & Thacker, 2009).

4.6 Shorter Training Cycles

As one can readily observe, computer enhancements have continued to improve. This is often via computer related enhancements. Shorter and shorter product life cycles are increasingly becoming the norm. As products and services enter and leave the market at a faster pace, the need to keep employees and stakeholders current becomes more time sensitive. A good example of this frenzied pace would be a Verizon Wireless retail store. Over the course of a year, most products in the store will become obsolete and employees must become trained and skilled in the multitude of replacement products. The idea of sending employees to a remote location for a couple of weeks once a year is no longer possible; training must be ongoing and continuous. Hence, the cycle of training is becoming shorter and faster computer-related technology is allowing the industry to meet this challenge.

5. Recent Trends

With the onset of the World Wide Web in the early 1990s, there were many different hi-technology-related innovations during that time period that further transformed the way training is conducted. For instance, CD-ROMs were developed that allowed users to download various software programs or import/export information. While CD-ROMs have faded from technology platforms, they were at the time, a stepping stone for workplace management. In fact, e-books were made popular because of CD-ROMs (The Book and Beyond, 1995).

E-books have evolved swiftly since Angela Ruiz Robles invented it in 1949, the Mechanical Encyclopedia. “[It] operated on compressed air. Text and graphics were contained on spools that users would load onto rotating spindles” (Lallanilla, 2013, p. 1). The e-books eventually transformed into e-readers over the span of 64 years with the Kindle, Apple iPad, the Nook, and others making large contributions to its success.

Today, the e-reader market is expected to expand at a compound annual growth rate of 21 percent between 2011 and 2015 (Research and Markets, 2012). This growth can be attributed to several factors. First, the e-reader, available through a graphical interface, allows for rapid distribution of published books and documents. Second, e-readers also have language translation capabilities. Additionally, there is obvious savings in terms of paper costs. On the other hand, training can become a complicated issue as copywrited books may not be easily transferred for sharing due to publishers' "digital rights." However, the standardization of the Adobe PDF and other electronic formats have made the portability of documents much more uniform.

6. Intranet

Intranets that appeared in the mid-1990s are also a widespread computer-generated instructional platform that has developed over time. They are utilized via a company portal that provides the sharing of information within an organization. Intranets have increased workforce productivity, reduced the time it takes to complete a task or operation, improved communication, made operations more cost-effective, allowed for quick updates/announcements, and enabled teamwork through collaboration.

The intranet's success lies in its design. An intranet is structured with one audience in mind: company employees. While the intranet provides a high level of benefits, it can also be improperly managed due to the overflow of data instead of being utilized in a way that creates company value (McGovern, 2003).

7. Webinar

Webinars are another widely used training method due to its costs savings in terms of time and travel costs. Webinars are a form of web conferencing via slideshows, videos, etc. The first form of a webinar was introduced as the Internet Relay Chat (IRC) in 1988 (Ross, 2001). IRC offered electronic conversations over the Internet that allowed multiple users to write messages, and these applications have been applied to educational settings such as teacher collaboration and conversations between classes (Simpson, 2000).

With the advent of instant messaging in the mid-1990s, technology further evolved. The latest and best known form of webinars is web conferencing. Webinar's usefulness lie in the fact that they are interactive in such ways that members partaking in online webinars can interact with on-screen calendars and other facilitation tools such as slide shows, while some type of presentation is being conducted. In many ways, this is a traditional lecture method (enhanced), but offered online.

Webinars were historically used for demos or meetings, but have been trending toward a means of employee training along with DVDs, Internet usage such as YouTube, and even cell phones, more widely known as smartphones.

8. Smartphone

Although phones have continuously developed, the term "smartphone" really started to become a part of our vernacular in the late 1990s and early 2000s. To this day we associate smartphones with operating systems such as Android, Blackberry, Apple's iOs and more. The popularity of smartphones is due to their power, convenience, and simplicity.

Employees can quickly access or send an e-mail, participate in a conference call, take pictures, upload

information to the company site, gain access to apps that prove to be beneficial to company goals, and a host of other applications. Smartphones or tablets, such as the iPad, have the capability to download applications from an app store that are specifically designed with the end-user in mind.

