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# ROLE OF ICT IN TEACHING -LEARNING PROCESS

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#### Abstract

ICT enables self-paced learning through different tools such as assignment, computer etc as a result of this the teaching learning activity has become more productive and meaningful. ICT helps facilitate the deal between producers and users by keeping the students updated and enhancing teachers ability and skill development a live contact between the teacher and the student through e-mail, chalk session, e-learning, web-based learning including internet, intranet, extranet, CD-ROM, TV audio-videotape. Educate technology has become very powerful media for interactive participation of experts and learners and it reaches the unreachable. Emerging learning Technology (ELT) of bogging, Integrated Learning Modules, a pod cast, Wikis, Enhancement of Browsers, e-learning, M-learning, U-learning have started making rapid strides in teaching learning processes.

**Keywords** – Web Browsers, Technology enhanced learning, Use of Immerging Learning Technology, Use in Teacher Education.

#### Introduction

The world that awaits us is a world of huge technical change presently the world is inhabited by very large number of scientists and technologists and they are more than the scientist and

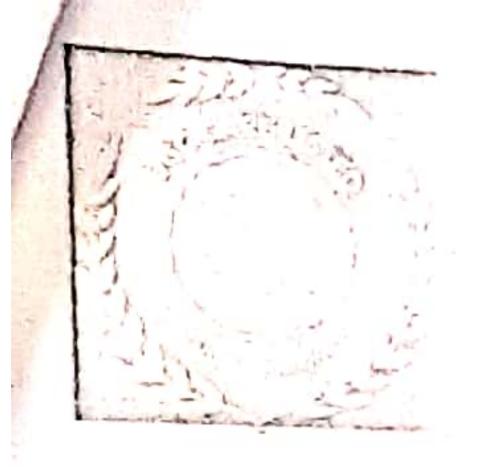
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technologist that have lived on it during the history of mankind. All developments mainly on the economic growth of the nation are based on updated knowledge and information into economic activity has resulted in a profound structural and qualitative change. A web browser is an application which is used to access and view a particular websites. There are Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari. HTML is rendered by a web browser. The new environment of interactive learner-centered approach of ICT has completely meta-morphosised the process of education i.e delivery and dissemination. The technological creativity learner will help generate sharing of knowledge to perform tasks in a better way and to develop their capacity and skills to keep pace with the rapid changes but the pace of change is so fast that what was avant-garde few years ago is just a thing of past. We must not allow the ICT related opportunities to slip out of our hands. We must empower our youth with the latest technology to tap the latest skills and hidden potential of our youth population. There is considerable hope that technology can expand and improve education in all levels with special reference to design and content of instructional materials, delivery, and assessment and

feed back. In technology enhanced learning (TEL) teacher's role will be more challenging and definitely different from what is presently the traditional class room teaching. In the new role he will be more a director/coach or a facilitator, because the TELenhances the quality of teaching and learning by arousing inquiry, curiosity and exploration. ICT will afford opportunity to the individual for self-paced learning, which caters to learner's abilities and aptitude. The paper attempts to discuss the role of ICT in teacher education, in digital media, emerging learning technology.

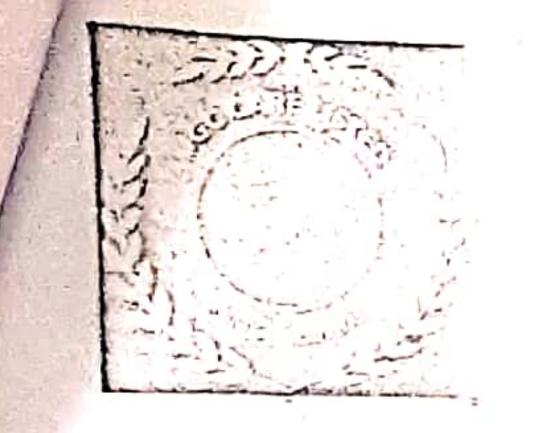
Importance of ICT Education:

One of the major advantages of using ICT's in the class room has been to prepare. The present and next generation of students for a workplace where ICT's particularly computers internet and others related technologies are becoming more and more important. These computer savvy and

