

E-learning: Organizational Issues

Munmun Goswami

Assistant Professor, Institute of Engineering and Management, Kolkata

E-LEARNING: THE CONCEPT

"E-learning theory describes the cognitive science principles of effective multimedia learning using electronic educational technology. Cognitive research and theory suggest that the selection of appropriate concurrent multimedia modalities may enhance learning, as may application of several other principles."^[1]

"It is a system of learning based on structured teaching methodology, but with the aide of electronic resources. It can be based inside or outside the classroom, but with the usage of computers/ laptops/ tabs and internet. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times."^[2]

HISTORICAL BACKGROUND

The term "e-learning" was first made up in 1999, when the word was first introduced at a CBT systems seminar. Similar words which were termed near about the same timeframe were "online learning" and "virtual learning". However, it is found from historical data that the principles of e-learning in its earliest forms existed even as far back as the 19th century.^[3]

In the 1840's Isaac Pitman taught shorthand to his students via correspondence. The first testing machine was invented in 1924, which allowed the students to take tests by their own selves. BF Skinner, invented the "teaching machine" in 1954. The structured computer based training program was first invented in 1960 in the University of Illinois, which was known as PLATO (Programmed Logic for Automated Teaching Operations).

"The e-learning revolution developed from a number of other 'educational revolutions', as listed by Billings and Moursund (1988):

- The invention of reading & writing;
- The emergence of the profession of teacher/ scholar;
- The development of moveable type (print technology);
- The development of electronic technology."^[4]

HOW TECHNOLOGY IMPACTS LEARNING^[5]

The way we learn today is starkly different than how we did even two decades earlier. Computers (desktops/ laptops), tablets, smartphones, internet and communications technology has changed drastically the way we not only interact, but the way we go about living our life itself. Earlier, books and libraries and teachers were approached for learning about anything particular, but nowadays, information is readily available on the internet. Online education (be it professional degrees, exam preparation, free courses) has become more accessible than ever before through eLearning technologies.

ACCESSIBILITY

computers, laptops, tablets, smartphones along with the easy access to the internet has made learning more accessible. Opportunities are no longer restricted to in-person classrooms, as learners get to choose the medium (video, eBooks, interactive quizzes) that is best suited to their learning style and inclination. It also opens up significant opportunities for collaboration. One can interact with people all over the world to develop his/ her academic knowledge and professional skills.

MOTIVATION AND ACCOUNTABILITY

There are many apps and platforms available on the internet which offers instant feedback on what the user has learned, which also holds the learners accountable. This often can serve as a reality check, as such programs/ apps efficiently identify key zones in which the learner has difficulty and needs assistance.

COST EFFECTIVENESS

Printing of physical learning materials is expensive and those costs are passed on to learners. The advent of new technologies, more specifically online platform, have made it less expensive for students. In addition to making learning opportunities far more accessible, but it has also helped learners coming from different and often less-privileged economic backgrounds able to acquire knowledge, which was earlier unthinkable and unreachable for them.

CONVENIENCE

Nowadays, with the blurred working hours, asynchronous learning is now a real possibility, where the learner can learn at his/ her own leisure time and accordingly at a pace most suitable for him/ her. This is not possible in traditional methods of classroom teaching.

RELEVANCY

With the wide spread spam of internet, knowledge sharing is instant. Sitting in any remote corner of the world, if one has access to the internet, he/ she can easily access real time updated contents. It is easier and cost effective even for producers to easily change online content, apps and eBooks so that the information remains accurate and up-to-date.

E-LEARNING TODAY

It is proved through various studies (validated through statistical data) that the human brain can remember and relate more to visual and sound aided presentations (animations and videos). It has also been found that visuals are also retained by the brain for longer periods. In India, multiple sectors, viz., education, banking, hospitality and other services, agriculture, medicine, business, and government setups all area cclimatizing to the concept of e-learning.

