Role of Information and Communication Technologies (ICT) in Education sector in India

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Abstract :

The Learning system in india is in a period of transition, with significant changes and reforms taking place across the board. With the use of information and communication technologies, this is now achievable. In all spheres of life, information and communication technology (ICT) have become widespread. The usage of ICT has radically transformed the practices and procedures of practically all forms of business and governance over the last twenty-five years. Education is a very social activity, and great education has always been associated with strong teachers who have a lot of one-on-one time with students. ICT in education allows for more student-centered learning environments. However, with the world rapidly shifting toward digital media and information, the function of ICT in education is becoming increasingly important. ICT in education allows for more student-centered learning environments. However, as the world rapidly moves toward digital media and information, the role of ICT in education is growing in importance, and this importance will continue to increase and develop in the twenty-first century. This study provides a literature analysis on the use of ICTs in education, which will benefit us in understanding the ICT aids that can assist stakeholders in delivering high-quality education. This paper will assist us in comprehending the notion of information and communication technology (ICT) and how it can benefit the teaching and learning process.

Keywords : Technology, ICT, Quality of Education, TLC.

Prologue:

The phrase "Information Communication Technology" (ICT) is a shortened version of "Information Technology" (IT). It is modern and dynamic in character, with telecommunications providing access to information. It has supplied society with a huge array of communication possibilities throughout the last few decades, transforming civilization into a global village. It emphasises the importance of unified communications and the integration of telecommunications, computers, the internet, software, middleware, storage, wireless networks, mobile, instant messaging, audio, video conferencing, social networking (Facebook), voice over IP (VoIP), and other communication mediums in intelligent building management systems. It is concerned with digital data storage, retrieval, manipulation, transmission, and reception. ICT effectively and efficiently manages information using a variety of technological instruments and resources, and it contributes silently to overall growth and development. ICT has been acknowledged as a catalyst for change on a global scale, with the ability to affect every element of society. It influenced work environments, working conditions, business, entertainment, information handling, information exchange, education, teaching methods, learning approaches, scientific research, and information access.

Role of Information Communication Technology (ICT) in Education in India :

Every nation has a responsibility to provide education to the children. It is their fundamental right. But it does not mean only the right to access education but right to receive quality education through quality teaching. Historically education was known as a socially oriented activity and a process of empowering society. But in the era of globalization it became socio commercial activity which started empowering society distinctly by applying combination of traditional and modern approach. ICT in education simply means teaching and learning with ICT. It has become indispensable part of the education system. It has gradually transformed educational society into knowledge and information society which in result transforming economy to knowledge economy and supporting nations to create wealth by exploring knowledge. It is a modern and qualitative technological approach and has a deep impact on education system. It has introduced qualitative changes and increased productivity and changed the overall style and functioning of the educational system and its governance. It has contributed, contributing and will contribute immensely in the development of education.

It is also a universal fact that it cannot replace teachers as they are core part of quality teaching and technology cannot succeed without them. The only thing which can be changed, modified and upgraded is technology, way, method and mode of teaching. These innovative

changes due to ICT forced all the educational participants to think futuristically and educational institutions, administration and teachers must adjudicate their roles, approach and vision accordingly. In technological world industry require manpower with techno managerial skills. To meet the expectation and to cater the demand knowledge economy requires educational institutions to produce graduate who have prerequisite IT and other competitive skills. Educational institutions have to convert their raw input students to techno management-oriented output. This is possible only with adoption and integration of ICT with teaching and learning.

In global competitive era technology is the backbone of everything. By the adoption of Information and Computer Technology (ICT) education became much more effective than past. Researchers, academicians and industry professionals have proved that ICT provide opportunities to all educational participants to learn and excel. Across the world it is been accepted by the educational planners that increased exposure of students to educational ICT through curriculum integration has casted significant and highly productive impact on their achievement. Its exposure improved their knowledge, comprehension, practical skills, presentation skills and innovative capabilities to a great extent. It empowered and enhances the ability, adoptability, knowledge and surviving skills of students and of teachers. Its instructional use improved the progress and development of faculty and students alike. It optimized teachers delivery of information and adds value to the processes of learning and the organization and management of learning institutions. It improved the student learning through self-paced learning and by accessing them to wide range of up to date learning materials. It is facilitating educational participant to acquire and absorb knowledge and increase academic productivity. It is helping nations to enhance educational system beyond classrooms and reaching out to all sect of society in common. It is playing outstanding role in formulating, improvising and executing polices in social, economic, political and educational sector and widening the range of opportunities for students, teachers, industry and poor.

