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DIGITAL TECHNOLOGY IN TEACHING AND LEARNING IN MODERN EDUCATION SYSTEM

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Abstract:

Digital technology has affected almost every aspect of life today, and teaching-learning is no exception. The digital technologies such as ICT based (e.g., mobile phone, tablet, notebook, computer, laptop, smart TV, etc.), social media (e.g., Facebook, YouTube, Blogs, Twitter, LinkedIn, Telegram, WhatsApp web etc.), and Programmed Learning (online courses, e.g., Swayam, Swayam Prabha, MOOC, etc.) have become increasingly popular in recent years. The effect of Digital technology on teaching and learning is examined in this article, which is based on analysis. The Objective of this Study Is to Understand Impact of Digitization in Education Sector and to highlight how it works. This Is Descriptive Study and this study is based on the analysis of secondary data only. All schools, colleges and universities today are focusing more on digital education. Especially since the time of Covid-19, the demand for this technology-based education has been strong. Online courses now have more demand than the traditional face-to-face courses. The Digital technology has a variety of effects on education which very much helps the students to better understand the process and progress required for their future. The online platform is available 24 × 7, so students can participate at their convenient time, as they are not bound by a specific and strict time schedule. This online education is easily accessible on various devices which are easily known to all the students and they are also eco-friendly. The government is also taking a positive attitude towards technology-based education and taking various initiatives, as a result of which this education is reaching even the remote villages today. Online education is a growing face of India's education system. Since the new Education Policy (NEP) in 2020, many changes have been made in the education system, including online education.

Keywords: Digital Technology, Eco-friendly, Online Courses,

Introduction:

The contemporary era is mostly regarded as the technological era. In the field of education Technology is the application of scientific knowledge about learning and the conditions of learning to improve the effectiveness and efficiency of teaching and learning. When the whole country was under lockdown for Covid-19, e-learning was the best and only alternative for students to learn. In present time, technology is playing a vital role in every aspect of human life. According to current situation, India has been reached to the highest place in the field of education. Digitalization is advancing into the education system of India and is replacing

the conventional classroom practice. Indian education framework has received creative aptitudes in order to arrive at the final destination and making reformist methodology towards problem related phenomenon. Educational Technology is the field of study that investigates the process of analysing, designing, developing, implementing, and evaluating the instructional environment, learning materials, learners, and the learning process in order to improve teaching and learning.

1. Technology in Education / Hardware aspects of Education/ ICT based Education & 2. Technology of Education/ Software aspects of Education/ Programmed Learning.

The technology in education concept refers to presenting information in all possible ways. All educational and training gadgets, such as TVs, language test equipment, various project equipment, including all audiovisual aids. Overhead projectors, video cassette recorders, tape recorders, TV monitors, Microcomputers, etc. Technology in Education is also known as the approach of hardware aspects in education, in present scenario which is also known as ICT based education. In the context of ICT-based education, online teaching-learning has been introduced instead of teaching and learning in traditional classrooms. Online classes (Zoom, Skype, Google Classroom, Meet, etc.), online exam, online assessment (Quizziz, Hot Potatoes, Testomoz, etc.) are also introduced by the ICT based education.

Objectives of the Study: The main objectives of this study are as followsI. To understand the historical development of Digital technology; II. To understand the impact of technology in education and technology of Education in teachinglearning; III. To understand the digital education initiatives and bridging the Digital Divide.

1. National Digital Library (NDL) in May 2016, The National Digital library of India is a project under Ministry of Education, Government of India. The target is to gather and collate metadata and supply full text index from several national and international digital libraries, furthermore as other relevant sources. It's a digital repository containing textbooks, articles, videos, audio books, lectures, simulations, fiction and every one different kinds of learning media. The NDLI provides freed from cost access to several books within the Indian languages and English.

2. E PG Pathshala In 2015, e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The content and its quality being the key component of education system, top quality, curriculum-based, interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages are developed by the topic experts working in Indian universities and other R & D institutes across the country. Every subject had a team of man of science, paper coordinators, content writers, content reviewers, Language editors and multimedia team.

3 e-Adhyayan e-Adhyayan could be a repository of e-Books for the Under-Graduate & Post Graduate Courses. The eBooks are being derived from the e-text of e-PG Pathshala. The project is initiated by the University Grants Commission and Ministry of Human resource Development, Government of India. The author / course coordinator of books is Indian experts.

Currently, e-Adhyayan has 50 e-Books in Sociology, Library & informatics, engineering Science & IT. It's available in open access under Creative Common platform. The platform of e-Books is pressbook which is open source. It's been deployed and customised by the INFLIBNET Centre. It also facilitates e-book publishing off-line, where author can write and publish his/her own book

3 UGC-MOOC UGC MOOCs- A vertical of Study Webs of Active–Learning for Young Aspiring Minds (SWAYAM) portal, UGC has launched MOOC initiated by the govt. of India with an aim to enable access, equity and quality within the domain of education for the aspirants.

4 e-yantra The genesis of e-Yantra was within the teaching of the Embedded Systems course at IIT Bombay through the space Education Program of IIT Bombay from 2003 to 2006. The goal is to harness the talent of young engineers to resolve problems using technology across a spread of domains such as: agriculture, manufacturing, defence, home, smart-city maintenance and repair industries. Within the context of e-Yantra there are such a large number of initiatives, such as- e-Yantra Robotics Competition, e-Yantra Summer Internship Program, e-Yantra Lab Setup Initiative, e-Yantra Ideas Competition, e-Yantra Symposium, Task Based Training, etc.

5 Virtual Labs The Government of India introduced a pilot virtual lab in 2009 and the main one in 2010 to enable undergraduate and post-graduate students (pursuing science and engineering courses) remotely access the labs and enhance their study experience. The virtual labs off er students a Learning Management System and various study aides such as video lectures, web resources, self-evaluate on and animated demonstrate

6 DIKSHA In September 2017, the government introduced DIKSHA. DIKSHA is an initiative of the National Council of Educational Research and Training (NCERT) under the aegis of the Ministry of Education, Government of India. DIKSHA is a unique initiative which leverages existing highly scalable and flexible digital infrastructures, while keeping teachers at the centre. It is built considering the whole teacher's life cycle - from the time student teachers enrol in Teacher Education Institutes (TEIs) to after they retire as teachers. DIKSHA can be accessed free of cost by anyone. It also offers more than 100 microservices as building blocks for the development of platforms and solutions. It is designed to support multiple languages and solutions. At present, it supports 18+ languages and various curricula of NCERT, CBSE and SCERT pan India.

Conclusion: Overall, study on the effect of computing and emerging technology on teaching learning consistently finds favourable outcomes. Apart from teaching, there is a touch of technology in every aspect of human life today. Today society is constantly changing. This variability is the law of nature. Due to the change in the flow of this rule, people have adopted this technology today. Technology has taken place in every corner of the society today. Today technology is giving a chance to the backward students to move forward today. The positive steps taken by the Government of India have made the education system of students easier. This study will be very informative to the readers. Analysis of secondary information will influence the

reader's mind towards technology-based learning. The progress of society is not a mere measure. Proper use of technology symbolizes the progress of society.

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