Distance Learning through ICT: Benefits and Challenges

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Abstract

In accordance with the directions of the Central Government, UGC is the sole regulating body in the country for distance education and it has been granting approval to the institutes to offer courses under certain guidelines. In this respect the role of ICT can not be ignored. More so for those who are unable to study in universities of their choices. In today's word we must consider the objectives of education, the kind of technology infrastructure involved and facilitating policies to attain educational goal. Today India is the second largest market for e-learning after the US. ICT includes any communication device or application, encompassing: radio, television, cellular phones, computer, and network hardware and software, satellite systems etc. Learning through ICT can be classified in three main categories i.e. e'learning, Blended Learning, and Distance Learning. Notable initiatives towards this have been initiated in India. Apart from benefits its implementation is costly and integration into teaching is still in its infancy.

Keywords: ICT, Distance Learning , On line learning, E' learning, Communication

"The most profound words will remain unread unless you can keep the learner engaged. You can't see their eyes to know if they got it so ... say it, show it, write it, demo it and link it to an activity" - James Bates

Introduction

In accordance with the directions of the Central Government in December 2012, the responsibility of undertaking the regulatory functions of the Distance Education has been transferred from Distance Education Council (DEC) to University Grants Commission (UGC). Thus, UGC is the sole regulating body in the country for distance education and it has been granting approval to the institutes to offer courses that must follow certain standards and guidelines. In this busy life, numerous people don't have time to take regular education but all those want to complete their education. The Information Communication Technologies play a vital role to create educational opportunities on a wider scale for those students who are unable to afford traditional classroom teaching modules due to factors such as cost ineffectiveness and non availability of teachers.

Role of ICT

In this respect, the ICT plays a much broader role along with education modules such as the distance learning programs and educational efforts for students who are unable to study in universities of their choices. Since the introduction of long distance programs in 1950s, many universities in developing nations provide distance education schemes and provide free courseware content through print media, television, and audio visual contents, specifically for primary and higher education learners. We need technology in every student and teacher's hand because it is paper and pen of our time. When we talk of 21st century pedagogy, we have to consider many things –the objectives of education, the kind of technology infrastructure involved and facilitating policies to attain educational goal. "Online learning is not the next big thing; it is the now big thing." - Donna J. Abernathy.

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India has become the second largest market for e-learning after the US. The sector is currently pegged at US$ 2-3 billion, and is expected to touch US$ 40 billion by 2017. The distance education market in India is expected to grow at a Compound Annual Growth Rate (CAGR) of around 34 per cent# during 2013-14 to 2017-18. Moreover, the aim of the government to raise its current gross enrolment ratio to 30 per cent by 2020 will also boost the growth of the distance education in India. Currently, India's higher education system is the largest in the world enrolling over 70 million students while in less than two decades, India has managed to create additional capacity for over 40 million students. At present, higher education sector witnesses spending of over Rs 46,200 crore (US$ 6.78 billion), and it is expected to grow at an average annual rate of over 18 per cent to reach Rs. 232,500 crore (US$ 34.12 billion) in next 10 years. Higher Education systems have grown exponentially in the last five decades with the aim of quality education due to swift advancements in Information and Communication Technology (ICT). In order to increase the access to higher education and improving its reach to the remotest parts of the country contribution of open and distance learning facilities is on the increase. In addition, it is catering to life-long learning aspirations and that too at affordable cost.

The Information and Communication Technology (ICT) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer, and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. When such technologies are used for educational purposes, namely to support and improve the learning of students and to develop learning environments, ICT can be considered as a subfield of Educational Technology. ICTs in higher education are being used for developing course material; delivering content and sharing content; communication between learners, teachers and the outside world; creation and delivery of presentation and lectures; academic research; administrative support, student enrolment etc.

ICT education can be classified in three main categories:

- E-learning
- Blended Learning
- Distance Learning

E-Learning or Electronic Learning

E learning is a general term used to refer to computer-enhanced learning. It is commonly associated with the field of advanced learning technology (ALT), which deals with both the technologies and associated methodologies in learning using networked and/or multimedia technologies.

It is also known as online learning. Distance education provided the base for e-learning's development. E-learning can be 'on demand'. It overcomes timing, attendance and travel difficulties. E-learning allows delivery, dialogue and feedback over the internet. It allows mass customization in terms of content and exams. ICT can play a valuable role to monitor and log the progress of the students across time, place and varied activities. E-learning has the following advantages:-

- Eliminating time and geographical barriers in education for learners as well as teachers.
- Enhanced group collaboration made possible via ICT.
- New educational approaches can be used.
- It can provide speedy dissemination of education to target disadvantaged groups.
- It offers the combination of education while balancing family and work life.
- It enhances the international dimension of educational services.

Blended Learning

It is the combination of multiple approaches to learning. It is usually used to define a situation where different delivery methods are combined together to deliver a particular course. These methods may include a mixture of face-to-face learning including lectures, workshops, presentation, tutoring, conference and much more. self-paced learning including reading specific chapters from text book, studying course material presented through web-based or CD based course, attending pre-recorded classes or sessions, reading articles referred by faculty member, working on assignments and projects, and searching and browsing the internet and online classrooms involves interaction between learners and faculty members through the web; this interaction can occur in one of the following modes:

- Synchronous interaction
- Asynchronous interaction

Synchronous, means 'at the same time', it involves interacting with a faculty member and other learners via the web in real time using technologies such as virtual classrooms and / or chat rooms. On the other hand, Asynchronous means 'not at the same time'; it enables learners to interact with their colleagues and faculty member at their own convenience, such as interacting through email.