In comparison to other sector impact of Information Communication Technology (ICT) in education is found below to par level. It is due to many explicit and implicit factors. Among the factors most obvious factors are insufficient funding for technological adoption and up gradation, lack of proper training to the teachers, lack of motivation, time constraint, trained manpower in teaching sector and lack of infrastructure in rural area. But due to growing competition in education sector and market demand it is showing progress and educational institutions are gradually adopting ICTs into classroom, learning setting, for developing efficiencies and flexibility in terms of delivery of informations and to provide support for customized educational programs to meet the need of individuals learners. Most of the

institutions have adopted internet andwww as an essential tool for information communications.

Research Methodology :

Educational institutions all across the world are undergoing a metamorphosis. To meet stakeholders' social and commercial expectations, the government has taken a number of steps to strengthen and meet the demand for technology-based, futuristic, and career-oriented education. The majority of programmes and activities have been focused on increasing student enrollment and opening new institutions, but there have been little efforts to introduce technological and qualitative reforms to the institutions and teaching. The purpose of this article is to:

• research and comprehend the role of information and communication technology (ICT) in education promotion.

• research and analyse the role of information and communication technology (ICT) in promoting modern educational tools and practises in education, as well as their ramifications.

• study and examine the role of ICT is promoting modern educational tools and techniques in education and its relative impacts.

• study and examine the role of ICT in enabling learning, teaching and assessing in education and its overall impacts.

The current research paper is based on secondary data that was gathered from a variety of previous research literature. Due to the difficulty in acquiring information from primary sources, the article relies on secondary data resources, i.e. material that has already been gathered and made available. The information comes primarily from government sources, university websites, books, journals, articles, research papers, blogs, and other sources. It is carefully organised and proper analysis is carried out to justify the role and influence of ICT after an exhaustive literature scan and examination of the research activity of famous academics and thinkers. The study's findings are also used to derive some inferences.

Review of Literature :

The literature review is an important aspect of any research activities because it provides reasons and dimensions to examine and assess in order to make a comparative analysis of the past and present in order to anticipate the future. Academics, academics, and social workers from all around the world conducted numerous studies to discover direct relationships between ICT use and student achievement. They've all found solutions to the

current time period's challenges, paving the path for future research. They tried to explain the role of technology in the classroom, others tried to explain how technology adds value to education, and some studied the influence of computer use in education, depending on the time period. The current generation of researchers is focused on the impact of the internet on education and online academics.

Activities, digital devices, wikis, blogs, Facebook, Researchgate, Linkden, and other online resources Some of them are completely convinced that ICT is beneficial to education, while others believe it has both positive and harmful effects.

Kuliks (1994) findings revels that in US students who used computer in learning developed diversified range of skills and performed better, Navarro and Shoemaker (1999) surveyed a matched pair of on-campus and online sections of a class on principles of macroeconomics. They used a simple comparison of means of test scores and reported no significant difference in academic performance between the two formats, according to UNESCO, ICT as the combination of informatics technology with other related technologies, specifically communication technology, Carlson (2000) cited the issue of integrating technology with instruction as the single most important issues facing higher education. He further reviled that academe is still lagging behind society at large in the application of some technology trends such as personal digital assistance devices that campus has not been able to integrate into their campus networks, Brosnan (2001) found that attitude, motivation, computer anxiety and computer self-efficacy are factors affecting teachers use of computer in their lesson, Ascough (2002) considered that good education requires an awareness of the opportunities and limitations of the mode of education, Hess (2002) found technology as devise (gadgets) like phone, computer which represent material entities, OECD (2002) defined ICT as a combination of manufacturing and services industries that capture transmit and display data and information electronically, Coates et al. (2004) carried out survey and found that face to face teaching format students scored 15 percent higher than online teaching format, Leuven et al. (2004) found that there is no evidence for a relationship between increased educational use of ICT and students performance. In fact they found consistently negative and marginally significant relationship between ICT use and some student achievement measures, Pruulman (2006) argued that in order to understand the impact of ICT we must go beyond measurement of the diffusion of pieces of hardware and even increases of information in stocks or flows and investigate the social context within which these developments are taking place, Robert and Lenzs (2008) from his study tried to assess that e learning technologies have become sufficiently stable to now allow the focus to shift to instructional quality and content rather than the technology itself, Chau (2010) that education will no longer be about learning, but reaching economic goals that are set by the

