

## **“The Need and Importance of On-Demand E-Learning for Customized Management Skills Enhancement”**

<sup>1</sup>Geetha K. Joshi, <sup>2</sup>Venkata Subrahmanyam C. V., <sup>3</sup>Dr. Sandhya Anvekar

<sup>1</sup>Assistant Professor, Department of Management Studies, DayanandaSagar Business School,  
Bangalore – 560078

<sup>2</sup>Data Scientist (Sr.) & Faculty (Visiting), Department of Entrepreneurship Studies, Madurai Kamaraj  
University, Madurai – 625 021

<sup>3</sup>Professor & Head, Research & Publications, M.S.Ramaiah Institute Of Management, Bangalore – 560054

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**Abstract:** *The world today is a complex one with issues and concerns emerging that were absent even a generation ago. In present days, our societies are slowly becoming knowledge-centric and pushing people to learn more things in order for their Day-To-Day survival. In line with the societies' trend, now, majority of the organizations are completely becoming knowledge driven and hence, the success of any organization is highly dependent on how it trains, motivates and creates an environment which is conducive for learning, for their workforce in all levels, irrespective of their position in the corporate ladder.*

*Today, all the four Major entities of business – The Organization, The Product, The Customer and The Market all are increasingly dynamic in all aspects. This aspect is creating a huge Knowledge / Technological Skills gap at any given point of time which cannot be filled by conventional or formal education. Besides, the (window) time to learn or implement new things in organizations is sinking, going to new lows and is increasingly getting close to Zero which infinitely complexes the problem to greater extent.*

*To address this, today's knowledge solutions must be crisp, quick and should be available readily at a handy distance. This forms the Genesis and preamble for on-demand e-learning for customized skills enhancement.*

*This paper deals with the various concepts of learning, e-learning, on-demand e-learning, their advantages, disadvantages and finally discusses the need and importance for on-demand e-learning in customized management skills enhancement.*

**Key Words:** *On-Demand E-Learning; E-Learning; Customized Management Education; Management Skills Enhancement; Need for On-Demand Learning; Importance Of On-Demand Learning;*

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### **I. Introduction**

The world today is a complex one with issues and concerns emerging that were absent even a generation ago. One of the significant changes that have taken place is the role of education and the realization that it is indispensable for meeting the challenges and complexities of contemporary life and society. Education has become indispensable not only for its own sake -- for making people literate and knowledgeable, but also as a means of empowering them and for the development of society. Without education, the technological revolution that continues unabated would not have been possible in our lives. In every field – agriculture, housing, health services, manufacturing and transportation, and of course education, we find that technology has transformed these fields and our lives beyond imagination. Computers and their varied and ever changing applications are becoming part of the educational scene today. Computers and internet have brought in an astonishing change in the lives of most people across the world. Communications, messages, visuals, photographs can be exchanged instantaneously from one part of the world to any other. According to Asha Gupta (2008), “We have moved from the industrial age to the networked age. We have moved from the agricultural and industrial revolutions to the information revolution”. One of the important technological innovations is E-Learning which may be described as the application of broadband internet and computers to assist teaching and learning. E-Learning has emerged today as a new trend in education sector which is an effective tool in learning process.

### **II. What Is Learning?**

Let's first have an in depth knowledge about what learning really means. Learning is acquiring new, or modifying and reinforcing, existing knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information. The ability to learn is possessed by humans, animals and some machines. Progress over time tends to follow learning curves. Learning is not compulsory; it is contextual. It

does not happen all at once, but builds upon and is shaped by what we already know. To that end, learning may be viewed as a process, rather than a collection of factual and procedural knowledge. Learning produces changes in the organism and the changes produced are relatively permanent. Human learning may occur as part of education, personal development, schooling, or training. It may be goal-oriented and may be aided by motivation. Everyone processes and learns new information in different ways. There are three main cognitive learning styles. The common characteristics of each learning style listed below:

