



IMPACT OF ICT ON 21ST CENTURY LEARNING

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ABSTRACT

In the 21st century, with the advent of ICT as well as internet, physical boundaries are vanishing, distances are shrinking and the world is connecting itself into a single global village. Every aspect of life of the human being either personal or professional is now interconnected with Information communication Technology (ICT). The ICT intervention has revolutionized all the major sectors in the world either service oriented or product oriented. The education sector is one of the major beneficiaries of ICT and it provides various usages which are really helpful in creating a new era of classroom.

Key words: Impact, ICT, 21st century, Learning

Introduction

ICT means information and communication technology and in the modern era it helps to enhance, processing and communicating with the desired type of information. People who are working in academic institutions and development agencies, they use ICT to solve the challenges and find different ways to assist students and clients as well as it also helps the students in their learning environment with various learning strategies. ICT will help the students to become confident and with the help of advanced technologies. Now, classrooms are enhanced from the days of chalk and talk and for the effective learning of the students, overhead projectors and multimedia presentation techniques are using with advanced software. Schools and universities are now adopting ICT and computing technology in every classroom to improve the academic outcomes of students and to enhance the productivity of teachers.

ICTs can be described as a different set of applications and services used to produce, store, process and exchange information. Telephone, radio, televisions are now called traditional ICTs. Newer ones are personal computers, mobile phones, network, satellite, I pods, wireless sets, and internet that help people's to gather information and communication through the same. ICT in education are described in the different literature as an assisting tool for making assignments,

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documentation and conducting research as well as ICT also helps to improve the classroom learning of students and to develop learning environments. ICT can be considered as a subfield of Education technology (UNESCO, 2005).

The term ICT is defined in numerous ways. Few of them are given below:

ICT is "the combination of information technology with other, related technologies, specifically communication technology" (UNESCO, 2002).

Weigel (2004) states that "ICT refers to technologies designed to process and transmit information. ICT encompasses as a full range of technologies from traditional, widely used devices such as radios, telephones or TV, to more sophisticated tools like computers or the internet. The mix of technologies used should be determined mainly by specific local context and demand".

In the views of Okauru (2011), "ICT is the digital processing and it utilizes the data and information with the help of electronic computers as well as ICT also comprises the storage, retrieval, conversion and transmission of information".

Need of ICT

In the view of McGorry (2002) ICT based teaching is necessary to enhance the student learning in classroom as well as it is capable to abolish the barrier that are causing problems of low rate of education in any country. ICT also helps as a tool to decrease the issues of cost, a smaller number of teachers in the institution or school and in order to improve the quality of education as well as to overcome time and distance barriers.

National Curriculum Framework (NCF, 2005) highlighted the need of ICT in 21st century classroom learning. ICT plays a vital role in developing knowledge in teachers as well as in their students (Singh, 2005). ICT brings competency by providing facilities the educational transaction between provider and user by keeping students well informed about the courses, enhancing teacher –learner contact, encouraging

active learning, sharing ideas, providing immediate feedback and allowing for effective mapping of learning pathways. ICT is the gift of information technology and has opened new vistas for social and economic development of each and every country of the globe. It is estimated that the contribution of knowledge led to the development of ICT will double the global GDP (Lobo, 2006).

Shallsuku (2012) reveal in his study stated that the ICT has brought revolution in education field. ICT is one of the effective medium to impart education and it has become an exhortation in Indian education system. Oliver (2013) states that adoption of ICTs into classroom and learning settings has increased efficiency in terms of flexible program delivery.

Benefits of using ICT in classrooms

- As far as benefits of ICT are concerned, first of all it really helps the teacher to understand the subject deeply and find out the new areas with which they can do help with the subject and as well with the students.
- It enhances student's motivation to learn.
- Better decisions are made as more information can be more readily available in a timely way to support decision.
- Appreciable amount of time saving.
- It envisages more informal interaction between teachers and students.
- It helps the teacher to learn by exploring more and more opportunities.
- It reinforces self- learning.
- It opens avenues for new curriculum and new services like distance education.
- It helps in accessing for new curriculum and new services like distance education.
- It helps in accessing high quality learning materials.
- Learners can learn and work their own pace.
- Learners can get information clearly.

Present scenario of ICT

In December 2004, Information and Communication Technology (ICT) was launched and in 2010 it was revised to provide opportunities to students to enhance their capability on ICT skills as well as make them learn through ICT in learning process. The scheme support States and UTs to establish computer labs in every institute as well as introduction of smart schools, which shall be 'Technology demonstrators' (MHRD, 2011).

In India the education system has been on the rise over the last decades. Government of India

(GOI) conducted census in 2011 and it shows that the literacy rate of country has improved from the 64.8 % in 2001 to 74% in 2011. India is vast in case of market opportunity for education and it also boasts a network there are approximately 1 million schools and 18, 000 higher institutes. ICT deployment range from multimedia in private schools and low cost devices are using in government schools to online coaching and electronic classroom content.

Student's strength is increasing due to the awareness of education, govt .policies and facilities to promote the education system. The ICT use in education is now improved from last years with several initiatives from the government side. There is one of the ICT contributions in the field of education is easy access to learning resources and examination results that are held by several boards, institutions, commissions are available online and give information to students through email-id, text message on phone and interactive voice response system (IVRS). For professional degree courses there is an online admission. Counseling is also available as well as it provides the information about scholarship and educational loans. Information for foreign universities about admission is also available for the students.