experts with an increasing number of them acting more like corporate executives than educators, Swati Desai (2010) argues the role of ICT in transforming teacher centred learning to competency based learning and found that role of ICT in the education is recurring and unavoidable, Keengwe and Georguna (2013) argued that integration of technology into education could meet the needs of the Millennials as the generation currently attending universities; they further said that technology should not drive instruction, but should rather be integrated into the curriculum as technology is not a substitute for good instruction, Verene (2013) explains that technology does not look back, but promises better future. He further said that with technology we can do better whatever we want to do is a bluff as it creates the impression that there is almost nothing that is not possible with technology, Olivier (2014) found that theology took up the challenge to utilise the printing press and should do the same with the new technology. The impact of theology is directly related to the medium used throughout the ages, Tegos et al. (2016) research indicated that the effectiveness of flexible conversational agent in productive online peer dialogue, Barak (2017) from his study found that how teacher integrate web-based technologies and their perceptions of cloud pedagogy. He found that cloud pedagogy framework facilitates individual and collaborative, synchronous and asynchronous active learning, in class and outdoor, U.S department of Education (2017) in their report said that presence of technology does not ensure equity and accessibility in learning; it has the power to lower to both in ways previously impossible. No matter perceived abilities or geographic locations, all learners can access resources, experiences, planning tools, and information that can set them on a path to acquiring expertise unimaginable a generation ago, Solvi Lillejord, Kristin Borte, Katrine Nesje and Erik Ruud (2018) in their report presented in Norwegian Higher Education, that higher education institutions are not fully exploiting the possibilities inherent in digital technology. They found that 76 percent of the students reported that digital tools provide flexibility and freedom and are important for their studies, but these tools are infrequently or not used. S.M.Tariq Zafar, Waleed Hemdat, D.S.Chaubey and Abdul Rehman (2019) signifies that academic leadership has become larger and more central for the development of qualities of higher education in the country, university need to consciously and explicitly managing the process associated with the creation of academic leadership with their knowledge assets and to recognise the value of their intellectual capital to their continuing role in the society and in a wider global marketplace for higher education.

IN MODERN EDUCATIONAL TECHNOLOGIES, THE USE OF DEVELOPING METHODOLOGIES IS GROWING:

Technology is an extremely powerful tool that is transforming every aspect of existence. In comparison to other modes of survival, education has arrived late. It supports all educational participants and fosters advanced interactions between teachers and students. It assists society and education participants in reinventing their approaches, in learning and collaborating, in closing the long-standing gap and promoting equity, and in adapting learning experiences to meet the requirements of all learners. It enables educators to work together and share their knowledge in the classroom. It enables educators to learn new skills and acquire new knowledge alongside their pupils. It aids instructors in becoming leaders and establishing a vision for creating learning experiences that provide students leverage and support. Educators must properly integrate and practise technology to make education more effective, simple, and relevant, as well as to deliver real learning experiences. All education stakeholders and participants (teachers, faculties, leaders, researchers, parents, policymakers, financiers, promoters, technology innovators and developers, society, community, and organisations) must adapt and use technology for the benefit of the educational system.

- **Electronic Learning (E. Learning)** is defined as any electronic source of information that aids in learning, training, or education. It is a broad educational concept characterised primarily by the use of electronic information networks, media, computers, electronic devices, and other types of communication technologies such as internet-based learning, intranet (LAN) extranet (WAN), online education, computer-based training, DVD, You Tube video-based learning, CD ROM based learning, Webinars, Virtual classrooms, Mobile learning, custom e learning, off the shelf e learning, and so on.

