

Approaches to the Use of Information and Community Technology in Education

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ABSTRACT

Basis of general developments in the world of education arises from science and technology, and in practice has proved that the great developments in the theoretical and practical education roots effort in prospective and intelligent teachers and use of information and community technology (ICT) in education. Certainly corner and along our country (Iran) there are capable and creative teachers who with innovation integrate technology in education and use of computers into the classroom. Since learning of the subject is affected by developments in technology; education and formal training as a key institution in every society need to be equipped. Another time and place in the world of education is not the main obstacle and this is for the application of new ideas and creative use of information and communication technologies in education. Today, teachers are able to apply science and technology in new ways and relate it to other education centers of the world, but progress is affected by various factors, one of them is the use of ICT in education. This study aims at the use of ICT in education which in the study, qualitative research using library resources will be used and during this article, with explanation about education, as well as the definition of information technology, we will use approaches and methods of using ICT in education in terms of purpose and promoting learning.

KEYWORDS: information and community technology (ICT), education, approaches.

INTRODUCTION

The current era should be considered as an integration of communications and information. An era in where modern humans need to have information and communication to connect to other people more than past decades. Today by having different and advanced information and communication technologies, it enables us to have the rapid establishment of communication and rapid exchange of information. Undoubtedly - the most effect ICTs has been on education created a truly new way of life (Toffler, 2003: 31,32) which is summarized by Marshall McLuhan in a statement that "turning the world into a global village", it means that people in countries around the globe as the inhabitants of different parts of a village have the possibility of communicating with each other and have the news and world events. Rapid penetration of information technology among people has changed the way of about most people. The rapid evolution of technology and productive use of technology including information technology has created dramatic changes in industrial structure, economic, political and civil society as many social revolution in nineteenth and twentieth centuries roots in social revolutions of various aspects of technology in human life.

Definition of information technology

IT refers to the process of knowledge and methods of its application in production, processing, transmission and flowing information. (Karami Pour, Educational Technology, No. 2, October 82, p 45). Information Technology include collecting, organizing, storing and dissemination and use of information in voice, video, graphics, text, number and using the tools of computer and telecommunication etc. (Dana, educational Technology, No. 2, October 81, p 16.). IT family includes: macro-computers, microcomputers, CDs, mobile, wireless phones, modems, color and laser printers, cell phones, computer and animated images (animation), computer simulation, computer-based educational resources, digital camera, electronic publications, distance learning, fax, optical fiber, radio and digital television recorders, hard drive, geographic information systems, information superhighway, computer networks (local and global), cross-media, the meta-text, Internet, Java, laser disc, multimedia, software, networking, mobile video, virtual reality, global networks, wide area networks, websites and so on.. (Robabeh Farhadi; role of information technology in education, Journal of Book 56, p 142). As in the definition above we saw we mean by technology here any process, method, and means helping production and better transmission of information.

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Definition of education

Changes that have occurred in human life are due to learning. There is no doubt that the importance of human growth and learning is more than his vision. Exposed to the environment, human life is always changing, man is forced to learn to overcome changes. Information on education systems and learning in every day in training of human life is more important. High-speed networking is supported and further training distance learning course is more flexible.

In summary, learning is transformative activity and is preparing to deal with environmental events. learning is process and a series of experience product. Learning, in fact, has a very wide concept that occurs in such forms as new attitudes, problem solving, application of knowledge in reasoning, thinking, and Various definitions have been proposed for learning. Many believe that "change is a result of learning or training experience that can develop." (Parsa , 1993), learning is a change that occur in students ' behavior due to various teaching and skills. This behavior may be visible in the short term or this behavior may be invisible in the short term. However, during the life, this knowledge changes insight of learners. As mentioned above, people have different needs to access to information and knowledge to engage and learn. Therefore, the difference in the learning needs and preferences and learning differences should be considered. Do not expect people to learn something similarly. Motivation for learning should be considered with respect to the material. Undoubtedly, the ideal mode of learning is desirable. There are also a variety of tools and resources for optimal learning performance with increasing number of technological progress. Should bear in mind that the success of any society depends on its ability to learn makers engaged in lifelong learning. (Niknam, 2000, p 113).

Definition of approaches to ICT

Despite all the problems in the field of ICT in education and training as a therapist is not raised, but nowadays the technology tools in teaching and learning are considered essential, therefore, to an effective treatment, teachers' perspectives clear potential of the technology, its application opportunities, timely support, training and experience, and familiarity with the general objectives of education in the information society, as well learning system based on individual differences and approaches used in the education. If this is the ratio of teachers to use new technologies for education and awareness, so it can be combined with the technology plan. In this paper the approaches of ICT as part of the learning process stages will be discussed; as an objective, as media (Nadrlndz, 1992) and the third as a tool often used in school organization and management.

