Diversity Dimensions and Interventions of Information & Communication Technology (ICT) in Lifelong Learning over Distance and Open Learning.

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Abstract

In the recent years, Distance Education has made substantial progress in to the use of blended learning method which aimed to improving the quality of Higher Education programs by reviewing the educational design and adding better flexibility to modes of imparting education and thereby the process of lifelong learning through online mode. The use of Information and Communication Technology (ICT) resources can counterbalance the lack of interactions found in the normal classroom.   Amidst all of the excitement about the Internet is the reality of its inevitability. It will soon surpass today's expectations like the Motorcycle overtake the Moped.   Web-based education is just beginning, with something of far greater promise emerging in the middle distance. Yet technology, even in its current stage of development, can already allow us to realistically dream of achieving age-old goals in education to focus on the strengths and needs of individual learners to make lifelong learning a reality through technology and diversity.

Keywords: *Distance Education, ICT, Blended Learning, Lifelong Learning.*

Introduction:

Internet and Computer supported learning is gaining a lot of interest in recent years mainly for its convenience and unlimited flow of materials available for learning. It is convenient because computers are used not only for communicating but also used for accessing the Internet, Banking, Travel & Tourism Purchasing goods, exchanging information, and for Education. It is unlimited since it extends e-Learning and removes space boundaries offering anytime anywhere learning experience.

Computers or the tablet have the potential to be used as powerful learning tools in different learning contexts, however this poses new challenges that are associated with their ability to cope technically with the available multimedia learning material. The focal point attributed in this paper is to talk about issues related to the design and implementation of a learning system which will support the learners in lifelong learning process.

The distance education combines teleconference and Internet based resources to maximize the combined effects of instructor guidance and internet based content delivery.

As part of this development, a new dimension to the process has been introduced and which is now termed as distance and open learning or Lifelong Learning and investigator developed a University-wide quality assurance system for online courses related to aspects of educational design. All major online projects in extension education have been redefined and disseminated to show evidence of sound and varied use of technology in order to achieve the educational outcomes desired. This paper will describe the current scenario between the period from its introduction and implementation during the period between 2007 to 2011, and the policy how it is being implemented at the Department of Lifelong Learning and Extension, University of Mumba.

If we comparing teaching from a distance education mode with teaching in class room based - face to face, it appears, students are highly motivated due to appreciation or opportunity or convenience which indicate the Quality of learning is as good or better, since Instructors are better prepared and more will organized. Also the Instructional resources are enhanced and Collaborative teaching is encouraged. With online learning, students control when, where and what they learn, as well as how often and how quickly and this level of control is what creates satisfied students. The startling growth of new technologies and the popularity of open and distance learning delivery approaches. Online distance learning provides answers to the problems of availability and demand for flexibility of higher learning and technology mediated learning and online learning are becoming major vehicles for fulfilling the need of Lifelong Learning. As the case, the smaller organizations too benefits through e-learning whilst conducting their business.

e-Learning;

Represents an innovative shift in the field of learning, providing rapid access to specific knowledge and information. It offers online instruction that can be delivered anytime and anywhere through a wide range of electronic learning solutions such as Web-based courseware, online discussion groups, live virtual classes, video and audio streaming, Web chat, online simulations, and virtual mentoring. e-Learning enables organizations to transcend distance and other organizational gaps by providing a cohesive virtual learning environment. Companies must educate and train vendors, employees, partners, and clients to stay competitive, and eLearning can provide such just-in-time training in a cost-effective way.

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│ ¤ Concept: Virtual Teacher within a virtual classroom environment │
│ ¤ Intelligent Learning Management System (iLMS) │
│ ¤ Home grown system │
└───┘
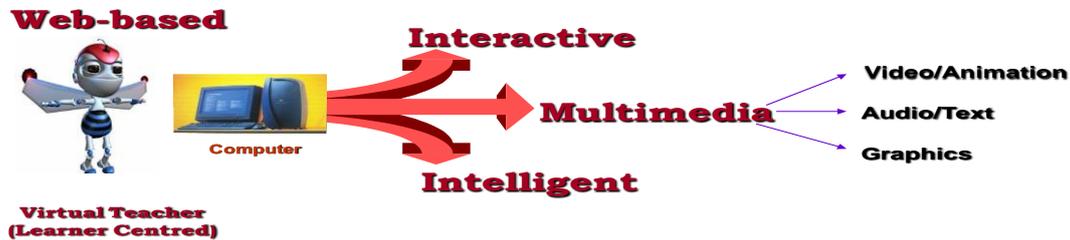
A.1 Figure 1 above shows the Multimedia Learning System (MMLS)