- **Blended Learning:** A blended learning paradigm combines pedagogy, technology, and students. Using E Technologies Solutions, instruction is done face to face in the classroom. This concept combines pedagogy and educational technology to offer synergies in the teaching process. To supervise learners and go through all quadrants, the instructor invests time and creates learning resources. Teachers create a dynamic learning atmosphere by providing E Study Materials to students, which spark their interest in learning. This strategy gives students some flexibility over their study time, location, path, and pace. Students decide on the time, place, and type of learning they require.

- **Active Learning :** In many ways, the increased use of ICT in education has aided students. These students are studying in accordance with their preferences, needs, and expectations. The use of ICT to mobilise the tools needed for inspection and calculation. It allows students to do appropriate analysis and serves as an active learning platform where they can inquire about and generate new information for their own use. It allows them to study in a way that is more relevant to their daily lives. Through expanded learning engagements, ICT has turned traditional memory pedagogy into improved learning. It created a system of just-in-time learning in which active learners pick what they want to learn and when they need to study it.

- **Collaborative Learning :** Learners, teachers, and experts have formed a strong bond as a result of the usage of ICT in education. It promotes interaction amongst them, regardless of caste, creed, religion, or location. Educational ICT has generated, continues to provide, and will continue to create opportunities for all educational participants, assisting learners in forming teams and improving communication skills and collective awareness. This type of collaborative learning is not restricted to a specific age group; rather, learners can continue to study throughout their lives. They can work with pears, experts, and mentors in a variety of fields from all over the world.

- **Integrated Learning :** Educational ICT has enhanced learning and elevated learning standard. It promoted thematic integrative approach of teaching and learning rather than memorization. Integrated learning modules of educational ICT are basically thematically focused classes and are delivered primarily over internet. The course content is integrated and comprehensive according to the themes. Content is also integrated with language and facilitate learners to learn both content and that through additional language. It stimulated in depth discussions and forced teachers to rethink, redesign and keep on updating their pedagogical models according to the theme. This module also eliminates the artificial separation between various academic discipline, theory and practice.

- **Creative and Innovative Learning :** Through technology educators are connected to global educators and experts. Educational ICT has provided a common platform to all academic participants. It has empowered educator to become co learner, innovative learner and creative learner with their students by exploring the thematic content deeply. Educators by connecting with global academic network can develop creative and innovative pedagogical approach and content. Through educational ICT use educator can share their creative and innovative views with educator community and with students. ICT supported learning promotes innovation among educator they can collect the available information and can redesign it and present it in creative and innovative form. Educator and learner can become engineer of collaboration, designer

of creative learning experiences, leader of innovative learning, guides and catalyst of change. All creative and academic innovation elements make learning relevant and authentic. By using innovative tools such as video conferencing, online chat and social media sites educators can connect and collaborate with students and share informations, views and experiences.

- **Evaluative Learning :** Educational ICT use has enhanced the learning of student which is directed and diagnostic in nature. Educational ICT is highly distinct than traditional print-based education. It recognizes presence of diversified range of learning pathways and facilitates learners to explore and discover new dimensions of themes and contents rather than merely listen and memorize. New society requires new skills which is possible only through systematic evaluation of traditional and emerging pedagogy to match the requirement. Educators can lead the evaluation and implementations of new technologies of learnings. ICT facilitates teacher leaders and learners learning through technology and working with administrators to determine how to share their leaning with others.

- **Learning through Blogging:** Blogging is an active and widely accepted and standardized type of informative website. It is mostly used and maintained by an individual person. In this individuals account holder upload personal events, descriptions of events, commentary, political, social and academic views and share free available graphics and videos. All blogs are free to interact and comments on events are highly desired and acceptable. Through educative blog learners and experts interact frequently and share experience and clarify the doubts through discussion and debate. Learners post their question and seek answer and information from the global experts and users.

- **Learning through Podcast :** Podcast is non-streamed web cast. This approach facilitates educators and learners through series of audio or video files which are released in form of episode and participants download these uploaded materials through web syndication. Uploaded audio or video files are delivered differently in podcast than other sources of files accessing media on net. All the associated files are maintained and controlled centrally on the distributer web feed. Learners and other participant in podcast approach use pod catcher to access this web feed and download files from the available series. Through this ICT approach learners update, demand and download specific informations according to their need.

