

GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES THE COMPACT DISCOURSE ON CONTRIBUTION OF ICT IN VALUE EDUCATION

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ABSTRACT

In the knowledge society, the developments in Information and Communication Technology (ICT) opened up new and cost-effective approaches for expanding the reach of education to children, youth as well as to those who need continuing education to meet the demands of explosion of information, fast-changing nature of occupations and life-long education. This study discussed about the role of ICT in the process of teaching and learning. The study describes the need and scope of ICT in educational institutions. Moreover, the study describes tools that assist effectiveness of teaching learning process.

Keywords: *Role of ICT in Education, Scope of ICT, Need of ICT, Tools to assist Teaching.*

I. INTRODUCTION

It is rightly reflected in the report of education commission 'Education and National Development' that the destiny of India is now being shaped in her classroom. The future of any nation depends upon the schools and teachers. National policies on education 1968 and 1986 subsequently revised in 1992 affirmed consistently that the "education is a unique investment in the present and in the future", and recommended that education should provide people with an opportunity to reflect on the social, economics, cultural, moral and spiritual issues facing humanity. Therefore a great deal of responsibility is on the shoulders of Education system and especially on teachers.

The significant development affecting education in the coming decades will be the application of information technology as it has the potential to bring a drastic change in the total system of education. Computers or information technology will not by itself solve educational problems. As observed by Bill Gates, "The first principle for any technology is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to and inefficient operation will just entrench the inefficiency." ICT encompasses all forms of electronic communication in both digital and analogue form. The digital electronic devices include computers, CD players, cellular telephones, and satellite broadcasting while analogue devices are largely confirmed to conventional radio broadcast technology and audio such as tape recorders. The global spread of computers and the internet has changed the way people communicate and develop networking. This digital revolution has made remarkable impact on education too. This technology is a tool in the hand of educationists for solving the problem in the area of education like, access to education, quality education, and opportunities for life-long learning. The promise that ICT holds for education in such a context is undeniable. By developing open, virtual and distance learning options it can decentralize educational administration. ICT has a potential to promote increased community involvement and can be used to teach about the technology itself, helping people acquire the skills and competencies needed for the future life.

II. LITERATURE REVIEW

Irshad et al. [1], discussed that information technologies facilitate teaching learning process in more productive fashion. Similarly, the role of teacher is also different in new settings than in the conventional system. Teacher facilitates and guides the learners in their study playing the role of a coach or mentor.

Baishakhi et al.[2], states the role of ICT in teaching in 21st century. Authors discussed that teachers must know the use of ICT in their subject areas to help the learners for learning more effectively. Moreover, the knowledge of ICT is very much essential for the both prospective teachers as well as in-service teachers also. This will help teachers to know integrated technology with classroom teaching

Guma et al. [3], states that teaching staff and administrators had a strong desire to integrate ICT into teaching-learning processes. The innovations that ICT has brought in teaching- learning process include: E-learning, e-communication, quick access to information, online student registration, online advertisement, reduced burden of keeping hardcopy, networking with resourceful persons, etc. Therefore, the training of teaching staff in the pedagogical issues and administrators in administration should be increased if teachers and administrators are to be convinced of the value of using ICT in their teaching-learning process and administration.

Albert et al. [4]analyse what is happening at schools regarding the integration and use of information and communication technologies (ICT) and to examine teachers' perceptions about what teaching and learning processes can be improved through the use of ICT. Authors applied multiple-case-study research methodology and results that to attain this highest level implies that a school not only has to modernise the technological tools, but also has to change the teaching models: the teacher's role, issues regarding classroom organisational, the teaching and learning processes, and the interaction mechanisms.

III. NEED OF ICT IN EDUCATION

ICT should become a part of all the activities of the educational institutions. There should be equal opportunity and access to all teachers to be able to use ICT as a tool for effective learning. The role of educational institutions is to enable students to use, explore information through emerging technology, independent learners and be responsible and operate in a world where tasks and responsibilities are changing fast. Following point demonstrates the need of ICT in education.

- Education is a life-long process therefore anytime anywhere access to it is the need.
- Information explosion is an ever increasing phenomena therefore there is need to get access to this information
- Education should meet the needs of variety of learners and therefore IT is important in meeting this need.
- It is a requirement of the society that the individuals should possess technological literacy.
- We need to increase access and bring down the cost of education to meet the challenges of illiteracy and poverty-IT is the answer.

