

Factors Affecting Adoption of E-Learning in India

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Abstract—In the world where every domain of application is strongly knitted by Internet then why learning sector should be deprived? The Concept of implementing E-learning seems to be interesting and favorable to society but numerous factors are responsible for its overall success. While reading this research paper issues related to implementation are discussed. Major emphasis is given to Instructional designing. This research paper can be used as a base to investigate the degree of impact of each parameter and helps to draw a line of action to minimize the pitfall. Collectively it will help to reduce adoption gap between “certified” E-Learner and E-Learning Technology.

Keywords—E-learning, ICT; Collaborative Learning; Instructional Strategy (IS); Adoption Gap; LEAD

I. Introduction

With the worldwide development of ICT in the present period, E-Learning has been actualized in every single domain of society for time independent and CBA beneficial job roles. Regardless of enthusiasm of an individual, objectives of an organization, the goal of a group and so on, E-learning has embedded itself effectively and come up with genuinely great and discernible outcomes. Web-based learning has taken over control on different parameters of conventional learning (by means of Classroom, board and so forth.) like adaptable learning time, no imperative of distance from E-tutor, profundity of content, peer pressure and competition.

Before incorporating E-learning in different fields or application areas, training or educating was given to intrigue E-learners as course content yet not as a reason for aptitude development. For specific themes where the E-learner needs to visualize, it turns into the pitfall for conventional learning frameworks. The individual may picture the E-content according to his/her absorption capacity (odds of going amiss from standard result increases). Online learning innovation not just encourages far found E-learner to learn from instructor living in different corners of the world with a specific end goal to extinguish its push for taking in a point or aptitude yet additionally another path around. Example- An expert who is a lasting worker of an association yet ready to impart his insight or skills to individual or mass student over the web.

II. Literature Review

Sloman, M. (2001) in his book visualize E-learning revolution as delivery of learning or training using electronically based approaches- mainly through the internet, intranet, extranet or web [12].

E-learning can be either- synchronous or asynchronous. Synchronous learning occurs in real-time, with all participants interacting at the same time, while asynchronous learning is self-paced and allows participants to engage in the exchange of ideas or information without the dependency of other participants' involvement at the same time.

The central dynamic repository is so huge that often it become difficult for users to exactly reach to their concerned content, this flaw is much reduced by concept of “Recommender system”. As per [3] [11] Recommender systems can be classified as content based, collaborative filtering, demographic based, community based and hybrid recommender system.

Dietinger, T. (2003) explained in his work that E-learning consists of learning subject, the learning objectives and guidelines on how to achieve them. E-Learning content can be multimedia and interactive [5].

Other terms for e-Learning environments, which are often used as synonyms or with slight variations in its feature-set are many others) [6]:

- Computer Managed Instruction System (CMI-System)
- Learning Content Management System (LCMS)
- Learning Management Platform (LMP)
- Learning Management System (LMS)
- Virtual Learning Environment (VLE)
- Web Based Training System (WBT-System)

To close in easy term, E-learning can be said to be an e-content transport segment that investigates wanted e-substance to an objective of e-learner(s) where web, intranet, extranet, CD-ROM, streak drives, pen drives go about as medium.

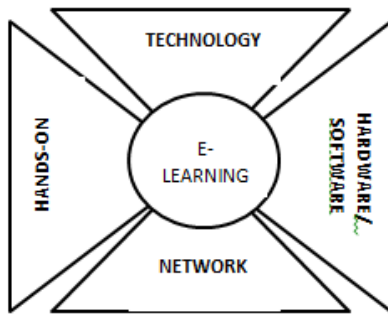


Fig. 1. Components of E-Learning

III. Advantages

A. Student may learn profundity of substance according to its advantage and furthermore can direct versatility of time-profundity needfulness proportion- A student selected for propel course may skip addresses/content from amateur level likewise for moderate level course he may entertain himself to a broader range (if/as necessities emerge). Additionally it diminishes odds of student to get dissatisfaction at a point, where while perusing a substance he gropes to brush single or couple of his pre-imperative themes and student neglect to get on [8].

B. Visualization in E-learning increases rate of retention. Simulation provides re-enactment, animations provide liveliness, group/gather talk, feedback/criticisms, answer/reply and report generation empowers student to influence a grasp on e-course content harder and for longer span as it has been noticed that visual and hands-on learning remains for longer length when contrasted with mere reading and explanation (traditional learning system)[10].

