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IMPACT OF ICT ON HIGHER EDUCATION

Dr. Madhu Singh
Ranchi, Jharkhand

ABSTRACT

ICT is an abbreviation for Information and Communication Technology. The effects of information and communication technology on the widespread implementation of online education in higher education are the primary focus of this study. It looks at the fundamentals of how ICT has changed higher education. The authors of this research used a descriptive-analytic narrative evaluation of the literature to draw out the key points about the influence of ICT on higher education. Researchers used a methodical interpretive approach to synthesis the effect of ICT on the spread of online education. Incorporating ICT into the classroom is compelling educators and institutions to reevaluate their approaches to teaching and learning. Regardless, the problem of ICT usage has been addressed across the board in the educational system, and comparable concerns have been voiced about the absence of legislative provisions, infrastructure, and teacher/student competences that hinder the delivery of excellent education for the learner. As a result, the growing popularity of ICT has been driving a revolution in both the organizational framework and instructional methods of today's classrooms. There is a pressing need to improve and broaden the present digital platform and continuing ICT-based educational endeavor in order to tackle the challenges of today and tomorrow and ensure that all students have access to a high-quality education.

Keywords: Technology, Internet, Distance Learning, and Advanced Study.

INTRODUCTION

Education is one of the most important factors in determining economic success and the overall progression of civilization. At a time when global economic competition is becoming more severe, education is becoming an increasingly important source of a competitive advantage. It fosters economic growth and makes a nation more appealing as a location for employment and financial investment. "A variety of electronic technologies that, when converged in novel configurations, are flexible, adaptive, enabling, and capable of reshaping organizations and reinventing social interactions," as described by Michiels and Crowder (2001). There is a growing number of technologies available, and there is also a merging of the digital and analog media.

A person's level of education is also one of the most important criteria that determine their overall lifetime profit. With the assistance of information and communication technology, the value of education has increased across a wide variety of contexts (ICT).The field of education across the globe is teeming with exciting new developments, many of which go beyond the local context of their implementation. The reason for this is to ensure that the lives of all children are fulfilled by providing them with access to the most cutting-edge educational advances (Spencer-Keyse and Warren, 2018).

The Significance of ICT

Various explanations have been put out as to why certain nations are so advanced while others remain underdeveloped. There are numerous developed nations that lack natural resource supremacy, colonial history, or even a more favorable geopolitical environment. The advancement of technology and science in the West over the last several centuries is solely responsible for the region's current level of prosperity. One of the telltale indications of technological advancement is the proliferation of information and communication technology, or ICT. Today, information and communications technology is one of the primary indicators of technical and economic growth and advancement. Because it presents more chances for a society as a whole as well as more obstacles for businesses individually, the effect of information technology is very deserving of academic investigation. It should come as no surprise that the globalization of the economy, culture, and a great number of other aspects of modernisation cannot occur without the assistance of information technology. Additionally, it has shifted their economies from being dependent on manufacturing to being centered on information and research. ICT refers mostly to the usage of digital technologies like computers and the Internet in India.Neither the why nor the how of information and communication technology usage are well discussed. Schools and universities spend a lot of money on technology like computers, Internet, and LCD projectors, and then they send their instructors to short, intensive courses to educate them how to utilize the equipment. The problem is that there is no central point to this strategy. But no amount of digital infrastructure can be effective unless educators are persuaded to see the value of ICT.

ICT'S Role in Higher Education

The introduction of information and communication technologies into higher education has significant implications for the entirety of the educational process, ranging from the initial stage of venture creation to the application of technology in the management of essential concerns such as access, equity, administration, effectiveness, teaching method, quality, and research and development. Applications based on information and communications technology provide organizations a competitive advantage by enabling them to provide expanded services to students and employees, to drive more noticeable efficiency, and to make enhanced learning interactions and experiences.

- **ICT within Instruction and Learning-** Educational Satellite will be utilized to share the available expertise via modular programs as a technique to offset the lack of professors in higher education. This approach will be implemented while it is intended to establish a knowledge library of diverse disciplines for the higher education sector. This will be accomplished via the networking of institutions, the construction of virtual labs, the building of databases, access to lectures given by industry experts as well as technology advancements made by research organizations and other entities, etc. Conventional techniques of teaching, such as chalk and talk, may be replaced with more modern approaches, such as animated power point presentations and simulations, modeling and simulations, and video clips. This will allow for future advancements in both teaching and learning.

- **Administrative ICT-** The use of information and communication technologies (ICT) in educational administration is crucial because it allows for more effective use of available resources while also streamlining administrative tasks (e.g., student administration, staff administration, general administration, etc.) through the elimination of paper work and the substitution of electronic record keeping for manual record keeping.

- **ICT in Research-** More people are engaged in research across disciplines, and the quality of that work is improved, thanks to the widespread use of ICT in academic institutions. ICT paves the way for global connections across disciplines and enables the growth of online communities. The researchers can save time, money, and effort by using this method.

