



An Analytical Study of the Role of ICT in Higher Education

Abstract

Dr. Daksha Dave

Smt. M.M.P.Shah Women's College of Arts & commerce

The revolution in information and technology is resulted in drastic change in every aspect of economics. ICT made ridicules change in education, especially in higher education. Right from admission to till results every stages ICT playing very vital role. Traditional forms of teaching and learning are increasingly being converted to online and virtual environments. There are endless possibilities with the integration of ICT in the education system. The use of ICT in education not only improves classroom teaching learning process, but also provides the facility of e-learning. ICT has enhanced distance learning in the 21st century. Here attempt is made to find out “An Analytical Study of the Role of ICT in higher education in 21st century.” Study is based on primary as well as secondary data. The study found that teachers and students are using earnestly ICT for teaching learning process. It is also useful to solve their doubts and gaining knowledge of currents events and also providing global connectivity and competitiveness. Students can learn through various online courses which is helpful to increase their employability. At the same many issues and challenges also arise such as networking, collaborations with industry for internship, proper training etc. Any changes in system make little difficult but end is always fruitful, so the Role of ICT in higher education will lead nation's development.

Key Words: ICT, High Education, Learning process, Networking, Collaborations.

Introduction:

The Revolutions in information and technology is resulted in radical's changes in traditional system of every aspects of economy. Any nation's development depends on quality education. Education is prerequisite of one's development and it's considered as a valuable indicator of human resources development. In India after the LPG programme ICT industry developed very fast, use of ICT started in our day todays life. Use of ICT in education resulted in talent hub. Today India is considered as a talent hub to providing skill workers to world .Use of ICT in higher education is very common because of technology development. India has a massive 1.2 billion population (Census, 2011) of which a high proportion of them are young. The demand

for education in developing countries like India has skyrocketed as education is still regarded as an important bridge of social, economic and political mobility (Amutabi & Oketch, 2003). India has innumerable challenges in terms of infrastructure, socio-economic, linguistic and physical barriers for people who wish to access education (Bhattacharya & Sharma, 2007). However, it is hoped that ICT can transform the educational scenario in the country. But then, can it address these needs and perform multiple roles in higher education to benefit all stakeholders.

The role of teachers and students has entirely changed. Teacher has to shift their role from Knowledge transmitter to learning facilitator, primary source of information to collaborator, content expert to Mentor and source of all answers to, knowledge navigator and co-learner. Teacher has to give more options and responsibilities to students. Students have to play very active role in learning process.

Literature Review:

Plomp et al (2007) state that the experience of many teachers, who are early innovators, is that the use of ICT is motivating for the students as well as for the teachers themselves.

Bottino (2003) and Sharma (2003) mention that the use of ICT can improve performance, teaching, administration, and develop relevant skills in the disadvantaged communities. It also improves the quality of education by facilitating learning by doing, real time conversation, delayed time conversation, directed instruction, self-learning, problem solving, information seeking and analysis, and critical thinking, as well as the ability to communicate, collaborate and learn.

According to Al-Ansari (2006), a great deal of research has proven the benefits to the quality of education.

According to Tezci (2011), teachers should learn not only how to use technology to enhance traditional teaching or increase productivity, but also should learn from a student -centered perspective how ICT can be integrated into classroom activities in order to promote student learning. This means that teachers need to use ICT in more creative and productive ways in order to create more engaging and rewarding activities and more effective lessons.

Objectives of the Study:

- 1) To analyze the overall effects of ICT in Higher Education.
- 2) To analyze the issue and challenges related to ICT to students points of views.
- 3) To analyze the issues and challenges related ICT to teachers points of views.
- 4) To suggest some remedies to effective use of ICT.

Research Methodology:

The study is based on primary data as well as secondary data. Sample of 100 students from different faculties and 20 teachers were given questionnaire. Based on the response of the questionnaire data analyzed. And conclusion derived.

