



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## APPLICATION OF ONLINE ICT TEACHING & SERVICES IN LIBRARY AND INFORMATION SCIENCE

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**Abstract:** World is facing Covid-19 pandemic in Teaching and Learning are affected due to Covid 19. Information Communication Technology is very much helpful to teachers and students. ICT roles in teaching and learning. Teachers can use online Class, video conference to enable them teach or monitor the students learning process. ICT tools for effective teaching learning in pandemic situation. We can use ICT tools for digital education learners. ICT will be useful for enhancing skills as listening, speaking, reading and writing.

Information and communication technologies (ICT) usage with mobile technologies and e-learning in libraries. E-learning courses using mobile information communication and technology devices; the implications of the research and continuing effectiveness to support students and academic researchers. E-learning has becoming the most challenging area. Artificial intelligence supported e-learning systems on different kinds of courses and report advantages of artificial intelligent in education area. It seems that the future of education will generally depend on important, multidisciplinary research areas like artificial intelligence-learning software and the approach the role of Information and Communication Technology is increasingly visible and has many applications in our routines. Technology is now, and technology is the future.

**Keywords:** e-learning, ICT, Internet, Social Media platform, and Mobile App

### INTRODUCTION

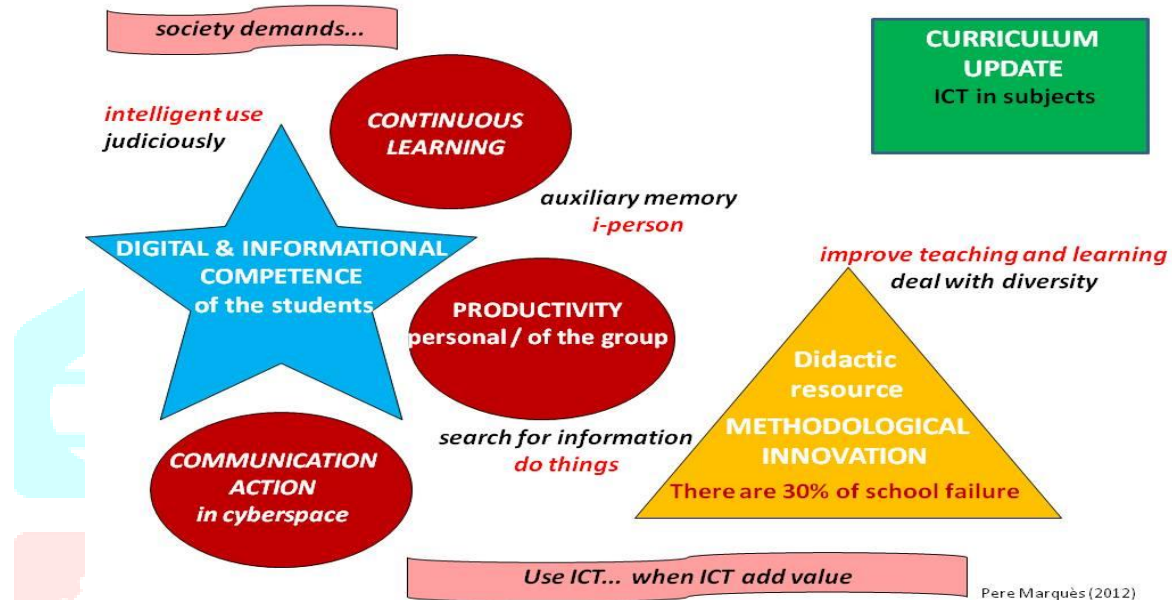
Information and Communication Technology is the union of Information technology and communication Technology. Information and Communication Technology types of innovations that are utilized to make, store, share or transmit trade information. Radio, TV, video, DVD, phone line and satellite frameworks, PC and system equipment and programming; hardware and administrations related with these advancements, for example, videoconference electronic mail. Information and Communication Technologies can add addition enhances training administration,