- **Higher Education ICT Change Agent-** India's higher education system must make rapid and effective policy choices if it is to keep pace with global developments and remain competitive. Because of this, it's become essential to experiment with new approaches to managing institutions of higher learning due to the increased breadth and complexity of administrative duties. Instruction is the means by which this knowledge creation is supported, rather than a means of information transmission, and learning is an active process of producing knowledge rather than only gaining knowledge. The increasing number of college students has increased the urgency with which ICTs must process, store, and retrieve data in its most basic, easily retrievable form. In higher education, e-administration focuses on the efficient use of current resources to create a streamlined electronic administration. Many educators, used to the one-on-one interactions of a conventional classroom, are daunted by the prospect of transitioning their classrooms to an online forum replete with computers, software, and the internet. Technology-enabled learning shifts the emphasis from the instructor to the student, with instructors taking on new roles as coaches, mentors, and knowledge facilitators in an atmosphere where students solve problems in the here and now.

- **Society Changer:** ICT-There has been a lot of research done over the last two decades on the impact universities have on national income and social progress. Universities are increasingly understood to play a trifecta of roles, including teaching, research, and fostering innovation for regional economic progress. The triple helix paradigm of collaboration between academia, business, and government as a means of facilitating the efficient transfer of technology that fuels economic expansion (Sharma and Singh,2010).

ICT Development in India

There has been a rapid increase in the role that ICTs play in evaluating the quality of India's higher education system. It's not novel to use broadcast media like radio and television to disseminate knowledge and assist in teaching for the sake of national progress. With the launch of the Satellite Instructional Television Experiment in 1975–76, the first steps were taken toward incorporating satellite into higher education. As a result, the University Grants Commission (UGC) launched its nationwide classroom, establishing the Consortium for Educational Communication as its nodal office and establishing educational media resource centers and audio-visual resource centers at various universities and colleges across the

country. On September 20, 2004, for example, the nation deployed a specialized satellite called Educational Satellite (EDUSAT) to encourage technology-driven education and open and remote learning. The introduction of Educational Satellite was predicted to drastically improve classroom efficiency and quality. While it seems that the goal of expanding to a wide number of people has been met, the qualitative revolution expected as a result of the introduction of new services and higher quality instruction supported by learning materials has not yet been fully realized (Saleem,2012). At order to expand access to information and communication technologies (ICTs) in India's 789 universities, 37,204 colleges, and 11,443 independent schools, the government has announced plans to start a National Mission in Education using ICTs. The Mission's primary goals are the widespread adoption of digital learning materials, the creation of low-cost and low-power-consumption access devices, and the release of bandwidth for educational use. The efficient use of ICT in the delivery of programs would benefit greatly from these efforts, but they would also present new obstacles (11th FYP). Notable projects include numerous institutions and colleges usage of ICT in education in India include Indira Gandhi National Open University (IGNOU) employs radio, television, and internet technology.

Difficulties of ICT

Despite the government's best intentions, there are still many obstacles to overcome before ICT can be widely adopted in higher education.

- **Lack of Funding and Technology-Supported Infrastructure:-** It is true that not all schools have access to the necessary resources to make full use of ICT. ICT also needs cutting-edge computer components. Integrating ICT into the classroom setting also requires access to fast internet. However, the quality of internet connectivity is dismal (Becta, 2003).

- **Inadequate Resources:-** Large sums of money are required for effective technology integration into educational institutions. Huge sums of money are needed for ICT-related gear, software, internet, audiovisual aids, instructional aids, and other peripherals. When teachers, students, and administrators all have equal access to technology, it may be used in the most efficient and productive ways possible. In most circumstances, the parties involved cannot afford to cover these expenses (Lau and Sim, 2008).

- **Political Aspects:-** The lack of political will among those in positions of power seems to be the biggest challenge to using ICT in classrooms in poor nations. There is no indication that leaders are interested in allocating appropriate resources to the education and ICT sectors. If government officials support the technology, it will thrive. After a change in central government, priorities shift and resources and policies are redirected to other areas, indicating a shift in the government's vision and goal (Newhouse, 2002).

- **Teachers' ICT Views:-** Teachers' attitudes are key determinants of instructional technology utilization. Integration relies on teacher attitudes about ICT-based learning. Teachers require "conceptual change about their ideas about the nature of learning, the

function of the student, and their position as teacher" to utilize and integrate computers successfully. Thus, instructors' ICT attitudes and beliefs determine classroom performance. Thus, instructors must embrace technology to properly integrate it into their lessons.

- **Incompetence:-** Educational advances rely on instructors' knowledge and abilities. Both industrialized and developing nations struggle to employ ICT in education due to teachers' lack of knowledge and abilities. Technology integration needs topic knowledge, student learning, and technical skills.

- **Time Constraints:-** The task of educators is quite onerous. Limited available class time was cited as a major barrier to using ICT into classroom instruction. Teachers need training time, planning time, and time to work together with colleagues before they can effectively use these new technologies. In addition, teachers need time to learn how to effectively use technology in the classroom. Educators vary in their comfort levels with and willingness to use technological strategies in the classroom.

CONCLUSION

The importance of information and communication technologies in modern universities is the primary topic of this study. Institutions of higher learning have undergone widespread reform as a result of the incorporation of ICT into their operations. The value of education and the sufficiency of information and communication technologies as a societal necessity have grown in recent years, particularly in light of the increased attention paid to the state of the globe. The general public's mobility, as well as the pitch for increased value and social equality, may be improved by increasing the level of social acceptance of information and communication technologies. In this article, we looked at how information and communication technologies in India have developed over time. The use of ICT in higher education has been very beneficial for all parties involved. The use of information and communication technology as a catalyst for social and educational transformation is also a central concern of this study. At this article, we looked at the pros and cons of using technology in universities. In light of the above, it is clear that information and communication technologies is the superior platform for use in higher learning.

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