Scenario of Higher Education in India:

According to AHISMA report in India totals 903 universities. Among 903 Universities, 343 universities are privately managed and 357 Universities are located in rural area. Total enrolment in higher education has been estimated to be 36.6 million with 19.2 million boys and 17.4 million girls. GER for male population is 26.3% and for females, it is 25.4%. For Scheduled Castes, it is 21.8% and for Scheduled Tribes, it is 15.9% as compared to the national GER of 25.8%. Distance enrolment constitutes about 11.0% of the total enrolment in higher education, of which 41.9% are female students.

Over all effects of ICT on Higher education: ICT makes positive effects in increasing their efficiency and competitiveness in higher education institutions. Things can be used in the education management staff attendance, library management, equipment management. Information technology is widely use in education. ICT started on line admission process for transparency and time saving. Government is also providing opportunities to remote area students to connect with globally through ICT. Collection of fees through RTGS/NEFT makes more easiest way. ICT is an easy way of learning like project-based in which teachers don't give lecture but give students problems to answer for example online lectures. Internet give us help to find the answer on our computers at home. Teachers help students find answers on their own through internet and through online system. Computers and the Internet give student's easy way to research materials that they need to complete such projects and works. In differentiated learning, students work through material at their own computers/ mobile. Students use a specialized computer appliance that covers the subject and assesses student progress, while a teacher assists and answers questions. Students and teachers both are helping for the promotion of I T and in education sector. Informational technology is simply and very rapidly transforming higher secondary education in developed nations to a degree hardly possible only one generation ago colleges. High schools, vocational schools, universities, and all affected by the information technology, at all levels and in innumerable respects Especially in, IT has affected online education from other countries and allowing school calendars to be designed to accommodate the needs of individual students on one hand and faculty on the other, thus moving many elements of the educational process into the virtual world.

Findings of the Study:

From Students side:

- ❖ 90% students reported that digitization of admission process. Exam form and results provides big relief. Digitization of college and University library provide easy excess of books and study material.

- ❖ 99% students are happy to using ICT for their study. They are getting ready information on one click, so its time saving and it can be use 24/7. Due to this they are prefer to study at night.
- ❖ 50% students reported that ICT makes difference in presentation and communication skill. With the help of PPT, Video, Documentary film and other tools help to make their presentation more effective and lives.
- ❖ 55% are working students so they are unable to attend the regular college classes. These students are in touch with their classmate; with the help of their friends they are getting notes and information regarding syllabus, projects, internal test and other activities through ICT.
- ❖ 90% students believed that it is money saving also because they are getting expert lecture, views, and guidance free of charge through you tube, E-mail and Scholar group.
- ❖ 80% students reported that many institution providing free online course which is helpful to increase their skill and employability.
- ❖ 90% students responded that they have their subject what's up group, though they can discuss their doubts and difficulties with their friends and findings solutions.
- ❖ 95% students are believed that they are interacting with globally and updating their knowledge regarding current affairs which is helpful to face competitive exams.
- ❖ 100% students are agreed that to save environment paperless approach is useful. Instead of writing in the notebook and purchasing books they preferred online E- content reading material.
- ❖ 80% students are reported that many time use of ICT is over and time wasting. In general they are spending more time in useless discussions and chatting.
- ❖ 80% reported that many time they found that online information quality is not up to the mark. If they want good quality material they always preferred standard books and reference books and periodicals from the library.
- ❖ 50% students reported that many time issues arise of connectivity and infrastructure. When they have to submit their important things always website has some problems.

Teachers Views:

- ❖ 95 % teachers reported that use of ICT created big difference in teaching learning methods. Instead of chalk and talk method they are using various techniques while teaching in the classes.
- ❖ 20% teachers are using smart classes for their teaching.
- ❖ 90% teachers are agreed that they are getting updated knowledge especially important statically information through government website and many other authentic website which is helpful to provide up to date information to the students.
- ❖ 60% teachers reported that they are discussing current affairs and its impact on global level and also using data or events to make comparative study.
- ❖ 98% teachers reported that through ICT they can easily convey their messages to their students. It is very helpful in emergency circumstances.
- ❖ E- Content development should develop and it is benefitted to other college and distance learners also.