Previously, it was not acknowledged unreservedly as a valid platform for learning, as this system lacked the human element (which was assumed as one of the key requirements in learning). But with the rapid advancement in technology and the development in learning systems, it is now accepted by the world populace. Knowledge is being shared via internet which is accessible to everybody 24/7, anywhere and anytime.

BENEFITS OF E-LEARNING

It is cost effective—can be accessed across geographical locations and time constraints, without the inherent costs of physical delivery of the training.

It saves time—an efficient way to deliver course.

Learning is 24/7, anywhere and anytime.

It makes tracking of course progress easier.

It is discreet and self-paced—everyone can take advantage.

Resources available can be linked in varying formats, thereby making it easier and user-friendly.

It promotes active and independent learning.

Highonconvenienceandflexibility—reducesdependencyonexternalperson.

Doubts can be cleared through discussion boards and chats—promotes networking and interaction.

Access to audio and video lessons can be infinite number or times, by rewinding and seen and heard again and again.

Higher learning retention is found on blended learning.

Carbon footprint is reduced (eliminating books, print-outs, etc).

Disadvantages of e-learning

Theoretical knowledge is only gained–practical applications limited or absent.

Online assessments are objective and mostly limited in nature.

Security may be an issue, hence confidential for classified learning material cannot and are not shared on these platforms as a practice.

Computer marked assessments usually more often than not are focussed on being knowledge-based rather than practical-based.

E-LEARNING IN ORGANIZATIONS

E-learning is widely accepted as a major boon for the corporate sector, especially for the cost and reach and other benefits (as listed above) are actually obtained manifold, provided it is a success. Training programs can be conducted and received virtually by professionals from any corner of the world, and employees are able to acquire knowledge/ skill-sets from anywhere, while in board room, in seminars, from their cubicle, from the luxury and privacy of their own home or even from multiple organizations.

E-LEARNING CURRENT TRENDS IN ORGANIZATIONS^{[6][7]}

Talent management–through continuous learning–right from induction, throughout the course of an employee's association with a company, an individual requires learning support and right and accurate information.

Need-based learning management system (LMS) rather than any one permanent vendor–MNCs are moving away from one vendor concept to product based LMS, as per changing requirements. A main reason for replacing existing Learning Management System is the need for improved user experience, as well as better administrative experience, reporting capabilities and mobile compatibility.

Social learning–social learning is rapidly evolving in the corporate learning space, and it has far-reaching impacts on core processes, from recruitment to training and talent development. As results can be measured quickly, this has direct impact on performance. It is envisaged that in the future, social learning will transform from mere content delivery tool to more of an enabler for the employees of an organization, wherein the level of interaction within the workforce and sharing of common processes is heightened.

Mobile learning—to cater to the millennials, LMS has to be made mobile/ tab friendly, apart from it being administered via desktop/ laptop. In today's world, where tablets, phablets, headsets, and wearables are common, establishments need to ponder more about how to augment material and communication for various distribution devices in a wireless environment.

The exponential growth in the usage of e-learning have become evident with the emergence of iPhone, Android and tablets and has been growing ever since. New advanced hardware and OS versions keep on expanding the mobile-learning opportunities. Quite a few applications are there in the market now, viz., word press, skill pill, moodle mobile, blackboard collaborate mobile, educreations interactive whiteboard, Lynda.com, e.learning age, apple keynotem, iTunes U to name the topmost ones.^[9]

HR ISSUES WHILE IMPLEMENTING E-LEARNING—PROBLEMS FACED^[8]

Though most organizations prefer to shift to the e-learning platform, complete transition (i.e., 100%) is not still not favoured by any of them. They are apprehensive about completely abandoning traditional models. Hence, a balanced approach, viz, blended learning approach where classroom traditional method as well as online e-learning modern method is used is taken. This would include all, i.e., classroom-based instruction, online learning, paper-based, electronic performance support, and formal or informal on-the-job explanations. Listed below are some of the common problems faced:

Too Much Information in Too Little Time

Often, the trainers or developers cannot resist the urge to use the latest technology and features, which doesn't always translate into learners feeling comfortable or succeed in using it. In addition, with newer technology, bugs are expected, and these technical difficulties if too many or too complex, often tend to result in abandoning the program meal together, rendering the whole program to doom and failure.

Pre-Conceived Notion (Resistance to Change)

It is a challenge, especially to address elder age employees, who think that traditional classrooms are more effective (familiar environment). Hence, more effort is required to be put in this direction in order to make a self- directed learning program successful. It lies with the facilitator/ trainer/ manager/ L&D professional to instil confidence to fully support the program. Adding to it, the managers need to have an idea about what their employees are/ will be experiencing.

Keeping Track of, Monitoring Assessing the Employee's (Learner's) Progress

It is indeed a difficult challenge to address. Classroom learning as well as self-paced components (online or e-learning) should be pursued and monitored actively in order to ensure learning is a success. Assessment can be done through online questionnaires, etc., with periodic interaction to ensure that learning outcomes are understood and thus expectations are met.

Misdirected Strategies

Often, while creating an eLearning course, most attention is paid to technology implementation rather than the actual design of learning content. More emphasis is paid on "how to deliver" rather than "what to deliver". This unfortunately, dilutes the effectivity of the LMS, and hence it cannot be emphasised enough that only after careful segregation the learning content should the e-learning platform be developed form multiple channels of delivery.

How to Bring all the Elements Together

Learning programs usually have multiple layers that last for varied periods of time. Hence, it is essential that proper coordination and oversight is there, else partial completion of easy or key schedules will only be done by the employees. While too much information may over-burden the learners, too less of it will not make them motivated enough to complete self-paced learning requirements.

Support of Key Players

It is essential that the support and involvement of the top management is blatantly evident and promoted, this helps in gaining employee acceptance. The attitudes of the learners could also be a challenge, this can be mitigated provided the e- learning platform is promoted actively by the top management while implementation.

APPLICATION AND EFFECTIVENESS OF E-LEARNING IN TRAINING AND DEVELOPMENT

E-learning can and is already being applied in wide gamut of areas, including but not limited to:

- Education
- Automotive and transportation
- Travel and hospitality

- Medical and healthcare
- Communication
- Social networking
- Banking.

The most widely used area where e-learning is applied extensively is induction training. This is because the general standardized nature of information to be disbursed, to a large audience, with minimal cost, all these benefits are accrued while using an e-learning platform.

For any training and development program to be effective and successfully implemented multiple times, it needs to be consistent, rationalized and uniform across boundaries, geographical or otherwise. In the current scenario, rapid changes occurring in industry across the world has forced organizations to approach a method of continuous improvement, be it in work environment, performance, and keeping abreast and utilizing the technological advancements of the world.

With the easy availability of internet and online technology, training and learning modules and methodology of imparting training are going for a vast makeover. It is possible to impart training to learners across the world simultaneously without leaving own office/ city. However, careful consideration and preparation is required for this—keeping in mind the language and cultural barriers, and hence suitably modify the visual and audio content.

Training, when effective, reduces attrition, increases motivation levels, thereby improving performance and hence the profit. E-learning, as emphasized earlier also, is cost-effective, life-long, innovative, and more competitive along with a varied range of other benefits accrued.

NEW INNOVATIONS IN E-LEARNING

MICRO-LEARNING

Organizations are moving towards the concept of shortened learning packages, aimed at performance support, providing information in rich media formats. Accessibility across multiple devices is ideal fit for just-in-time training. It also gives the learner an opportunity to build their knowledge base when it's most convenient for them. These activities can be incorporated into daily routines, thus reducing cognitive load on the learners, as the whole process is implanted in the day-to-day routine. It is also perfectly suited for mobile apps, where lengthy courses are not really supported.

