Emerging Trends in Training and Development

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Abstract- Organizational training is undergoing a transformation. This is primarily due to changes in technology, mainly the computer/internet. The article traces the evolution of training to present day. It then discusses the current technological trends in training- YouTube, Social Media, Smartphone, and E-learning trends are discussed.

Index Terms- Training, YouTube, Social Media, Training trends, E-learning trends.

I. INTRODUCTION

In today’s era employees are not keen to join an organization where their Knowledge and skills are not upgraded. Many organizations provide opportunities for learning and use it as a retention tool. A large number of organizations use the strategy of proper & effective training by increased their training budgets to retain and get quality output from the employees. Employees are delegated with different role & responsibilities & training helps them to accomplish these roles & responsibilities & prepare them for the future responsibilities as well. Also the study is aimed at studying the current & expected future training trends worldwide.

II. CORPORATE TRAINING INITIATIVES IN INDIA

In the last few years Indian organizations have made exceptional progress in terms of their training initiatives. This is mainly due to the increase in competition and because of the entry of multinational companies in India, which has forced them to look for various alternatives to develop organizational effectiveness.

- Training is considered as more of a retention tool than as a cost to the organization.
- Not only have organizations increased their investment in training and development practices, but they have also systematized training policies and practices right from the training need analysis to training evaluation and feedback.
- The training system in the Indian industry has been distorted to create a smarter workforce and yield the best results.
- The optimum utilization of human resource is the target of any company and training is a tool to increase business outcomes.

- This is an optimistic sign which clearly shows that organizations operating in India are also very serious about their learning and development function.
- Information technology has drastically modified the working patterns of industry and the lifestyle of people. Vision for meeting the challenges is a very important requirement of the corporate sector. Due to this, even training and development department is also not exempted from it. The various trends are

III. MOVE TOWARDS COMPUTER-GENERATED TRAINING

As technology advanced, so did the nature of training. Companies today rely more so on computer-generated training such as simulation or virtual training techniques. These types of training become critical especially as companies search ways to become more cost efficient and training more effective. Today, a number of computer-based training approaches have arisen and continue to develop.

Computer assisted training:

Computers are used in support of more traditional training approaches. This support was initially the inclusion of computer requirements and mini-programs in multimedia learning packages, extending the audio and video elements described above to the much more flexible computer. Other CATs were used in training programs at work, again being inserted into the more traditional approaches, taking the place of audio and video inserts. These inserts permitted instant practice of skills particularly those related to the use of the computer, for example the learning subject might be the use of spreadsheets on the computer.

Computer based training:

Dating all the way back to World War II, computer-based training (CBT) also known as e-learning, found itself most useful in private industries or the government. “E-learning refers to the delivery of training or education through electronic media. Today e-learning is converted into numerous training programs, but not all training programs should be incorporate a e-learning format simply due to companies’ specific training needs.

CBT extends significantly the involvement of the computer in training, particularly self-learning and self-development approaches and all indications are that this could be a significant learning force in the future. The programs nowadays customarily consist of a computer package, usually on CD-ROM or
interactive CD-ROM, perhaps supported by text and/or video material, questionnaires, projects and activities.

Pros and cons:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>• self paced</td>
<td>• Limitation in integration</td>
</tr>
<tr>
<td>• provides variable training goals</td>
<td>• Logistics problem</td>
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<tr>
<td>• interactive</td>
<td>• Expensive</td>
</tr>
<tr>
<td>• proficiency ensured</td>
<td>• Students lack motivation</td>
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<tr>
<td>• simulation is possible</td>
<td>• Unable to adapt to the use of computers</td>
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<tr>
<td>• Drill and practice possible</td>
<td>• More time to develop</td>
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<td>• Higher levels of learning can be addressed</td>
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Latest methods used by the Organization:

