

## TECHNOLOGY IN EDUCATION

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### 1. INTRODUCTION:

With the advent of innovative technology, many traditional schools have resorted to modern techniques to facilitate student learning. Early steps recognize the role of technology in education. Which indicates the importance of audio-visual equipment like tele media, recording media, computer etc. Thus, educational technology emphasizes the art of employing so-called hardware, innovative media, and machine industry methods for educational purposes. It has now become clear that the systematic way in which technology is used to achieve a purpose is as important as the use of technology. Today the software aspect of educational technology has reached an important point i.e. it is useful in molding behavioural practices or in other words useful for solving problems of promoting learning and motivation. The most widely known meaning of educational technology today is more special than the acquisition of its hardware or software.

The term "educational technology" refers to pedagogical ideas, ideologies and methods of teaching and the use of related disciplines in them. In such disciplines as Sociology / Educational Sociology, Philosophy/ Educational Philosophy, Psychology /Educational Psychology, Transmission / Communication, Technology etc. The technology of education is a part of educational technology which is involved in the use of approaches to systems to promote high quality education. In addition, the technology of education has to do with the use of methodological and scientific (classical) experiments in educational practice. Its main interests in relation to these issues include problems such as, identifying the educational problem, analysing the problem, setting objectives, suggesting solution strategies, combining processes, evaluating and providing feedback.

The 21st century is the century of science and technology. Therefore, in the contemporary world it is impossible to live without the influence of science and technology so the structural transformation of the scientific and technological developments of the nation should be the focal point of attention. Education in general and higher education in particular will have to play an important role in the growth and development of human resources that any nation needs to move forward.

### 2. DEFINITIONS:

**Pelgrum (2003)** states that The term "IT" was replaced by "computers" (information technology) around the end of the year 1980, indicating the ability to focus on the ability to store and retrieve information from computing technology. The term "ICT (Information and Communication Technology)" was coined around 1992, when e-mail became available to the general public.

**Tinio (2009)** defines ICT as the communication of a diverse set of resources, and the dissection of established technology-related devices and resources used to generate, transmit, store, and manage information. These technologies include computers, the Internet, broadcasting technology (radio and television), and the telephone.

### 3. EDUCATION AND TECHNOLOGY:

Education can also be defined as the process of imparting or acquiring knowledge and attributes through study, Where the learning becomes dynamic towards the goals / objectives. Which is established according to the defined philosophy and can be understood by the scholar, is called education.If education is to be effective then all its behavior should result in a change in practical aspects. (Bhatnagar, 2002).

Eric Ashby (1967) identifies four revolutions in education. When the first revolution came the families of the society began to segregate the non-role and the arduous task of raising a young child shifted partly from parents or guardians to teachers and from home to school. The second revolution was the adoption of the written word as a tool of education. Oral education prevailed before that time and it was with reluctance that writing was allowed to coexist with the word spoken in class. The third revolution came with the invention of printing and the subsequent widespread achievement of books. The Fourth Revolution led to the development of electronics, especially radio, television, tape recorders, and computers.

The history of the use of technology in education leads us to the stage where, when the content became available in the form of printed materials and textbooks, it was soon followed by educational aids such as blackboards, templates, pictures, grass, models, maps and statistics. Complemented by this, the concept of educational technology was limited to the use of simple visual audio equipment for direct study teaching.

**4. THE MEANING OF EDUCATIONAL TECHNOLOGY:**

The ongoing efforts to define educational technology by the Association of Educational Communications and Technology (AECT) which is basically a department of audio-visual education. A popular concept of educational technology developed by it is associated with the maturation of the audio-visual movement in early World War I education and educational training programs. Among the advocates of development arising from trends in master learning and program instruction were BF Skinner and James Keane (Morgan, 1978 Riser, 1987). The earliest definition of educational technology is the definition of visual-audio communication. Alley (2003) states that "audio-visual communication is a major branch of educational theory and practice, primarily concerned with the design and use of messages, which governs the learning process." These concepts generally have an educational point of view as a synonym for audio-visual communication.

Educational technology is a systematic way of designing, implementing, and evaluating the overall process of teaching and learning in the context of specific objectives, in order to more effectively instruct research in human learning and communication and the combination of human and non-human resources. (Kumar, 2001).

The Association for Educational Communications and Technology (1994) identifies five areas of educational technology. Namely, design, development, development use, evaluation and management (Vainkataiya, 1996).

**5. IMPORTANCE OF EDUCATIONAL TECHNOLOGY:**

Many academics have highlighted the importance of educational technology in the process of teaching and learning in their articles. A few articles are briefly presented here to understand the importance of educational technology in all levels of education. Technology is human innovation, which involves the creation of knowledge and processes to solve problems and develop systems capable of expanding human capabilities. Technology is concerned with the advancement, design, development, establishment / replacement of science and the progress of the implementation of information systems and programs. Technology is known as science for experimental purposes. Technology includes specific information and knowledge that can be in physical form, such as, patterns, sketches, drawings, diagrams, profiles, manuscripts, or in non-physical form, such as training or technology services.

These include methods for delivering messages, including postal systems, radio and television broadcasting companies, telephone, satellite, and computer networks. Technology helps us to save time and energy by providing convenience at work. Technology is used in the production of goods and services that are considered useful in areas such as computers, medicines and machines. Some examples of technology are electronic media such as video computers, compact discs, lasers, audiotape, cell phones and satellite tools that are used as tools to create, learn, explain, document, analyze, communicate or present an artistic work or information. From household activities to organizational activities, technology is used as part of our daily lives. The reason technology is becoming popular is because of the many benefits it offers.

According to Amjad Ali (2004), educational media can be defined as various media components that are used for the purpose of education. A clear distinction and generally accepted definition has not yet been developed. Yet efforts have been made to define it in its own style. While educational technology aims to improve the quality of human learning, the need for technology of communication and modern testing and evaluation of different mediums to address various problems of education is inevitable. Especially in developing countries like India and Iran, it needs to be influenced and used by educational providers if it is to keep pace with each other and keep pace with developed nations. There are the following reasons for the application of media in education.

Audio-cassette is the media that will be crucial for distance education. Counselling sessions are arranged for students to bring the two-way action-response factor through teleconference. Telephone learning can provide dual interaction between learners and teachers. Videodisks are connected to computers and learners can interact with content from their own space and choice. The most flexible means is that member organizations benefit from getting bibliographic information.

Multimedia approach to the learning process: Educational technology is a relatively new field, aimed at improving learning and teaching. Hardware and software are two structural components of this technology and multimedia is an important aspect related to them. There are several objective plans aimed at the education system, designed by educational technology for the realization of various strategies, techniques and tools.

The multimedia approach is an innovation that has been proven by research useful in improving the teaching-learning process, proving that multimedia is effective "together" in both schools and universities for students to learn. Due to their advantages in terms of growth repetition, transportability and fairness, the focus is now on media and technology. Multimedia students work in groups to actively construct knowledge and use multiple senses at a time. A critical mix of media, multimedia helps to overcome the limitations of everyone and cascade the benefits of all.

The current recognition of the term multimedia refers to methods that support the use of text / numbers, audio, pictures, animations, videos and graphics. "Integration of two or more audio devices (speech / music), images, video, text numbers, graphics and animations compatible, manageable combination on user interface" (for

example, a combination of text, graphics and visual audio content on CD-ROM Or available through the World Wide Web).

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