Impact Of Technology And Digitization In Indian Education And Learning: A Critical Analysis

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ABSTRACT:

Every human being requires education, and digital education is the current trend and requirement for all students or learners to become more focused in their studies. Digital education makes it easier and more diverse than ever before for students or learners to acquire knowledge. It also cuts down on the amount of time it takes to learn anything new. Schools, teachers, and the print media have traditionally been the primary sources of education. By registering with schools, teachers, and libraries, students were able to access information sources. Prior to the digital era, the majority of people didn't have access to information, and those who did couldn't get up-to-date information in today's context. The primary goal of this study is to examine the impact of technology and digitalization on Indian education and learning in a concise manner. Questionnaire survey approach was utilised in this study. According to the findings of this study, substantial changes in the way universities and colleges deliver education will occur in the next years. This rapid adoption of digital technologies in both education and assessment is not a passing trend; it will have long-term repercussions that will shape the new normal future. We will see a plethora of opportunities emerge from digital education to empower India's youth in the near future.

Keywords: Information and Communication Technology, Digitization, Technology, Education, Learning.

1.   INTRODUCTION:

As a response of technology integrated, many new instructional chances are opened up. Information could now be viewed or sent by every set of individuals from just about any area. Most people in the globe today have access to schools, and information and communication technology (ICT) is an integral part of everyday life. Recognizing that universal education is essential for quick development, the government has released a new National Education Policy (NEP) that emphasises digitisation as well as the use of technology in education. It also focuses on using edtech to improve education, especially in rural areas. This was primarily done to ensure that quality education was available in all sections of the country, particularly in Tier 2 and Tier 3 cities and towns. The government realised that technology has the ability to reach out to tiny towns and villages and give competent teachers. This was once a distant fantasy,

but major technological disruptions across the country have effectively completed the previously inconceivable task (Shenoy, et al. 2016).

By putting an end to traditional teaching methods and issues like teacher shortages, insufficient student-teacher ratios, and insufficient teaching resources, digitisation in education has paved the way for the most up-to-date teaching tools and methodologies to reach students in even the most remote parts of the country. With one of the government's aims being inclusive education, the remote teaching concept is likely to be successful (Rastogi, 2019).

Teachers can also use technology to connect with several pupils in different locations at the same time. The interactive digital media is also a fantastic solution to the country's teacher shortage. It intends to employ technology to develop the skills of instructors through the online portal DIKSHA to enable this. It's a digital network for teachers around the country that allows them to stay up to date on innovative digital technology while also adding a digital touch to their lifestyle (Ugur 2020). Exams are now conducted online, in keeping with educational trends. Customized tests, online proctoring, and certification are all supported by digital platforms, as well as secure, scalable, and trustworthy remote exams. These web-based computerised tests offer numerous advantages, including cost savings, time savings, a larger reach, and high security. This is because the process reduces human, operational, infrastructure, and logistical expenses while also reducing the amount of time spent planning, coordinating, and generating results. With no geographical limitations, the platform may handle a considerably bigger applicant pool while ensuring auto invigilation of each candidate through tight content leakage and impersonation prevention (Hans, et al. 2019).

2.   LITERATURE REVIEW:

Many parts of the learning process are being transformed by the advent of Emerging Technologies (ETs), notably teachers' work, information content, methods, class participation, and review. Incorporating emerging technologies into teaching learning process increases class participation and enhances student attainment. It promotes classroom innovation, innovation, and mobility, as well as drawback and surviving qualities for both students and teachers in today's information age. Advantages in terms of technological advances, their integrating in to teaching process is usually hampered by a lot of challenges that affects the consolidation (Onyema, 2020).

So according (Nawaz, 2012), big data will be used in schooling to provide "interactive 3d" interactions, which have been characterized as using mobile laptops to pump the digital world into reality, result in communication and connection simulators. Technological advances get a big effect on human capital management within the organisation. Performance appraisal, as well as person that works intensity and job finish dates, improved significantly of technology developments. Machine learning and robots are being used by businesses to automated simple and repetitive operations but also make tough choices faster and far more precisely. Nonetheless, Hr practitioners will face a variety of obstacles in improving employees ' performance in improving training capabilities in able to thrive in the workplace. Bringing technological innovations into the teaching - learning activities has the power to boost learners' productivity, but it needs teaching methods.

