Information and Communication Technologies (ICT) in Higher Education and Learning

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Abstract:

Information and communication technologies (ICT) in higher education have been developed fastto improve the qualityof education. This paper particularly elucidates the role of ICT in higher education and learning in general. Education is a backbone of society, quality education is directly associated with knowledgeable and interactiveteachersand interactionwith the beneficiaries.In the education, use of ICT improves classroom teaching as well as learning process. It is also providing facility of e-learning, distance learning, online mooc courses etc. In recent days, ICT is extensively used in education and learning hasbecome more student-centric.Thus, in teaching, learning and research,ICThas improved more positive and valuable impacts in modern era. It is proved thatICT plays important role in the education systems to provide quality education. It is used in the various aspects of higher education and has changed numerous human aspects.

Key Words: ICT, Higher Education, Teaching, Learning

Introduction:

In the recent years, information and communication technology (ICT) has changed numerous human aspects including medicine, tourism, business, banking etc (Adesote and Fatoki 2013).In a short time ICT became the basic technology for the modern society (Daniels, 2002) and also provide more opportunities in learning and teaching. ICTs are referred as computers and computing related activities but this is to be a misconception. ICT refers to all the technology used to information management, telecommunications, broadcast media, audio/visual processing, transmission systems, monitoring functions etc. ICT may be the combination of informatics technology with other communication technology suggested by UNESCO in 2002. It has reported that several ICT facilities are available in the higher education and used in education like including email, television lessons, radio, short study film, audio video system and CDs etc(Sharma, 2003; Bhattacharya and Sharma, 2007). It has been shown that the use of ICT in education which may improve memoryretention, motivation and understanding of various subjects (Dede, 1998) and also develops role playing, group discussion, problem solving activities among the students (Forcheri and Molfino, 2000).ICT is a strong infrastructure required for quality education. It requires workstation, Internet, display technology, interactive devices, audio andvideo equipments, printer, computers, laptops etc. In the remote areas the establishment of wire connection network is more expensive therefore wireless network infrastructure can be used. Without buying individual software copy nowadays cloud computing provides support to all users which reduces the implementation and maintenance charges. Technical supportalsois a essentialpart in the use of ICT (Pramanik et. al., 2017)

Use of ICTs in higher education:

India has the largest young population in the world today and therefore there is much demand of education. There is limited infrastructure, economic status as well as physical barriers to access the education (Bhattacharya and Sharma, 2007).There are some problems in education in India and also in the world. There is lack of learning materials, study materials, teachers, as well as less education facilities etc. (UNESCO,2002). The use of ideal and innovative approach of ICTmayovercome this major problem in the higher education. Use of internet at different places has increased potentially (McGorry, 2002). ICT can improve the education by providing online leaning lectures, modules, audiovideo system. Therefore, ICT can solve the problem of low rate of education in world. The low rate of education is because of education cost, number of teachers, poor quality of education and distance barriersetc (McGorry, 2002).

Use of ICTs in Learning:

In the modern world, the use of ICT teaching, learning and research is highly effective (Yusuf, 2005). The uses of ICT can bevarious. It is used in education: presentation, demonstration, practice, interaction, and collaboration, audio/video cassettes, radio and TV broadcasts, computers or the Internet are may be used inlearning. ICT is a powerful tool to accelerate, enrich, motivate and connect students, experiential learning etc. For every learner basic education is essential to use and apply ICT. ICT can be enhancing the quality and flexible education.Now ICT learning is adopted like online courses, examination, evaluation, feedback etc. Therefore learners can access knowledge anytime and anywhere.

Advantages of ICT in Higher Education:

ICT used in higher education to solve many problems quickly and rapidly.

1. Recent generation is more fascinated with modern tools and technology. Educator, teachers and trainers etc must inculcate the use of interest amonglearners and enhance learning using ICT. Thus, internet can motivate the students. Instructors can conduct additional learning activities in the classroom(Habib, 2017).

2. The internet providesquick and rapid communication across the world. Therefore learnersmay participate in collaborative as well as interdisciplinary projects (Habib, 2017).

3. Co-operative learning using ICT can be possible.

4. Many resources are available on the internet as compared to library. These resources can be used for quality research in higher education.

5. The students can acquired different types of writing skills using internet and ICT (Habib, 2017).

6. This is new advanced method for teaching, learning and evaluation.

7. If anyone wants to learn any subject, ICT helps by reducing the burden of text books and tuition fees.

8. Users can access the resources anytime, anywhere as per the requirement.

Disadvantages of ICT in higher Education:

1. By using ICT it is not easy to find the right resources for student questions.

2. In the higher educationmore requirement of infrastructure.

3. There are many teachers who do not have enough knowledge about how to use ICT in teaching, learning and evaluation.

4. Students may become lazy to find out the sources of material in the library

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