



## Role of ICT Enabled Teaching and Learning: A new perspective for Civil Society

\* Mohankumar C. Kaimal

\* Asst. Professor (E-Learning), University of Mumbai, Department of Lifelong Learning & Extension, Churchgate, Mumbai

### ABSTRACT

*Information & Communication Technology enabled Teaching and learning is the concept used to describe technology enhanced learning process, continuing throughout the person's entire life. Learning is not confined to childhood or the classroom, but takes place throughout our life and in a range of situations, voluntary and self motivated pursuit of knowledge for either personal or professional reasons. As such, it not only enhances social inclusion, active citizenship and personal development, but also competitiveness and employability. Learning can no longer be divided into a place and time to acquire knowledge, the school/college, and a place and time to apply the knowledge acquired in the office or workplace.*

*The study refers this under the term lifelong learning a LLL, or life goes together with learning whereby this includes the support to all age groups. This is extremely for within our information and knowledge based the society, since learning and working are continually moving closer together and this is becoming more difficult to distinguish between them. Indeed in a truly knowledge based society they also no longer separated. Most important term is which we must always take into account is the education cannot be replaced by technology although it can be supported by technology. We must always be aware the term is technology must support learning and not replace it and most important, Lifelong Learning means supporting learning continuously during the complete individual life spanner.*

**Keywords :** Information & Communication Technology, Teaching Learning, Educational design, extension education, Lifelong Learning

### Introduction

The Department of Lifelong Learning and Extension has been on the move to establish and facilitate the process of developing a learning society equipping the student and non student youth to adopt to changes and learn new skills in accordance with the new demands and dimension of work to prepare the ONE AND ALL to be a lifelong learner and so as they be able to sustain his/her knowledge and skills at an international bench mark level.

Information & Communication Technology (ICT) is more frequently used in the field of learning. On-line learning and e-learning are being adopted by select institutions of higher education. The Department has taken an assortment of steps to incorporate these learning technologies and meet these challenges.

In the earlier years, the department has initiated different programs namely Adult Education, Continuing Education, Extension, Population Education, Student Counseling, E-Learning and now we are reformulating to stand in par with fast developing global knowledge situation. It is also with the idea of developing lifelong learning as a discipline of study and field of practice in the coming years to expand the scope of adult education as lifelong learning and improving its quality and developing it as a Discipline of Study and field of practice. Since the knowledge base of Lifelong Learning in India continues to be growing, systematic efforts should be made to generate new knowledge through rigorous researches and scholarly publications.

Traditional and E-learning approaches		
	Traditional Classroom	E-Learning
Classroom	<ul style="list-style-type: none"> <li>Physical - limited size</li> <li>Synchronous</li> </ul>	<ul style="list-style-type: none"> <li>Unlimited</li> <li>Anytime, anywhere</li> </ul>
Content	<ul style="list-style-type: none"> <li>PowerPoint/transparency /etc</li> <li>Textbooks/library</li> <li>Video</li> <li>Collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Multimedia / simulation</li> <li>Digital library</li> <li>On demand</li> <li>Syn &amp; Asyn Communication</li> </ul>
Personalization	<ul style="list-style-type: none"> <li>One learning path</li> </ul>	<ul style="list-style-type: none"> <li>Learning path and pace determined by learner</li> </ul>

The Department of Lifelong Learning has also introduced

many colleges affiliated to University of Mumbai both from urban and rural in to these activities, with priority to literacy programs to the people. The students are further encouraged to spread of Literacy, Impart soft skills including Computer Literacy and English speaking skills to students. Learning Opportunity provided through continuing education program provide necessary options to individuals that would like to get ahead by taking college level courses Certificate/Diploma/Degree Online. Many of them do not have the time, flexibility or the mobility to attend classes in a traditional college campus setting. Access to online education makes it possible for almost anyone with a computer to participate in undergraduate and graduate level courses and to obtain an online degree.

Online degree programs can provide great benefits to businesses that utilize these online educational resources. Many employees will be able to earn a Certificate/Diploma/Degree online without struggling to keep up with both school and their job. Training seminars and other programs designed to enhance job performance will be readily accessible online. Now a day's the Conferences/ Seminars/workshop are conducted on online by using the videoconferencing facility. No more out of town travel and the loss of productivity and additional expense.