GAMIFICATION

Wikipedia defines gamification as “the use of game thinking and game mechanics in non-game contexts to engage users in solving problems”. It can be complete (where tasks or concepts are overlapped on the learning content, but unrelated) or partial (which maybe in the form of in-between checks and end- assessments). It not only helps in better learning experience and environment, but also instant feedback and behavioural changes, impacting the bottom line directly. This concept of gamification can be used in induction programs, professional and soft skills enhancement, and compliance, to name a few areas.^[10]

Five top-most gamified e-learning examples are listed below:^[11]

- Till Training Game, from E-learning Awards gold winner Kineo (McDonalds–to train employees across 1300 restaurants in UK the new till system)
- Lifesaver by the Resuscitation Council & Unit9 (training to teach basic steps of what to do when someone has a cardiac arrest or is choking)
- Medieval Swansea by Make Sense Design & City Witness (history) the Virtual Reality House by Train 4 Trade Skills (for trade tainees such as plumbers)
- Heineken Capability Academy by Brightwave & Heineken (blended solution)
- Personalized learning–the concept of one-size-fits-all is used mostly for budget and time limitations. However, it is important to remember that personal needs, learning speed and experience matters a lot, and hence, personalized learning environment with modified contents display etc. is what individual learners look at more, and hence require attention for better success rate of learning. It actually empowers the trainee with a degree of choice about what, how and when of the learning material/ training.

MOOCS-MASSIVE OPEN ONLINE COURSES

MOOCs, was developed around 2011 by professors from eminent universities like Stanford, MIT, Harvard, etc began putting their courses online. The market now consists of large companies like Udemy, Coursera, and Udacity who offer free or low-cost online classes. In India, Byju’s, Simplilearn, Prozo, EQuickes, ‘GK for all’ cater to variety of students, ranging from school level to civil services as pirants.

AUTOMATIC LEARNING

This concept can be summarized as recording the proficient person’s brain activities while performing a job (fMRI machine), and then replicate the same in the learner’s brain. Apart from the ethical discussion which is inevitable in this kind of knowledge

transfer, research has shown that this fMRI pattern playback actually creates long-lasting improvement in visual performance focussed tasks. In theory, this type of automated learning is a potential next-step forward from e-learning.^[12]

CONCLUSION

Learning is an essential component in the talent cycle within an organization. Firstly, induction learning for new recruits (i.e., on-boarding) and reducing time to competency is critical. Secondly, an employee has to be given a continuous learning opportunity for satisfying his professional growth and hence retention. For any company, learning is a tool for enhancing performance and is mandatory for developing and building future skills, especially in this rapidly transforming fast-paced evolving world. Therefore, corporate training and learning is obligatory for building organisational capability as well as individual career advancement. Though there are varied trends of corporate learning, the common factor for all is the need for adopting newer technologies and their alignment to the needs of the employees.

The major thing that might possibly limit the ways in which technology influences learning is a dearth of understanding about these new learning options and how they work. The human resources department and professional development employees need to stay aware of these technological advances so as to integrate existing products into the work place culture.

REFERENCES

- [1] [https://en.wikipedia.org/wiki/E-learning_\(theory\)](https://en.wikipedia.org/wiki/E-learning_(theory))
- [2] <https://economictimes.indiatimes.com/definition/e-learning>
- [3] <https://www.talentlms.com/elearning/history-of-elearning>
- [4] http://www.leerbeleving.nl/wbts/1/history_of_elearning.html
- [5] <https://elearningindustry.com/5-ways-technology-impacts-learning-today>
- [6] <https://www.gc-solutions.net/blog/popular-trends-of-2016-shaping-the-e-learning-industry-today-and-tomorrow/>
- [7] <https://elearningindustry.com/elearning-industry-trends-shape-corporate-learning>
- [8] <https://elearningindustry.com/5-common-problems-organizational-blended-learning-overcome>
- [9] <https://blog.capterra.com/best-elearning-apps-businesses/>
- [10] <https://elearningindustry.com/6-killer-examples-gamification-in-elearning>
- [11] <https://elearningindustry.com/5-killer-examples-gamified-elearning>
- [12] <https://www.talentlms.com/elearning/future-of-elearning>