1. **Visual Learning:**
  - Uses visual objects such as graphs, charts, pictures, and seeing information
  - Can read body language well and has a good perception of aesthetics
  - Able to memorize and recall various information
  - Tends to remember things that are written down
  - Learns better in lectures by watching them
2. **Auditory Learning:**
  - Retains information through hearing and speaking
  - Often prefers to be told how to do things and then summarizes the main points out loud to help with memorization
  - Notices different aspects of speaking
  - Often has talents in music and may concentrate better with soft music playing in the background
3. **Kinaesthetic Learning:**
  - Likes to use the hands-on approach to learn new material
  - Is generally good in math and science
  - Would rather demonstrate how to do something rather than verbally explain it
  - Usually prefers group work more than others

Understanding how you learn can help maximize time you spend studying by incorporating different techniques to custom fit various subjects, concepts, and learning objectives. Each preferred learning style has methods that fit the different ways an individual may learn best. Learning is the acquisition and development of memories and behaviours, including skills, knowledge, understanding, values, and wisdom. There are some factors which affect learning such as Individual motivation, Corporate context, Learning context, Recognition of knowledge acquisition, Pre-service training for staff used as instructors and Assessment.

### **III. E-LEARNING:**

A learner or student who is making use of information technology (IT) through internet is said to be learning electronically or in other words the computers and internet are contributing to student learning. This, in common parlance, is termed e-learning. Perhaps the first computer delivered lecture using email, was made by WD Graziadei in 1993. Dr. Bernard J. Luskin, a distinguished American psychotherapist, is often called an e-learning pioneer, since he has popularized on line learning both as an educator and an entrepreneur in online learning and new media. E-learning has not only become widespread in USA, Canada and Europe, it is becoming popular in India at the higher education level. In Asia, also e-learning is evolving rapidly in several directions as the economies of Japan, China, South Korea and Singapore etc. expand.

E-Learning is referred as the delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning material. (Derek Stockley 2003) E-learning can involve a greater variety of equipment than online training or education, for as the name implies, "online" involves using the Internet or an Intranet. CD-ROM and DVD can be used to provide learning materials. Distance education provided the base for e-learning's development. E-learning can be "on demand". It overcomes timing, attendance and travel difficulties. An e-journey is one type of e-learning or online training. Blended learning is e-learning combined with other training methods. Elliott Masie refers e-learning as "The use of technology to design, deliver, select, administer, support and extend learning" and Percepsys defines that e-learning is nothing but "Using a technological means (Internet/Intranet/Extranet) to access and manage learning that supports and enhances the knowledge of an individual"

### **IV. ON-DEMAND E-LEARNING (*Augmented Learning*):**

On-Demand E-Learning, also called as Augmented learning, is an on-demand learning technique where the environment adapts to the learner. By providing remediation on-demand, learners can gain greater understanding of a topic and stimulate discovery and learning.

Technologies incorporating touchscreens, voices and interaction have demonstrated the educational potential that scholars, teachers and students are embracing. Instead of focusing on memorization, the learner experiences an adaptive learning experience based upon the current context. The augmented content can be dynamically tailored to the learner's natural environment by displaying text, images, video or even playing audio

(music or speech). This additional information is commonly shown in a pop-up window for computer-based environments.

Most implementations of augmented learning are forms of e-learning. In desktop computing environments, the learner receives supplemental, contextual information through an on-screen, pop-up window, toolbar or sidebar. As the user navigates a website, e-mail or document, the learner associates the supplemental information with the key text selected by a mouse or other input device. Augmented learning has also been deployed on mobile, touchscreen devices including tablets.

Augmented learning is closely related to augmented intelligence and intelligence amplification. Augmented intelligence applies information processing capabilities to extend the processing capabilities of the human mind through distributed cognition. Augmented intelligence provides extra support for autonomous intelligence and has a long history of success. Mechanical and electronic devices that function as augmented intelligence range from the abacus, calculator, personal computers and smart phones. Software with augmented intelligence provide supplemental information that is related to the context of the user. When an individual's name appears on the screen, a pop-up window could display person's organizational affiliation, contact information and most recent publications.