Oliveira et al. (2019) did a research study in the topic of innovative technology scientific training. According with report, emerging technology artefacts including computational methods, simulated labs, tablet phones, robots, gaming, and digital imaging and drawings are extending learners' perspective. According (Sosa, et al. 2017), "Emerging technologies in learning: A rigorous examination of literature written in 2006 and 2016." ET appears to be local and developing, and it boosts pupils' analytical reasoning and concern capabilities, according to the research.

(Rupali, et al.2018) argue that technology plays a large role throughout attempting to make educational games more valuable, and therefore it was among the most effective methods for trying to advance knowledge and expertise, and that technological advances have transforming the way students and faculty communicate and work, or that they seek to make lessons more interesting, participating, and interesting, while also luring both pupils but also colleges that join them. As a matter of fact of something like the the above, the fiction upon that proposal of technological developments to teaching is starting to grow, but really only a few researches have revealed upon that difficulties of assimilating emerging technologies into teaching and learning activities, especially nigeria, which is also the focus of study. The study would contribute significantly to closing literatures and providing the framework for future research.

A digital linkage must be established because training systems must be viable, that is, they must still be frequently updated. One of the lacking standards is not utilising digital tools that encourage innovative teaching techniques. The multiple biggest challenges to the system's protracted effectiveness, as per the findings from the study into the hurdles to systematic disenfranchisement, efficacious, and protracted system integration in schools, are: (1) colleges do not take that opportunity to analyse their accurately determine, (2) universities should not use facts to create improvements, and (3) constricted access to digital. We live in a time where academics are seeking to master all innovations, the more web 2.0 tools one learn, greater better academic environments they can create. In order to build an engaged class, instructors must try outside and comprehend numerous of web 2.0 tools. It also adds security issues, mainly in terms of web grading, and derails instruction apart first from primary audience (Başal, et al. 2021).

Some states have undertaken efforts to incorporate support and learning with new platforms as a consequence of global effects of the Coronavirus disease (COVID-19) epidemic. Organizations are beginning to construct infrastructures and deploy technological tools in an effort to improve the efficiency of distance students' learning. Infrastructures and additional digital resources that help pupils succeed academically are essential. The theories that explain its structure are also critical. A few of the requirements for professors in the twentieth centuries is really the ability to successfully incorporate instructional techniques within teaching approaches (Hans, et al. 2019).

Despite huge investments in education tech, teachers training in integrating technology & educational effectiveness may be lacking. There are various reasons for the lack of clarity in ict integration in tutorial classes. To begin, digital transformation seems to be a comprehensive, complex process that involves a set of independent variables like various technical equipment, professors, kids, school administration, and educational programmes. Also, previous

researchers' educational psychology, multiple technology inclusion strategies are introduced. Finally, because of the advanced technologies interplay, it is difficult to identify any approach adapting to a changing with in computer economic integration (Išoraitė, et al. 2021)

3. METHODOLOGY:

The method of this research is as follows:

RESEARCH DESIGN: The information will be gathered from both primary and secondary sources. A questionnaire will be used to obtain the primary data. Journal and research articles will be used as secondary sources of data.

SAMPLE SIZE AND SAMPLING TECHNIQUE: The sample size is a measurable number of persons chosen from a sample population for the purpose of gathering primary data on the research topic of interest. An online poll was performed to better understand their thoughts about the impact of technology and digitization on education. This study was based on Internet access among students from several educational institutions in India's major cities, including Delhi, Mumbai, and Chennai. On the basis of several inquiries from students in the corresponding regions, the necessary real-time data was obtained. 283 students' replies were evaluated in this study. Everyone uses the Internet at a different time. Google form questionnaires will be sent to the specified sample population. To avoid any danger of bias and deliver credible results, a random sample technique will be used to pick the sampling population.