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<th>CD ROM DVD Laser Disc</th>
<th>Interactive Video</th>
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<tr>
<td>• PC enables integrated animation, video clips and graphics</td>
<td>• Instructions are provided one by one</td>
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<tr>
<td>• Interactive using joy stick or touch screen monitor</td>
<td>• Interact with the programs</td>
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<tr>
<td>• Used in Nuclear power plant, Plymouth, Massachusetts</td>
<td>• Used for technical and interpersonal relations skills</td>
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<td></td>
<td>• Used in Apple</td>
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Internet

| Various News groups                           | Instruction and delivery of training online       |
| Discussion groups                             | Web based training                                |
| Various blogs                                 | Learning portals                                  |
| World wide web                                | Distance learning                                 |
| Browser and search engine                     | Virtual reality                                   |

E-Learning

<table>
<thead>
<tr>
<th>Process Involved</th>
<th>Types</th>
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<tbody>
<tr>
<td>• Virtual classroom</td>
<td>• Teleconferencing</td>
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<tr>
<td>• Audio link between instructor and trainee</td>
<td>• Individualized, personal CBT</td>
</tr>
<tr>
<td>• Computer software applications</td>
<td>• cost reduction</td>
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<tr>
<td>• Instant polling technology</td>
<td>• access to experts</td>
</tr>
<tr>
<td>• White board marking tools</td>
<td>• save travel costs and time</td>
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Learning Portal

<table>
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<tr>
<th>Distance Learning</th>
<th>Process Involved</th>
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<tbody>
<tr>
<td>• physical separation between the learners and the instructors</td>
<td>• Virtual classroom</td>
</tr>
<tr>
<td>• two way communications</td>
<td>• Audio link between instructor and trainee</td>
</tr>
<tr>
<td>• use of audio and data links</td>
<td>• Computer software applications</td>
</tr>
<tr>
<td>• using pre-packaged learning resources or courseware</td>
<td>• Instant polling technology</td>
</tr>
<tr>
<td>• requires peer support and instructor help</td>
<td>• White board marking tools</td>
</tr>
<tr>
<td>• used by IBM, Kodak</td>
<td>• Teleconferencing</td>
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Walkabout

<table>
<thead>
<tr>
<th>Basic Challenges</th>
<th>Skills Used</th>
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<tbody>
<tr>
<td>• adventure</td>
<td>• opportunity seeking</td>
</tr>
<tr>
<td>• creativity</td>
<td>• goal setting</td>
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<tr>
<td>• practical skills</td>
<td>• strategy formulation</td>
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<tr>
<td>• logical enquiry</td>
<td>• planning</td>
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<tr>
<td>Minimum trainee intervention</td>
<td>implementing</td>
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### Action Learning
- Learning is better experientially and mostly by doing
- Gives teams or work groups an actual problem, has them work on solving it and committing to an action plan, and then holds them accountable for carrying out the plan
- Six sigma training programs use this method
- Used by: Novartis, GE.

### Advantages
- Lies in its practicality
- Promotes communication
- Develops resilience and determination
- A way of transforming the culture and providing continuous learning
- Involves real-time problems

### Net Varsity (Corporate University)
- It refers to a company’s centrally managed umbrella of in-house or off-site training initiatives

### Outbound Training Programme
- To place the participants in a challenging risk-taking situation

### Intelligent Tutoring Systems
- Instructional systems that use artificial intelligence

<table>
<thead>
<tr>
<th>Net Varsity (Corporate University)</th>
<th>Outbound Training Programme</th>
<th>Intelligent Tutoring Systems</th>
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<tbody>
<tr>
<td>Man aims is to systematize training as a function, maximize investment in employee education, or develop workforce employability</td>
<td>To provide a hands-on experience in which team spirit, leadership and communication skills are tested</td>
<td>Customize the training experience for individuals to meet their needs</td>
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<tr>
<td>Used in IBM, Ford, Motorola, Disney world</td>
<td>Post exercise debriefing Used in ONGC, Cadbury’s and CEAT</td>
<td>Three types of ITC environments tutoring Coaching Empowering</td>
</tr>
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### Virtual Reality
- Provides three-dimensional learning experience

