

## ROLE OF ICT IN HIGHER EDUCATION

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**Abstract:** *Information and communication Technologies is increasingly becoming indispensable part of the education system. It has changed many aspects of the lives. These changes have caused educational institutions, administrators, teachers to rethink. Their roles, teaching and vision for the future. ICT has opened new challenges for quality education. ICTs are making dynamic changes in society. They are influencing every aspects of human life. Teaching learning process is not now limited within the boundaries of classrooms. ICTs are making major differences in the teaching approaches and ways students are learning. This article discusses the various components of ICT, the main thrust of this classroom transaction.*

**Keywords:** *Role of ICT in Education, meaning advantages and disadvantages teaching and learning process.*

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### Introduction:

The education has vital role in building the society. It is one of the most important needs for the well-being of individual and the society. Quality education helps to empowering the nation in all aspects. During the last few decades, there has been a tremendous growth in the use of ICT in all fields such as industries, businesses, societies, lives of people and education. ICT is an acronym that stands for information communication Technologies, that includes all technologies for the manipulation and communication of information (Swati Desai 2010) Broad definition of ICT includes radio, television, satellite, mobile phones, computers and the internet. It can be divided into two groups; traditional ICT namely radio, television and the new ICTs like internet and telecommunications. Learning through new ICTs is also called E-Learning. Information and communication technology (ICT) is an indispensable part of the contemporary world. It is a force that has many aspects of the way we lives and also an electronic means of capturing, processing, storing and communicating information. According to UNESCO: ICT is a scientific technological and association with social, economic and cultural aspects.

### Meaning and Definition of ICT:

ICT means information communication Technology. It has three parts information communication and Technology. Information is the summarization of data. Technically data are raw facts and figures that are processed which disseminate information and knowledge and technology is a mode or media through which information can be disseminated so ICT is the technology required for information processing and spreading. ICTs are technologies such

as radio and the newer digital technologies like computers, satellites, mobile phones and the internet.

ICT is the means in which people interact with their colleagues around the world exchange their ideas, information, messages and co-ordinate each other through variety of the chronological means.

### **Aims & Objective:**

Information and communication technology (ICT) has become one of the basic building blocks of modern society. The basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. UNESCO aims to ensure, that all countries, both developed and developing, have access to the best educational facilities necessary to knowledge nation, Because of the fundamental importance of ICT in the schools today prepare young people to play full roles in modern society and to contribute to an educational quality by helping make teaching and learning into an active process connected to real life.

### **Characteristics Of Ict:**

In the context of present ear, ICT mainly comprises of computer technology with its hardware, like, PC Machine, Infrastructure required for setting up internet facility and also software like, CD, ROM including various programmers, E-Learning strategies etc.

### **Role of ICT in improving quality of Higher Education:**

Higher education system have grown exponentially in the last five decades to meet the demands of quality education for all. This aspect has further gained momentum due to swift advancements in information and communication Technology (ICT) Demand increasing in the contemporary globalized society in this backdrop, access to quality as determine factor of economic growth and development 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 an the increase.

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 system and so on, as well as the various services and applications associated with them, such as videoconferencing and used for educational purpose, 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, students enrollment etc.

### **Role of the Teachers:**

- Teachers remain central to the learning process: A shift in the role of a teacher utilizing ICTs to that of a facilitator does not obviate the need for teachers to serve as leaders in the classroom; traditional teacher leadership skills and practices are still important (especially those related to lesson planning, preparation and follow-up)
- Lesson planning is crucial when using ICTs: Teacher lesson planning is vital when using ICTs; where little planning has occurred, research shows that students work is often unfocused and can result in lower attainment.
- Introduction Technology alone will not change the teaching and learning process: The existence of ICTs does not transform teacher practice, given a set of enabling conditions. Teacher's pedagogical practices and reasoning influence their uses of ICT, and the nature of teacher ICT use impacts student's achievement.

Successful teacher professional development modes can be divided into three phases pre service, focusing on initial preparation on pedagogy, subject mastery, management skills and use of various teaching tools (including ICTs); in-service, including structured face to-face and distance learning opportunities building upon pre-services training and directly relevant to teacher need; and on-going formal and informal pedagogical and technical support, enabled by ICTs, for teachers, targeting daily needs and challenges.

### **Advantages of ICT in Education:**

ICTs are a potentially powerful tool for extending educational opportunities. The use of ICT is making major differences in the learning of students and teaching approaches. Several studies reveal that students using ICT facilities mostly show higher learning gains than those who do not use, actually it acts as an assisting tool. It provides, quicker and current information. Advantages of ICT in education can be listed down as follows.

- ICT helps teachers to motivate students and develop interest in learning.
- To develop variety of educational services and medium.
- Quick access to information. Can be accessed in seconds by connecting to the internet and surfing through web pages.
- Divergent thinking ability in students.
- Teacher can help the students by ensuring the right direction towards effective.
- ICT helps students to explore knowledge to learn the content through self-study.
- To promote technology literacy and support distance learning.
- ICT help teachers to communicate properly with their students. So ICT bridge the gap between teacher and students and plays an important role in student evaluation.

### **Disadvantages:**

Below list of some disadvantages of using ICT in education: Teacher's attitude towards use of these technologies is vital, many observations reveal that same teachers do not have clarity about how for technology can use be beneficial for the facilitation and enhancement of learning due to lack of competency to handle, whereas same teachers may have positive attitudes to the technology. Where students are more familiar to technology;

can remove the attention from the main goal of the learning process to develop ICT skills, which may be a secondary goal in this process; may affect the connection process between teacher and students as ICT became a communication tool instead of to face communication. So that distance. Lack of infrastructure and equipment are another problem for back warding Indian education system.

### **Suggestions:**

- Since many teachers may not have the required IT skills and feel comfortable, they must be trained for the use of these skills.
- Advance computer laboratories and other adequate infrastructure should be there in academic institutions.

### **Conclusion:**

The adoption and use of ICTs in education have a positive impact on teaching, learning and research ICT can affect the delivery of education and enable wider access to the some in addition, and it will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can influence the way students are taught and how they learn. It would provide the rich environment and motivation for teaching learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. The overall literature suggests that successful ICT integration in education.

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