USE OF LATEST TECHNOLOGY AND ONLINE RESOURCES IN TEACHING & LEARNING PROCESSES

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ABSTRACT

The use of education with technology has boosted new avenues of foresight for the progress of mankind. Education and technology are the basic pillars for any country in terms of development and national progress. Nowadays without these the growth of any nation is not possible, without an adroit society the nation cannot compete itself at global level. Moreover the education policies and the technologies are the bidirectional acceleration key factors. Technology improves the educational system and an educational policy advances technology. This integration has achieved pinnacle of success and currently, technologies like Artificial Intelligence, Machine Learning, Cloud Computing, Block chain and other latest hardware and software like smart boards, handheld computing devices, digital setting pads, online teaching App's, adaptive computer testing process for student development. viz. changes the classroom learning environment from offline to online as well as improves the offline learning classrooms process. With this advancement now students not only learn effectively in the classroom. The students can decide their learning style, together with implementations of concepts in real life as well as with their benefits & pitfalls etc. This sort of change in the learning process reduces the gap between educated and uneducated society; now everyone can achieve education easily. In light of the foregoing changes, this paper investigates the latest technologies, focusing on the relationship and gaps between education policy and technology; the critical role of technology in educating societal development, and the role/importance of technology in national progress together with teaching & learning process.

INTRODUCTION

Education is the mother of leadership which lays down the foundation for a better future. An educated leadership together with innovative education policies and latest technology can sprout an educated society, which can empower the national future, community life, and also can burgeon digitally empowered society. Education and technology are the magical key factors for a successful country, their real economic growth, wealth creation, and helpful for change in the quality of life of individuals. The education policies must be flexible enough to adapt technological change at any time in order to achieve said factors. In lieu of that the similar changes have been imparted in the framework of NEP (New education Policy)-2020, where students can learn anything, anywhere at any time whether online or offline through their multiple entry and exit programs at their various levels of education, even they can learn in their native languages also. [6] This flexible environment can learn effectively, at their earliest stage of study and can take exit from their study program for the advancement in technology, where the student can learn and can take entry back to application of their thoughts or knowledge in real life environment and can take entry back to education in some different course with a continuation to update their knowledge or even they can take admission in some different carrier. According to NEP 2020, to exchange the ideas, an autonomous body NETF (National Educational technology Forum), will provide a platform for the use of technology to reinforce learning, planning and enhance the idea, an autonomous body NETF (National Educational technology Forum), will continuation of different subjects in later stages of their study carrier. According to NEP 2020, to

The impact of these technological involvements surely will lead to the access to education, support teachers' skill preparation, professional development, and improve teaching learning and evaluation process. The NETF will also streamline educational planning, management & administration, including procedures related to admissions, attendance etc. For all of the aforementioned goals, the latest educational software are will be created and made accessible to the students and teachers. Also the learning material will be developed in the regional languages by state and other official bodies and it will be uploaded on the platform DIKSHA which will be available to teachers and students as well. The focus will be on the use of the latest technology for this e-learning content & software's. The NETF will notify the changes and the development of the latest technology with content to the students MHRD and MHRD will identify and govern the emergence demand of latest technology from the educational institution as well. This leads to providing digital advance technologies to the students and teachers of the schools, colleges and universities. The various official agencies under MHRD are conducting pilot studies for the concoction of education with the online education resources. Various online platforms like SWAYAM, DIKSHA will be developed & upgraded. They will be user friendly for learning and will monitor the progress of learners as well. The developed e-learning material will be store a digital repository and will be available to the learners in a reliable and user friendly environment. While developing the e-learning material and the digital infrastructure the focus will be given to the regional languages. The blended mode of learning process for teachers and students will be used through digital platforms. The officials will ensure that the developed digital infrastructure with use of the latest technology, will be updated regularly. This optimistic change in the new education policy-2020 and technology, especially in online teaching-learning resources will help students to achieve their goals and come out with great innovative ideas. [4] [5]

1. FOCUSING ON THE RELATIONSHIP AND GAPS BETWEEN EDUCATION POLICY AND TECHNOLOGY

The technology and the education policies have complex multi-faceted relationships. The education policies built the road map to use the technology in the universities, colleges and schools, on the other hand without the use of technology the goals of educational policies are not achievable. Both are interlinked through the development of digital learning policies. Moreover, the technology can support the implementation of these policies by providing new ways of delivering educational content, and personalizing learning experiences for learners. The gap between educational policies and technology is that technology is a fast growing process which is updating day by day whereas policies may not always update day by day or they cannot keep up with the rapid pace of technological change. This shows that there should be a strong concoction between education, policymakers, and technology developer to ensure that policies should be relevant, effective, adaptive and responsive to the needs of learners. [7]