C. E-learning stage gives chance of part inversion. An individual or mass that completed e-course is requested to prepare the collaborators likewise in group-talks [3]; discussion among students with basic intrigue may share their thoughts, approach or philosophy about the point.

IV. Disadvantages

A. Creating e-content for students is a troublesome assignment for customary instructors or experts as it is far route unique from educating a group vis-à-vis (as in conventional learning). An outward appearance of E-learner assumes a noteworthy part of instructor whether to proceed with same pace and quality or should be adjusted him/herself.

B. Maintain e-content in a repository is a challenge to administrator of e-learning platform. As regular updating, ranking of content, deletion, display of content as per

recommendations and expulsion of out of date information with time is an undertaking of high need of asset crawler [2].

C. No course will be of professional good use till certification is completed by registered student. Regular progress assessment and record log is required for student and instructor to know clear about their timeline during online course enlistment and movement.

D. Students, normally grown-ups, who are isolates from customary training frameworks when once again enrolled in the present day component of learning-"E-Learning course" they have an inclination to disconnects as they are not happy with the textual style, text dimension, single way learning (Asynchronous learning) framework. Long composition and dull substance portrayal is one of the key purposes for E-learners to stop e-course, without its fulfilment and affirmation [9].

V. Issues to Implement e-Learning in Developing Countries

In developing nation like India, even today E-learning isn't at the level of gratefulness and assimilation where it ought to be as a result of globalization, high market players, created innovation and so forth.

Challenges going from individual challenges, course outlining blemishes, logical challenges and technological challenges are in charge of adoption gap of e-learning innovation to even every urban end client of developing nation. Andersson and Grönlund (2009) proposed an applied structure for understanding the challenges confronted while executing E-Learning in developing nations and for directing further research [1] [4]. TABLE I shows problems faced and reasons for e-course drop-outs.

Therefore, significant blemishes experienced while experiencing an online course in developing nation like India are fund and innovation, which are in battle officially, following parameters ought to be entirely dealt with:

- Diverting E-Learning for purpose of interest, the request of curious E-learner or supply from market players to E-Learning courses as a "The present need" will implement monetary and innovation areas to hold hands and take an interest as a unit.
- Objective obviously, the objective of training, pre imperative of members and span of E-Course ought to be plainly determined well before enrolling in it.
- Content advancement ought to be a pertinent, exact, regular, up-to-date and well-managed process and has to be under control of an experienced group. This group has to be exclusively occupied with R&D unit.

TABLE I Problems faced by various participants under different categories during course designing

Category	Participants	Problem Faced	Reason of Problem
Individual Challenges	Students	Lack of motivation	Virtual presence of teacher do not boost student after his failure. Mere message on screen do not work effectively (Especially in Asynchronous learning)
		Economy	No adequate fund for ICT for individual students.
		Technological Confidence	A student wants to learn from experts of every part of world but their degree of Tech-savviness varies.
		Gender and Demographic factors	Female students are still not remarkable in count on E-learning platform as they are not provided with end machines or medium to access online courses
	Teachers	Technological Confidence	Teacher's confidence to impart their knowledge by their prior experience and methodologies.
		Motivation and Commitment	No face to face interaction with student often seems to deflect from trust and losing of cohesion.
Competency		Lack of ICT training and innovative ideas results to failure of E-learning course	
Course Design Challenges	Institution	Curriculum	It should be regularly updated and modified as per current market scenarios.
		Subject Content	Flaws like relevancy, accuracy, continuity and inline leads to poor course designing.
		Knowledge Management	No R&D units for E-learning course facilities.
		Economy and Funds	Even if E-Learning is implemented once, its regular maintenance and updating needs a serious check.
Technology Challenges	Information Technology and Networking Unit	Access	Access to end system, 24x7 high speed internet connectivity
		Cost	Low cost ICT implementation or investment limits to use every feature offered by online course

- Infrastructure should not lack facilities an institutional end point like PCs, required equipment and programming, hostile to infection, memory stockpiling and rapid internet access.
- Even after providing all of the above facility, inclination of human resource- aptitudes, disposition and self-inspiration is one's own attribute that must be preserved all through course length as without one's inclusion student may finish the course however

- neglects to serves any great to its companion/group/association or to the general public.
- Regular input for E-mentor/E-Content and reportage of E-student must be joined as E-student advances through course.