It is the mission to provide Online Certificate programs / Online Diploma programs / Online Degree programs and continuing education courses and other resources that will help prospective learners determine the best course of action. So whether the goal is to earn an online Certificate/Diploma/Degree or simply to gain additional knowledge about a particular subject, online education will offer a multitude of opportunities to learn and to grow.

### Benefits of Lifelong Learning:

Learning is a lifelong process; therefore Lifelong Learning is termed as extension of educational opportunities to those beyond the age of general public education who feel a need for further training of any sort, as we call it as adult education or continuing education. Contemporary adult education can take

many different forms. Colleges and Universities have instituted evening programs, extension work, courses without credit, correspondence courses, and distance learning programs (with courses transmitted by satellite to numerous locations) It means that education is diverse, adapted to the individual and available throughout our lives. Lifelong Learning is defined as "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective."

#### Understanding the values of Lifelong Learning:

Lifelong Learning promotes the development of knowledge and competences that will enable each citizen to adapt to the knowledge-based society and actively participate in all spheres of social and economic life, to take control of his or her future. Achievement in lifelong from all kinds of abilities, interests, knowledge and qualifications from the pre-school years to post-retirement and from work experience are the values that we gain throughout our learning process are defined as lifelong learning process.

Valuing all forms of life-wide learning, including: formal learning, such as a university course; non-formal learning, such as vocational skills acquired at the workplace; and informal learning, such as inter-generational learning, for example where parents learn to use ICT through their children, or learn how to use an electronic gadget together with friends or such things like that.

#### Lifelong Learning supports our jobs and growth:

Lifelong learning is the guiding principle for the development of education and training policy. While promoting social inclusion and personal fulfillment, lifelong learning develops people's employability and adaptability, and as such it is a core element of the Jobs and Growth strategy. We gather work experience on our profession, and then we substantiate it with either by self motivated training programs or through the employer promoted training facilities. All the while learn and the support and process is termed as lifelong learning for growth.

#### ICT to support Lifelong Learning:

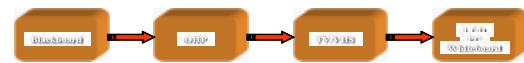
Teachers now have the possibility of using a range of media and technologies and thus of deploying the particular strengths of each to their best effects. We can analyse the way in which each medium/technology supports particular aspects of the teaching/learning interaction. The model of this interaction is that of a conversation or dialogue which is capable of sustaining the activities required for learning. We shall derive this approach from the LMS (Learning Management Systems/Software) or the CMS (Course Management System/Software) an open source platform, among others and from a commitment to a social constructivist theory of human learning - a theory which is now dominant across the field of educational technology and ICT (Information and Communication Technology) evaluation and development generally. It is based on the outset that the learner actively constructs meaning, and that contextual cues and supports interact powerfully with the existing frameworks and beliefs of each learner.

The study further shows the capacity to support student interaction, and to provide feedback which allows students to develop their understanding. However 'telling' or moving a text might be it is not interactive in this sense. In principle therefore, learning providers now have a much more powerful set of 'tools' in the form of multimedia and digital technologies to stimulate and sustain learning.

ICT based learning materials can be designed to build in different forms or stages effectively, strengthening as well the links between each stage. Taking the first stage; learners are encouraged to be active explorers by even simple uses of the Web for information searching and document creation. Virtual Learning Environments go much further than this, creating 'spaces' in which learners have freedom to adjust parameters and observe the results. Students can explore the physical

landscape from their desktop, and thus make much better use of their time in the actual field. Post fieldwork analysis is also strengthened by further exploration of the measurements, physical features and topographical detail which the databases hold and which students can use to construct their own understanding of the field and its theories and models of the landscape.

#### Teaching aids will change



Learners often have difficulty in 'holding together' or articulating relationships between the details of particular cases/examples/activities, and the theoretical and conceptual frameworks of a discipline. An introductory course on Object Oriented Computing at the Open University was able to improve the learning experience of its students by integrating via the onscreen medium, explanations of activities with the programming environment in use. Printed texts were given a different and complementary role with more reflective, discursive material, encouraging students to make links between their programming work and theories introduced in the course.