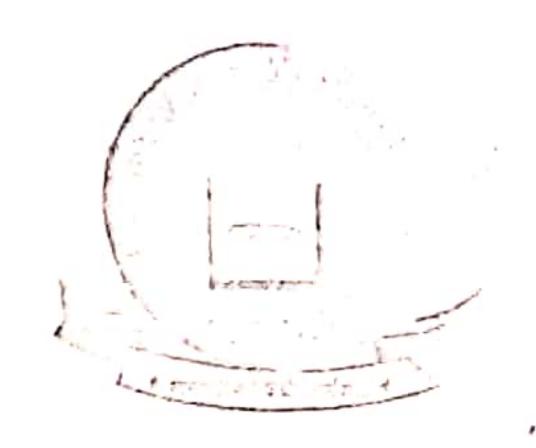
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technologically literate students possess the desired competencies to use ICT's effectively. These knowledgeable persons possess

the competitive edge in an increasingly uncertain globalizing job market. Along with the technology literacy development of specificity skills are also required. For well paying jobs specifically of skill is of the primary importance. ICT which includes radio and television as well as other high technology newer digital devices such as computers and Internet have been treated as generally powerful enabling tools for educational change and reform. On-line teaching as innovative teaching has been accepted widely, which includes on-line net working, role of e-moderator, e-learning? Web –sites which are very popular with teachers and students are Google, Yahoo, Gmail, Rediffmail, Wickipedia. The modern concepts of ICT have helped professionals to cope the challenges for digital information and technology through the

(a) Acquiring Digital Media

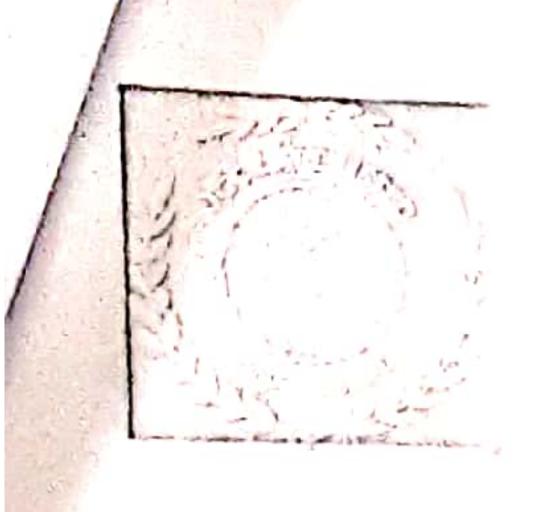
development of digital literacy resources. This can be built by:

(b) Buying Access etc

The role of computers in Education computers is generally helpful for educational activity which requires significant interaction for that instructional software should be highly interactive. Interactive learning environments are called Intelligent Testing System. Because of their interactive capability computers provide individualized and self-paced learning. SW may be customized to meet the specific requirements of the individuals depending upon their diverse background and abilities. The use of word Excel, Access, PowerPoint, animation, graphics can be utilized to enhance the learning of content. Computers are good for explaining complex processes. Computer-aided learning is not a replacement technology but a complementary tool. Computers are useful for teaching, problem solving and decision making skills. UGC has also initiated the process of computerization of University and College libraries providing internet connectivity and now through UGC-INFONET which is planning to provide those facilities like Excess to journals, CAL and E-governance to become reality. Electronic journal may be defined

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as any journal, magazine, e-zine, Webzine, news letter or type of electronic serial publication which is available over the internet and can be assessed using different technologies such as World Wide Web (WWW). From the year 1980 Gopher, ftp, telnet, e-mail or listserv a few publishers namely Elsevier, Academic, Springer etc had offered access to their on-line journals free of cost.

# Use of Emerging Learning Technologies (ELT)

We may have heard the names of following terms without understanding. Here are few ELT which are in use:

Blogging: A blog (a blend of the term web log) is a type of website or part of a website. Blogs are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Most blogs are interactive, allowing visitors to leave comments. The ability of readers to leave comments in an interactive format is an important part of many blogs. Most blogs are primarily textual, although some focus on art photographs, videos, music and audio.

### Integrated Learning Modules:-

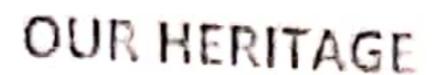
Accessibility of open source software has enabled development of substance management system and learning management system such as a Module. Integrated Learning Module (ILM) is thematically paying attention classes, delivered primarily over Internet. The course content is integrated and comprehensive creating a unique perspective on course themes without the potentially repetitive requirements of separate stand-alone courses. Content and language integrated learning is an approach for learning content through an additional language (foreign or second language) thus teaching both the subject and the language.