### Blended Learning
- Combines online learning, face-to-face interaction, and other methods

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<td>Provides three-dimensional learning experience</td>
<td>Combines online learning, face-to-face interaction, and other methods</td>
</tr>
<tr>
<td>- Allows simulations to be more realistic</td>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>- Technology is used to stimulate the senses of the trainee</td>
<td>- Increased learner control</td>
</tr>
<tr>
<td>- Technology is used to stimulate the senses of the trainee</td>
<td>- More interaction</td>
</tr>
<tr>
<td>- Use of audio interface, gloves that provide sense of touch etc</td>
<td>- Brings learning into real life through discussions</td>
</tr>
<tr>
<td>- Used in Motorola</td>
<td>- More effective</td>
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**Source:** Recent trends in training and development [www.slideshare.net](http://www.slideshare.net)

**Web and Internet Based Training:**
Probably the biggest revolution in the world of training and development in recent years has been the increased and increasing use of the internet to transport training programs to learners, whether they are individuals or groups within an organization, although not necessarily a group that has come together for training. This approach started quite simply with real-time email contact between a self-learning, open learning program learner and the central expert or supporting trainer/manager. The logical development of this was a learning program controlled over a set of learners form a central source form which the learning material had been sent. This learning material could be in the form of traditional text, email material or electronic web pages. The learners respond to progress questions form the source, taking part in subsequent electronic (by email or in an instantaneous chat room format) discussions where necessary, before moving on to other parts of programs.

The revolutionary techniques (and these are seen by many people as the way in which electronic methods of learning will proceed) involve the internet equivalent of traditional methods is that the presence of any social contract is unnecessary-contact is the interaction of the learner seated in front of the computer visual display unit with a program that originates with a web site any location in the world.

Although CBT is not the panacea for all training problems, it is a technique that has been delayed in introduction, for a number of reasons. Computers are often introduced or offered by enthusiast or establishment organizers from on high and this over
enthusiasm or direction has often frightened trainers or organizations with limited experience of computers. The widespread use of and familiarity with computers has not been with us very long and there are still many people who are computer restricted. Trainers were also suspicious of the introduction of computer training because they saw it as yet another management ploy that would reduce their control of the training situation, or even threaten their jobs.

Time has shown that these fears are, to a large extent baseless. An explosion of computer ownership and awareness, in homes as well as in commerce and industry, has educated many more people in the use and operation of computers and their programs, and the relative ease of working with them. More people now-a-days are becoming familiar with computer applications and programs in use, and these developments have increased substantially the advantages and disadvantages of computers systems.

**Technology based training:**

Good TBT motivates and enables learners to learn what they want to learn or are required to learn, so that they acquire the knowledge, skills, attitudes and behaviour that the TBT was designed to generate. Learner’s expectations from TBT are:

- **Ease of use** - The way in which learners start to use the program, the process of loading program should be easy with nothing more to do than to load the disk which should then load the program automatically.

- **Clarity** - Everything in the program should be crystal clear. This includes text, graphics, video, exercises, games and simulation. Text should be in simple words and short sentences, and upper and lower case rather than being all in capitals.

- **Internet** - the first question that TBT designers should ask themselves is- why are people choosing to learn the materials? This is the starting point of their interest. Points to be considered to create interest and curiosity among the TBT users are given below:
  1. present a problem for solution
  2. provide information and help if called for
  3. offer ways for learners to solve the problem in particular
  4. provide scope for exploration for experimentation
  5. provide one or more possible solutions and explanations

- **Choice** - As people learn in different ways, TBT designers should try to offer scope for them to choose as they want to learn. Some might want to go straight to the problem and try to solve it using trial and error method; some might like to study information before going to the problem; some might even want to see how the solution was arrived at; yet others might want to take careful, guided and step-by-step approach to reach solutions.

- **Freedom** - People learn in different ways, they learn best when they have the freedom to learn the way they want to learn. This can be met partly by providing choices. But, choice can be offered within a tightly structured program that should not deviate from the learning principles.