Developing and deploying effective eLearning programs may require products and services supplied by a variety of vendors, leaving one to connect the dots. One way to start is to define the goals of the desired learning solution. Definition of the goals of an eLearning solution is driven by the following factors:

The Study;

Determine the tasks to be taught, identify subtasks and other elements involved, and identify the knowledge, skills, and attitudes required to complete the tasks efficiently and effectively.

Training needs & analysis;

Identify the target audience for the training. Identify the shortfall in knowledge, skills, and attitudes of this audience and determine what the target learners need to know.

Review existing capabilities;

Review existing methods and infrastructure for providing training or meeting learning needs.

Determine expectations;

Identify concrete expectations and/or Return on investment (ROI) is defined, illustrated, and calculated as a cash flow financial metric for evaluating investments and business case scenarios. ROI requirements from the desired eLearning solution.   The development of an eLearning strategy begins by setting goals. What will the eLearning strategy accomplish? Without a true understanding of the goals of the eLearning strategy, it will be difficult, if not impossible, to be successful.   Before implementing eLearning, organizations need to set common goals or objectives. Common goals and objectives include the following:

To reduce learning costs;

In small business organizations, you know that online transactions cost a fraction as much those requiring paper or staff. It's the same with eLearning because there are no papers, no delays, and no travel expenses. To reduce the time required for effective learning Electronic learning is sometimes called "just-in-time" learning. Such learning enables employees to take what they have just learned from their computer screens and apply it to the tasks at hand.

To motivate employees;

eLearning is considered an effective way to keep up with new technology, to generate new ideas, and to keep your workforce fresh and inspired.

To improve flexibility of course delivery;

Most smaller businesses don't have the staff to manage their training and development initiatives. e-Learning technologies can overcome these administrative restrictions.

To expand the capabilities of the business;

Small organizations need to get more out of their high-potential employees. e-Learning helps employers take these employees to a higher level of contribution.

Other goals and objectives of e-Learning:

➢ Reduce the need for classroom training
➢ Track employee progress
➢ Track training effectiveness (or absorption)
➢ To link training with Knowledge Management
➢ To reduce time away from the job
➢ To improve job performance
➢ To support business objectives
➢ To make learning available anytime, anywhere

Many organizations justify their eLearning initiatives after the fact by eliminating related jobs or reducing training-related travel expenditures. Although these are viable cost savings, they should not be the sole motivation for an eLearning initiative. e-Learning must demonstrate that employees are learning more efficiently and retaining more of the curriculum compared with in-class training.

Now, this learning process, whether we name it as Distance Education or Open Learning or Lifelong Learning, this domain remains learner centric. To ensure achievement of quality outputs or improved quality delivery system in this education domain, there is need for a consistent value declaration for a systematic management and assessment procedures for open learning system.

The main concern is how the university will solicit to show evidence for how it is maintaining academic standards and the proven evidence will be subject to an outcry or student friendly learning process.

Many open education courses are delivered by a mixed mode with face-to-face PCP (personnel Contact Programme) Study Materials and teaching enhanced by independent modes of learning; many of these enhancements are now based on the use of Internet technologies. Many Indian universities has adopted the nomenclature of programs and courses leading to a formal qualification and course for the component subject, unit or

module. Currently in the Department of Lifelong Learning and Extension, University of Mumbai, introduced 13 Courses Categories with more than 72 skill development modules enhanced with robust technology which is simple for students to use and easy for academics to adopt and integrate in ways which can enrich students' learning. In a given limited period and framework of Extension Education process, say 120 hours of learning process, the students are exposed to undertake courses based on assortment of skill development modules. It is clear that we need to rethink ways of assessing and assuring the quality of these courseware produced using the technologies currently available for generating interest among the learner groups.

The objective

of this education domain remains beyond the four walls of the University system. It continues to do so and fulfils a prime social responsibility of providing education at the door step for those who are unable to access formal education and opened up one window for the NIOS (National Institute of Open Schooling, a scheme of the Ministry of Human Resource Development (MHRD), Government of India) through the extension education domain of University of Mumbai.