### Why do we use ICT in teacher Education?

The classroom is now shifting its look from the traditional one i. e. from one way to two way communications. Now teachers as well as students participate in classroom debate. Now

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Education is based on child centric education. So the teacher should prepare to cope up with different technology for using them in the classroom for making teaching learning interested. For effective accomplishment of certain student centric methodologies such as project-based learning which puts the students in the role of active researches and technology becomes the appropriate tool. ICT has enabled better and swifter communication; presentation of ideas more effective and relevant way. It is an effective tool for information acquiring-thus students are encouraged to look for information from multiple sources and they are now more informed then before. So for this reason ICT is very much necessary for Teacher Education. Recent Trends in Teacher Education:- Based on various changing needs of our society now emphasis is also given to the various educational theory and educational practices. According to these theories and practices changes are also undergo in teacher education also. It is natural that teacher education must include new technology. Teachers should also know the right attitudes and values, besides being proficient in skills related to teaching. As we know the minimum requirement of any training programmed is that it should help the trainee to acquire the basic skills and competencies of a good teacher. Now-a-days new trends in teacher education are Inter-disciplinary Approach, Correspondence courses, orientation courses etc. Simulated Teaching, Micro Teaching, Programmed Instruction, Team Teaching are also used in teacher education. Now-a-day Action Research also implemented in Teacher Education. ICT acts as the gateway to the world of information and helps teachers to be updated. It creates awareness of innovative trends in instructional methodologies, evaluation mechanism etc. for professional development.

# Different Strategies for applying ICT

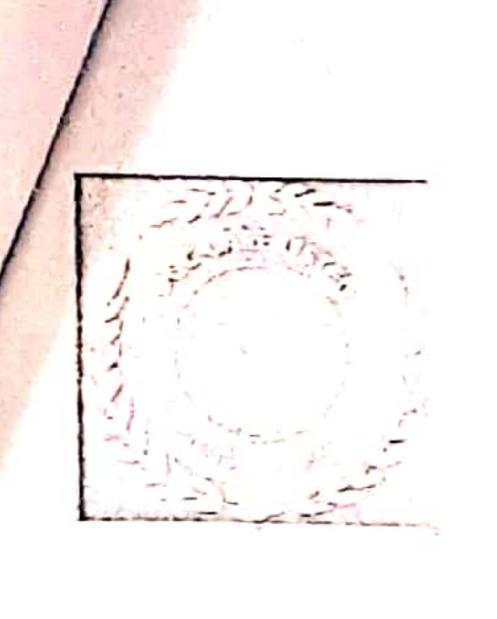
- i) Providing adequate infrastructure and technical support.
- ii) Applying ICT in all subjects.
- iii) Applying new Pre-service teacher Education curriculum.

Role of ICT In Teacher Education:-

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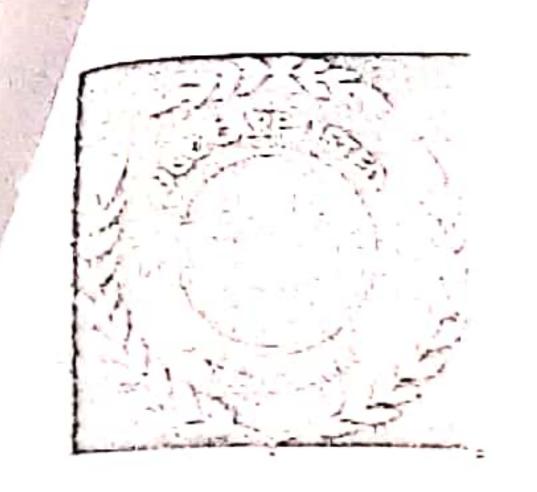


- ICT helps teachers in both pre-service and in-Service teachers training.
- ICT helps teachers to interact with students. It helps them in preparation their teaching, provide feedback.
- ICT also helps teachers to access with institutions and Universities, NCERT, NAAC
   NCTE and UGC etc. It also helps in effective use of ICT software and hardware for teaching—learning process.
- It helps in improve Teaching skill, helps in innovative Teaching. It helps in effectiveness of classroom. It also helps in improving professional Development and Educational management as well as enhances Active Learning of teacher Trainees. It is now replacing the ancient technology. As we know now-a day's students are always have competitive mind. So teacher must have the knowledge of the subject. This can be done through ICT.
- ICT helps teachers in preparation for teaching. In order to introduce ICT in pre-service
  teacher education different methods and strategies are applied. Different tools are used
  such as word processing, Database, Spreadsheet etc. Various technology based plans are
  used to help the teachers for their practice teaching.
- ICT prepares teacher for the use of their skills in the real classroom situation and also
  make students for their future occupation and social life.
- ICT used as an "assisting tool" for example while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently from the subject matter. ICT as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.

Conclusion:

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Teaching occupies an honorable position in the society. ICT helps the teacher to update the new knowledge, skills to use the new digital tools and resources. By using and acquire the knowledge of ICT, student teacher will become effective teachers. ICT is one of the major factors for producing the rapid changes in our society. The adoption and use of ICTs in education have a positive impact on teaching, learning, and research.

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