administration and organization gave the correct blend of strategies, advances and limits are set up. It assumes an essential part in fashioning joins between colleges, neighborhood and worldwide groups. It can advance development, increment efficiency and advance personal satisfaction. 21<sup>st</sup> century is portrayed with the development of information-based society wherein Information and Communication Technology assumes a basic part. Additionally, featured the significance of Information and Communication Technology in training. Remembering the significance of Information and Communication Technology a noteworthy change in outlook is basic in training described by giving directions synergistic learning multidisciplinary critical thinking and advancing basic and innovative intuition abilities. Digital India campaign has provided further impetus to all the Information and Communication Technology related initiatives and emphasis on skill development among college children and teachers. While implementing all the initiative under the umbrella of Digital India, it is planned to infuse skills, scale and speed in all systems. The skills i.e. creative, critical and logically thinking are necessary for innovations and colleges need to lay solid foundations of these skills across all level. This regard, the National Policy of Information communication technology in college education goes for getting ready youth to partake innovatively in the foundation, sustenance and development of an information society prompting all round financial improvement of the country and worldwide intensity. Information and Communication Technology in Education developed by Central Institute of Educational Technology. These learning strands try to manufacture abilities to handling the present and tomorrow's advancements proper use in instruction, profiting by technology to ace technology, dealing with the Information and Communication Technology Infrastructure, utilizing technology to surmount limits and to securing experiences to lead technology instructively Keeping in view the above four strands, learning will be organized under the following six thematic areas identified by Central Institute of Educational Technology: Programming Graphics and animations Internet and the Information and Communication Technology environment Data representation and processing Audio visual communication Software applications.

Information and Communication Technology devices and software applications evolved in different generations; the developed skills can be applied across similar tools. The test is to successfully outfit these advances in a way that serves the premiums of students and the bigger educating/learning group. Urges understudies to utilize Information and Communication Technology morally so they can figure out how to utilize Information and Communication Technology mindfully and know about potential threats and issues that can emerge in the contemporary world. This curriculum takes care of the requirements of a 21st century learner with the following special features:

1. Development of Life Skills like creative thinking, critical thinking,
2. Problem solving, interpersonal relationships, communication skills, collaboration
3. Integration with real life scenarios
4. Integration with other academic subjects (interdisciplinary approach)  
Inculcation of Values & Ethics
5. Inclusivity: Gender Sensitization &. Inclusion of the differently able