- **Help** - One of the best ways to put people off is by offering help that they haven’t asked for. At the same time, one of the traditional ways of responding to learners who give an incorrect answer is, let them try again and/or provide correct answers.

- **Fun** - learning should be fun. It might not be fun all the time. Sometimes it can be quite serious; but, fun is a funny situation and being uncomfortable, as long as they can end them when they wish. The dictionary defines fun as ‘enjoyment’, ‘pleasure’, ‘amusement’. But it is more than this. It is something to do with challenge and achievement with problems and solutions at the same time taking risk with exploring and experimenting. Also, being allowed to make mistakes and to learn and grow. This is the fun that should be built into all learning programs.

- **Assessing progress** - we all like to know how well we are doing when we are learning anything new. This should not be in comparison to others in competitive way, although some people have been conditioned to judge themselves in this way. It is rather to do with knowing that we are moving forward and learning what we have set out to learn. Conventional TBT often seeks to do pre and post testing. This may have a value, but it is doubtful. It is more like introducing a threat and pressure that will actually get in the way of free, enjoyable learning. Progress can be assessed by individuals choosing to tackle problems which clearly become increasingly difficult.

- **Accuracy** - people object sometimes violently, when they receive inaccurate information given during training. This means that TBT designers have to carry out research diligently and thoroughly to ensure that what people learn is accurate; when information is presented graphically, it must also be accurate-near enough is not good enough.

- **Involvement** - From the very beginning, learners need to be involved in the program. The idea of users entering their names at the beginning is friendly, but hardly constitutes involvement. Providing freedom and choice obviously involves the learner, but it is much more effective to enable learners to construct their own problems, or to develop alternative solutions and then test them out appropriately.

**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. If an answer was wrong, the machine would explain the correct answer. Typically, information to be learned with PI is taught in pieces. Trainees are tested after each piece of material is presented. PI has developed more so as technology advances. For instance, PI can be seen in the latest training technologies such as online courses.

**Intelligent Computer Assisted Instruction:**

After commercial computers were released in the 1950s, IBM launched the Course writer I in the 1960s. This is considered to be the first paradigm of intelligent computer-assisted instruction (ICAI). Based on the trainees’ interactive responses, this type of CBT is personalized in that is tailors assistance to the trainees’
needs with characteristics similar to that of a human tutor. ICAI helped cultivate intelligent tutoring systems (ITS). These systems area spinoff of the ICAI and demonstrates a more advanced approach. It operates in a way that “learns” the best methods to facilitate training based on the trainee’s response.” Employees have found this method advantageous in that ITS effectively corrects wrong answers or perceptions.

Simulations and Virtual Reality

As mentioned earlier, simulations mimic real world job situations for trainees. 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. 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 even wind factors added in. Although this type of training method is most similar to the job, it is quite costly. In alignment with the techniques mentioned above and any choice of training methods, an organization should always analyze a needs analysis, determine strengths and weaknesses and then decide on a training program that best fits its goals. Typically, small businesses maintain a traditional method of training more suitable for a small business’s needs. However, larger firms are finding CBT to be more supportive and accommodative within their organizational structure.

IV. MOST RECENT MEANS OF TRAINING

Intranet:

Intranets are also a popular use of computer-generated training that has developed over time. Intranets are utilized via a company portal and are used to share information within an organization. Intranets were made popular in the mid 1990s. Intranets have found to increase workforce productivity, reduce the time it takes to complete a task or operation, improve communication, make more cost-effective, allows for quick updates/announcements and enable 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.