In mobile reality systems, the annotation may appear on the learner's individual "heads-up display" or through headphones for audio instruction.

Foreign language educators are also beginning to incorporate augmented learning techniques to traditional paper-and-pen-based exercises. For example, augmented information is presented near the primary subject matter, allowing the learner to learn how to write glyphs while understanding the meaning of the underlying characters.

## **V. Salient Features Of E-Learning:**

In view of the special needs, abilities and backgrounds of learners, e-learning is becoming more and more popular. Some of the main features of e-learning are outlined below:

### **1. Connectivity or networking**

The learners are spread over large distances and not confined to a classroom with a teacher teaching them as earlier. This technology (computers and broadband internet) allows people spread over large distances to be connected and networked and will have access to both text and visuals materials. Animation is also entering the educational scene apart from its omnipresence in the advertisement world. Moreover, in some situations there are a very large number of learners – sometimes of the order of 1,000, as happens in open schooling or distance education programmes and this large number would not fit into a classroom in any case. This technology allows all these learners to have access to the material available.

### **2. Flexibility**

Again, because of jobs which learners maybe engaged in, learners have varied hours of learning – late evenings or early mornings. E-learning can accommodate the needs of such learners. Similarly handicapped or ill learners who find it difficult to attend regular classes would also be able to benefit.

### **3. Interactivity and collaboration**

Not only is their connectivity between the teacher and the learners, the latter can also be interconnected to themselves for sharing information or for posting comments, etc. There can also be collaboration between different scholars or between teachers and learners spread over large distances.

### **4. Virtual Learning Environment (VLE)**

In view of the special needs of learners and the scope this technology offers institutions and scholars, a virtual learning environment (VLE) or virtual learning portal (VLP) is often created to enable interested persons or learners to have access to educational material like texts, visuals, quizzes, etc. available on it. The VLEs created would of course differ from subject to subject. For example something created by psychologists or architects would differ from that created by engineers or business companies. The VLE or VLP allows access to different types of learners spread over distance and location.

For all these reasons, e-learning provides an alternative means of learning which is becoming increasingly popular today. However, one has to be careful in applying technology in the classroom. Several considerations arise:

- The type of technology to be used for promoting deep and durable learning as opposed to superficial learning (Bascelli, D, 2005).
- What pedagogic changes are required for effective teaching-learning (Van Dusen, G.C., 2001)

## **VI. E-LEARNING TYPES**

Basically there are two types of e-learning – Asynchronous and Synchronous.

1. **ASYNCHRONOUS LEARNING** – It is a learner-centered teaching technique in which online learning resources are used to enable information sharing between people in a network. In asynchronous learning, information sharing is not limited by place or time. Asynchronous learning is facilitated by media, such as email, online discussion boards, email lists, blogs and wikis. Asynchronous learning facilitates work relations between teachers and learners, even if the participants are not online at the same time, bringing a high degree of flexibility to e-learning. The asynchronous nature of participation is a key to online course options. This allows participants to combine education with family, work and other responsibilities. Participants can easily log in to an e-learning platform from any virtual location at their convenience and then download/share documents and send emails to their peers and/or teachers. Asynchronous e-Learning lets people learn at any time. Tools used in this method are:

#### **a. Self-Paced Courses**

The obvious advantage of a self-paced course is convenience. People can get the training they need at any time. This can include just-in-time training where a person gets exactly the training he or she needs to perform a task. Self-paced courses are created with e-learning authoring tools. Self-paced courses can be delivered in many ways including:

- Internet
- Intranet or Local Area Networks
- CD-ROM or DVD
- Self-paced courses usually have these features:
- Multimedia: A mix of text, graphics, animation, audio and video to enhance the learning process
- Interactivity: An instructional strategy that helps a learner practice what they have learned
- Bookmarking: Lets the learner stop the course at any time and restart it from the same point
- Tracking: Report the learner's performance within a course to a Learning Management System (LMS)