Distance Learning

Keegan's original six defining characteristics of distance education are:[1]

1. The separation of the acts of teaching and learning in time and/or space differentiates distance education from face-to-face education.

2. The normal environment for study is the student's home or workplace and normally the student is alone. This does not rule out the possibility of learners occasionally meeting for practical activities or accessing technology that is not available at their local settings.

3. Studying alone does not qualify as a system of distance learning unless it is institutionalized, in other words, the influence of an educational organization regarding the planning, development and delivery of teaching is essential. Institutionalization enhances organizational procedures including management, and administrative aspects.

4. Use of communication technology for delivery of instruction and provision of administrative services is another distinct qualification of distance education. The technology brings the learning content and learning community to the learners.

5. There should be two-way communication (however fast or slow) in order to ensure interaction and dialogue.

6. The sixth component of Keegan's definition defines distance education as the application of principles of industrialization to teaching.

It is a type of education, where students work on their own at home or at the office and communicate with faculty and other students via e-mail, electronic forums, videoconferencing, chat rooms, instant messaging and other forms of computer-based communication. It is also known as open learning. Most distance learning programs include a computer based training (CBT) system and communications tools to produce a vital classroom. Because the Internet and World Wide Web are accessible from virtually all computer platforms, they serve as the foundation for many distance learning systems. ICTs also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time. Such facilities allow the networking of academics and researchers and hence sharing of scholarly material and leads to quality enhancement in teaching and learning.

Notable initiatives of use of ICT in education in India include:

- Indira Gandhi National Open University (IGNOU) uses radio, television and internet technologies.
- National Programme on Technology Enhanced Learning: a concept similar to the open courseware initiative of MIT. It uses internet and television technologies.
- Eklavya initiative: Uses internet and television to promote distance learning.
- IIT-Kanpur has developed 'Brihaspati', an open source e-learning platform (Virtual Class Room).

Premier institutions like Calcutta have entered into a strategic alliance with NIIT for providing programmes through virtual classrooms. Jadavpur University is using a mobile-learning centre. IIT-Bombay has started the program of CDEEP (Centre for Distance Engineering Education Program) as emulated classroom interaction through the use of real time interactive satellite technology.

Potential-Challenges to Using ICT in Education

Apart from obvious benefits using ICTs in education, there are several challenges. Its implementation is costly for developing countries like high cost of acquiring, installing, operating, maintaining and replacing ICTs. Its integration into teaching is still in its infancy. The main hindrance occurs when learning technology is installed without reviewing student needs and content availability. No involvement of faculty and students is another problem. At times student looses interest and discontinue the course. Using inappropriate content from other regions of the world without customizing it appropriately places another challenge. Students need to be technology savvy and at the same time they need to aim at developing their primary goal of learning process. There may be lax in updating the course content online. There is a need for training all stakeholders in ICT. At places use of radio, print media and television is utilized to run distance learning programs. These programmes are finding more popularity as compared to internet usage as Internet usage provide greater inactivity, thus creating a sense of dissatisfaction among the students, teachers and globally effecting the distance programs.

However, with the advancement of internet and development of social media platforms like Skype, Jio, You Tube, Whatsapp and Real time etc, it has become easy to replace older methods of communication with the new growing social media platforms. The free availability of massive open online courses involve open and free enrolment, and provide video lectures, along with electronically assessed assignments and online discussion forum where students can ask doubts, clarify or discuss the topic freely. Such platforms are equipped with the ability to store large amount of data on student engagement , performance, followed by their analysis and student feedback which will not only help in achieving the student teacher interaction but also will make the courseware better. There are endless possibilities with the integration of ICT in the education system. The teaching community is able to reach remote areas and learners are able to access qualitative learning environment from anywhere and at anytime. It is important that teachers or trainers should be made to adopt technology in their teaching styles to provide pedagogical and educational gains to the learners. Successful implementation of ICT to lead change is more about influencing and empowering teachers and supporting them in their engagement with students in learning rather than acquiring computer skills and obtaining software and equipment. ICT enabled education will ultimately lead to

the democratization of education. Nevertheless to say that in IGNOU, ICTs are really effective in enhancing the learners support services above the conventional means and methods of learning and therefore, days are yet to come to explore newer technologies in distance learning further."In the past, people came to the information, and the information was at the university. In the future, the information will come to the people, wherever they are" (Noam, 1995).

To be successful distant learners , Time Management Skill and flexibility, self motivation and responsibility are utmost needed .There is no doubt that internet technologies are the best suited cost effective mechanism to outreach the educational programs yet investment in ICT is considered as a "risk taking" playing field which many Information Communication companies avoid to enter. Internet access is scarcely available in the region, especially the students seeking education in poorest areas, receives courseware in any available format, which brings challenge to this issue. Thus expanding the educational content should be addressed comprehensively through various support mechanisms. As it is just not a technical resolution, it is moreover affecting the people of some poorest nations socially and economically, where cost of education is higher than cost of living. Hence a word of caution, the online educational education technologies provides easy access but also creates a new challenge in the development. Gulati S asserts that "elitism is the most common driver

for improper policy that may hinder equal educational development.[2] Hence, I believe that the United Nations Commission Science, Technology and Development will consider the use of ICTs in educational programs and will one day overcome the challenges faced in primary, secondary, and higher education in the developing world."

Conclusion

"Technology enhanced education is generally perceived as a way to relieve poverty, social divisions and improve living standards due to the fact that technologies can deliver educational programs at a lower cost than traditional educational systems. This technology supported education system is cost efficient, which is especially meaningful in countries with poor infrastructure".[3]

To be promising, people in modern society are becoming more and more familiar with ICT.

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