
Learning through Information and Communication Technology

Dr. Manish Bhatnagar, Assistant professor
Jain Vishva Bharati Institute
(Deemed to be University) Ladnun, Rajasthan -341306 (India)

Abstract -

The term Information and communication Technology (ICT) has been widely used in education. Its large impact brought tremendous changes in different facets of our life including education. But in recent times, many factors have emerged which encourages to adopt ICTs into classrooms and learning settings. These have included a growing need to explore efficiencies in terms of program delivery, the opportunities for flexible delivery provided by ICTs, the capacity of technology to provide support for customized educational programs to meet the needs of individual learners, and the growing use of the Internet and WWW as tools for information access and communication. The present paper deals with meaning, strength of ICT and its utility in field of Education.

As we move into the 21st century, these factors are forcing us to adopt ICTs in education. This paper explores the likely changes that we will see in education as ICT acts as a powerful agent to change many of the educational practices to which we have become accustomed. In particular, the paper will explore the impact of both current and emerging information and communication technologies will be likely to have in coming years on *what* is learned, *when* and *where* learning will take place and *how* the learning will occur. Enhancing teaching learning process, quality and accessibility of education through ICT is also discussed in this paper. This paper also deals with enhancing learning environment, learning motivation and scholastic performance.

Kew words – Education, ICT, Learning.

Introduction

If we look at different fields such as medicine, tourism, travel, business, law, banking, engineering and architecture, the impact of ICT across the past two or three decades we observe that ICT has brought enormous change in the way these fields operate today from the ways they operated in the past. But it is not so in the field of education. ICT has also brought changes in field of education but they are not very significant as compared to other fields. There are number of factors because of which ICT has not been used effectively in education across all sectors. These factors included a lack of funding to support the purchase of the technology, a lack of training among established teaching practitioners, a lack of motivation and need among teachers to adopt ICT as teaching tools. ICT acts as a powerful agent to change many of the educational practices to which we have become accustomed.

Meaning of ICT

According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. ICT i.e., Information and Communications Technology is often referred to as computers and computing related activities. This is fortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or systems also comprise of the phenomenon that is commonly regarded as ICTs. Pelgrum and Law (2003) state that near the end of the 1980s, the term 'computers' was replaced by 'IT' (information technology) signifying a shift of focus from computing technology to the capacity to store and retrieve information.

This was followed by the introduction of the term 'ICT' (information and communication technology) around 1992, when e-mail started to become available to the general public (Pelgrum, W.J., Law, N., 2003). According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centers, commercial information providers, network-based information services, and other related information and communication activities. According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes (Sharma, 2003; Sanyal, 2001; Bhattacharya and Sharma, 2007)..

Strengths of ICT

Individualization of learning: This means people learn as individuals and not as a homogenous group. ICTs allow each individual to relate to the medium and its content. Now individual can learn at his own pace according to his/her capability.

Interactivity: Interactivity is the way in which a person can relate to the content, go forward and backward in the content, start at any point depending upon prior knowledge instead of always in a sequential way.

Low per unit cost: Per person, ICTs reduce the cost of education from very high to very low.

Distance and climate insensitive: It does not matter where you are, or how the weather is, you can still access and learn from ICTs.

Can serve multiple teaching functions and diverse audiences:

ICTs, especially the computer and Internet based can be useful in drill and practice; to help diagnose and solve problems, for accessing information and knowledge about various related themes.

High speed delivery, wide reach at low cost: There is instant delivery of information.

These strengths of ICT's promote the use of ICT in Education and ICT can act as a powerful tool for

Enhancing teaching and learning process

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yusuf, 2005). ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. In a rapidly changing world, basic education is essential for an individual be able to access and apply information. Conventional teaching has emphasized content. For many years course have been written around textbooks. Teachers have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content. Contemporary settings are now favoring curricula that promote competency and performance. Curricula are starting to emphasize capabilities and to be concerned more with how the information will be used than with what the information is. The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool. According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology.