



ICT: An Innovative Perspective of Education

Shailendra Kumar

*M.Ed., Faculty of Education (K), Banaras Hindu University,
Varanasi, UP*

shailphysics@gmail.com

ABSTRACT:

*“ Online learning can be a lifeline to those who have obstacles,
such as geographical distances or physical disabilities”*

-----Paul Levinson

It is a new dawn on horizon. After the end of twentieth century, educational environment has been changed. An innovative perspective of education has initiated to use named Distance Education. Now a day's Information and Communication Technology are going to become a milestone in the field of education. It is a new trend in the field of distance education. ICT bears some advantages as well as some disadvantages. ICT advocates the student's autonomy in the teaching-learning process and facilitates student to access the information. ICT provides new endeavor to deconstruction of educational process and oppose the conventional classroom teaching-learning process. ICT also advocates child-centered teaching learning process. It emphasis on reinforcement and motivate the effective learning. While providing education through ICT, there is a development of 'e-society' and access the knowledge through 'e-learning'. The advancement in equipments of ICT is able to modulate the Distance Education. ICT consumes less time and money and facilitates learning materials to large number of students. In the present era, countries like India are going to digitalized so the role of Information and Communication Technology is going to more important in the field of education. Since education is a social activity so use of ICT in education may prevent socialization process of student and the quality education can be associated with the personal interaction of student with teacher. ICT also oppose the traditional educational process so there may be conflict appear between the culture and new educational trend. Most of the students may not familiar with ICTs and facing difficulties to operate and handle the information and communication devices so there will be need of training provide to the students. But keep in mind that educational process

should be child-centered not technology-centered. In developing countries like India, there is huge lake of information and communication devices to student access. India is a rural and agriculture based country so enhancing of information and communication devices to the student access is a major problem. Though ICT are being used in the different universities in India yet there is need networking between them. Although there are some advantages and disadvantages in the ICT yet it may become most acceptable trend in education if educational Institutions may reduce the disadvantages. So use of ICTs in the distance education will be much effective than the conventional classroom teaching learning process.

KEY WORDS: ICT, Distance Education, child-centered education, e-society, deconstruction education, modulating the Distance Education.

INTRODUCTION: Education is fundamental requirement of every human. Education is the process of developing the inner abilities of an individual. Education is a comprehensive concept that perceives the knowledge with help of news paper, magazine, radio, television, computer etc, in addition to the formal education providing in the school and colleges. There are the various forms of education; some of them are named as general education, specific education, formal education, informal education, direct education, indirect education etc.

Direct education was efficacious and practicable in the past when population was limited and life was so simple than today. At present the population explosion has happened, so it is not possible to provide direct education to all the people. In the modern era, developments as the printing press, radio, television, computer, internet, satellite etc. have made it possible to provide indirect education. Indirect education have made possible to communicate the ideas of educationists and thinkers to those people who are deprived of opportunities of direct education and also to those who wants to pursue education at their flexible place and time. In the present context, the indirect education is more significant than the direct education. Many universities have undertaken to conduct a lot of educational program as home delivery, correspondence courses, virtual learning etc through Distance Education.

Distance Education is an innovative example of Indirect Education. At the beginning of twenty first century, indirect education has developed in the form of distance education. In this form of education, learning materials was printed and posted to the students. But at present the scenario has been changed that is at present, science and technology have much developed and all the learning materials are available in the form of soft-copy and online material. Students can access these materials easily through Information and Communication Technology (ICT). ICT have made also possible to interact the students with the educators and thinkers and to share ideas among then via virtual classes. Although ICT has have lots of advantages but several disadvantages too, yet ICT has given an incredible endeavor to not only the Distance Education but also the other form of education.

Distance Education:

Distance education is an innovative perspective of education. Distance Education in which learning normally occurs at a different place from the teaching. This is often used synonymously with Indirect Learning. Indirect Learning is associated with the Distance Education. However, distance education typically refers to distributed learning resources in academic settings.

