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Importance of Technology in Education for Future Development

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Abstract

The power of democracy rests in the hands of citizens who have access to accurate information. The common man now has access to global information thanks to advancements in information technology (IT). Oral communication, voice in telephony, text in faxes and newspapers, images in video and television broadcasting, and data in computers all fall under the umbrella of "information" in a broader sense. Everything can be digitally transcribed, stored, retrieved, altered, then distributed. There are several new technological trends in the development of electronic communication systems. These include the use of emerging digital techniques, new types of networks, including intelligent networks, high bandwidth communication, and cutting-edge software for network functions and services. Global "information society" is rapidly altering the way people live, learn, work, and interact with one another. The free flow of information and ideas has brought knowledge and its myriad applications to many millions of people, creating new choices and opportunities in some of the most important realms of human endeavours. A strong society is built on the foundation of education. All aspects of the nation are enriched by a well educated populace. Educational institutions cannot function without the use of modern information and communication technologies (ICTs). It has affected a number of aspects of their lives. Educational institutions, administrators and teachers were forced to re-evaluate their roles, teaching methods and long term vision as a result of these changes. Corona's pandemic has been aided by the use of ICT. This study focuses on the use of information and communication technology (ICT) in education to improve teaching and learning. To empower Indian rural communities to gain access to information, knowledge, and poverty alleviation through the use of ICTs, the paper examines the factors that prevent rural communities from reaping the benefits of these technologies.

Keywords: Global information; Higher education; Educational system; Universal education; Extensive access.

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INTRODUCTION

Information and communication technology (ICT) has a tremendous impact on higher education today, regardless of the country in question. One of these countries is India, and the test aims to determine whether ICT can be used to strengthen the framework for advanced education in this country. This demand for education has skyrocketed in developing countries like India,

which are still considered to be important bridges of social mobility.[1]

An ICT discipline is a management technique used in the handling of information, its application, and the linkage to social, economic and cultural issues.[2] The use of information and communication technology (ICT) in the education system is becoming more and more essential. Education and governance have undergone a radical shift as a result of the widespread use of information and communication technology.

Learning about computers, then learning computers, and finally learning with computers are all stages in the progression of using computers.[3] The impact of ICTs on education has been examined by Kozma (2005)[4], and he identifies three major concerns. It all started with the launch of Woreda Net, a government wide e-communications system, and the country's comprehensive information and communications technology (ICT) strategy.[5] So, the purpose of this paper was to investigate how ICTs can help improve universal education and how this can lead to future development and growth.

OBJECTIVES OF THE STUDY

Here are the research objectives:

- To learn about the current state of information and communication technology.
- To emphasise the importance of the use of information and communication technology in education and
- To look at the future of information and communication technology in education and see how it will change.

REVIEW OF LITERATURE

Egoeze, Misra, Maskeliunas & Damasevicius (2018)[6] address the issue of administrative management in advanced education in which organisation is critical, new methodologies are being sought. Management exercises in advanced education organisations can clearly benefit from the use of Information and Communication Technology (ICT).

According to Singh (2017)[7], instruction has long been recognised as the most important catalyst for a country's social and financial progress, and the advent of ICT has opened up this possibility to everyone.

As one of the cornerstones of modern society, Alam (2016)[8] showed how ICT has fundamentally altered the methods and procedures used by nearly every type of educational and administrative endeavour.

ICT selection and use has a positive impact on education, learning, and research, as Richard (2015)[9] has shown us. ICT has the potential to change the way education is delivered and open it up to a broader audience.

As Meenakshi (2013)[10] argued, if educational institutions are to fully exploit the potential of ICT as instructive devices, attention should be given to both instructional improvement and also the professional advancement of the instructor as a result of his scholarly administrations.

According to Nisar, Munir & Shafqat (2011)[11], a study was conducted to determine the impact of ICT on Pakistan's educational system, and the findings revealed that of the four variables examined–access to ICT, use, information, and viability–accessibility and use of ICT have the greatest impact on improving students' information and learning capacities. A shift in academic proficiency is evident, as is the faculty's willingness to experiment with new approaches to incorporating ICT into the classroom.

As Tinio (2002)[12] points out, information and communication technologies (ICTs) have the potential to improve access to and the quality of education in developing countries.

According to Watson (2001)[13], information and communications technologies (ICTs) have transformed the way people work today and are now transforming educational systems. Teachers, students, classroom materials, equipment for teaching, and methods of teaching are all inputs in the educational system, and the outputs are the quantity and quality of student learning. Learning and productivity can both be improved when ICT is properly integrated into the teaching and learning process.

PRESENT SCENARIO OF ICT

An innovation economy requires a country to have a strong ICT infrastructure. If a country is trying to reduce its disparity in global income, the promise of ICT is undeniable. As a result of ICT, governments in these countries are able to better target their efforts at rural and urban populations, resulting in lower levels of poverty.[14]

Internet use has a positive effect on GDP, according to a study by the Indian Council for Research on International Economic Relations (ICRIER). India's GDP grew by 3.3% and 1.3%, respectively, due to a

10% increase in internet traffic and mobile traffic, according to previous studies on the topic.[15]

To prepare the workforce for the new global economy, ICT can be utilised.[16] Reading, writing, research, and oral and written communication skills that are well honed in order to critically access print based and multimedia content are all essential for a person to have true computer literacy.[17]

It is more likely that students will be educated and more productive when ICT is properly integrated into the classroom. All aspects of life, including education, are being influenced by new information and communication technologies. They advocate for alterations to working conditions, information handling and exchange, and educational approaches, among other things.