Some self-paced courses have these advanced features:

- Simulation: Providing practice with a mock-up of a real system
- Online Experts: Provide access to experts through chat or online discussion
- Multiple Bookmarks: Designate one or more pages of the course to access while on the job
- Search: Search through a course to find information required to complete a task
- Notes and Highlights: Mark one or more parts of a course that contain the most important information

To use self-paced courses successfully, you will have to overcome some challenges. Many people need external motivation to take and complete a course of study. Since self-paced courses can be offered without a teacher and without a required completion time there may be many learners who will not enroll or complete the course work. You must be sure that there are professional and/or personal incentives for your learners to take and complete self-paced courses. Some people need help understanding the learning material presented in a course. Since self-paced courses can be offered without teachers, those people may fail to learn. You will need to provide experts who can answer their questions.

#### **b. Discussion Groups**

A discussion group is a collection of conversations that occur over time. Other names for discussion groups are message boards, bulletin boards and discussion forums. A discussion group might start out as a question from an individual. Sometime later, another individual responds to that question. Others can respond to the question (creating a thread) or they can start their own conversation (forming another thread). A threaded discussion might also start with a teacher asking an open-ended question that leads to a class discussion. Discussion groups can be used to support a group of people taking the same class or can be used to support people performing similar tasks. A discussion group is a very efficient way to provide expert answers to a large group of people. A single answer to a common question can benefit many.

2. **Synchronous Learning** – It lets teachers conduct classes over the Internet. Synchronous learning refers to a learning environment in which everyone takes part at the same time. Lecture is an example of synchronous learning in a face-to-face environment, where learners and teachers are all in the same place at the same time. Before technology allowed for synchronous learning environments, most online education took place through Asynchronous learning methods. Since synchronous tools that can be used for education have become available, many people are turning to them as a way to help decrease the challenges associated with transactional distance that occurs in online education. Synchronous e-Learning goes by a variety of names: virtual classrooms, Web conferences, Webinars, and online presentations, to list just a few of them.

Some examples of synchronous learning environments are having learners who are watching a live streaming of a class take part in a chat and having learners and instructors participate in a class via a web conference tool such as Blackboard Collaborate, Adobe Connect, WebEx, Skype, etc. These synchronous

experiences can be designed to develop and strengthen instructor-learner and learner-learner relationships, which can be a challenge in distance learning programs. The synchronous technologies also allow people to interact with peers and experts such as,

**a. Virtual Classroom**

A virtual classroom duplicates the capabilities found in a real classroom. A virtual classroom provides:

- A place to meet: Learners and teachers use their computers to go to a virtual meeting place instead of a classroom.
- Take attendance: A list of learners is recorded.
- Lecture: Teachers can choose from a variety of synchronous technologies including:
  - Slide presentation
  - Audio and video conferencing
  - Application sharing
  - Shared whiteboard
- Interaction with learners: Learners can indicate when they want to speak by virtually raising their hand. Teachers can let learners speak through audio and video conferencing. Teachers and learners can use instant messaging and chat.
- Quizzes: Teachers can present questions to learners.
- Breakout Sessions: Learners can work together in groups.

Most companies that sell virtual classroom software provide all of these capabilities in a single package.

**b. Audio and Video Conferencing**

Audio conferencing can be implemented in two ways:

- Computers connected to the Internet. Common names for this kind of implementation are IP Audio Conferencing or Voice-over-IP.
  - Phone conferences. People dial the same number to participate in an audio conference.
- Video conferencing can also be implemented in two ways:
- Computers connected to the Internet. The computers need digital cameras.
  - Special video conferencing devices that connect over the Internet or over phone lines.

**c. Chat**

Chat allows several people to communicate with each other. Each participant uses a computer to type their comments. The other participants can see the name of the person and their comments.

**d. Shared Whiteboard**

A shared whiteboard lets a group of people communicate by typing comments, drawing, highlighting and pointing. A shared whiteboard is a common feature within virtual classroom software packages.