Employee training may be further enhanced via smartphones through the use of video sharing, e-mails that provide links to a training sessions, and even apps such as “Mobile Employee.” These computer application make notes for training and moreover, provide employees with deadline reminders, appointments, travel reward programs, work times including the ability to e-mail files that can be integrated into the corporate database, or even join a webinar while one is waiting for a plane in an airport.

9. Wiki

Wikis are another resource that can be used for training purposes. Developed in the early 2000s, Wikis provide information sharing sites that run via the Internet and allow users to modify information. Some Wikis are limited as to who receives access to modify a site while others such as Wikipedia, welcome any user to change or add facts/details to a particular subject matter.

Organizations that utilize Wikis should be aware of faulty information; some users are illiterate in dealing with wikis. Certain companies may even find themselves having to implement a wiki “how-to” training session before even conducting training via a Wiki. The value for companies lies in the fact that wikis can be used as a collaboration tool, setting the stage for company-specific tasks/jobs such as project management, knowledge management, and fostering information. The obvious advantage of this resource is its cost effectiveness

10. Web 2.0

The development of the Web 2.0 allows for many opportunities in corporate training. Instead of being driven from the top down, the ability to utilize user-generated content in a sharing environment allows for bi-directional communication by all. While Facebook and Wikipedia are prime examples of Web 2.0, many other similar applications exist that allow for open communication.

11. Cloud Based Technologies

Many of the above technologies depend on accessing data from the “cloud,” a common term for information that is stored somewhere other than customers or provider’s computers, but accessible by the Internet. Ideally, the data is secure and allows all registered users to receive current information as it is updated. This means that important information is never locked into only one computer or device and is accessible by many platforms.

A good example of how this improvement benefits all would be the classic phonebook. This technology allowed it to go from a once a year revision to a continuously revised document with current data always available.

The information available in the cloud environment for training is only limited by one’s imagination. The ability to view, upload, and update technical documents, calendars, videos, and other materials enables all resources to stay current. Any change or addition to the organizational training library can immediately become available to users.

12. The Effect of Social Networking in the Workplace

Social networking began making its mark in the world in the early 2000s (Edosomwan et al., 2011). Connecting and information sharing is occurring quicker than ever. Social media is proving to be a useful marketing tool. For instance, human resource departments in many organizations have made it an integral part of their employment process.

Take Facebook, for example. With its debut in 2004, Facebook set the benchmark for the ultimate social networking (Edosomwan et al., 2011). Facebook originally focused on connecting with peers and sharing personal experiences through photos, statuses, messages, etc. Facebook has since evolved into more than just a platform for individual use. Companies now utilize Facebook to create groups or events to promote their business. Other organizations go as far to use Facebook for communication purposes by creating a group, inviting individuals and posting announcements/updates to the discussion forum. This networking tool is of great worth to organizations that like to get information out quickly and at no cost. Individuals can even modify their settings to receive notifications of when updates are posted. For example, if a manager posts a new training video to a discussion forum, better known as the Facebook “wall”, group employees are notified of this action through e-mail, text message alerts, or even Facebook app notifications via smartphones.

LinkedIn, another social networking site similar to Facebook, was launched around the same time. LinkedIn targets a more career oriented audience. The site connects numerous professionals in a variety of occupational areas and assists users by reconnecting them to past or present colleagues, making inside connections to jumpstart business opportunities or careers and offers a host of advice/knowledge sharing groups and experts. Here, both the employer and employee benefit from what the site has to offer. In addition, training tips/advice are readily available through group discussions on LinkedIn such as “Focus on Training”, “Training Principles” and more (LinkedIn, 2004).

Likewise, Twitter has contributed to business training solutions as well. The site was launched in 2006 providing users with news, updates and tips as well as permitting twitter users to update their own status, opinions or thoughts. Twitter gained a lot of popularity first because it offered unique options such as micro blogging and secondly because it was used by some celebrities (Edosomwan et al., 2011). It was not long before organizations saw business application and opened their own twitter accounts. Companies can “tweet” about their recent news, discounts, endorsements, and so on. Some accounts include Training Journal, SHRM, Human Resources IQ and more. These twitter accounts also make use of sharing very broad subjects via external links, documents, videos, podcasts (Twitter, 2013).