- **Open and Distance Learning :** Open and distance learning is one of the effective ways of providing learning opportunities to the academic participant who are living scattered or due to some reasons they cannot become regular students. It is characterized by separation of teacher and learner in time or place, or both time and

place. Learning is certified through affiliated institution or recognized agencies. Educational ICT is playing instrumental role in promoting open and distance learning. It is facilitating participant through variety of E–media platform along with traditionl pedagogy. It facilitates two-way communications between educator and learner through virtual interactive classes. It is facilitating in conducting exam and providing all the required study content to educator and learners.

- **Web Seminar Learning :** Web seminars are now growing with the help of educational ICT. It is facilitating educators and learners to participate, interact and attend experts through web seminars. It is flexi and convenient approach of attending virtual seminars. Colleges have limited budget and cannot afford to organize or send their students to attend seminars and field trips related to their course of study. To avoid academic loss students, educators and other academic participants can virtually attend web seminars organized by other academic institutions through using internet. In America NASA offer programs that allow students to talk to astronauts is space.

- **Digital Citizenship :** Through educational ICT use educator and learner can adopt digital citizenship. For educator, learners and other educational participant it is safe, ethical, responsible and informed use of technology. Through digital citizenship concept in educational ICT educator and learners can avail opportunity to encompass a range of skills and technical literacys which are internet safety, privacy and security, cyberbulling, online reputation management, communication skills, information literacy and creative credit and copyright.

- **Smart gadget learning :** Hybrid mobiles are minicomputer and facilitating all academic participants in many ways. It has emerged as a most competitive mode of educational learning tool. Educator must develop new and extended learning designs that link pedagogical strategies effectively. New created mobile learning content design must consider the basic required outcomes, futuristic pedagogy, and educational ethics and cost effective. In mobile learning integration, support, interactive use and appropriate choice of tools are important factors of pedagogy.

<u>Learning supported by information and communication technology (ICT):</u> The growing use of ICT in education has resulted in a plethora of academic platforms via which students can access information. Adult learners and conventional students can now access learning opportunities outside of traditional time and location constraints. It allows students who are working or have dropped out of school but wish to continue their education to access learning opportunities outside of the classroom. It provides students with high-quality learning materials and resources regardless of their location. It uses a blended learning strategy to improve the learning experience of students.To facilitate learners and educators ICT is providing opportunity to students to combine online and in person learning and it is accessing resources to students and guiding them to complete some academic activities conveniently and participate later in group discussions. It is helping educator to assess students academic strength and compare their past and present level knowledge, their interest and motivation and support them to develop excellence. It is helping educator to provide personalize feedback, instructions and additional academic supportive material to students. ICT is also facilitating students to connect to non-academic support and helping them to manage their personal life challenges which might become obstacle in learning. It is also helping disable students especially in higher education and ensuring their active participation in educational programs and in other academic activities. It is providing them auxiliary aids and services for better communication. It is providing text books with speech to text assistive technology etc.

<u>Information Communication Technology (ICT) enabled teaching :</u>

Teaching was made possible by the use of information and communication technology (ICT) in the classroom. Educators can use the information gathered about a student's learning to make academic and non-academic recommendations. ICT aids educators in forming personal connections with students and providing them with personalised feedback on their performance. Educators can help students by providing additional study materials and guiding them on how to take advantage of academic opportunities for their overall growth and development by utilising educational ICT. Educators can use ICT to assess a student's level of knowledge, motivation, and academic interest, and then lead them based on their needs.ICT use serves as a catalyst for intentional planning which in result lead to improved learning outcomes for students. Educator can use ICT latest technology to evaluate students efficiency and overall performance. They can assess which technology application is relevant and proving linkage to the improvements in students learning. ICT based collected information can be used by the educators to adjust, redesign and remake their teaching content, attitude and approach to bring improvement, develops efficiency and consistency in teaching practice. ICT generated data help educator to evaluate their effectiveness and

efficiency in modern and competitive teaching in comparison to students learning outcome. Educational ICT also facilitate educators to create active learning environments and adopt creative and innovative content delivery in classroom and online. Educators by implementing ICT tools can also provide personalized and connected experience to all students. Educator can develop strategic pedagogy with the help of educational ICT. Keeping well defined learning goals in mind educator can collaborate with online solutions and facilitate students in personalized manner. Educator by using ICT can assess students in advance learning and can support students individually according to their strength and weakness. ICT has enabled educator to become more responsive and available instrument of students support system. Educator can use educational ICT and develop high quality academic content to support students education and facilitate them at low cost.