ICT

Obviously in the major changes over the past three decades, technology has had a very prominent role. So the most widely accepted definition of the information society is built on innovation of superb technology. Frank Webster in definition of information society based on the stunning advances in technology says that storage and transfer of data refers to the application of information technologies in all aspects of social life. (Asefi Amlashi, Afsaneh, Shakouri Shaldhy, 2008, p 15). So we can say that one of the important features of the phenomenon is that ICT is that makes human-human communication and increases facilitation and promotion of the human with environment. Because of the power of information and communication technology that can dynamically evolve and ability to communicate with students, it may have a significant role in knowledge transfer. Development of information and communication technology (ICT) in today's society is so fast which is considered as an important indicator of the level of development for developing countries and that the present age would be a different world if the technology leading information be charged. information and communication technology because of the power of great influence in the development of educational, cultural, economic, national security, globalization and adjustment problems for traditional information is considered as one of the most dynamic and controversial fields of science and technology(Zargar, 2002). It can be said that information technology refers to a set of tools and methods to combine different forms of information for gathering, storage, retrieval, and processing. Information technology has been developed to expand the capabilities of human thought. The term information technology can be viewed from two perspectives. The first view, the term IT is used to describe the techniques that help us to capture, storage, process, market, transport information. The second perspective, IT is a set of tools and methods that allow the production, processing and distribution of the information provided for human use. The technology can be considered as a human activity which is targeted for the design and manufacture various products that are used and a particular kind of knowledge that uses scientific technology to solve a scientific problem is called Information Technology. This phenomenon is so important that it is considered as centers for a series of guided activities which will provide management control, productivity, production, training and upgrading a system with a center. It has been defined somewhere else that: Information technology is a strategy, thought and tool in human which is associated with innovation. (Attaran, 2003).

Education (Information and Communication Technology in the field of education):

ICT can be likened to a rain, if it falls on a good place it can make the perfect place to grow and live the nature but if it falls in the bad place can cause flooding or cause to bog formation. Entering this phenomenon in the field of education is not free from these two roles. It is necessary to note that before providing mixing of the two components, it should be done for promoting scientific- culture. If the basis of education is knowledge transfer, and knowledge is nothing but the information known, so it is necessary to be transferred into the appropriate skills for this purpose. Information and communication technology in a short time has managed to become one of the essential components of modern societies so that in many countries , along with reading , writing and arithmetic , understanding ICT and mastering the basic skills and concepts of ICT and communication is taken into consideration as part of the core of education. (quoting from Daniel, General Director Assistant for Education of UNESCO). In the field of education, information and communication technologies and tools are supported as of computer and communication components using a variety of forms, teachers, students, the learning process and the upper range of educational activities (Abrahami, 1998). According to the above description, lack of strategic planning rapidly will cause retardation in growing developments. Educational institutions according to the change require long-term planning, medium term and short term and a major step in order to get the change.

On the other hand, information and communication technology within a short span of time that passes has created a lot of changes in human life. One of major share of this variation is accounted for learning. The role of ICTs within the learning cycle is so important. In traditional method, one is forced to read and write and communicate which was approximately one- sided but the use of information and communication technologies, one needs to have skills in addition to basic skills in using information and communication technology. Using virtual worlds in learning new methods and efficient methods can be achieved. The reason for the use of information and communication technologies is better education and faster. Use of ICT in education created a new kind so that learning is not only done in person. This evolution has changed the teacher's role and the role of libraries. Therefore, the new type of learning was called e-learning. (Castells , 2002 , p 85).

Electronic learning environment is always available and can be used in any location and the time. Because in today's information world, time has an important role and person enjoys the shortest possible time for frequency information and knowledge. The use of ICT in learning, will facilitate this process. Because e-learning environment, enabling makers to exchange information and learn from each other and interact with the learning process. By providing, with timely and digital resources needed for people, libraries are actively involved in e-learning . Provision and development of shot lists and web sites for students to access information resources are provided by librarians and library operations environment. The library services will be integrated with e-learning. Thus, each learner by using virtual libraries can, wherever they are; home, work, etc. can access to educational resources and full-text articles. Virtual library will supply them materials to those who wish to learn.(Bigdeli, 1998, p 54).