The electronic descendent of the old PBS show, Sunrise Semester, Podcasts, offer video and audio to make information available to the consumer, Podcast training sessions from iTunes have been heavily exploited, growing in popularity. Podcast training grew from 5 percent in 2006 to 15 percent in 2007 (Blanchard & Thacker, 2009). Organizations appreciate podcasts’ ease of use in terms of no cost to the creator or consumer, if so desired. Apple’s iTunes University is allowing many college courses to be used by the general public via podcasts, allowing knowledge to be transferred around the globe.

In midst of the emergence of many social media sites, YouTube found its way to the forefront of it all in 2005. YouTube was a revolution in the social media world because needed a simple interface in a world where it was difficult to post videos online (Edosomwan, Sitalaskshmi, Kouame, Watson, & Seymour, 2011). Through YouTube, organizations have found another way to use video sharing with more convenience and at little or no cost at all.

13. Evolution of YouTube Training

The use of YouTube for learning was quickly adopted by parents to teach their children important subjects and skills. Even athletes have made use of the video-sharing website to acquire new skills. Several companies have tested the water by first promoting marketing efforts via YouTube. Dunkin Donuts advertised its slogan, “America runs on Dunkin”, through a YouTube channel which as generated 1,607,416 views as of November 2012 (YouTube, 2013).

13.1 YouTube’s Role in Training

There are many uses of YouTube videos in the workplace. As it relates to training, Monsanto Company constructs training videos for its workforce over a wide range of skills and posts them on YouTube. The company is not only cutting training costs significantly, they are also dramatically increasing the company website traffic which in turn is boosting the company’s popularity (White, 2007).

YouTube offers two different approaches: Companies can record and post their own videos, as Monsanto does, so that trainees can visit the site and observe multiple viewings of the video. Second, companies can choose to access videos of pre-recorded training videos published by outside sources. Other advantages include the idea that both potential employees and customers can readily determine the company’s values, culture, and management practices based on these videos. However, companies should examine the appropriateness of the video content in terms of fit with the company’s needs and mission.

YouTube serves various functions in training and its role as a training tool is hardly going unnoticed. In fact, many CEOs are embracing the advantages YouTube provides. For instance, a fairly new YouTube channel, CorpU TV, publishes video clips involving CEOs with valuable insight aimed at Fortune 500 companies. “These clips typically run three to five minutes and cover a range of topics including succession planning, coaching, localized learning and sales training. JetBlue CEO, Dave Barger, for one, discusses how leaders should maintain visibility among staff and customers” (Laff, 2008, p. 18).

While there are companies that exist for the sole purpose of producing professional training videos such as Media-Partners and Digicast Productions, YouTube can work in the same way and at a much lower cost. With sufficient and creative technology talent, a company can produce videos that are made by training video production companies. Wells Manufacturing, a vehicle electronics company, has generated more than 35 “how-to” videos aimed specifically at vehicle diagnostic and repair information. The videos are offered in “both English and Spanish...also available for free viewing via Wells’ website. The videos can [also] be accessed on a 24/7 basis by searching Wellstech on YouTube” (Motor Editors, 2010, p. 43). “Analysts say that more and more companies are launching such YouTube-style videos to take advantage of a massive increase in traffic video sites over the past couple of years” (Havenstein, 2008, p. 2).

There many different types of training found on YouTube. These include training for salesmen, human resource generalists/specialists, geologists, medical nurses/doctors, technicians, financial auditors, consultants, chemists, engineers and more. Overall, the scope of YouTube training continues to grow (YouTube, 2013).

14. Training Shifts Toward E-learning

In 2007, larger companies indicated that they provided 37 percent of their training via e-learning, also known as electronic media (Blanchard & Thacker, 2009, p. 265). “Study after study reveals that the key to a healthy

bottom line is investing in employee skill development. This has forced business executives to search for cost-effective ways to enhance employee proficiency” (Salz, 2011, p. 14).

A study conducted by the Chartered Institute of Personnel and Development (CIPD) in collaboration with the Society of Human Resource Management (SHRM) assessed the changes in the learning and development methods of organizations. The study consisted of research collected from a survey of 952 practitioners in the United Kingdom (60%), United States (23%), and India (13%) (Sinclair et al., 2011):

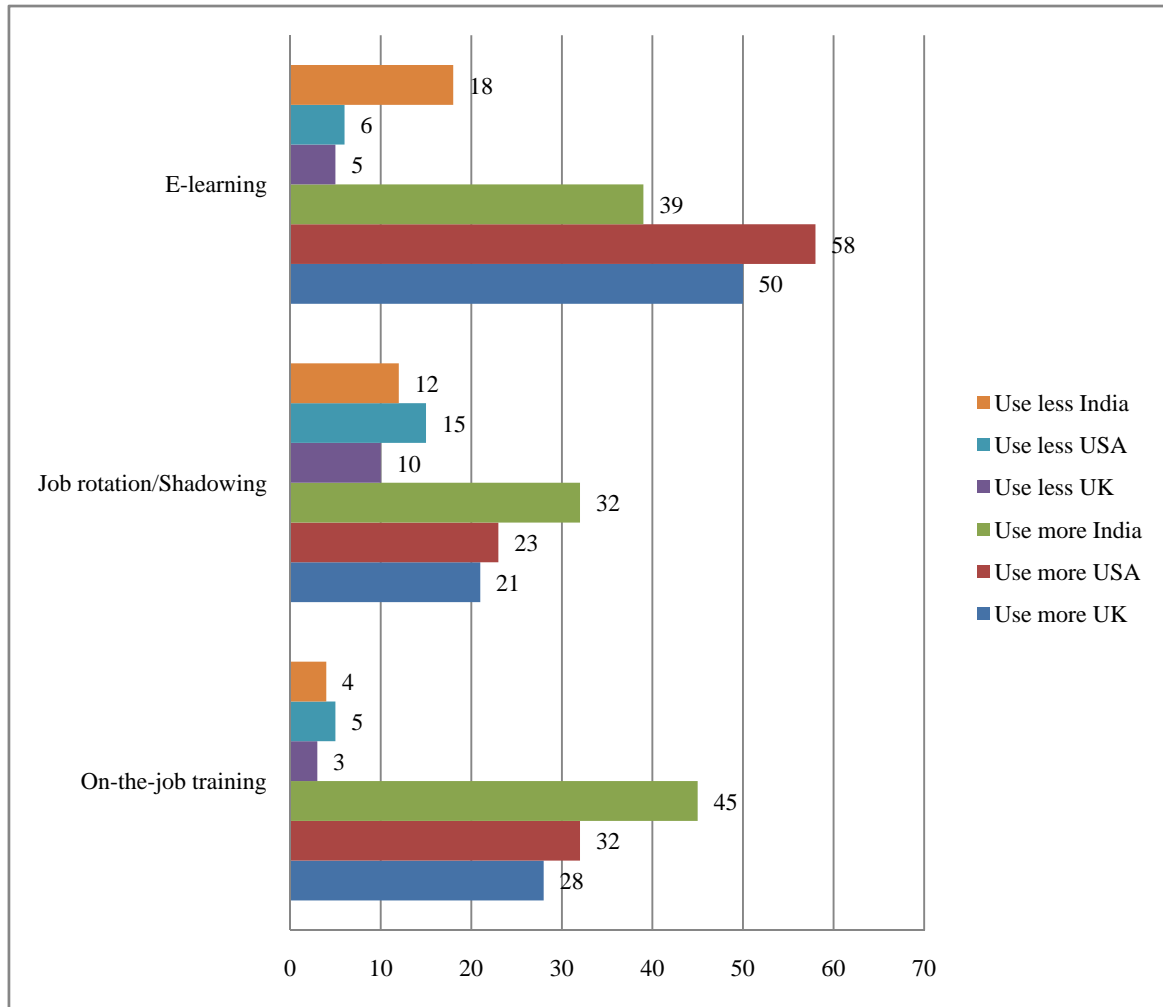


Figure 1 Percentage of Changes in the Use of Learning and Development Practices in the Private Sector, 2011

From the study previously mentioned, e-learning interest has especially increased in the United States in comparison to other training methods.