- ❖ 98% teachers are agreed that for research work ICT is very useful. Through Emails they can send their guide whatever work has been done by them. Even guide can also pass their comments on same file .Any changes or suggestion immediately possible. It is a time saving, money and energy saving. They can also approaching the other expert as a consultant of their research project. Many times they are sending their questionnaire through emails.
- ❖ 100% teachers are agreed that data analysis of their research is very easy for them through ICT data analysis programme. Preparation of statically table and graphical presentation of research data is very speedy through ICT.
- ❖ Research data analysis result is more comprehensive through data analysis software.
- ❖ 50% teachers are part of scholar group or they are connected globally same profession group which is helpful to exchange and sharing their ideas and views on their interest areas.
- ❖ 40% teachers reported that preparing E- Content and use of ICT creates burden over them. Many of are not familiar with utilization of laptop and modern use of technology.
- ❖ 50% teachers are reported that they are facing problem of connectivity and electricity cut etc.

Suggestions:

The teaching community is able to reach remote areas and learners are able to access qualitative learning environment from anywhere and at any time, still there are some challenges and issues. If we can manage certain things it will help to development of the entire education systems. Following are the main suggestion to improve the use of ICT in higher education.

- 1) Teachers or trainers should be made to adopt technology in their teaching styles to provide pedagogical and educational gains to the learners.
- 2) Students should be positive, innovative and ready to accept new technology in study.
- 3) To avoid copy paste and duplication in research and study material certain system should be develop at lower cost.
- 4) To provide sufficient funds to maintain ICT, up gradations of ICT tools.
- 5) To avoid corruption in implementation of government schemes and also avoid the influence of political leaders.
- 6) Successful implementation of ICT to lead change is more about influencing and empowering teachers and supporting them in their engagement with students in learning rather than acquiring computer skills and obtaining software and equipment. ICT enabled education will ultimately lead to the democratization of education.
- 7) Sufficient and good quality of infrastructures should be spread to remote areas.
- 8) All facilities should be economical affordable and protective.
- 9) Online courses should be at very lower cost and useful in to increase the employability.
- 10) To provide free coaching and guidance will help to students to face competitive exam especially weaker sections of the society.

Conclusion:

India has million plus population and higher proportion of the young and hence it has a large education system still it is insufficient and dropout rate is also high. In this Circumstances.

ICT is helpful to develop distance learning and online education. ICT has the potential to remove the barriers that are causing the problems of low rate of education in any country. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers. In the new global economy people have to access knowledge via ICT to keep pace with the latest developments. ICT can be used to remove communication barriers such as that of space and time also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time. ICT enhances the international dimension of educational services. It can also be used for non-formal education like health campaigns and literacy campaigns .Use of ICT in education develops higher order skills such as ICT presents an entirely new learning environment for students, thus requiring a different skill set to be successful. Critical thinking, research, and evaluation skills are growing in importance as students have increasing volumes of information from a ICT has enhanced distance learning in the 21st century.

References:

- 1) Afshari et al. (2009), “Factors affecting teachers’ use of information and communication technology”, *International Journal of Instruction*, 2(1), 77-104
- 2) Maniar, A. and Bhatt, D. (2007). “Designing Educational CD-ROM for Higher Education Students”, *University News (A Weekly Journal of Higher Education)*, Vol. 45, No. 20, May 14-20, pp.15-18.
- 3) Manoj Kumar Desh (2007). “Integration of ICT in Teaching Learning: A Challenge”, *EDU TRACKS*, Vol. 6, No. 12, August, p.11.
- 4) Singh, H. and Mishra, R.S. (2009). “Effectiveness of E-Learning : An Experimental Study”, *University News*, Vol. 47, No. 27, July, pp. 20-21
- 5) Sanat Kaul (2006), “Higher Education in India: Seizing the Opportunity”, (ICIER Working Paper No. 179), New Delhi: Indian Council for Research on International Economic Relations, (<http://www.icier.org>).
- 6) Sharma, R. C. (2003), “Barriers in Using Technology for Education in Developing Countries”, *Information Technology: Research and Education, Proceedings ITRE2003, International Conference on*.
- 7) Sukanta, S. (2012), “Role of ICT in Higher Education for the 21st Century”, *Science Probe*, 1, 30-41. Volmano-1.