Thus simulation, offering learners an active role in working with models not just trying to memorise them, can provide authentic learning tasks and improved understanding. Some have claimed that these approaches are more motivating because they do require the learner to be active and they do build on visual as well as other imaginations. They provide new opportunities for effective links between practical experience and theory building, when used effectively.

#### Imagine a Skill Development Education at Learners Schedule.

E-learning is the new technologically controlled learning solution, which is also an integral part of ISD (Instructional Systems Design). One will wonder how the concept of e-learning really came into existence. E-learning's existence is a result of a cause and effect situation. There was a time when the corporate world realized that training can be a costly and time-consuming affair, especially in industries where employees are required to be knowledgeable so as to perform in the field quickly and efficiently. This was the cause and the effect was that companies started turning towards e-learning to provide an educational or instructional environment in such a way that they are able to manage costs, shorten training duration and also provide a tool, which the employees can access anytime, and from anywhere through the Internet.

The mission of the Lifelong Learning is to enhance the personal and professional lives of people of all ages and increase their access to socioeconomic opportunities by offering innovative credit and non-credit programs in alternative delivery methods. We accomplish this task by offering course through Online and E-Learning mode for lifelong learning programs.

#### Practical Approach;

As an example for the introduction of a new culture of learning and teaching and the problem-based learning approach, the study will describe a University course about an Introductory Course in Office Administration. This course was provided by the DLLE, University of Mumbai and offered to Students, who wished to acquire specific knowledge in the area of Office Administration. The course was designed according to the problem-based learning approach and includes virtual and co-present phases. The conception of this course has three main goals with respect to content, workshop and assignments. Participants should;

- i. Become familiar with different styles of applying problem-based learning with new medium.
- ii. Acquire theoretical knowledge about problem-based learning and learning with new medium and
- iii. Acquire skills for planning their own projects for applying problem based Learning with new medium.



This introductory course to Office Administration starts with a kickoff workshop, which provides a general course overview, an overview of the course contents, and an introduction to the learning platform used for hosting the course. A further goal of this workshop is for students to get to know their tutors. Furthermore, students have the chance to form small groups for collaboration during the virtual phases.

These small groups work on five cases during the virtual phase. These cases show the application of new medium in the learning process with respect to different subject areas. The example of "learning stages" gives an exemplary glimpse at the conception of these cases. Ref. <http://lms.mudlle.ac.in/>

In another online course example, a course titled Fiber Optics Technology illustrates an example of a blended learning scenario. The Fiber Optics Technology is an interdisciplinary training for technology skills and Training for those working in the field of Optical Fiber Technology. The course was developed collaboratively by the department and the Industry. The course provides on-the-job training with respect to OFC splicing and termination technology. Goals of the Fiber Optics Technology; Course participants from the Industry participating are expected to acquire some basic knowledge in the area of Fiber Optics Technology. In this course, learners focus particularly on different connectors and tools for splicing technology.

This focus also reflects the need for acquiring knowledge that is highly relevant to the practical problems experienced by the participants. The target group of the course includes employees at the intermediate technical level, who possess only marginal knowledge in the area of Optical Fiber Technology. The participants should also be interested in working within a virtual learning environment. Furthermore, a few of university staff members are accepted to this course, and thereby a limited number gain the opportunity to come into contact with practitioners.

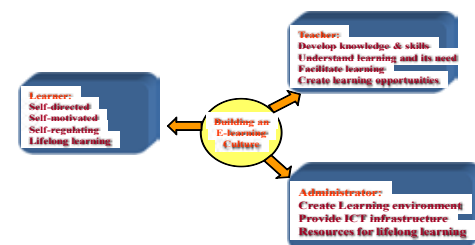
The learning environment is continuously evaluated for further improvement and for its adoptiveness to the needs of the learners. The acceptance of the learning environment, the learning outcome of the learners, and the learning process are evaluated using surveys, feedback panels, and by

monitoring the virtual communication. Results show positive feedback from the learners with respect to all areas that were subject to evaluation. They support the acceptance of case-based learning and the combination of virtual and co-present phases.