The functions of the NETF will be like—

- Establish suitable infrastructure in educational technology for effective learning
- Express new research and innovation strategies for future development
- Guide state and central government agencies with unbiased evidence-based advice on technology based solutions [4]

2. CRITICAL ROLE OF TECHNOLOGY IN EDUCATING SOCIETAL DEVELOPMENT

The latest technology plays a crucial role in educating societal development. It changed the way the learners access their society knowledge in a real life environment and how they function and communicate. The major ways in which technology has impacted education and societal development are:

Online Learning: The technology has provided access to the learners with high-quality educational learning resources worldwide through the internet like NPTEL, SWAYAM, edX, Coursera, Udemy etc. without online learning many among us might not have access to this opportunity. Now the learners can take courses from the comfort of their own homes and at their own pace. [2].

2. **Ease of Information Access:** With rapid increase in technology and the handheld devices and the internet, the learners can access desired information at any time anywhere in the world. Without discriminated socioeconomic status & the location, the technology provides equal opportunities to learners to access this information or we can say this has democratized the education system.

3. **Personalized Learning:** With advancement in technology now learners can achieve their goals and can focus on their weakness and strength. The technology has enabled personalized learning experiences, and this has happened due to the latest software's development through artificial intelligence, machine learning algorithms and with adaptive learning software which analyzes learner's performance and provides customized feedback and guidance.

4. **Collaboration and Communication:** The technology enhanced the collaboration and communication among learners i.e. students and teachers. Online teaching Apps, digital writing software, video conferencing, Apps, online forums, and social media platforms allow learners to connect with others and share their ideas, and teachers now can teach their students in an effective way. This collaboration and communication increases teamwork and communication skills among the learners and teachers.

5. **Innovation and Creativity:** The above said ICT tools and factors have boosted the thinking of the learners, which leads them to be innovative and creative. [1] [8]

3. IMPORTANCE OF TECHNOLOGY IN NATIONAL PROGRESS TOGETHER WITH TEACHING & LEARNING PROCESS

The latest technology plays a vital role in national progress, along with teaching and learning processes, by providing innovative tools and platforms for educators and learners to improve their skills and knowledge. As we have seen in the last topics where technology plays a crucial role in educating societal development, where technology facilitates access of information and resources to everyone. The fast access to the internet has made information accessible to everyone, regardless of location, and discrimination. Educators can access research papers, research data, E-textbooks or E-learning material, and other text scripts to improve their teaching and learning skills, while learners can access vast amounts of information and can perform research on the data, as well as researchers now can invent new technology/ latest e- learning devices and application software's etc easily. The online meeting apps like Zoom, Google Meet, Skype, Slack, Big Blue Button, Blue Jeans, Whereby, Go To Meeting, Cisco Webex, Black Board Collaborate etc. [3] has reduced the gap between the learners and the educators now educators can easily meet the learners online at any time on the internet using these web applications. While using these online meeting applications the teacher can

easily teach the student. The teachers can also use various meet applications like Zoom Docs, Google Slide, Quizziz, EDUCOM, Open board, AWW (An Web Whiteboard App) [3] along with these online meeting application, and can feels like that he she is teaching in the classroom. Various other new tools like virtual and augmented reality, interactive whiteboards, and online educational games make learning more engaging and student centric. The most popular ICT tools platforms like Visme (online presentation and info-graphic tool), Dialpad, LightSail, Google classroom, Google Docs, Slack, video conferencing Apps, online teaching Apps, digital writing software, Remind App, Talking Points (Similar to remind app) Ted Talks etc. are helping the learners to learn effectively through online mode. [2] With advancement in these technologies, the communication and collaboration among educators and learners has been enhanced. The other technologies like Artificial Intelligence, Machine Learning, Cloud Computing, Block chain have played an important role in development of the online resources for teaching and learning process. Using these online platforms and tools, teachers and learners can share resources, engage themselves in collaborative projects over different parts of the world. The latest technology has promoted a global exchange of ideas and guides to develop a more well-rounded education and help in the progress of the nation by developing new job opportunities like work from home, and saving the energy resources like oil (patrol or diesel), gas, electricity as well as reducing pollution. All these factors are helping the countries to develop economically.

CONCLUSION

The use of technology and the online resources has played a crucial role in national progress, teaching and learning processes, educating societal development by improving access to information & resources as well as a wide range of courses & programs, transforming teaching & learning processes, promoting communication & collaboration, providing creating immersive learning environments, offering personalized learning experiences, creating new job opportunities, and saving the energy resources. While using the latest technology, the upgrading of the education policies is required and policies should adopt latest technology as well. Recently, this change has been seen in the NEP-2020, where the use of technology, especially in the online teaching-learning process, will lead our nation towards a successful educated country and affect the quality of education. As technology continues to evolve, it will undoubtedly play an increasingly important role in shaping the future of education and society as a whole.

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