IV. SCOPE OF ICT IN EDUCATION

The information and communication technologies have made their impression on the whole educational environment i.e. curriculum transaction, administration and management of the educational institutions at various levels. International forum for educators to discuss research and practices in teaching learning and its other applications involving innovations in curriculum, its organization, construction and implementation advocated that the widespread access to ICT facilities would sporadically reduce the burden on teachers and educational institutions in terms of keeping the attendance record, planning at various levels, giving assignment and homework, assessment and reporting etc. Following point demonstrates the significance of ICT in education.

- *Access to variety of learning resources*

In the era of technology, ICT aids plenty of resources to enhance the teaching skills and learning ability. With the help of ICT now it is easy to provide audio visual education. Now with this vivid and vast technique as part of the ICT curriculum, learners are encouraged to regard computers as tools to be used in all aspects of their studies. In particular, they need to make use of the new multimedia technologies to communicate ideas, describe projects, and order information in their work.

- *Immediacy to Information*

ICT has provided immediacy to education. Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated anywhere at any time. New IT has often been introduced into well-established patterns of working and living without radically altering them.

- *Any time learning*
 Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated .One can study whenever he wills irrespective of whether it is day or night and irrespective of being in India or in US because of the boom in ICT.
- *Collaborative learning*
 Now ICT has made it easy to study as well as teach in groups or in clusters. With online we can be unite together to do the desired task. Efficient postal systems, the telephone (fixed and mobile), and various recording and playback systems based on computer technology all have a part to play in educational broadcasting in the new millennium. The Internet and its Web sites are now familiar to many children in developed countries and among educational elites elsewhere, but it remains of little significance to very many more, who lack the most basic means for subsistence.
- *Multimedia approach to education*
 Audio-Visual Education, planning, preparation, and use of devices and materials that involve sight, sound, or both, for educational purposes. Among the devices used are still and motion pictures, filmstrips, television, transparencies, audiotapes, records, teaching machines, computers, and videodiscs. The growth of audio-visual education has reflected developments in both technology and learning theory.
- *Authentic and up to date information*
 The information and data which are available on the net is purely correct and up to date.
- *Online library*
 Internets support thousands of different kinds of operational and experimental services one of which is online library. We can get plenty of data on this online library.
- *Distance learning*
 Distance Learning, method of learning at a distance rather than in a classroom. Late 20th-century communications technologies, in their most recent phases multimedia and interactive, open up new possibilities, both individual and institutional, for an unprecedented expansion of home-based learning, much of it part-time.
- *Better accesses to children with disabilities*
 Information and Communication technology has brought drastic changes in the life of disabled children. ICT provides various software and technique to educate these poor peoples. Unless provided early with special training, people profoundly deaf from birth are incapable of learning to speak.

V. TOOLS TO ASSIST TEACHING

There are different tools that can be used to assist teaching in better way. This section entitles some of the tools mostly used while teaching.

- *Chalkboard/white board/overhead:*
 Instead of writing on the board, instructor or a student takes notes on the computer and projects this onto the screen so the whole class can see this. This method enables the students to read what has been written more easily than instructor's handwriting, this can then be saved as a record of class then e-mailed to the whole class or posted on the course web page, Students can work in small groups and use laptop computers to take notes on their group's discussions.
- *PowerPoint*
 PowerPoint method emphasis teaching in more effective manner. We can use slides, pre-prepared overhead transparencies, and even video to deliver lectures and student can use them to effective learning process:

- *Course web pages:*
 Having a collection of pages for each course (a course site) that includes some or all of the following: syllabus, class schedule, assignments, links to readings, on-line class discussion, posting of student work, on-line testing.

- *Internet*
 Outside of class: Required readings (having students read specific web pages as assignments). Especially useful: on-line journals (e.g. ISTE), Student research (for sites on specific topics)

In-class use: Instructor integrating web sites into teaching of lesson, Having students use specific sites during class, either working in groups, using their laptops, or in computer lab, with one or two students per computer Having students integrate web sites into class presentations (so that as students present to the class, they project the web site onto the screen and use this as part of their presentations)

- *Online discussion forums:*
 Using TopClass, Web Crossing, or Tom Bacig'sboard. Students to continue class discussions outside of class, Outside "speakers" can join in class discussions online, Using folders within the discussion forum, students can "meet" online to do group projects, Distance education classes can meet online.

- *Class e-mail alias:* For instructor to provide updates and reminders to students, to e-mail students copies of work developed in class (e.g. instead of writing on the board, instructor or a student takes notes summarizing class discussion or group work, and then this is e-mailed to the whole class).

VI. CONCLUSION

In nutshell, Information and Communication Technology plays a vital role in the process of teaching and learning. This study discussed the importance of ICT in teacher learning process, the need and scope of ICT in education. The future perspective of the study is to detailed study of role of ICT in India and various countries.

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