### 6 REASONS TO USE ICT IN EDUCATION

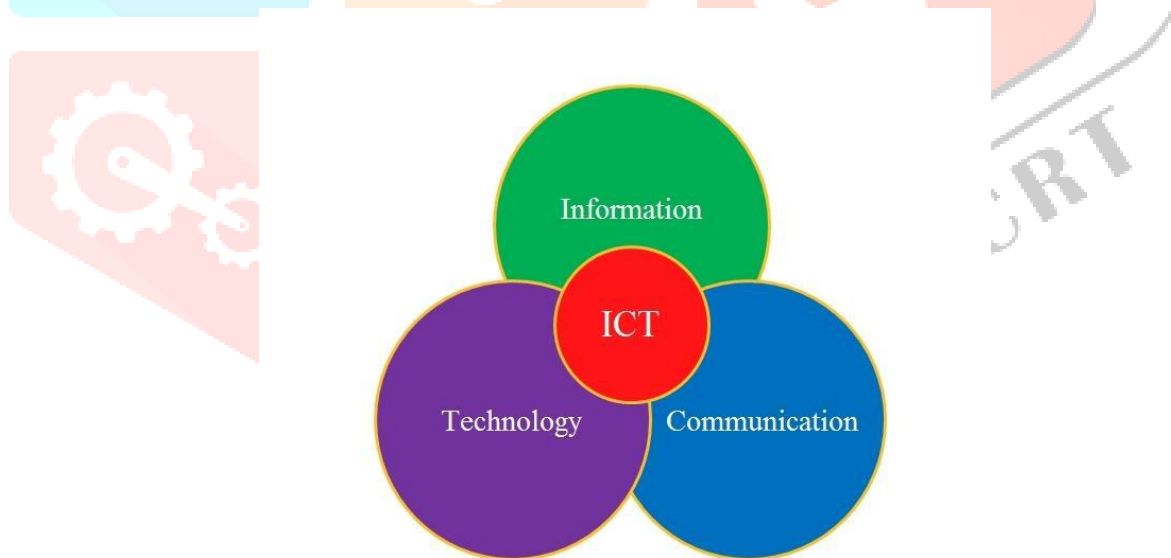


Information and Communication Technology in Education will pave the way for imparting knowledge of Information and Communication Technology to the new generation scholar. It will also help open up more enjoyable and desirable options for students in academics as well as vocational areas. Information and Communication Technology of Education has been encouraging the use of Information and Communication Technology in the classroom practices which has thus resulted in increased availability of Information and Communication Technology in education. It has also led to an increase in opportunities for teachers' professional development. Individual educators have abused the capability of Information and Communication Technology to supplement their own instructive practices, and to raise the standard of learning of their students. Information and Communication Technology in Education is to give introduction to the best in class advancements, building abilities to interface and explore different avenues regarding them profitably and apply them to address one's own particular issues and those of the country. The ICT in Education program for understudies means to empower them to inventively communicate with a wide assortment of equipment, programming applications, gadgets and instruments, sustaining their curiosity and creative ability, empowering them to get to a wide assortment of information and assets. Information and Communication Technology empowered instruments and assets for all understudies and instructors. Free and Open Source

programming will be utilized. Support for the utilization of Information and Communication Technology by the Department of Education and Science has brought about expanded accessibility of Information and Communication Technology in colleges, and also expanded open doors for instructor's expert advancement in regards to the utilization of Information and Communication Technology for educating and learning. In this specific circumstance, singular educators have misused the capability of Information and Communication Technology to supplement their own academic practices, and to broaden their learning. .Sight and sound approach is one such advancement that is gone for enhancing the educating learning process. To add to upgraded introduction to information and assets, enhanced educating learning-assessment following and expanded efficiency.

### 3.2 CONCEPT OF ICT MEANING & DEFINITION

ICT is technology that backings exercises including information. Such exercises incorporate social affair, handling, putting away and introducing information. Progressively these exercises additionally include coordinated effort and communication. Henceforth IT has progressed toward becoming ICT: information and communication technology. Some hidden standards Technology does not exist in seclusion ICT contributes at different focuses along a line of action ICT is utilized as a part of exercises – the ICT utilize relies upon the exercises The key yields of instructive exercises are setting are learning,



### 3.3 COMPONENTS OF ICTS

The main components of ICTs are

1. Computers
2. Networking
3. Internet
4. Display screen technologies & peripherals
5. Information systems
6. Software
7. Hardware (CPU, printers, digital camera, audio visual equipments etc).
8. Human ware (refers to skilled personnel).

### 3.4 TYPES AND CHARACTERISTICS OF ICTS

1. Sensing technologies
2. Communication technologies
3. Display Technologies
4. Analysis technologies
5. Storage Technologies

### INFORMATION TECHNOLOGY BASED SERVICES

- a) Computers
- c) Optical disc storage technology
- d) Cloud based storage
- e) Scanning technology
- f) RFID technology
- g) Printing technology
- h) Bar-coding technology
- j) Internet technology
- k) Web technology

## E-LEARNING SOFTWARE

The e-learning programming is a web application, which has a simple to-utilize, down to earth interface. In light of its exceedingly adaptable plan, the product can be run effectively finished personal computers, tablets, like cell phones. For e-learning situations, the product accompanies three sorts of interfaces to which clients can reach by utilizing their own particular username and secret key. E-learning process experienced through the shrewd e-learning programming. Instructors are permitted to frame their courses, transfer their course materials and play out some other exercises with respect to administration of savvy assessment system of the product.

## E-LEARNING

E-Learning has many interpretations but in short it stands for learning by electronic means. This means learning not directly from lecture notes, books or face-to-face from teacher but through electronic means. Common forms are computer-based training and web based lessons or on-line lessons. With the advent of advanced technology, lessons may be taken anytime anywhere. These lessons can be made more interesting using multimedia i.e. combination of text, graphics, sound and animation. Lessons can be delivered to the learner via various means e.g. PC, PDA, mobile phone and TV. E learning can be further categorized into formal lessons, which are structured, and informal means e.g. discussions, e-mail etc. The much talked about life-long learning through E-Learning includes both types of learning to help solve performance problems.