Webinar:

Webinars also find themselves in the midst of evolving training trends. Webinars are a form of web conferencing via slideshows, videos, etc. Webinars deem to be useful in that they are interactive in such ways that members partaking in online webinars can interact with on-screen calendars and other facilitation tools as a slide show or some type of presentation is being conducted. Webinars are quite popular among organizations; however, there is a downside: one-way communication. This aspect of the webinar can enhance cultural/past behaviours that desire to replace present day training technology such as webinars. These behaviours are derived from individuals who prefer a traditional way of operating within the business realm. “Regardless of the advantages or disadvantages, webinars which were historically used for demos or meetings, are now trending as means of employee training along with DVDs, Internet usage such as YouTube, and even cell phones, more widely known as Smartphone.

Smartphone:

To this day we associate Smartphone with operating systems such as Android, Blackberry, Apple’s iOs and more. Smart phones are convenient, plain and simple, but can also pose as a distraction in the workplace, typically requiring the need for a high level of monitoring. For instance, being able to distinguish employees checking e-mails versus those employees updating their latest twitter status can sometimes seem to be a difficult task. Distributing company issued phones for business purpose only can help reduce personal use. At the same time, this can be a costly manoeuvre. For the most part however, smart phones can prove to be valuable in the workplace. Smart phones have made huge leaps in the corporate world and remarkably have the ability to perform the functions of a computer. Consequently, an employee 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. Smartphone or tablet users, such as the iPod, may download applications from an app store that are specifically designed with the end-user in mind. From a social media app like LinkedIn to a company-specific app such as Bump, used for media sharing, millions of apps are available for download at the tips of your fingers. Employee training may be exercised through smart phones through the use of video sharing, e-mails that provide links to a training sessions, and even apps like “Mobile Employee” that make note of training and more over, provide employees with deadline reminders, appointments, travel reward programs, work times including the ability to e-mail files that can be integrated into the timesheet spreadsheets, etc. Needless to say, the possibilities appear endless.

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 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 at hand is the cost effective aspect, as with most new technologies.

THE EFFECT OF SOCIAL NETWORKING IN THE WORKPLACE:
Due to the social media rave, connecting and information sharing occur quicker than ever. While social media has served as a catalyst in the business world, it has also proved to be detrimental to employees who have not illustrated social responsibility on their personal networks. Making snarky remarks online, for example, with regards to an employee’s work life or towards the company itself can land an employee in great turmoil and in most cases resulting in termination for that employee. While the consequences seem high for the employee, companies can still seek benefits through social media. For instance, it is a great marketing tool, among other uses. Take Facebook, for example. 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 who 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 the discussion forum, better known as the “wall”, group employees are notified of this action through e-mail, text message alert, or even Facebook app notifications via smart phones. 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.

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 more different options such as micro blogging and secondly because it was used by some celebrities. It was not long before organizations jumped on board opening their own twitter accounts. Companies can “tweet” about their recent news, discounts, and 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, and podcasts. Podcasts offer audio and video to make information available to the consumer. Podcast training sessions from iTunes have been heavily exploited, growing in popularity. Organizations appreciate podcasts’ ease of use in terms of no cost to the creator or consumer, if so desired. YouTube was a revolution in the social media world because it did need a simple interface in a world where it was not easy, almost impossible to post videos online. Through YouTube, organizations have found another way to use video sharing with more convenience and at little or no cost at all.

**EVOLUTION OF YOUTUBE TRAINING:**

The use of YouTube for training in the workplace is still in the beginning steps, but there is no doubt it is evolving and quickly at that. Parents are using YouTube for their children to learn and even athletes are making use of the video-sharing website to acquire new skills. So why not take this approach in the work place? Monsanto Company is already exercising this concept by making their own training videos and posting it 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. YouTube offers the company two different approaches: Companies can record and post their own videos so that trainees can visit the site and watch multiple viewings of the video. On the other end, companies can take a slightly different approach by accessing the videos of pre-recorded training video published by outside sources. However, companies should be weary as to how the video fits as far as company’s needs are concerned. Regardless, YouTube carries many advantages for the company as a whole as well. Not only do employers use the information to train a workforce, but by placing it on YouTube, future, potential employees can view how employees are trained and treated. It can also be viewed by customers whom know when purchasing your company’s product; they are supporting a socially responsible organization that cares about its employee’s safety and about the product being produced. YouTube training is still in the developmental process; however, it is changing workplace training as we know it. Larger companies indicated that they provided 37 percent of their training via eLearning also known as electronic media.

