Original Research Article

ROLE OF DIGITAL TEACHING TOOLS IN NEP 2020

* Mr. Anurag Ishwarlal Chandramore,

* B.E. Computer Engineering, Matrushri Kashiben Motilal Patel Senior College of Commerce and Science, Thakurli(E).

Abstract:

In the pursuit of transforming India into a knowledge powerhouse with equitable access to quality education for all, the National Educational Policy (NEP) 2020 has set ambitious goals. At the heart of this vision lies the potential of digital education to revolutionise the educational landscape. The National Educational Policy - 2020 envisions the provision of Equitable Access to Quality Education to all learners, regardless of geographic, social, or economic background, so as to make India a knowledge powerhouse. The digital transformation of education can be a powerful tool to enable the achievement of this vision. It calls for the integration of digital technologies into all aspects of education, particularly in educational processes.

Keywords*: Blended Teaching and Learning (BTL), Learning Management System (LMS), and Massive Open Online Courses (MOOCs), SWAYAM*

Objective

1. For better learning experience

2. Enhance speed of execution and transparency

Introduction

"Technology will never replace great teachers, but in the hands of great teachers, it's transformational."

– George Couros

NEP 2020 recognises the importance of

1. Leveraging the advantages of technology while acknowledging the potential risks and dangers

2. Carefully designed and appropriately scaled pilot studies to determine the benefits of digital/ online education

3. Optimising and expanding the existing digital platforms and ongoing ICT-based educational initiatives to meet the current needs and future challenges

4. Using technology for online and digital education adequately to address concerns of equity

Research Methodology: This paper is entirely based on primary & secondary data. primary data collected through google form.Secondary data collected from various research papers, online news articles, governmental websites, and documents.

Literature Review:

In previous research papers regarding digital teaching tools in NEP 2020 like ET Education (indiatimes.com), A List of ICT Tools for Teaching and Learning & Best Digital Learning Platforms for 2024 explained how to use

digital media and tools for the learning process. How it impacts on whole learning process and helps to teaching learning process for better education.

Power of Educational Technology:

Development of EdTech in the 21st century is characterised by co-evolution of pedagogical practices and technologies, such as Instructional Technologies, Learning Management System (LMS), and Massive Open Online Courses (MOOCs).

The last three years since the launch of NEP-2020 have seen major innovations in EdTech driven by emerging technologies like Artificial Intelligence, Machine Learning, Virtual Reality, Augmented Reality, Gamification, etc. Recent additions of Instant Messaging systems like WhatsApp and Extended Reality platforms like Metaverse, coupled with tools like GPT (Generative Pre-Trained Transformer) tools, are making the use of EdTech more interesting and effective for learners. Extended Reality (XR) environments like Metaverse can create deeply immersive learning environments, providing unique learning experiences that cannot be easily reproduced in a normal classroom setting. The proliferation of 5G technology in the coming days will accelerate the pace of EdTech adoption. The latest and most innovative application of Artificial Intelligence (AI) is GPT, which can create output in human-like expressions, using words, voice, and images, will offer the students personalised and adaptive learning, wherein the study material and pace of learning can be tuned to the needs of individual students.

Blended Teaching and Learning: The Need of the Day

The Covid-19 pandemic forced the adoption of EdTech in academic delivery, though the level of adoption varied, depending on the location and the type of educational institution. However, there has been a consensus that online learning has taken a toll on the quality of learning outcomes, due to a variety of reasons, which include the lack of adequate ICT infrastructure and the lack of training of teachers. As per the World Economic Forum (2022) "evidence suggests that technology is deployed most effectively, when used to complement classroom teaching, not substitute for it".

In view of this, post Covid-19, a number of educational institutions have shifted to Blended Teaching and Learning (BTL), wherein digital teaching-learning tools are integrated with traditional classroom face-to-face teaching and learning.

Digital study material like videos, PPTs, podcasts, recordings, and articles is provided to the students before the face-to-face classroom session so that they can go through it as per their convenience. This leaves ample time in the classroom for the teachers to engage the students in discussions and co-curricular activities, so that the quality of learning is enhanced.

The Role of Teachers:

Quality learning outcomes depend on the close interaction between the teacher and the learner in the learning zone. So, it is up to the teachers to identify the most effective model of Blended Teaching Learning (BTL).

National Educational Technology Forum: NEP-2020 envisaged the establishment of an autonomous body, the National Educational Technology Forum (NETF), to provide a platform for the free exchange of ideas on the

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use of technology to enhance learning, assessment, planning, and implementation, for both school and higher education.