By providing new credit and financial services, as well as new avenues for designing, manufacturing, and marketing products via the Internet or intranet systems, ICTs have a significant impact on poverty alleviation. Access roads, storage facilities, competitive markets, and global market opportunities are all necessary for these interventions to be successful. Various levels of poverty reduction can be seen in the results of selected projects.

ICTs can play a significant role in promoting the health of the poor and preventing poverty by providing superior medical advice, diagnosis, or knowledge in their local area, as demonstrated by numerous successful initiatives.

Using ICTs, government and quasi government resources and services can be more easily accessed. Transparency in the use of public funds, private sector growth, efficient public service delivery, and the rule of law are all hallmarks of good governance. It also facilitates pro-poor policies and macroeconomic management that is foolproof.

The culture of democracy, democratic processes, and civic values upheld by a democratic system are all strengthened by ICTs. A process of electronic interaction between the government and citizens is used to intervene in e-democracy. Provide citizens with access to information and knowledge about the political process, services and available options; facilitate transformation of passive information access to active citizen participation by informing and representing, encouraging voting, consulting and involving citizens. In this way, ICTs contribute to the development of an informed and engaged citizenry, a weakening of closed and undemocratic regimes, and a strengthening of citizen groups in their role as watchdogs.

Electricity, hardware, appropriate software, telephony, network connectivity, and policy guidelines are the absolute necessities for rural ICT initiatives to be a success. Battery backups, universal power supplies, solar power panels, circuit breakers, and voltage stabilisers are essential for most rural ICT projects. There are many advantages to using human mediated computer kiosks, which can be shared by multiple people in a rural community, as rural infrastructure.

IMPORTANCE OF TECHNOLOGY IN EDUCATION

Using ICT, students and teachers can better communicate and learn together.[18] Rethinking teaching practise, improving educational outcomes (especially pass rates), and improving the quality of teaching and learning are some of the benefits of using ICT.[19] Helping students learn more about their subject matter, allowing them to construct their own knowledge, and fostering their ability to think critically are all benefits of using ICT in education.[20,21]

Multimedia can take many forms, including video, television, and computer software that combines audio, transcripts, and a moving image with multiple colours. Inspiring, attentive, and trusted content can be created using ICT to keep students engaged in their studies. Innovative teaching methods like power point presentations and animations, modelling and simulations, video clips, and using AV aids, LCD projectors, etc. can be used to replace the conventional teaching method of chalk and talk to further enhance teaching and learning.

The student's ability to learn and the teacher's ability to convey difficult concepts in a short period of time both improve as a result of this. Students at the internet centre can take online courses from foreign universities in collaboration with the universities.

Technology helps bridge the digital divide on multiple levels, including between rich and poor nations, between rural and urban areas, between young and older adults, between learners in the first and second generations, and educators who have encountered it. It is not just the infrastructure of higher education that is strengthened by ICTs, but our ability to implement the academic ideal that knowledge is essential is greatly enhanced.[22]

It's common to refer to e-learning as learning with new ICTs. The modern world would be impossible without information and communication

technologies (ICTs). The environment would be incomplete without information and communications technology. As a means of data collection, processing, storage, and transmission, it has a wide range of applications in our day-to-day lives. There is a constant stream of media coverage of today's ICE potentials from the time we wake up in the morning until we go to bed at night.

To generate, distribute, collect, and administer information information technology is used. There are a wide range of information and communication technology tools that can be used to collect data (voice and data), process it (text and data), and present it to the user (images and data). In today's world, there are a variety of ICT tools that can be used to create and disseminate knowledge. ICT is all about how people can communicate, inquire, make decisions, and solve problems in a more efficient and effective manner.[23]

APPS FOR EDUCATION

As the pandemic continues to spread, educational apps and institutions are putting in the time and effort to make this an educational and welcoming environment. The Academy app is a well known application that plays an important role in the study session for government exams. One of the major players in this arena is Grade up, which has changed the way students learn by integrating live webinars with educators.

Search engine giant Google has also entered the digital marketing arena by signing up for academic pavilion. More and more students are interested in digital marketing because of the rapid growth in its value. In addition to the various courses offered by the University of India, integrated learning has been announced as a means of increasing student and faculty exposure. The best options are Google classroom, Zoom app, and WhatsApp classrooms. To foster an atmosphere of learning, webinars are held at predetermined times.

FUTURISM

Apps and the internet, in the guise of technology, are intended to rule the world in all spheres of existence. Apps are quickly becoming the norm in the educational sector. Apps as teaching aids in the future will have a positive impact on a teacher's professionalism. Mobile phone use outside of the classroom can be revealed in this way, and the penetration of mobile phones into the classroom environment will become ubiquitous in the future. Days of surprise, such as floods and Corona COVID 19, for example. Lockdown, quarantine, and any other disaster can have a significant impact on the ability of educational apps to continue to support students.

CONCLUSION

Education is critical in terms of the impact of ICT on all aspects of life, which informatics technologies influence. Increasing educational access, empowering learners, encouraging required skills, and changing the learning environment are some of the goals of ICTs. ICT has enormous educational potential. With the help of modern technology, a teacher can connect with their students in new and exciting ways. In doing so, it helps teachers and organisations to become more diverse and contemporary. Students' learning outcomes will be improved as a result of implementing ICT. It helps to build a successful career in today's technologically advanced world.

All aspects of life, including education, are being influenced by new information and communication technologies. They advocate for alterations to working conditions, information handling and exchange, and educational approaches, among other things. One area where information and communications technology (ICT) has had a significant impact is education. The way we teach and how our students learn has been profoundly altered by the advent of information and communication technology. In contrast to the traditional method, an ICT-enhanced learning environment encourages active and collaborative, creative, integrated, and critical learning.

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