

INFORMATION AND COMMUNICATION TECHNOLOGY IN EDUCATION

"Globalization and technological changes have created a new global economy powered by technology, fueled by information and driven by knowledge."

Information and communication technologies (ICTs) — which include radio and television, as well as newer digital technologies such as computers and the Internet — have been proven as potentially powerful tools for educational change and reform. When used appropriately, different ICTs can help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by helping make teaching and learning into an active process connected to real life.

DEFINITIONS "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information."

"ICT implies the technology which consists of electronic devices and associated human interactive materials that enable the user to employ them for a wide range of teaching - learning processes in addition to personal use."

These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

"ICT is that technology which uses the information to meet human need or purposes including processing and exchanging."

"Information and communications technology (ICT) in education is the processing of information and its communications facilities and features that variously support teaching, learning and a range of activities in education."

. When these technologies are applied in the field of education, it is termed as ICT in education. The term too can be used as the connotation to the term Educational; technology because it also uses any hardware and software approaches that can enhance yield better learning outcomes. In the era of Computer technology the term ICT mainly focuses on the infrastructure, devices and sources of computer technology and thus it is imperative to discuss about the use of ICT in education by focusing mainly on Computer based technology.

CHARACTERISTICS OF ICT IN EDUCATION

ICT in education is any hardware and software technology that contribute in the educational information processing. In the context of present era, ICT mainly comprises of Computer technology with its hardware, like, Personal computer machine, infrastructure required for setting up Internet facility and also software like, CD ROM including various programme packages, E-learning strategies etc.

ICT in education is any Information Technology that focuses on the acquisition, storage, manipulation, management, transmission or reception of data required for the educational purpose. For example, the information about students' records, their admissions, updates of their auricular and co-curricular activities. ICT in education is any technology that deals with the exchange of information or in other' words communication in the teaching learning process. Uses of Electronic learning technology like, Teleconferencing, power point presentations, CD ROM are Communication Technology which is the part of ICT. ICT in education is any educational technology that is applied in the educational process. It encompasses Hardware approach like use of machines and materials, Software approach like use of methodologies and strategies of teaching learning and Systems approach that uses the management technology that deals with the systematic organization of the hardware and the

software. Different software packages for the use in different department of education; e.g. library software, administration software, software related to managing the entire teaching learning process.

ICT in education is the support material in the hands of the human resource involved in the educational process in order to enhance the quality of education. ICT in education comprises of the application of science of On-line, Offline - learning with the help of the computer technology.

Role of ICT in Education

To broadcast material, online facility or CD-ROM can be used as sources of information in different subjects;

- To facilitate communication for pupils with special needs;
- To use electronic toys to develop spatial awareness and psycho-motor control;
- To use the online resource like, email, Chat, discussion forum to support collaborative writing and sharing of information.
- To facilitate video-conferencing or other form of Tele conferencing to involve wide range of students from distant Geographic areas.
- For Blended learning by combining conventional classroom learning with E-learning learning systems
- To process administrative and assessment data.
- To exchange and share ideas -among teachers for the professional growth.
- To carry out internet-based research to enhance , educational process

ADVANTAGES OF THE USE OF ICT IN EDUCATION:

ICT encompasses all those gadgets that deal with the processing of information for better and effective communication. In education, communication process takes place between teachers, students, management and administrative personnel which requires plenty of data to be stored for retrieval as and when required, to be disseminated or transmitted in the desired format. The hardware and software like OHP, Television, Radio, Computers and related software are used in the educational process.

- **Quick access to information :** Information can be accessed in seconds by connecting to the internet and surfing through Web pages.
- **Easy availability of updated data:** Sitting at home or at any comfortable place the desired information can be accessed easily. This helps the students to learn the updated content. Teachers too can keep themselves abreast of the latest teaching learning strategies and related technologies.
- **Connecting Geographically dispersed regions:** With the advancement of ICT, education does not remain restricted within four walls of the educational institutions. Students from different parts of the world can learn together by using online, offline resources. This would result in the enriching learning experience. Such collaborative learning can result in developing... • divergent thinking ability in students,
- Global perspectives
- respect for varied nature of human life and acculturation.
- Facilitation of learning

- **Catering to the Individual differences:** ICT can contribute in catering to individual needs of the students as per their capabilities and interest. Crowded class rooms have always been a challenge for the teacher to consider the needs of every student in the class.
- **Wider range of communication media:** With the advent of ICT, different means of communication are being introduced in the teaching learning process. Offline learning, on line learning, blended learning are some of the resources that can be used in educational institutions. Collaborative learning, individualized learning strategies can enhance the quality of group as well as individual learning. with the real society. This can ensure the applicability of knowledge.
- **Wider learning opportunities for pupils** Application of latest ICT in education has provided many options to the learners to opt for the course of their choices. Many Online courses are available for them to select any as per their aptitude and interest. Students can evaluate their own progress through different quizzes, ready to use Online tests. This can ensure fulfillment of the employment required in the job market thus minimizing the problem of unemployment. It can also provide more efficient and effective citizens to the society as per the changing needs.

By : Dr. Sarwat

www.evaeducarion.weebly.com