**YouTube’s Role in Training:**

YouTube serves various functions in training and its role as a training tool is hardly going unnoticed. Online interface is assertively making its debut as a routine and reliable lifestyle. Other forms of YouTube training that can be searched includes training for salesman, human resource generalists/specialists, geologists, medical nurses/doctors, technicians, financial auditors, consultants, chemists, engineers and more. The broad, YouTube training scope includes numerous professions and is constantly growing.

**V. WHY IT WORKS?**

YouTube training becomes more apparent in organizations looking for ways to reduce trainee learning time, cut training costs, keep material consistent with presentation, monitor training progress and allow for easy access to training for trainees. YouTube, among other CBT tools, can be integrated into other methods of training as well. A simple lecture can be transformed into a captivating training demonstration with the use of YouTube videos. “Given the rich digital media we have today, we all of a sudden have an opportunity to use a platform that is inexpensive and easy to use for companies to express themselves, share ideas and collaborate”. Video sharing allows for an open forum in which company customers may easily provide feedback. By properly responding to the viewer, companies can instil trust within customers, employees and even
Today computer based learning (CBL) is being main form the technology based learning used by corporate training departments, gradually being replaced by web based learning (WBL).

**Advantages of WBL over CBL:**
- WBL does not require expense of media such as floppy disk, CD ROMs
- Changing web based materials quickly and easily without additional expense
- WBL allows social interaction over a wide area
- WBL allows the availability of human instructors over the network
- WBL, properly designed, uses high degree of simulation and interactivity
- Easily adapted to performance support systems.

**Trend 2: Move away from grades and certificates to personal portfolios:**

The implication of the first trend is that tracking skills and achievements will move from the issuance of standardized diplomas and certificates, to the maintenance of personal portfolios for each person. Because most people will have multiple careers, employers will want to know what the person knows now and not necessarily what pieces of paper he or she received 10 years ago. And, what a person will need to know in the future cannot be accurately predicted today- the pace of change is just too rapid. This means that curriculum planning should not be too precise, but exploratory, ready to move in the direction of emerging trends.

In fact desired workplace skills of the future will include forgetting and relearning. The pace of change will require people who can put aside previous learning and think of new ways of doing things without too much discomfort.

**Trend 3: dramatic changes in eLearning Technologies:**

The introduction of artificial intelligence and neural networking will make e learning software smarter and more responsive. New online learning programs will be both prescriptive and adaptive. Prescriptive programs will sense the strengths and weaknesses of the learner, and adjust the curriculum accordingly. A computer will get better at doing this as it gets to know you. In other words, the computer will also learn from experience. All this adds up to a huge leap in the quality of interactivity from eLearning software. Instead of page flipping being the primary hook to engage the learner, new software will respond according to a learner’s behaviours, especially responses to tests and performance tasks.

Computers will also become more unobtrusive. Most people do not think of their watch, a calculator or a car as a computer. This is because the computing function of these devices has become “invisible”. Similarly, there are a number of developments that will make the computing functions in training technologies also invisible. The implications of invisible computing for training are that training will become a more natural kind of learning rather than something that is viewed as a planned intervention by a training department, and that learning can happen at any time or any place. In fact, training will become just one corporate information system that will become

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E-Learning: Seven trends in E-learning:

**Trend 1: Moving away from class based or course based training to multiple ways of training:**

While the classroom based training will still remain, its role will be shared with technology based learning, mobile learning and on the job workplace learning. The challenge for learning managers will be to coordinate various inputs from all these various forms of learning. For the past five to ten years, corporations have been subjected to considerable hype about technology based training. Predictions that web based learning would take 90% of corporate training have not simply panned out. Rather, classroom learning and technology based learning often coexist in the formulation known as blended learning.