Information Communication Technology (ICT) enabled assessment :

Educational ICT has enabled educators, institutions, and students to make authentic assessments across a wide range of courses, techno-based pedagogies and their applications, and students' strengths and weaknesses. Through the use of educational ICT, the educator was able to determine the learning capacity of pupils and improve teaching practise. Educators can examine students' performance, motivation, academic interest, attitude, behaviour, and desire to study in great detail using educational ICT and compare it to predetermined parameters. Based on their findings, educators can help students develop their skills and offer them with a clear and transparent report on their progress.Educator can preserve techno base assessment records and can verify time to time to make comparative analysis of improvement in students learning. Educator can use educational ICT to assess students through formative learning activities. Techno base formative assessment will provide prompt feedback to the students, peers and educators which ultimately help students to bring improvement in their learning performance and help them in developing competitive strength to meet the global requirement.

Positive Information Communication Technology (ICT) impact in Education.

Present world is moving on technology and expected future is the same. Expecting things without technology is impossible. In present era of civilization, it is difficult to imagine learning environment without ICT. Use of ICT in modern society has grown tremendously and became a critical vehicle and has impacted the complete learning process. By adopting ICT teachers become more collaborative, competitive and futuristic and extended learning beyond the classroom. By using educational ICT educators became able to create learning communities in which educator, fellow educators of the institutions, educators and experts in various discipline from other institutions and across the world, students, parents, locals

community organizations, museums, libraries and alimony programs are active participant. Educational ICT uses enhanced collaboration and enabled educator to develop standard pedagogy, specialized curriculum, teaching methodology, course content and other supportive materials. By using ICT tools and resources educators are efficiently and effectively managing, assessing and evaluating their quality and usefulness and impacting students learning. By using ICT educator have become global, they are not only mentoring their institute students, but they are also mentoring learners across the world. They became able to prepare pedagogy professionally, became able to rethink, readjust, redesign and revise their course content and study material along with instructional approaches, techniques, tools, skills and their respective expertise. By the use of ICT, they became more mature learners and also co learners with their students colleague and experts and explored academic potential to the full and build academic strength. By using the ICT, they became collaborative engineer, architect of learning experience, a guide and a change agent. By using educational ICT like videoconferencing, online chat, collective social media sites, educators are integrating, coordinating, and collaborating rural and urban learners with experts and peers and making classroom learning relevant and authentic. ICT provided platform to the academic participants and encouraged them to invest in it personally and developed their teacher leadership plans. ICT converted traditional education and knowledge society into knowledge economy and enhanced the skills of educators and learners. ICT reduced the cost of educational material and enabled students to adopt rapidly changing technological environment with ease, they became able to use technology to explore opportunities and shape their lives, their community and the world. The use of net has enabled the sharing and easier accessibility of books and scientific books which has increased students knowledge and learning. Introduction of ICT in classrooms has impacted positively, digital boards attractive features have improved learning base of students. Use of educational ICT helped nations in reducing the teachers to students ratio where they were high in comparison to international recommended standards.

ICT's Negative Impact on Education:

The presence of technology does not imply that it is the ultimate and last solution to all educational issues or that it will provide learning fairness and accessibility. When software is downloaded or shared without permission, intellectual property rights can get complicated. Plagiarism has increased due to the internet's easy accessibility, resulting in a drop in educational standards. Unwanted, false, and erroneous information is also on the rise as a result of access technology, affecting students and researchers. The majority of study resources are only available in a limited number of formats, and those that are available cost

a lot of money.Maximum study materials are available in short and for more they charge high cost. Frequent change in technology also impacts negatively as users have to pay for advance version. Instructor cannot adopt and afford the cost of frequently changing ICT gadget, and also, they are not clear about the benefit of the technology. Frequently changing technology and softwares also de-motivate educator as they have to invest time in preparing the course content according to the new technology and software. ICT is general purpose technology (GPT) and is considered as immature by nature and it needs to be specified to meet the needs expressed by the students. Before adopting ICT fully, it is needed to explore its possibilities, potentialities, accessibilities and reliabilities by the academic institutions. Apart from educative information and stuy material accessibility many social damaging informations and video materials (pornography) are available on net and have impacted society very drastically. ICT has also created digital divide, students have computer and other facilities in institutions but not at home and poor nations institutions do not have proper facilities in institutions and students do not have any technical excess at home. Technology converted world into village but created distance among the society, due to increase technology society lost human relation and converted responsibilities into opportunities. Learners highly depending upon ICT lose their analytical skills, mathematical skills and judgmental skills.