The method of instruction includes printed study material in Self Learning Mode, Response Sheets, Assignments, Video and Audio- mode Lessons on selected topics, Dissertations/Projects submission through network supported or internet medium. To cater to the masses, for all the courses, the study material is provided in English, and eventually in local language to bring them together on a common platform despite their diverse locations. It requires consistent Endeavour to introduce new and relevant courses design supported with latest technology and explores and adopt e-learning in order to reach more and teach more.

Problem Definition:

To ensure the quality of Lifelong Learning through Online mode by use of ICT the prime concern is Content Development, Periodic Updating, Content Management and Content Delivery- huge amount of contents of different courses. The problem was how to solve these issues and making best use of the technology for integration and quality assurance. In short identifying a time tested Course Management System (CMS) or the Learning Course Management System (LCMS).
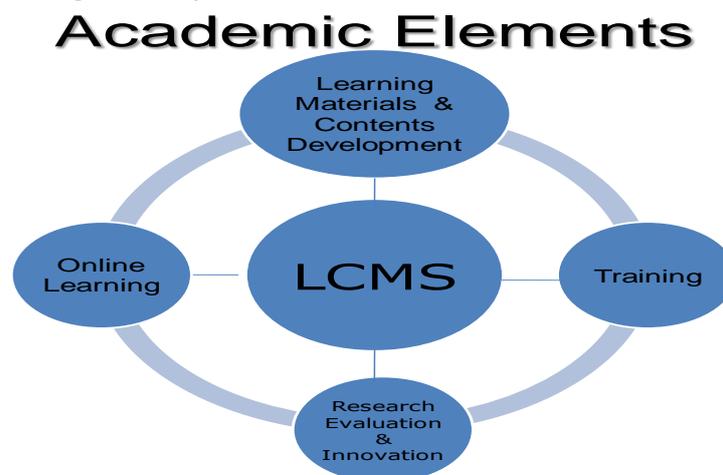
A.1.2 Figure 2 above shows the Learning Sphere with ICT Diversity.
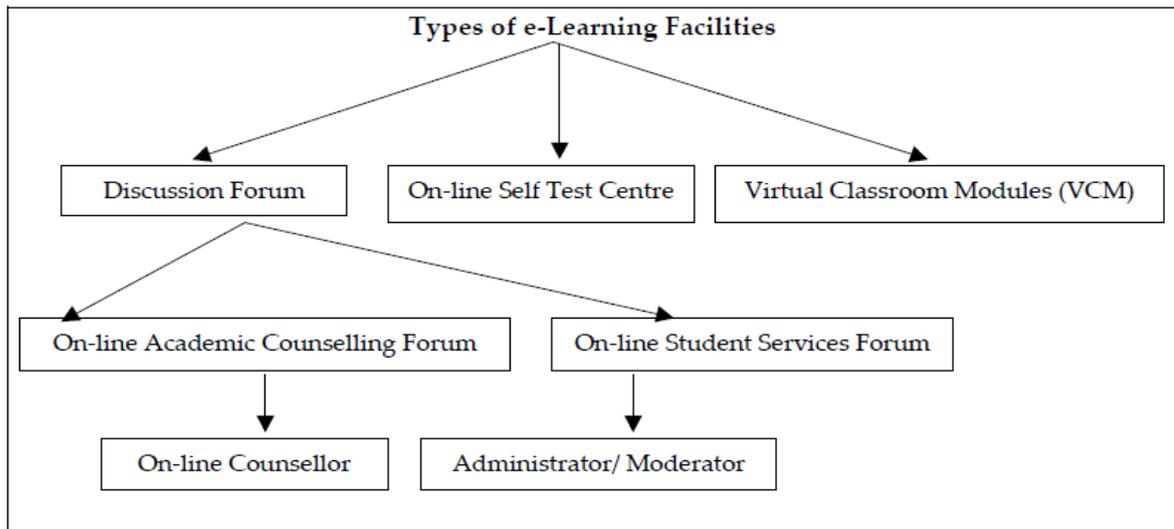
A.1.3 Figure 3 above shows the types of e-Learning Facilities with ICT Diversity.

The essential function of LMS is to organize and manage learning and competencies. Particular LMS developed by various manufacturers can differ greatly in the functions offered, ranging all the way from simple startup programs for electronic courses to highly complex systems ensuring the entire process of training.

A good LCMS support:

➢ The management and evidencing of all types of learning from asynchronous electronic courses through virtual classrooms to traditional classroom learning

➢ A central catalogue of all training events (electronic courses, virtual classrooms /videoconferences, classroom lectures, external courses), registration procedures, administration of the associated resources and finances

➢ Modeling of the organisation and its competences, registration of achieved individual skills

➢ Accessibility of training events, oversight of activities of individual users in whole or in part, reporting of all types of instruction activities both together and separately

➢ A wide range of synchronous and asynchronous communication channels between students, lecturers and managers, means for the acquisition, exchange and sharing of information and knowledge

➢ Automation of the learning process, ability to work with other systems

Put simply, it can be said that LCMS focus on competencies, educational procedures, and the logistics of their supply.

Multimedia elements are prepared through specialized programs for creating and modifying images, animation, video or sound, and the resulting course is then assembled through the chosen development tool(s) for e-learning, which should:

➢ Creating the individual course screens using formatted text and images

➢ Support insertion of various different multimedia elements (images, animation, video, sound, simulation) in known formats, changes in their properties and the programming of their interaction with the surrounding objects

➢ Support the instructional strategies of e-learning

➢ Contain a wide array of elements for testing, questions and user feedback

➢ Contain tools for the programming to react to user activity, movement and changes in object properties, creation of simulations
➢ Allow for the creation of courses meeting e-learning standards for implementation in the LCMS.

The key benefits to Educational Institutes imparting Distance and Open Learning or Lifelong Learning through e-Learning.

➢ Institutes can increase number of full-time students enrolled for their courses by reaching out to students beyond their traditional campus boundaries.
➢ Enroll more people both Non working and working class Professionals for Lifelong Education programs.
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➢ No physical classroom space limitation.
➢ More faculty availability by recruitment of outside campus faculty who can deliver lectures for both on-campus and off-   campus students over the Internet.
➢ Cost savings due to lesser traveling required on part of faculty.

Benefits to the Faculty:

➢ Less travel time required to reach geographically dispersed students.
➢ Lectures can even be given from home or office desk.
➢ Can pre-record lectures at a convenient time for later delivery over the Internet.
➢ Pre-recorded lectures can be webcasted again & again for new batches of students.

Benefits to Students:

➢ Less travel time/costs required to reach physical classrooms.
➢ Lectures can even be attended at home or at office desk.
➢ Lectures can also be attended over Internet while on a travel in another city.
➢ Can access Lectures on demand at any time if allowed by the Institute.
➢ No travel or time restrictions for ladies and younger students.

The Conclusion:

In the fast moving world, there is great potential for Online Learners and they may be job aspirants, career climbers (the most motivated segment), lifelong learner's or perfection seekers (most interested in meeting their own expectations and doing the best job they possibly can), mid-life changers (looking for something new and different) and content dreamers (interested in pursuing additional continuing education credentials). Online Learners are Lifetime Learners. A survey conducted among the staff working in the Mumbai University and also the students populous indicated that more than 60% of those surveyed indicated they are very interested in a master's degree, diploma or certificate program offered partially or completely online. Furthermore, those most interested in online education expect to enroll sooner than their less-enthusiastic counterparts and the working class. Implementing an eLearning environment does not necessarily accomplish a true goal—the evolution to eLearning is typically done to support a goal or objective.

The study frame denoted here derived from our lifelong learning and extension projects move toward from a web-based framework accompanied with audio and video rich

contents tuned to attract learning more stress free and in turn making learning process enjoyable and environment friendly, and making it a highly cross-platform solution for learning at convenience of people throughout their life on anytime anywhere basis, since the learning is a lifelong process and it cannot be separated and it moves parallel to life.

A well-planned and executed e-Learning solution, whether developed in-house or outsourcing, can be a highly effective and efficient way to improve work processes and can provide a distinct competitive advantage for any organization.   If we invest time upfront to focus careful attention on the people, policies, procedures and technology, any organization can reap the benefits of technology in Lifelong Learning over Distance Education and Open Learning.

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