**e. Application Sharing**

You can demonstrate how to use software applications to remote learners with application sharing. A teacher can also let the learner take control of the application to practice performing tasks.

**f. Instant Messaging**

Instant messaging is similar to chat. One person communicates to another through typing. Instant messaging also provides some additional features. With instant messaging, you can keep a list of list of people that you might like to chat with. The list will indicate if they are online, offline, available for chat or busy. These features make instant messaging an excellent tool for learning from peers.

**g. LEARNING MANAGEMENT SYSTEMS**

A Learning Management System (LMS) manages the process of learning. The marketplace offers hundreds of different LMS products priced from thousands to millions of US dollars. All LMS products manage learners, provide reports, and manage access to self-paced courses and/or instructor-led courses. Some LMS products also manage one or more of these:

1. Administration
  - Groups (i.e. organizations within a company, jobs, geographical, working groups)
  - Administrative permissions (who can access data, who can perform certain functions)
2. Training management
  - Scheduling and access to virtual classes
  - Creation of blended learning
  - Assignment of training based on certification requirements
  - Authoring



- Online sales of courses
3. Employee management
- Skill assessment
  - Assignment of training based on skills
  - Performance reviews
  - Recruiting
  - Succession management

Selecting the right LMS for your organization depends on your business needs, budget, and IT capabilities.

**Typical LMS Needs**

Business Needs	Types of Organizations	Vendors
Deliver self-paced courses	Small and mid-sized companies, associations, sales groups	e-Learning Consulting
Manage all types of training	Mid-sized and large companies	Meridian
Training and Performance Management	Large companies	SumTotal Saba

**h. Learning Content Management Systems (LCMS)**

A Learning Content Management System (LCMS) supports team-based development of self-paced courses. An LCMS typically provides:

- A library of media elements
- Templates
- Development tools (check-in/check-out, version control)
- Project management tools (assignment, completion reports)
- Quality assurance tools (reviews, approvals, bug tracking)

**i. Knowledge Management System (KMS)**

Knowledge management systems provide direct support for employees as they do their job. Many types of systems are referred to as knowledge management systems including:

- Document Management
- Knowledge capture
- Information portals
- Search tools

**VII. ADVANTAGES OF E-LEARNING:**

As budgets become tighter and tighter the mission of the training department to bring the best quality education to people all over the globe has not changed. We must adapt to the changing financial and market pressures around us. E-Learning can help us adapt while controlling costs, increasing quality and modernizing the workforce.

- Is more cost effective.

While the initial cost of developing an eLearning course can be significantly higher than that of traditional training this expense is more than offset by the savings in implementation and delivery of the course. This is especially true when the course is to be delivered to a large and geographically diverse learner body.

- Saves time without sacrificing quality.

Hundreds of independent studies have shown that eLearning has yielded time savings of 35-45% over traditional classroom instruction while obtaining equivalent or better gains in education. In fact, compression of training time has the most visible impact on ROI by not only providing savings in wages spent on training, but also savings in opportunity costs for sales people and other top producers.

- Minimizes travel cost.

Most companies have realized that travel and entertainment (T&E) make up the bulk of their training costs. Numerous studies have shown that eLearning can cut the travel and entertainment cost associated with training by at least 50%. Other studies have shown that if implemented properly these costs can be reduced by at least 80%.

- Better Suited for Geographically Diverse Employees.

E-Learning is flexible. It is self-paced and can occur any time and any place. As such, it is ideally suited for training employees who are dispersed globally. E-Learning is easily modified (especially Web delivered content) thus making it more adaptable for translation and change of content for different cultures and languages.

- Provides More Consistent Course Delivery.

Just like a live performance, classroom training is slightly different each time it is given; Instructors vary the way they present material each time they give a particular class. E-Learning is like a taped or recorded performance. No matter how many times the class or learning module is presented it will not change or vary. This leads to very consistent delivery of material that is not possible in a traditional classroom approach. This makes it ideal for compliance training.

- Offer More Individualized Instruction.