In India, the structure of distance education was changed time to time. The very first of distance education was Home Delivery, in which the learning material was printed and

delivered to home of the learner. Second structure was Correspondence Courses, in which student and teacher communicate by post. The third structure of Distance Education was Open Learning. Open Learning is an innovative movement in the field of education that evolved into fields of practice and study. The term 'Open Learning' refers generally to activities that either increase learning in the formal education system or spread learning opportunities except formal education system. The fourth and latest structure of distance education is 'Virtual Learning' which is a web-based platform for the digital aspect of courses of study, generally within the educational institutions.

Information and Communication Technology:

ICT enables for the creation of digital resources like digital libraries where the pupils, educators and professionals can access the information and material from any place at any time. These facilities allow the networking of academics and researchers and hence sharing of information and leads to quality enhancement in teaching and learning. Since Information-communication technology (or ICT) is a general expression for a variety of computers, information and communication devices (hardware), applications (software), networks (internet), and services. It is a general concept which holds all communication devices of the present society and their usage. Primary purpose of ICT is mediating information and enabling the communication process. ICT is often considered as the internet and mobile technology, and their applications.

Advantages and Disadvantages of ICT:

Education through Information and communication Technology is a new trend of Education. ICT is heart of Distance Education that is ICT performs crucial role in Distance Education. ICT have many advantages and few disadvantages too. Some advantages and disadvantages are mentioned below.

Advantages of ICT:

- **STUDENT'S AUTONOMY:** Student's autonomy is vast important in the educational process because student may able to take any decision in his autonomy. To ensure the student autonomy there must be a concept of decentralized educational process. As web-based Information and Communication Technology gradually become versatile and more powerful, more flexible paths and opportunities are revealed for self-directed learning process. Thus use of ICT in Distance Education provides learner's autonomy in the field of Education.

- **DECONSTRUCTION OF TREDITIONAL EDUCATION:** The introduction of ICT into distance education is re-enforcing another significant trend in education. The idea of Distance Education as a single process within such a closed and contained environment, under the new concept education is seen as an "open" system. ICT is accelerating the trend toward deconstruction of the educational processes, the "unbundling" of the functions performed by conventional educational institutions. ICT evolves and promote the mechanism of 'self-organization' in learning through deconstruction of information. Thus, use of ICT in Distance Education allows the learning far away from the traditional educational process and enhances the access of knowledge apart from the conventional class-room.

- **STUDENT-CENTERED LEARNING:** In the Naturalistic concept of education, the child is at the centre and all other things such as teacher, curriculum, school etc. at the periphery. The Psychological Foundation of Education says that the child-centered education is necessary for providing quality education. Almost all the level of education must be follow the child-centered teaching learning process because this process enables the development of inner abilities of individual. Thus use of ICT in Distance Education is mileage from the psychological point of view.
- **REINFORCMENT PROVIDER AND MOTIVATOR:** The Psychological Foundation of Education emphasis on the reinforcement and motivation in the teaching learning process. Sometimes teacher may play very important role as motivator to initiate learning process of student. It is an identical concept of reinforcement to presentation of a reward. A reinforce acts as stimulus the presentation or removal of which increases the probability of a response being repeated. It stimulates the learner to response. Motivation may be regarded as the thing by which an individual prompts, compels and energies to act or behave in a particular manner at a particular time for attaining some specific goal or purpose. While the using of ICT in the Distance Education, it emphasis on the reinforcement and motivation. When learner's responses are correct in the online exam or in the Computer Assisted Instruction (CAI), then the learner get reinforcement and stimulate to response some other questions. When student is interacting with the thinker through the video conferencing, he may be motivated by the thinker to learn better. Thus use of ICT in Distance Education is mileage from the psychological point of view.
- **CONSUMES LESS TIME AND LESS MONEY:** With the help of information and communication technology, educational process has also become cheaper, quicker, and more efficient. ICT can play an important role to monitor the progress of the students across time, place and varied activities. Information and Communication Technology overcomes timing, attendance, travel difficulties and money. Thus use of ICT in Distance Education is beneficial for the point of view of time and money. Thus use of ICT in Distance Education is mileage from the economic point of view.
- **MASS CUSTOMIZATION:** ICT allows mass customization in terms of content material and examination. ICT also enables students to learn anywhere and anytime. It provides educational activities in larger geographic areas. ICT allows the higher participation and greater interaction. All the components of Information and Communication Technology establish a digital identity of the learner and connect all the stakeholders in the Distance Education. So ICT provides the education over the large population. Thus use of ICT in Distance Education is profitable from the geographic point of view.
- **DEVELOPMENT OF E-SOCIETY:** The term 'e-society' refers to Electronic Society. We can now communicate with anyone around the globe by simply text messaging them

or sending them an email for an almost instant response. ICT enables us to develop an 'e-society'. ICT has also opened up face to face direct communication from different parts of the world. It is a very useful tool to express individual's feeling and ideas in front of society. ICT also can open a debate at any burning issue via e-society.

- **ENABLES E-LEARNING:** E-learning or Electronic learning is a general term that refers to computer-enhanced learning. E-learning concerns with both the technologies and associated methodologies in learning involving network and/or media technology. Electronic learning is also known as online learning. The base for development of e-learning is being provided by Distance Education. Electronic learning follows 'on demand' concept. Electronic learning allows delivery, dialogue and feedback also over the internet. E-education enhances students' access to the best educators and the best practices or knowledge available. The core of ICT is 'e-learning' through which spread ahead the education and reaches to the learner. The web and the internet is the heart of Electronic learning.
- **MODULATS DISTANCE EDUCATION PROGRAMME:** Basically Distance Education programs are much depending upon the science and technology. When modernization takes place in the society, science and technology perform important role in the modernization. The evolution of ICT is based upon the development science and technology. So advancement in the equipments of ICT modulates the Distance Education program.

Disadvantages of ICT:

- **REDUCTION OF SCIALIZATION PROCESS:** The very first disadvantage of ICT is that it reduces the socialization process because when children are involving in the learning through the ICT, they are mostly isolated and spend less time to play with peers. Female students attain less interest in computers and in other equipments of ICT. They have less positive attitude towards the value of computing. So this causes the anxiety and lack of confidence in their computer abilities. Since no any physical contact possible between the student-student and student-teacher, ICT allows only virtual contact. Thus ICT diminishes the socialization process.
- **DEFICIENCY IN QUALITY EDUCATION:** Since quality education is concerns with the direct interaction of students towards the experts. This interaction is only possible in traditional class-room teaching learning process. Interaction with peer groups is also important for the quality education. Physical experiment concerns with the real situation and enhance the quality education. ICT prefers virtual experiences and violates realistic experiences. But the concepts of 'learning by doing' and 'learning by experiment' enable student for quality education. Thus use of ICT in Distance Education may fail to supply the quality Education.

- **OPPOSING THE TRADITIONAL EDUCATION:** ICT challenges the concept of face-to-face traditional educational system. Information and communication technology is a latest trend in the field of education. While information and communication technology may have made the world a global village, it has also contributed to one culture dominating another weaker one. In India, the urban culture is dominating over the rural culture. So while providing education through the ICT, there may be a conflict between education through ICT and traditional educational process.
- **TECHNOLOGY-CENTERED EDUCATION:** The use of ICT is not so easy task to those students who have less practical knowledge about the ICT. The rural student may also have less knowledge about the use and handle the ICT devices. So there will be a need of special training for them. If a special training program may be provided by the educational institutions for train them then there will be a possibility that the core course may become as the secondary course and the training program may occupy as the core course. So there may be replacement of the child centered course into the technology-centered course.
- **TECHNICAL TRAINING REQUIRED:** Since most of the students are not much familiar with the ICT. So when providing education through the ICT there may some additional training required to the students. Since India has have very large demographic diversity. At present India has second largest number of population over the world and there is a large number of population deprived from the education. The very less percentage of population has the knowledge about the Information and Communication Technology. So for the use of ICT in Distance Education, there will be a need to organize the Technical Training Program.
- **SCARCITY OF ICT EQUIPMENTS:** Although some developing countries like India is growing faster in the economy as well as many science and technology yet there will be scarcity of ICT devices for providing education through ICT. The application of Information and Communication Technology is a costly affair. The investment for ICT needs to be huge amount of money. Such a huge investment requirement forces us not to use Information and Communication Technology. The equipment of ICT that is the hardware is mostly imported from the various developed countries. For maintenance of these equipments for adopting countries will have to rely on the foreign agencies. This dependency over the developed countries causes havoc of adopting countries that cannot have total control on the Information and Communication Technology.
- **LACK OF NETWORKING AMONG UNIVERSITIES:** ICT has not only brought the world closer together, but it has allowed the world's economy to become a single and interdependent educational system. By which we can not only share information quickly and efficiently, but we can also bring down barriers of linguistic and geographic boundaries. In India, almost all the universities are using ICT in the teaching and learning process but there is lack of networking among them. If we want to use of ICT in the education, we must interconnect the different universities via ICT.