Approaches:

ICT as part of teaching - learning process is used in three forms, one as a target, the other as media and the third as a tool for organization and management often used in schools. 1 - Information and Communication Technology as a target: Application of ICT in education as a goal refers to the re- learning of information technology and its application in society and mainly but is not limited to specific courses such as computer training or informatics but information technology and communications as a curriculum aimed largely is used at schools particularly in secondary schools. Using ICT as a curriculum goal informs the student with the most important inputs and outputs of information technology which is an important phenomenon, but hidden in the society, and the purpose of education is to prevent illiteracy in the computer. Now, in this case a very good education, but we should consider the warnings of Walker (1986) seriously meaning that the easiest way to deal with the challenges of the technology revolution is the creation and application of a new subject, so that the issues do not require fundamental changes. The most important part of the ICT in education is found in applicable technical and professional training. For example, studies such as apprenticeship training, computer aided design, computer-aided manufacturing, computer accounting in these areas without being mixed with ICT is unimaginable. The use of ICT as an aspect outside of the professional issues is obvious and apparent that cannot be taught in a long time. For example, in secondary education in the Netherlands as an aspect of ICT is a preparation for obtaining a job which is considered as a topic and a serious aspect in the educational activities. (Asefi Amlashi, Afkaneh, Shakouri Shaldhy, 2008, p 64)

2- ICT as a medium for promoting the learning process: Another application is the use of ICT as a medium for teaching and learning. A medium through which teachers can teach and learners learn. ICT appears as a medium in various forms. Forms such as scientific exercises, simulations, private teaching, individual learning systems, educational networks, multimedia programs, systems development and etc. we refer to ICT as a medium that usually is not restricted only to the content anywhere in the teaching and learning process. The actual use of ICT as a common medium is very rare, although there is increasing interest for its use.

Clearly, the use of ICT in learning (as learning media) will change foundation learning structure, and this change is only possible in the relationship between teacher and student roles so that the potential of ICT to improve learning provides the advantage. In addition to the above aspects, learning must be applied in a way that is supported by the administration. This is how ICT can be used in a way that the teacher's role, regardless of their political suits parameters affect the national government which is almost unthinkable. For example, computers and software needed to provide for a system of "equal and inclusive learning" compared to what should be done for fundamental change is a step fairly simple. Focus on learning to learn, often with structural or productive as it is called, must be based on learning. This view of learning as an active process, goal-oriented and well-known institution of learning (with a further description) adapt to future needs for social learning (or information society) which means that schools should be able to continue in the field of continuous learning. Encourage and support this process requires a suitable learning process in which learners should be involved in setting their own learning process. Thus, the learning is often referred to a process that the learner requires adequate information on such material and content. To achieve this aim, teachers organize learning activities and technical structures that support the use of ICT as part of the learning structure and its relation to the role of the learning process (learners and teachers) with a more detailed search which illuminates the characteristics of the teaching and learning process.

(Symvnzvzyn 1995) knows series of learning activities that are associated with three types of activities that include:

Readiness, training and evaluation in the traditional classification learning, most activities will be conducted and supervised by teachers.

If learning process is more student-centered, student is responsible for his own tasks and role of the teacher is to navigate. However, so far less potential of ICT is used which means that in learning student-centered method is still very rare and more of ICT applications are used in the teacher-centered learning. If the use of ICT be adapted by current teaching methods (traditional method), teachers' beliefs and attitudes towards teaching behavior does not change as a result of fundamental changes in teaching and learning process. To develop effective strategies to use ICT to improve learning and teaching, it is necessary to replace the ongoing activities of ICT in learning and teaching, and this replacement can be viewed as the first stage of the three stage process in which new applications in general and in particular are raised in education.

3- ICT as a tool

An example of the application of information and communication technology is focused on the management and organization in a student- centered monitoring system. In this case, ICT does not constitute a learning process but its use is involved in the classroom or school-sponsored education system. (Asefi Amlashi, Afkaneh, Shakouri Shaldhy, 2008, pp. 65-67).

Conclusion

So far we know our education system needs to take steps to improve with new technologies. Each step in new technologies for our educational system could be very useful. In the past decades there was no progress that could change the world as IT. In practice, most centuries that know IT as a tool for their development as national strategy believe that these strategies if prepared can be effective. Expectation of Iran Education is a motivating factor not preventing. Using ICT in education can be very useful for curriculum planning. IT provides curriculum in teaching learners. Increase in curriculum content in another use of ICT in curriculum planning. Flexibility toward curriculum content, increase in learners' interest and increase in curriculum efficacy are other use of new technologies in education.

The current era can be considered as a combination of technologies and communications. An era in which human are more dependent on having contact for the information needed. Today by having advanced and different ICTs, the possibility of fast transformation of information has been achieved. Undoubtedly, the most apparent effect of ICT has been of educational environment. The use of ICT has lead education toward virtualization. With the advent of Internet, this media was used as a complement to provide educational and informatics needs. This study aimed at, on one hand, by providing an inclusive about ICT as well the issue virtual and remote education and on the other hand, by providing ICT approaches to familiarize teachers with such technologies and approaches as well to teach apprentices as correct as possible has started to use them.

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