### The Technology

The choice of adapted technology that is suited to the particular needs of the users is indispensable for achieving acceptance. The technology chosen has to fit the demands of the users from a usability perspective and has to be meaningful with respect to didactic aspects. In general, technology should just fulfill the didactic needs. The participation of the users is indispensable for successful implementation. This participation should start as early as possible. Starting from the needs analysis, users should be involved to ensure that the planning and the decisions meet users' needs. User feedback is also important for the planning and conception phase. This could be facilitated by a continuous formative evaluation. In general, users should participate in making changes, rather than only being affected by them.

### Building an e-learning culture



### The skills

Further skills of the employees can support the implementation of an innovation. This skill should take place during the process of implementation and should be aimed at technical and methodical aspects.

These aspects of motivation are crucial for creating a culture of innovation in an organization and indicate that acceptance is a key aspect of the implementation of blended learning-no matter how sophisticated the implementation process may be planned.

The Learning sphere: Preparing students for lifelong learning

### Conclusion

The initial optimism regarding Information & Communication Technology enabled Teaching and learning as a new style of learning in Schools, Universities, and in Business has often changed to disappointment. In the context of this paper, the study shown that missing didactic concepts and unprofessional implementation strategies of Information & Communication Technology enabled Teaching and learning courses can be considered the main causes for this disappointment. For exploiting the potentials of new media in the future, it is clear that indispensable prerequisites include the application of learner-centered didactic concepts and holistic implementation strategies.

The studies with respect to the didactic structure (opinion 1) The course organization (opinion 2) The implementation of e-Learning (opinion 3) The opinion focuses on different aspects of e-Learning, but together they can be seen as a framework and as prerequisites for successful Information & Communication Technology enabled Teaching and learning. This means that the findings cannot be seen discretely: ensuring users' acceptance implies that the course fits into the organization's culture of training, and it implies also that the learners acquire knowledge they can apply on their workplace. The

study illustrated few examples of the implementation of Information & Communication Technology enabled Teaching and learning in Higher Education and in Business. Each example featured the intention of the particular opinion quite distinctly. Besides these features, each example also comprised several aspects of the other opinion. Therefore, each example could illustrate the road to the future of Information & Commu-

nication Technology enabled Teaching and learning, which is based on need-driven didactic concepts and facilitated by the technological support of a learning environment. Such Information & Communication Technology enabled Teaching and learning scenarios encourage motivated, application-oriented learning and achieve user acceptance on the basis of a professional implementation process for Civil Society.

## REFERENCES

1. Alexander, D. L. (1985). Successfully implementing strategic decisions. *Long Range Planning*, 18(3), 91-97. | 2. Altenburg, E., Arnold, G., & Schuman, A. (2003). Stationenlernen imfaicheruübergreifenden Sachunterricht. Donauwörth: Auer. | 3. Back, A., Seufert, S., & Kramholler, S. (1998). Technology enabled management education. *Journal of Management*, 21(3), 36-40. | 4. Belanger, F., & Jordan, D. H. (2000). Evaluation and implementation of distance learning: Technologies, tools and techniques. Hershey, PA: Idea Group Publishing. | 5. Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, et al. (2004). How does distance education compare with classroom instruction? A meta-analysis of the empirical literature. *Review of Educational Research*, 74(3), 379-439. | 6. Brehm, S. S., & Brehm, J. W. (1981). Psychological reactance-A theory of freedom and control. New York: Academic Press | 7. Burg, O., Kronburger, K., & Mandl, H. (2004). Implementation von e-learning in unternehmen-Akzeptanzsicherung als zentrale Herausforderung (Forschungsbericht Nr. 170). München: Ludwig-Maximilians-Universität, Department Psychologie, Institut für Pädagogische Psychologie. | 8. Burg, O., & Mandl, H. (2005, August). Fostering acceptance as a central challenge for the implementation of e-learning into companies. The meaning of personnel-related and organizational measures as well as technical conditions. Paper presented at the 11th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Nicosia, Cyprus. | 9. Davies, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339. | 10. Deci E. L., & Ryan, R. M. (1992). The initiation and regulation of intrinsically motivated learning and achievement. In A. K. Boggiano & T. S. Pittman (Eds.), *Achievement and motivation: A social-developmental perspective* (pp. 9-36). Cambridge: Cambridge University Press.