14.1 Types of E-learning Media

With the e-learning trend, comes a variety of different methods organizations may choose from to further increase employee training efficiency. CIPD and SHRM continued their studies with an examination of the different measures companies are using (Sinclair et al., 2011).

Rapid authoring software and webinars were found to be the United States’ most popular means of using new media in this particular study.

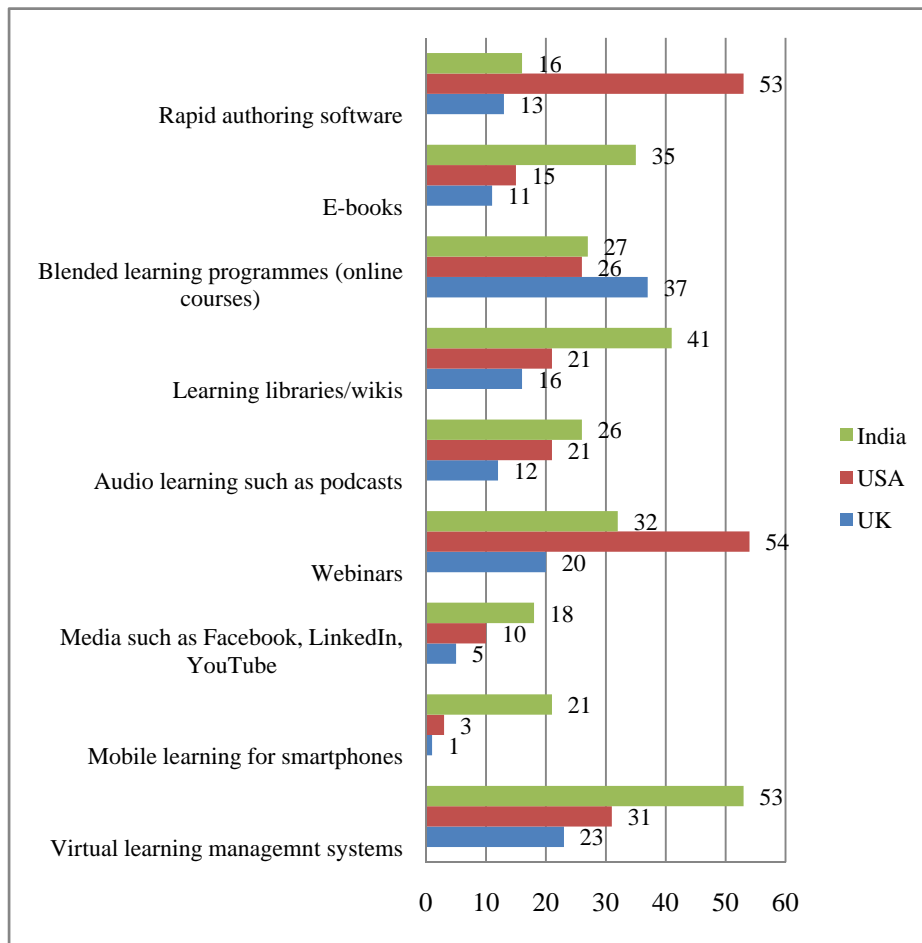


Figure 2 Percentage of Organizations Using New Media to Support Aspects of Learning and Development, 2011

15. Training Transfer: Computer-based Versus Traditional Instruction

Computer-based training has been found to be at least as effective as traditional instruction. One study conducted in 2002 tested the effectiveness of transfer between traditional instruction training and CD-ROMs at the time in which CDs were trending in the business world. Different variables were considered such as years of work experience, age, level of education, years of experience as a supervisor, online course experience, self-efficacy, motivation, etc. The study found that overall, no significant difference in transfer existed between CD-ROM training and traditional training. Both methods produced the same amount of transfer based on statistical findings at the time (Petty et al., 2007).

In contrast, “The benefit of computer-based instruction would lower training costs for program development, delivery, and evaluation while keeping the same level of training transfer” (Petty et al., 2007, p. 54). The study suggests that further in depth research should be carried out due to limitations of the study, such as limited geographical area and lack of online, simulation or virtual reality examination. It is also recommended that computer-based training be tailored to a more industry-specific channel. In doing so, a more substantial shift in transfer may result.