Learners have the ability to learn at their own pace and at times that are convenient for their schedule. In addition they have the ability to skip around through the content and pick and choose what is important for their job or what they feel they are lacking education wise. They no longer need to sit through hours of classroom lecture to pick up the one or two concepts they happen to be lacking.

### **VIII. Disadvantages Of E-Learning:**

Potential drawbacks are that e-learning can be:

- Technology dependent: learners will need access to a machine of minimum specification as dictated by the e-learning supplier or access to a service with a high bandwidth to transfer the course materials in a timely way.

- Material Incompatibility: some materials designed for one particular system will not function properly on another (for example, the Apple Macintosh and the Windows PC). Standards will help in the area.

- Unsuitable for Certain Types of Training: any skill that relies heavily on inter-personal contact although these courses could be supplemented by e-learning.

- Unsuitable for Certain Types of Learners: e-learning requires a high-level of self-discipline and personal time management. E-Learners need to be highly self-motivated to take full advantage of the medium as often the online learning experience can be impersonal. Working through 'packaged' programmes can be irritating.

- Reliant of the Quality of the Content: it is too easy for some institutions to defer the photocopying costs onto the learner by placing all lecture notes and course hand-outs online. Such practices often mean that the course materials are in an inappropriate format for online learning. Course providers need to develop new technical skills and course design skills to suit the new medium.

- Expensive: start-up cost of an e-learning service is expensive and the cost of production of online training materials is very high. Teachers must be confident that the extra costs are balance with the benefits of delivering a course online. Significant time needs to be invested in course set-up and in ongoing maintenance (checking links, updating course content etc.).

- Reliant on Human Support: e-learning is still dependent on help on either the course materials or the software.

- Social/economic disadvantage: can limit or prevent access by some learner groups (for example, cost of equipment, online access and printing).

- No Match for Face-to-Face Teaching: Electronic communication does not necessarily provide a good match for face-to-face communication and is more linear than face-to-face discussion.

- Too Reliant on IT Skills: learners may have limited IT skills, or be uncomfortable with electronic communication and need to learn how to use the medium effectively.

- Disabilities: Learners with visual or physical impairments may be disadvantaged.

- Inflexible: Flexibility may be lost as adjustments to the course in response to learner reaction are not easy to make once the course is underway.

- Pedagogically Unsound: The electronic environment does not per se offer a pedagogically enhancing learning environment.

### **IX. The Importance Of E-Learning:**

E-learning has been continually evolving in the world around us and bringing out many new ways for students to cope with their most dreaded subjects. Today almost every student is net savvy and well versed with technology. Making use of this technology to promote learning and interaction is a novel method. A number of resources are available in this light and the idea has to be to focus on providing content that is accurate and well written to the learners. When considering E-learning resources, make sure you do a thorough investigation. Today there are many spurious free products in the market, so make sure you know that you are purchasing and using products that are well reputed and validated as being effective resources.

Today a lot of the E-learning programs are available to allow students to earn diplomas while they are still in school. This allows them to focus on multiple aspects at the same time. Having interactive mediums to learn in makes it all the more interesting. Make sure that you purchase E-learning materials from sources which are well known and reputed. The focus should be on quality content versus new firms that offer cheaper

resources. Make sure you buy the materials from companies which have years of experience and are hence well known in the field. You will have greater assurance that the content is in line with your syllabus and suitable for your learning. E-learning is extremely important as it allows for better information dissemination and use of more efficient and new tools in the process. This makes learning more complete and well structured. It is important to consider the end goals when considering an option in E-learning in order to achieve maximum results.

## **X. Conclusion:**

In present days, our societies are slowly becoming knowledge-centric and pushing people to learn more things in order for their Day-To-Day survival. In line with the societies' trend, now, majority of the organizations are completely becoming knowledge driven and hence, the success of any organization is highly dependent on how it trains, motivates and creates an environment which is conducive for learning, for their workforce in all levels, irrespective of their position in the corporate ladder.

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