1. “There are two great the internet and education. By combining the two, e-learning will be the great equaliser in the next century. Individuals can now take charge of their own lifelong learning.”
2. e-learning is a computer based educational tool or system that enables you to learn anywhere and at any time. Today e-learning is mostly delivered though the internet, although in the past it was delivered using a blend of computer-based methods like Cloud based services
- 3.E-learning offers the ability to share material in all kinds of formats such as videos, slideshows, word documents and PDFs. Conducting webinars and communicating with professors via chat and message forums is also an option available to users
4. E-learning offers an alternative that is faster, cheaper and potentially better.
5. E-learning has followed suit to span the array of devices use. In fact, e-learning developed specifically for mobile devices, such as tablets and smart phones.

6. E-Learning content includes the text and multimedia materials that are provided to learner

## MERITS OF E-LEARNING

1. More robustness against user's errors and more efficient realization, control, supervision and optimization of the e-learning process with the chosen level of supervision automation.
2. Improvement of the co-operation between a user and an e-learning system in respect to the richness of communication.
3. Achievement of a higher level of organization of a distance learning process.
4. E-learning decision and optimization systems can be remote elements with regard to an e-learning system. The letters grouped in segments are then processed by the word analysis module.
5. E-learning is more cost saving & cost effective than traditional learning;
6. Access by learners to teachers and immediate access to information
7. Helps students develop skills for self-directed learning.
8. Information can be displayed on a need to know basis.
9. By using learning style tests, e-learning can locate and target individual learning preferences.
10. Self-pacing for slow or quick learners reduces stress and increases satisfaction.
11. Confidence that refresher or quick reference materials are available reduces burden of responsibility of mastery.

## MOBILE LEARNING

M-learning is a model of training that blends electronic and distance education with portable mobile devices such as smart phones and hand held computers

M-learning = mobile learning Distance learning or e-learning: Learning a reality anytime, anywhere learning"

Technology currently available for m-learning

1. Text messaging
2. Electronic reading material
3. Internet capability
4. MP3 audio files
5. Video cameras and video capability allowing for video tutorials
6. Smart mobile phones

## TELECONFERENCEING

1. Telephone or video meeting between two or more individuals
2. Utilizes communication network technology
3. Some transmit pictures as well as the voice
4. Audio Teleconferencing
6. Videoconferencing
7. Computer-Mediated or Web conferencing

### (a) USE OF WHITE BOARD & ITS FACILITIES

1. Teaching students how to navigate the Internet
2. Diagramming activities
3. Teaching steps to a math problem.
4. Black Board with White Chalk
5. White Board with Markers
6. Smart Board

### (b) BENEFITS OF E-LEARNING

1. E-learning is more cost saving & cost effective than traditional learning;
2. Access by learners to teachers and immediate access to information
3. Helps students develop skills for self-directed learning.
4. Information can be displayed on a need to know basis.

## CONCLUSION

The importance of the study is to know the Information Communication technology and presently the net-generation user are very much dynamic in access of library resources as well as internet sources and services. Information and Communication Technologies have changed the face of traditional library. The developments and widespread adoption of web technology, web services, web-based search engine,

This reason technology are evolving with the use of artificial intelligence, likewise evolve the society. Its behavior on the basis of the experience through the process of repetitive tasks and have a notion of what is wrong and you can avoid it, is very interesting. Educational institutions should move to adopt e-learning systems



along with their conventional teaching learning systems to a greater degree than is currently the case. Since such systems have wide acceptance both from instructors and students, expanding e-learning opportunities may be a way to maintain higher levels of quality in the teaching-learning exercise. Although many institutions are moving towards more e-learning, it should be given more emphasis. In particular, educational institutions should recruit instructors with high levels of ICT ability in order to encourage an environment more conducive to the migration of the teaching-learning system in the direction of e-learning systems. ICT expertise should implement training on ICT for such instructors in order to enable them to face the challenges of the future, particularly as they related to increased use of e-learning-based systems.

Presently many major IITs., IIMs., and Research and Development Institutions have created their own Information and Communication Technology library, which are not coordinated or integrated as one giant entity. Department of Human Resource and Development, has to make proper strategic planning to integrate the island of digital knowledge bases. In India a nationwide Information and Communication Technology library should exist as one entity in the country. It should encompass every type of information necessary for research and its service should be available to researcher and users. The computer and other information technologies have brought about dramatic changes in the way libraries function, in the nature of services offered, and the organizational structure of libraries. As a consequence of these changes brought about by information technologies, the library professionals have to rethink on the very philosophical foundations of libraries.

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