**Advantages over class based learning:**
- addresses individual rather than group
- learning can be at any place and at any time
- Has greater reach in connecting to other learners and other learning resources
- Learning is at a pace decided by the learner rather than group
- Learning can take place on the job as the time is available
- Travel and time away from the job can be avoided
- Learning resources can be searched through online search engines
- Instructors do not necessarily be paid on an ongoing basis
- Does not require physical space
- Changes to course materials can be made available immediately
- Links directly to performance support.
invisible. Computing devices for training will also deliver human resources information, business metrics, documents and corporate communications organized through web base electronic “portals”. Here are just some of the applications in AI that will have an impact on eLearning in the near future:

**Simulated annealing** - used in task assignment and scheduling

**Adaptive resonance theory** - use in smart web search engines and data mining

**Ant colony optimization** - used for demonstrating “swarm intelligence” and improving group learning

**Neural networks and the back propagation algorithm** - used in mimicking brain functions, and in complex educational games.

**Genetic algorithms** - used for demonstrations of complexity theory, computer aided design, problem solving, and educational games.

**Artificial life algorithms** - used in the study of biological and social systems

**Rules based systems** - use in knowledge based expert systems, generation of automatic programming of instructional strategies, and the simulation of common sense.

**Fuzzy logic** - used for quality of service (QoS) testing, and control of rules-based systems

**Bigram models (aka Markov Models)** - used for speech, music and text recognition, automatic writing, spell checkers, and verification of authorship

**Agent based software** - used for Web research, search engines, scheduling, planning, negotiating, and notifying.

**Autonomic computing** - used to make computers self-configuring, self-healing, self-optimizing and self protecting.

**Semantic web** - used to make the content of the Web more meaningful so that it can be more easily searched and shared.

**Affective computing** - computer software will sense your emotions and act accordingly. They may even show emotions in return. This will increase the realism of eLearning simulations.

**Trend 4: move from document centric training to simulation and tutoring:**

It is generally recognized that presentations to large groups, while occasionally entertaining, are generally a waste of time in terms of learning, but tutoring or an apprenticeship with a master teacher can be very rich learning experience. Unfortunately, the document centric model has followed us to technology-based learning with the proliferation of web pages and power point moving towards learning through simulation and using the computer as a master tutor. The reality is that most corporations cannot afford this kind of training. The next best thing is to try to use the computer to simulate real-life situations and to respond to the learner as an online tutor.

**Trend 5: move from group based training to personalized performance support in the workplace:**

Most people are taught in groups; most learning is an individual experience. The development of large scale databases and intelligent computer programming finally makes possible the dream of individualized competency based learning. This means that learners can learn at their own pace, learn what is most relevant and necessary for them, and do not need to study those things they already know.

**Trend 6: move from expert centric knowledge delivery to collaborative knowledge capture and dissemination:**

Companies are beginning to realize, however, that highly useful knowledge of the corporation resides not only with experts or with top-level managers but is spread throughout the whole organization. Knowledge management is now seen as a key to winning competitive advantage. In order to solve pressing problems of the near future, we will not only have to improve the skills and knowledge of individuals, but also the collective intelligence of groups. The development of ‘learning communities and “communities of practice” are part of this trend.

Such knowledge management systems are now being developed and include functions like internal discussion groups and chat rooms, company-wide reference libraries, online suggestion boxes, internal glossaries and directories, personnel databases, archived newsletters, and group work applications. When valuable employees leave the company, their knowledge is not lost if it has been used to develop an expert system, or at the very least has been documented and made accessible to others.

**Trend 7: move from large proprietary applications to standardized interchangeable objects:**

Much has been written on the problem of “bloatware”, those large-scale proprietary application and suites that take up hundreds of megabytes of hard drive space and are difficult to implement and learn. The trend today is to small interchangeable software “objects” delivered over a standardized information grid. These objects can be delivered quickly in a modular fashion as needed from anywhere on the information grid, and played through a “thin client” on the user’s computer. Today the standardized information grid most commonly used is the World Wide Web.

There are already repositories of shareable educational objects, such as the one found at www. Merlot.org. Merlot lists nine types of educational objects, including simulations, animations, tutorials, drill and practice, quizzes / tests, lectures / presentations, case studies, collections, and reference material this list is in no way exhaustive as instructional designers find new uses for educational materials on the web.

**COMPANIES TAKING A PROFITABLE ADVANTAGE OVER 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 behaviour 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”. Each company, both Digicast Productions and Media-Partners, has established a successful platform and reveals case studies to prove it.
VI. CURRENT GLOBAL TRENDS IN TRAINING AND DEVELOPMENT

- **Strategic focus**: Organisations are aligning their practices towards the organization’s overall business strategy.
- **Employee Training & Development governance**: Organisations are focusing on the proper governance of the Employee Training & Development function, in line with corporate governance principles.
- **Proactive needs analysis**: Organisations are running training needs analyses proactively, with a direct link to business goals and future priorities.
- **Combined learning**: Organisations are using a blend of different methodologies to facilitate learning, with a particular emphasis on electronic learning.
- **Performance improvement**: Organisations are no longer doing training purely for the sake of training; but there is a shift towards delivering only training that improves the business.
- **Create Learning culture**: Organisations keep the perspective that training is a waste of time if there is no environment conducive to learning and growth
- **Outcomes-based learning**: There is a global shift towards outcomes-based learning, in which the focus is on clear outcomes and applied competencies rather than a great deal of interesting but inappropriate information.
- **Learner support**: Training departments are developing focused learner- support strategies to support learning and remove obstacles to learning and growth.
- **Mentoring and coaching**: Training alone is not enough; supportive mentors and coaches are needed in the workplace to accelerate learning and growth.
- **Training measurement**: Companies are measuring the impact of training based on clear tangibles in terms of the financial value of training.
- **Talent management**: Employee Training & Development is being integrated into talent management strategies, in which talented employees are given opportunities to develop their talents further so that their potential can be optimised in the workplace

VII. EXPECTED TRENDS IN TRAINING

The training and development (T&D) sector is expected to shape in the year ahead by some current trends, according to AMA Enterprise, a division of American Management Association that provides assessment, measurement and tailored learning solutions. AMA Enterprise identifies the following trends that will have an impact on the industry

- Organizations will become more open about their T&D policies and practices. This means employees will expect greater openness from executives about performance review criteria, changes in corporate strategy, career advancement opportunities, high potential program selection and even management succession.
- Coaching will continue to be a key tool in executive and leadership development
- A renewed demand for training programs design to build communications skills, critical thinking and creativity which are required to improve employee productivity are expected.
- While some organizations have long global dimension in their leadership development initiatives, most companies find they must play catch-up or lose ground in an increasingly integrated, competitive global marketplace.
- With organizations facing more employee turnover, senior management will turn to HR and T&D to build closer relationships with high-performing workers and to use development as a means to improve retention and engagement.
- The process of selecting will become more open and ambitious individuals volunteer enthusiastically for any kind of leadership development offering.

VIII. CONCLUSION

Corporate training technologies are rapidly changing. The trend is away from classroom training to web base learning on the Internet and corporate intranets. Computers are becoming faster, smarter, smaller and invisible. Instructional design for the web is changing from simple page turning of documents to highly sophisticated artificial intelligence applications using simulation and computerized tutoring. Because intelligent programming and the use of large databases allow greatly increased personalization, online learning is moving from web based courses to just in time performance support systems. At the same time networking has allowed greater collaboration in the workforce, and a better utilization of the intellectual capital within an organization. These are exciting times in the field of corporate training. The new global trends in the corporate world is to emphasize more on applying systematic approach to training and development in order to achieve higher level of organizational effectiveness. Organizations now a days try to link business strategy with training. Current and future trends show that organisations that want to retain skilled employees need to provide for ongoing development and educational opportunities. Many organizations measure the return on investment for training activities.

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