

Impact of Information and Communication Technology on Higher Education

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ABSTRACT

Information and Communication Technology (ICT) has become a very effective tool for the development of economy from past decades. ICT refers to the infrastructure and various components which enable the creation, dissemination, storing, management and communication of the information. This includes computers, internet, mobile phones, broadcasting technologies (television and radio) and other communication mediums. It has become a driving force for the development of various sectors like banking, entertainment, health services, education, business etc. This study focuses on the impact of ICT on higher education in India. ICT integration in higher education ensures a very effective teaching learning process. The teachers should be provided training to adopt ICT. There are various steps or initiatives which are taken by the Government of India in order to encourage the integration of ICT in education. This study is based on the secondary data. Various websites, journal etc. have been used for access of information.

1. Introduction

Information and Communication Technology (ICT) is very important tool to promote economic growth in the economy. ICT refers to the infrastructure and various components which enable the creation, dissemination, storing, management and communication of the information. This includes computers, internet, cell phones, broadcasting technologies (television and radio) and other communication mediums. It has great impact on the higher education. Education refers to process of acquisition of knowledge, skill, belief, values etc .It encourages intellectual curiosity, which will lead to lifelong learning. ICT is a very effective tool to enhance the effectiveness and efficiency in education sector. The computer and internet are used in addition to the already available and utilized resources of radio and television and printed material or books in both classroom and distance mode of learning. India is believed to have had a functioning system of higher education as early as 1000 B.C. These ancient learning centers were concerned with imparting Vedic education. The modern Indian education system finds its roots in colonial legacy. The British Government used the university system as a tool of cultural colonization. Then the first institution of higher learning was set up by the British East India Company was Calcutta Madrasa in 1781. At present, the main governing body at the tertiary level is University Grant Commission (UGC). This organization enforces its standards, advises the government and helps coordination between the Centre and State. UGC came into existence on 28th December 1953 and became a Statutory Organization of the Government of India by an Act of Parliament in 1956, for determination and maintenance of standards of teaching, examination and research in university education. There are various steps or initiatives which are taken by the Government of India in order to encourage the ICT in education.

2. Objectives of the study

- To understand the ICT
- To understand the impact of ICT on higher education

- To know the various initiatives of the Government of India to promote ICT in education in India.

3. Research Methodology

This study is based on the secondary data. Various websites, journal etc. have been used for access of information.

4. Initiatives to encourage ICT in higher education in India

In India, various initiatives or steps have been taken by the government and other regulatory bodies to encourage the integration of ICT in education. Some of them are:-

- Gyan Darshan educational channel was launched in 2000 by Ministry of Human resource Development, Information and broadcasting, the Prasar Bharti and IGNOU (Indira Gandhi National Open University) in India to broadcast educational programs for school students, college and university students and adults.
- Gyan Vani was another educational FM radio station to broadcast programs contributed by institutions such as IGNOU and IITs, in several cities in India. It was also launched in 2000.
- GSAT-3, also known as EDUSAT is a satellite which was launched on September 2004 by Indian Space Research organization. It was launched exclusively to serve education sector. It is mainly intended to meet the demand for an interactive satellite based distance education system of the country.
- E-Gyankosh was launched by IGNOU in 2005 to store, preserve and share the digital learning resources developed by the open and distance learning institutions in the country.
- National Programme on Technology Enhanced Learning (NPTEL) is another important project which is funded by MHRD, Government of India. This is a

very important initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science for creating course content in engineering and science. So this project originated from many deliberations between IITs, Indian Institutes of Management and Carnegie Mellon University during the years 1999-2003. As on August 2015 there are approximately 420 web courses and 509 video courses. So is very effective step to encourage ICT in education.

- SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) PROJECT is another important step to encourage ICT in education. This platform was developed by Ministry of Human Resource Development and All India Council for Technical Education (AICTE) with the help of Microsoft Corporation India (Pvt.) Ltd. in order to host Massive Open Online Courses (MOOC). The soft launch of "SWAYAM MOOCs" platform was held on 15th August 2016 and after completion of first phase of the project, the platform has been declared "go live" w.e.f 16th November 2016. SWAYAM is also available through Android Mobile app/ Google play/IOS which can be downloaded by students to Pursue higher studies for any course from 9th class to post graduation. So the students can do courses online.
- E-PG Pathshala is another effective initiative of the MHRD under its National Mission on Education through ICT (NME-ICT). It is executed by University Grant Commission. The students can get study material regarding various disciplines of social science arts, fine arts and humanities, natural and mathematical sciences etc. of high quality to enhance their knowledge.
- N-LIST (National Library and Information Services Infrastructure for Scholarly Content) is another important initiative which is jointly executed by e-ShodhSandhu Consortium, INFLIBNET Centre (Information and Library Network Centre) which is an autonomous Inter-University Centre of UGC of India under MHRD, the INDEST (Indian Digital Library in Engineering Science and Technology)-AICTE Consortium and IIT Delhi. It provides 1. cross subscription to e resources subscribed by two Consortium i.e. subscription to INDEST-AICTE resources for universities and e-ShodhSandhu resources for technical institutions. 2. Access to selected e resources to colleges. So NLIST project provides access to e-resources to students, researches and teachers from colleges and other beneficiary institutions through servers installed at INFLIBNET Centre.

So these are some of the important steps taken in India to encourage ICT in higher education. There are other so many initiatives of government to promote the ICT in education in India.

The Information and Communication Technology has great impact on higher education. The some of the favorable effects of ICT on education sector are below-

- The various students, scholars or researchers can get the study material with the use of internet and computer or mobile regarding the various subjects across the world.
- There are so many websites from which the required information can be collected without going to any library. For example E-PG Pathshala is effective initiative to provide high quality educational content.
- The students, researchers, faculty and other persons are not required to depend only on the print medium like book, magazines, journals etc.
- They can get the any type of study material any time sitting anywhere online. There are so many e-books, online journals, video lectures which can be used to improve knowledge.
- IGNOU (Indira Gandhi National Open University) provides the study material online to its students and on the television.
- The information regarding the various colleges, institutions, universities can be collected with the use of internet without going anywhere from their official websites and other websites.
- There are various projects like National Programme on Technology Enhanced Learning (NPTEL), SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) PROJECT etc. which provide online courses facility. The students can complete their courses without going to any college, university and institution. They can also get their certificates online.
- In recent times, the various educational institutions maintain all their record in digital form with the use of Information and communication technology.
- UGC provides its approved list of various online journals and also updates the list time to time in order to ensure high quality study material or content.
- There are so many exams which are conducted by the various educational institutions with the use of computer and internet at present time in India. It ensures effectiveness.
- The students can be taught through the power point presentations which also enhance the effectiveness of the lectures. So it ensures effective teaching-learning process.
- So it is very useful in tackling the ills and problems facing the educational system. Today, no nation can attain its height educationally, economically and socially without ICT.

So the Information and Communication Technology has become a very effective tool in development of education system throughout the world. In India it is rapidly growing. Various initiatives are taken to encourage ICT in educational sector by the Government of India. So in present era the development of education sector is not possible without the Information and Communication Technology.

5. The positive impact of ICT on higher education in India

6. The negative impact of ICT on higher education in India

Everything has two impacts, one is positive and another one is negative. So we can say if there are some positive impacts of ICT on education, then there are also some negative effects of this. The following are some negative effects of ICT on the education:-

- Due to ICT in education, the personal interaction between students and teachers has reduced. It is not desirable to ensure high quality education.
- There are so many things which can be learned in the colleges or other educational institutions. So due to use of ICT only, the students cannot learn these important things, for instance ethics, moral values, and manners etc. which are important for their overall development.
- Students, however, feel lazy to attend the class if they can easily get the study material from the web.
- The student's sitting in front of computer or mobile phone for a long time may cause health issues such as stress and eye strain can affect a student in their education.
- Sometimes students think that they do not need teacher. Because they can get study material from the web. So sometime students show disrespect to their teachers.
- Sometimes the study material provided by the various websites is not of good quality.

- If there is lack of knowledge it can cause problems in the use of ICT. According to Pelgrum (2001), the success of educational innovations depends largely on the skill and knowledge of teachers. Teacher's lack of knowledge is one of the main hindrances to the use of ICT in education both for developed and underdeveloped countries.
- Teachers are burdened with heavy workload. So in these circumstances teachers don't have time to design, develop and incorporate technology in the teaching learning situation.

7. Conclusion

At the present time, ICT is very a powerful and effective tool for the development of the economy. It has become a driving force for the development of the higher education. The Government of India has been taking various initiatives to encourage ICT in higher education. It is very useful to ensure high quality education system. ICT integration in higher education brings a change in student and teacher learning behavior and develops higher order skills and solving complex problems. It has various positive and negative impacts on education, but its positive impacts overweigh its negative impacts. The teachers have to adapt continuous professional developments in the educational uses of technology. But proper care should be taken while using ICT in education sector. So the ICT enabled education will ultimately lead to high quality in education sector and overall development of the country.

References

1. https://en.m.wikipedia.org/wiki/Higher_education_in_India
2. <https://en.m.wikipedia.org/wiki/Education>
3. <https://www.ugc.ac.in/>
4. https://en.m.wikipedia.org/wiki/Gyan_Vani
5. <https://nptel.ac.in/>
6. Pelgrum, W.J.(2001), "Obstacles to the Integration of ICT in Education: Results from a Worldwide Educational Assessment", *Computers & Education*, 37, 163-178
7. https://en.m.wikibooks.org/wiki/ICT_in_Education
8. <https://swayam.gov.in/about>
9. <https://epgp.inflibnet.ac.in/>
10. <https://nlist.inflibnet.ac.in/>
11. <https://egyankosh.ac.in/>
12. www.slideshare.net/