CONCLUSION: Information and communication technology plays vital role in the field of Education. Many changes have been occurring in institutions with the ICT. There are several things discuss to consider when information and communication technology starts; this present paper makes an attempt to: deals with the advantages and disadvantages of information and communication technology and the essential roles that are being followed in present scenario in Educational Institutions. Although ICT is at the pivot of the Distance Education, Yet ICT has several advantages and disadvantages. Some of them have mentioned above in brief. The role of Distance Education can improve when the disadvantages of ICT will be diminished.

SUGGESTIONS: Information and Communication Technology have little disadvantages. To reduce these disadvantages, some suggestions are given below.

1. A local branch of Distance Education should be open at district level of states.
2. In local branches, there should be available of equipments of ICT efficiently.
3. Vigilance campaign program should be organize for equity and equality time-to-time.
4. Equipments of ICT should be made inside the country and motivate the learner to use the indigenous equipments.
5. Government should section adequate fund for ICT in Distance Education.
6. There should be facility of laboratory for experiment in the local branches.
7. There should be establishing networking and maintain the networking among the different universities and educational institutions.

REFERENCES:

1. Bushrti, J., Barolli, E. & Dibra, G.(2011), Advantages and Disadvantages of using ICT in Education, University of Shkodra, Poland.
2. Devi, S., Rizwaan, M. & Chander, S.(2012), ICT for Quality of Education in India,IJPS, India.
3. Hadjerrouit, S.(2008), Using a Learner-Centered Approach to Tech ICT in Secondary Schools: An Exploratory Study, University of Agder, Kristinsand, Norway.
4. Kumar, M. P.(2014), Information Technology: Roles, Advantages and Disadvantages, Department of MBA, Sri Revena Siddeshwara Institute of Technology, Bangalore, India.
5. Mahajan, S.L.(2002),Information Communication Technology in Distance Education in India: A Challenge, Yashwntrao Chavan Maharastra Open University, Nashik, Maharastra, India.
6. Mangal, S. K.(2010), Advanced Educational Psychology, Second Edition, PHI learning private limited, New Delhi.
7. Mondal, A. & Mete, J.(2012), ICT in Higher Education: Opportunities and Challenges, University of Kalyani, Kalyani, West Bengal, India.

8. Noor-Ul-Amin, S.(2009), An Effective Use of ICT for Education and Learning by Drawing on Worldwide Knowledge, Research and Experience, Department of Education, University of Kashmir, India.
9. Patel, M. A., & Ali, M. J.(2014), Information and Communication Technology in Secondary Schools Advantages and Disadvantages, MANUU, Hyderabad, India.
10. Sharma, R. N.(2000), Textbook of Educational Philosophy, Kanishka Publishers and Distributers, New Delhi.
11. UNESCO,2002. Information and Communication Technologies in Distance Education, Institute for Information Technologies in Education, UNESCO.
12. Vekiri, I.(2008), ICT(s) and Socialization: The Role of Schools and Teachers,Olso.
13. Vodopivec, J. & Samec, P.(2000), Advantage and Disanvantage of Information-CommunicationTechnology usase for four-year-old Children, and the consequences of its usage for the Childrens'Development, Faculty of Arts, University of Mribor,Slovenia.