Finding, Conclusion and Recommendations :

- The study discovered that information and communication technologies (ICT) have aided in the promotion of education. It has had a significant impact on the learning process by providing new options for students and teachers, as well as improving student performance and accomplishment.
- According to the study, ICT has enabled and improved learning at all levels, in all places, and for all people of all backgrounds.
- According to the study, students' performance, achievements, and learning have all improved dramatically as a result of the adoption of complementary organisational innovations. They've picked up new skills, competencies, a collaborative attitude, a team-building mechanism, and project management knowledge. study found that ICT has transformed education from traditional to knowledge economy and fostered the professional learning by supporting educators and making them catalyst to serve the underserved. It has made educators more creative and collaborative problem solvers and adoptive and socially aware experts by fluently using innovative technology.
- According to the research, ICT-based learning environment facilities have improved students' collective potential and skills, as well as making students, learners, and educators more engaged, collaborative, creative, integrative, cooperative, and

evaluative. It has grown more suitable, relevant, authentic, and successful in the realisation and application of constructivism's pedagogy, which has resulted in increased student learning responsibility.

- The study discovered that educators, policymakers, administrators, and teachers are using ICT tools and resources to collaborate with other educational participants, researchers, families, cultural and professional institutions, and other stakeholders, eliminating inefficiencies, digital divide, and inequality, and promoting everywhere and all-time learning, as well as making effective assessments by analysing individual abilities and eliminating inefficiencies, digital divide, and inequality.study found that presence of technology does not ensure equity, and accessibility in learning. In comparison to other sector impact of ICT in education is found low and slow. Among the factors most obvious factors are insufficient funding for technological adoption and up- gradation, lack of proper training to the teachers, lack of motivation, time constraint, trained manpower in teaching sector and lack of infrastructure in rural area.

- According to the study, educational institutions are gradually adopting ICTs into classrooms and learning settings, in order to improve efficiencies and flexibility in terms of information delivery, as well as to provide support for customised educational programmes to meet the needs of individual learners, due to growing competition in the education sector and market demand.

- The study discovered that there are an infinite number of wastes on the internet, as well as contemporary, vulgar materials that are freely and easily accessible to the learner, destroying the society's human values, ethics, and culture.

- Last but not least, most institutions have adopted the internet and www as an essential tool for information communications.**Study concludes** that due to ICT human quest for knowledge has greatly improved and world has become small village with better living standards. Teaching with educational ICT can enhance students active learning only through joint, coherent and multi-level efforts. Rapid changes in technologies are indicating that the role of educational ICT in future will grow tremendously in the education. Thus, future of education is in the hand of educational technology and we must support, coordinate and integrate our efforts to build progressive techno civilization.

<u>**Suggested Recommendations**</u>:

Educate the populace if you want to rescue the country. As a result, the quality of education programmes available to residents determines the nation's progress. With the best interests of the country in mind, the research suggests that educational institutions should adopt technology for collective growth, but that implementation should be done in a scholarly manner. It must prioritise advanced teacher training and the introduction of creative and innovative pedagogies, as well as the development of ICT infrastructure and the establishment of institutional networks, and the improvement of collective educational standards by closing the digital divide and improving educational quality between rural and urban populations. It must be in line with the nation's educational and research goals and plans. Technology investment is an ongoing expense because when devices reach the end of their useful lives, infrastructure equipment becomes obsolete and must be replaced or improved. As a result, the planner must treat technology as an ongoing, line-item expense that must be aligned with learners' future expectations, be regularly tested and evaluated in a variety of formats, and be renewed and redesigned in accordance with established and well-known academic work procedures, data banks, student feedback, teacher feedback, and new research. ICT's objectivity must be to promote self-paced, self-assessed, and self-directed learning while also formulating future-oriented policies for academic advancement and social equality.

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