While in 2002, CD-ROMs seemed to produce the same amount of transfer as traditional training, they also

helped jumpstart the shift to a more computer-based training focus. Technology has since advanced. However, due to the fact that e-learning training is fairly new to the business organizations, there is limited empirical research available on the effectiveness of contemporary training methods.

Generally, e-learning should not be used as a stand-alone tool unless it is able to provide the same “On-hands” experience encountered on the job. This would hold true to all technology-related training devices.

16. Business Capitalizes on the E-Learning Trend

Digicast Productions, an internet-based company has taken advantage of the shift towards online training. Digicast Productions “help[s] companies influence behavior change through creating communication and training programs” via Internet (www.digicast.com.au). A similar company, Media-Partners has also realized the window of opportunity in creating training videos. Media-Partners are emerging on the forefront as a leading, video training company with a slogan that reads, “*Best Training Videos at the Best Prices.*” Both Digicast Productions and Media-Partners have established a successful platform and provide several case studies to substantiate their success.

17. Case Studies That Prove Video Sharing Training Effective

Fired Up, Incorporated owns Johnny Carino’s, an Italian sit-down franchise restaurant that turned to Media-Partners for a training video specifically tailored to delivering exceptional customer service. Kathy Harris, Vice-President of Media-Partners claims the video is “makes an emotional connection with them [employees], and that's what we want.” One of the training videos, “The Difficult Guest” aims at improving guest loyalty. Media-Partners claims “To lose one guest party of two per week, at an average check of \$30 and one visit a month, amounts to an annual loss of more than \$18,000, at one location” (Case Studies: The Difficult Guest, 2012). Therefore, use of a training video such as “The Difficult Guest” could be cost effective way of providing effective training. Media-Partners have received positive responses in increasing guest satisfaction reports and a favorable response from managers and employees from Fired Up, Inc (Case Studies: The Difficult Guest, 2012).

In addition to Media-Partners, its competitor, Digicast Productions has also demonstrated training effectiveness, particularly in the area of steel manufacturing. Digicast Productions was recognized with the LearnX Award for saving the steel company \$150,000 over a 5 year period, in part by training videos. Digicast Productions was able to help reduce training time from 4 hours to less than 1 one hour. Mike Hamilton, the Technical Services Manager of the steel manufacturing company admits, “We now have some engaging and well written training videos that are giving us great results” (Communication Resources, 2012).

18. Interviews

Due to the lack of empirical research on the issue, we conducted ad hoc interviews using a convenience sample of business executives. When looking at the impact that technology has had on training, it is imperative that the affected employee’s perspective be taken into consideration. Do they like this new form of training? Is it effective? Are they bored? As you will see the perspective varies over positions and companies. The following interviews generated very different answers. The interviews were conducted among diverse positions: a Vice President of Human Resources and Chief of Operations at a major firm, a college professor/health management organization consultant, and a worker compensation analyst.

- Consultant for Kaiser Permanente, a health management organization, and also a PhD. candidate at Auburn: When asked, he stated that he has participated in formal organizational training in the past in the form of classroom instruction and that he has also participated in non-traditional training such as e-learning. His e-learning experiences occurred during his online courses at Auburn University, where he was able to log onto a secure website, download notes, and watch an instructor give a lecture on the material.

When asked if this type of training was beneficial or helpful, he responded that it was beneficial and that he preferred it over traditional methods because it allows him to do it on his own time. Since he is a working person and has classes during the days he can review the training during his free time. This new type of training also gave him the ability to review a concept if he did not understand it.

He was also able to send an e-mail and receive quick responses to problems or questions that arose. Although he went into the training thinking that he wouldn't like it, he found the experience very desirable. Since he works with Kaiser Permanente, which is based out of Oakland, California he conducts his own classroom instruction training and he said that he would consider changing his own training methods and moving towards a computer-based method. This change would allow him to send the training materials out to a countless number of people.

He said, "it's just a matter of getting people interested." He also participates in diversity and sexual harassment training for Kaiser Permanente through videos that the company produces. The videos are broken into chapters, followed up by a test. However, one must score a certain percentage before moving onto the next chapter. When asked if he had ever been involved in information knowledge via YouTube, he indicated that he had studied a video of a professor from Stanford University who was lecturing about the new and upcoming profession of data mining.