4. RESULTS AND DISCUSSIONS:

According to the survey, while traditional teaching in our nation, such as writing on the board with chalk or a white board marker, is still preferred by many teachers, our students have different opinions. One of the most crucial topics in this poll was what our students thought about the success of digital education. When teachers employ digitalization technologies in the classroom, a maximum of 95.4 percent of students are delighted. Only 4.6 percent of students remained in the dissatisfied category. While this survey results show, the majority of our students are adapting to and enjoying digitization. As a result, our teachers should bear this in mind as they create their coursework.
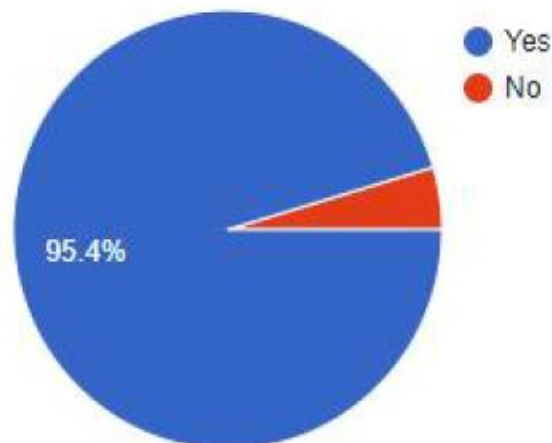

Figure 1: Effectiveness of digitalization

Another facet of the impact of digitization tools in the classroom was discovered when respondents were asked, "Do you think these digitised tools are affecting your classroom studying?" in this survey. The response changed depending on the happy-unhappy ratio. According to the author, 83.4 percent of pupils feel that digitization has a beneficial effect in the classroom, while 16.6 percent believe that traditional education is neither excellent nor harmful. In this part, it was discovered that students have differing perspectives on digitalization in the classroom. Some kids are completely unaware of how to use digital technologies for instructional objectives.
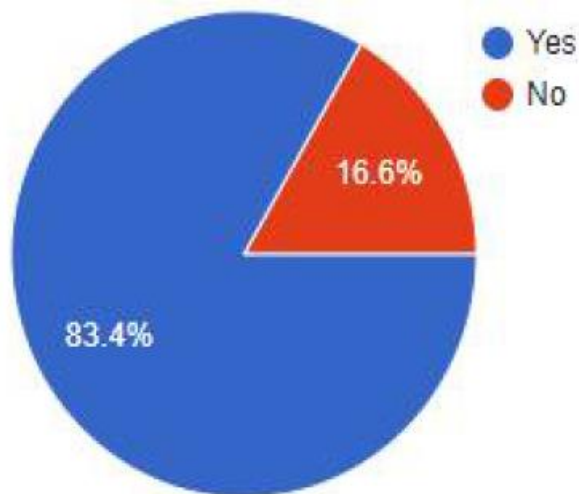

Figure 2: Digitalization effect on classroom study

As a result of this survey, E-learning is a pioneering approach to learning, There are numerous ways to characterise it, as well as instructional approaches that might have been applied in these learning environments. It's an all-encompassing educational approach one caters to today's natives. Cooperation, freedom, with access to a broader range of tools are the foundations of an effective programme of study. In order for the students to achieve in just this educational setting, the difficulties of t s must still be tackled with help through leading practice answers. Both instructors and learners need handle the change from traditional classroom tactics to a tion model of education. Despite the reality that today's young people are digitally literate, employing technologies for o p can sometimes be intimidating and can cause pupils to lose interest. Now with correct help from educators, pupils, on either end, can succeed within those e-learning environments.

5.   CONCLUSION:

In the last several years, India's education system has undergone a series of rapid expansions that have contributed to drive the situation into a haven for wisdom According to the study, youth development change is vital for the expansion of digital education at all levels. A large rise in academic infrastructure investment will result as a result of this. Good politics, Speaking gadget people, and an effective legal и industrial private ownership environment are all critical for the growth of elearning in Indian society. The Indian government is also taking considerable initiatives to enhance technological schools in the country, including the formation of new IITs as IIMs and the granting of instructional financing for research scholars at most governmental

bodies. Thirdly, and maybe most crucially, the trainer will emphasis on the course's general aspects. Putting in the effort and implementing any appropriate course materials into E-Learning environment to make into something and effective intensive class that benefits both of the teacher or the user. Significant changes in the way universities and colleges provide education will occur in the coming years as a result of digital education. This rapid use of digital technologies in both educational access and evaluation is not a passing trend; it will have long-term repercussions that will shape the new normal future. We shall soon see a plethora of opportunities emerge from digital education to empower India's youth.

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