The role of the NETF is to facilitate decision making on the induction, deployment, and use of EdTech by State and Central Governments and educational institutions, by providing the latest knowledge, research, and consulting advice on the latest EdTech and sharing the best practices with all the stakeholders. NETF is also expected to be the enabler of a thriving Education and Skilling ecosystem by way of capacity building.

Existing initiatives like SWAYAM, the National Academic Depository (NAD), National Internship Portal (set up by AICTE) are being brought under the umbrella of NETF.

Digital Learning Platforms are the Future of Education

Students and teachers now have the opportunity to experience varied learning environments due to the profound shift that has taken place in the concept of education over the last few years. By using the internet in place of traditional classroom teaching methods, online learning has completely revolutionised the manner in which students acquire knowledge.
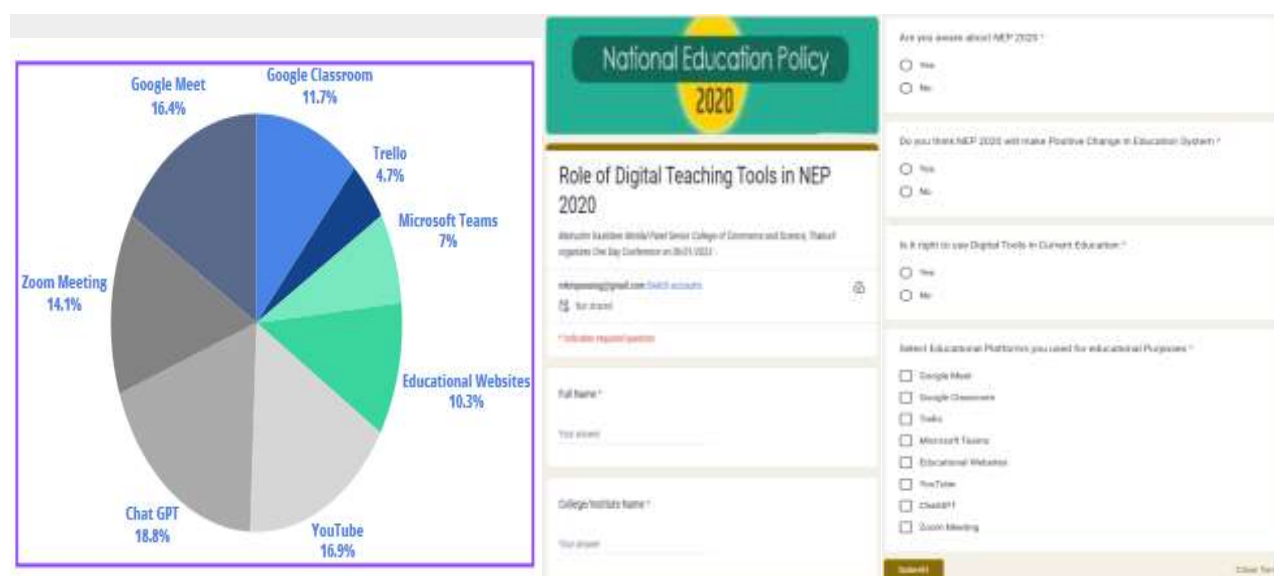
The Role of Ed-Tech in Promoting Digital Literacy

1. Access to Quality Educational Content

2. Interactive Learning Experiences

3. Digital Skills Development

4. Personalised Learning

5. Collaboration and Communication

6. Enhancing Teacher Effectiveness

7. Bridging the Digital Divide

We did Survey on Which Popular Platforms teachers/students use in daily life such as

1. Google Meet,

2. Google Classroom,

3. Trello,

4. Microsoft Teams,

5. Educational Websites,

6. YouTube,

7. ChatGPT,

8. Zoom Meeting

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After getting Survey Responses on Different Platforms

Conclusion:

Conclusion of this research paper is that the Digital Tools are making exponentially enhancements in education quality as well as increasing the reach of education in terms of Conventional and Online Teaching Process. In future Artificial Intelligence will change the way of Learning and teaching process will reduce the burden on the teachers and overall education system. It will increase the quality of education and accessibility to everyone. With these tools we can overcome geographical barrier and reachability. Video Conferencing and recording facility helps to make available the lecture after the actual lecture delivered so student can get exact topic wise availability by using Learning Management System (LMS). Students feel free to learn and access study materials anywhere which increase student numbers and consequently education institutions financial gain as well as optimum resource utilization.

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