- The Vice President of Human Resources and Chief of Operations at a Federal Credit Union: When asked if he had ever participated in organizational training his response, he indicated he participated in training was delivered in the classroom with workshops. He had also participated in e-learning.

Given that the financial institution, it must keep its staff up to date on policies, procedures, regulations, as well as keep them abreast of all the various scams, and fraud/theft awareness, significant training is required. To conduct all of this training, they have customized interactive e- training which places trainees in various scenarios. These scenarios require participants to work through them so they can visualize and learn the important principles and information. This type of training is essential for his firm.

When asked if he preferred this type of training over traditional methods, his response was "yes and no." You have to have a blend to be effective; you have to have the basics, which occur in the classroom, before you can build with e-learning. The group learning of a classroom was in his opinion essential due to the one-on-one and classmate interaction. No one person will think of all the questions that will occur in training, but a group will produce much better and more thorough subject understanding and then the trainees will have the foundation which to build upon, which occurs in e-learning."

He has been involved in information knowledge via YouTube before. His firm uses sites such as YouTube primarily to educate members. Their members and non-members can access the site for information on basic financial education, such as balancing a checkbook and how to obtain, understand your credit report and credit score, in addition to how credit unions differ from traditional banks.

- A worker's compensation analyst for a health resources organization: When asked if she had ever participated in organizational training, her response was "Yes. We have training workshops with our CEO and director of operations to see what is expected out of us by our company and our clients, the hospitals, and our goals and values for the company. All of our company is web based and we have the IT department show us how

to navigate our compass, the Apsirion database.”

When asked if she had ever been a part of non-traditional training such as e-learning, she said that she is required to participate in webinars and HIPAA training on in-house hospital systems. She stated that this type of training was very beneficial and helpful. She also said that she preferred it to other types of training since her firm is a nationally based company; it's difficult for them to fly the needed representatives to a particular location for training.

The webinars are cost efficient and show the step by step process of how to navigate in specific hospital systems. There is not a standard system, and even though there are some hospitals that use the same system, each is uniquely designed for their facility. The webinars help the representative know how they would like for the company to use their system.

She reported that HIPAA training is easiest with their e-learning. Many of the representatives can access the information at one time and are able to move at their own pace, not feeling rushed or slowed down by others. This e-learning style also enables them to learn the law for the first time and allows them to go back and re-familiarize themselves with the information so that it is always fresh. She also pointed out that e-learning caters to the faster paced environment we are moving towards. When asked if she had ever been involved in information knowledge via YouTube she said that her firm uses YouTube to watch the Do's and Don'ts of HIPAA violations.

Each interview produced a different type of e-learning response and each interview participant preferred it to the traditional types of learning. This supports the idea that contemporary types of training have a very vital role in the workplace. Online training allows the trainee to move at their own pace on their own time. While some employers see online training as a risk, because employees can skip through it or avoid it all together, providing a small test as the training is conducted is a good way to ensure that the trainee is paying attention to the program. Although it is still in the beginning stages, YouTube and online training are already having making an impact on the training.

19. Discussion and Conclusions

The evolution of training methods throughout the years has enabled businesses to achieve greater profitability through increases in productivity and cost effective training that also results in a more motivated and efficient workforce. By keeping the company mission, values and needs in mind, an organization must effectively choose the appropriate training method and delivery system. The research to date seems to suggest that low cost training methods such as YouTube, social media sites, e-learning and other recent training trends are at least as effective as traditional methods. Hence, going forward these should be the preferred training platforms in order to keep cost low while maintaining an effective training program.

However, modern training methods may not always be accepted. Older generations still in the workforce, such as baby boomers may be resistant towards these newer techniques and would respond better to traditional training methods. Thus, older training platforms should not be carelessly cast aside unless they are cost prohibitive.

Times are changing and therefore, so are organizations. To keep up with the times, businesses should search for the most useful and value-creating training approaches available. Otherwise they run the risk of not being as effective and cost efficient in their training programs as they could be.

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