Online education system has become popular in India for delivering education services and there are online test preparations, online courses and exams to implementing the school management systems for teachers so they can easily manage student grade databases. The market is valued at US\$ 20 billion and is expected to double by 2017.

Distance education is being run for the remote areas students so they can easily continue their education. For the students and teacher's convenience, NCERT text books from 1st to 12th classes have been uploaded online as well as previous entrance and competitions exam papers are available online. Facility is being provided by IGNOU. ICT helps the students in their learning with different ways now students can easily use e-books, sample examination previous papers. With the help of ICT students can easily access to their experts, professionals, mentors as well as to their peers.

Indian Institute of Technology, Kanpur made Brihaspati and it is one of the contributions of ICT and it encourage to students to take risk, and inspires them to become lifelong learners. Brihaspati, a virtual classroom and it is also a web-based E-learning, which enhance campus learning by sharing materials of course,

class discussions and making assessments on the web. For the betterment of learning it used for display E-learning content and it is open source software tool and used by any university. E-pathshala, Saaransh, National Programme on School Standards and Evaluation Framework (Shala Siddhi) are web portal/ mobile app which will help student in their learning.

ICT ranking of India: According to ICT development ranking India has 121st position currently among other 157 countries. The percentage of individual using internet in India is position 145th out of about 200 countries and in case of mobile broadband penetration India has been position 106. Mobile phones are playing a major role to enhance ICT. All over the world the number of individuals using internet on their mobile phones is 159 million while internet users' number is 302 million, in 2015 by in the end of 2016 it has been estimated that internet penetration in India will reach 330 million. Telecom Regulatory authority of India (TRAI), reveal that India has mobile phone connection of 930 million and by 2016 India is going to have 200 or more smartphones.

Among 145 million young internet users in all the developed countries digital natives are estimated to be 86.3% comparing with less than half of young internet users having number of 503 million in developing world in next 5 year. Population of digital native in developing countries is estimated to get more than double and this will make a huge change to these countries.

Some barriers:

- Due to faith in old methods, most of the teachers prefer the traditional method of teaching as well as they fear that ICT might bring undesirable changes in classroom teaching.
- There is insecurity in the minds of the teachers when they are asked to use ICT in the classroom because the teaching which was carried out by teacher is now easily done by the CD-ROM. Advanced ICT equipment cater to the needs of a large number of students at the same time and now projected aids act like a virtual teacher.
- Technophobia is also a barrier in using ICT in classrooms. Many of the teachers develop a fear that they might spoil the equipment by using ICT improperly.
- Some teachers, who are motivated and desirous to use ICT in classrooms, but they are facing pressure of policies of the

institution, tight schedule of activities, lack of time in using this equipment so this reduces interest in using ICT in the classrooms.

- In developing countries like India, electricity, network and other facilities are not properly available here to solve the problems of education and they are not getting proper power supply as well as companies are also not providing proper network.
- Problem of motivation and aptitude is also a major barrier due to wide variety of personal and organizational causes.
- Shortage of funds is also act as a barrier in the use of ICT. Government and non-government schools hesitate to invest in ICT as well as funds required for ICT are much higher and its usage demands a lot of maintenance cost.

Suggestions

Our education system is moving forward with the help of technology and to enhance the learning, ICT should be compulsory as well as to grow and develop the present scenario of education, we have to develop the root level, so classroom learning can be improved easily. ICT also supports to improve the quality of education with innovative ways of teaching. There are various suggestions to improve the learning of students such as:

- Teacher should be taken enough logistic support for all students in order to allow have regular access to ICT facilities within the classroom and every academic institution as well as With ICT, educational institutions and teachers should support to students so they can enhance their academic performance as well as Govt. of India should provide training to teachers and organized workshop on ICT how it can help the students for effective classroom learning.
- What matters is mainly how you use the things not what things you are using ICT should be understood in amended and more creative ways it should as concise as possible.
- Teacher should be confident enough to bear any risk with trying out new things teacher should be trained to get knowledge about ICT and use it classroom as it makes teaching qualitative..

- In-service and pre-service programmes should be organized with the focus of ICT orientation and different time to time workshop should be organized for the teacher to update and impart new ICT skills.
- ICT should be integral part of the teacher education curriculum for developing the attitude toward the use of ICT.
- ICT literacy programs should be organized in order to develop the skills and conceptual knowledge as well as dedicated teachers with appropriate qualification should be in each school.
- In order to enhance creative, aesthetic, analytical and problem-solving capabilities in both teachers and students, numerous applications, tools and interactive devices ought to be promoted.
- ICT curriculum for students is considered as essential vehicle for understanding the goal of the NCF (National Curriculum Framework). ICT also helps the students to explore the things in different ways and provide wide range of information. Moreover, it not only supports in their learning but also present different activities for them to enhance their intellectual knowledge skills and imagination. So, the curriculum should be organized with these four strands:
 - Connecting with the world
 - Connecting with each other
 - Creating with ICT
 - Interacting with ICT

Conclusion

Pitfalls are going to happen every day. But as we know that where there is a will there is always a way, so by our hard work we can overcome the different problems. Thus, teachers will be comfortable when they use ICT in their classrooms, and expertise their technological skills. In the limelight of advanced technology, the youths will be motivated to perform their jobs in a planned and speedy manner, which will help in the fast progress of the country and thus make India the new super power of 21st century.

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