VI. Instruction Designing

Consolidating and executing E-learning in an organization where various components are currently in low stage, there "Institution" act as a critical member that gives a reflection over confining and working of - Course Curriculum, Subject Content, Knowledge Management, Fund and Economy of the country. Every above feature points to Course Designing Challenge. Consideration regarding Instruction designing stage will resolve the challenge to a great extent.

Teachers aim to carve future of students while institute vows to accomplish objectives alongside expecting better Return of Investment (ROI). This objective is crucial for any organization to accomplish this highly structured plan of action. Design has to legitimize on efficient strategy and technique to achieve pre-arranged desired objective or goal of the institution.

Instructional systems act as the guide to use by an association to accomplish the goal of courses at effective completion point keeping hard compel on a timetable and accessible resources required for course. Courses, particularly like E-Learning or distance learning courses where the physical impedance of instructor and course guide is relatively invalid or inactive, are in hazard to trip down if no stable instructional outline procedures are embraced or taken after., are in risk to trip down if no sound instructional design strategies are adopted or followed.

Habeeb discussed LEAD strategy [7]. Pictorial representation of workflow of IS is in Fig 2.

VII. Importance Of Study

Considering a scenario where other that Instructional designing, all other factors is at their maximum success level. At such point, failure to delivery of smooth study content to E-learner is again a major pitfall to E-learning. This research paper clarifies significance of Instructional Strategy (IS) keeping following facts under consideration:

- Absence of E-Tutor during learning sessions (especially in offline mode) fails to guide student regarding depth for certain topic as per his/her ability.
- IS draws a clear and strict flow of navigation with a flexibility that learner can customize a self-paced course. Also concluding objective of course is pre-planned and common for all E-learners irrespective of their pace and learning abilities.
- Various approached like- graphical representation, discussion, feedbacks and simulations are considered to be practically advantageous where E-learner can learn from their peers in collaborative learning technique.

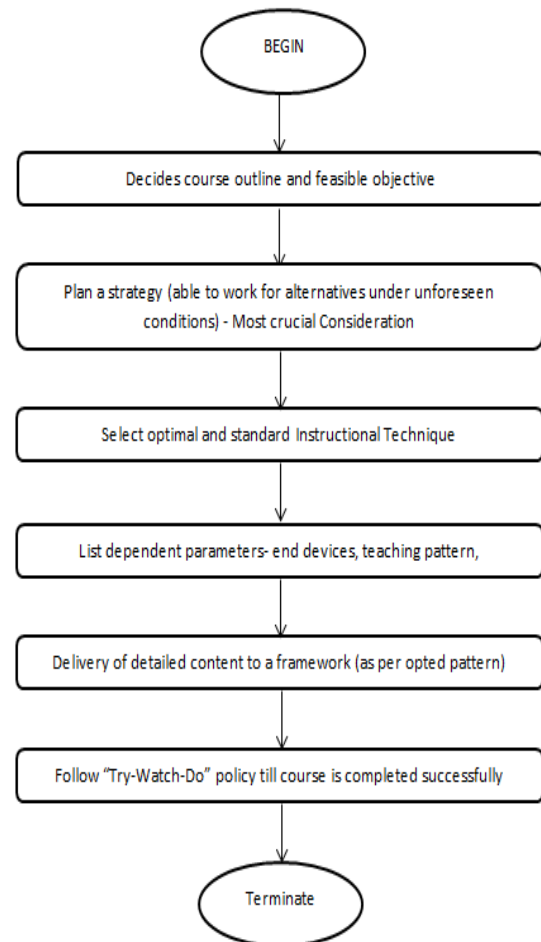


Fig. 2. Workflow of Instructional Strategy

VIII. Conclusion

The target of study gives a look at factors in charge of adoption gap of E-learning in developing nations like India. From person's interest stage to course finish stage, E-learning needs to get together to the level of student and furthermore to financial limitations to an association. Above examination gives the understanding to re-assess E-learning for course encircling and implementation process. Instruction designing is expounded to make an alignment with E-learning stage. In spite of the fact that, advance in one factor will neither eclipse nor support the rate of other factors. In this way, factors like-IT, organizing and Instructional outlining must be under the class of "critical achievement factor" and they must be re-checked frequently. This will prompt firm conceptual system and narrow the void space between E-learners and E-learning innovation.

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