Role of Digital Technology in NEP 2020: A Review

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Abstract:

In this globalized world education is played a vital role in transforming nation in digital empowered society. Digital technology pays an important role in development of education. Researcher has to describe the role of digital technology in National Education Policy 2020. Technology may impact very much in delivering knowledge. Digital technology is very helpful in delivering the lecture and their assessment also. Technology plays important role in improvement of educational process. Researcher has discussed the key initiatives of digital technology.

Key words: Digital Technology, NEP 2020, Education.

Introduction:

The current generation of children's were born in very high technology world. They expect technologically rich and knowledge also rich. Our education system has to change according to their need and wants. The productive engagement by teachers and colleges with the help of teaching technology is becoming a part of our everyday practice. The use of technology changes the role of teacher. Change the environment of learning. Technology helps to change teaching pedagogies. Technology helps in increasing learning ability. The demands of a knowledge economy have changed a renewed focus on teaching and learning ability. After the tree decades the Union Cabinet has approved the National Education Policy 2020 on 29 July 2020. In some extent this policy is the revolution in the Indian education system. Technology is the one of the key aspect in national education policy 2020. During Covid-19 pandemic situation technology helps to run the whole education system in India and all over the world.

Objectives of the Study:

Following are the objectives of the study:

1) To study importance of technology in teaching and learning as per NEP 2020.

2) To insure that use of technology adds value to the intended learning.

Historical Background:

Previous National Policy of Education in India as formed in 1986. In January 2015, one committee is formed under the former cabinet secretary Subramanian. He started the discussion process for changing the education process. This committee submitted their report in June 2017. ISRO chief Krishnasamy Kasturirajan led a panel and submitted the draft off new education policy in 2019. The draft of new education policy was later released by Ministry of HRD. The draft of National Education Policy was of 484 pages.

NEP 2020 Ensuring Equitable Use of Technology:

New situations and actualities require new creativities. The latest rise in epidemics and pandemics requires that we are ready with alternative modes of quality education whenever and wherever old and in-person modes of education are not possible. In this regard, the National Education Policy 2020 recognizes the significance of leveraging the importance of technology while acknowledging its potential risks and hazards. It calls for carefully designed and correctly scaled pilot studies to determine how the benefits of online/digital education can be reaped while addressing or mitigating the downsides. In the meantime, the existing digital platforms and ongoing technology-based educational initiatives must be enhanced and expanded to fulfil the current and future challenges in providing quality education for all.

However, the benefits of technological education cannot be leveraged unless the digital divide is eliminated through concerted efforts, such as the Digital India campaign and the availability of reasonably priced computing devices. It is important that the use of technology for online and digital education adequately addresses concerns of equity.

For becoming effective online educator, Teachers require suitable training and development. It cannot be expected that a good teacher in an old classroom will automatically be a good teacher in a digital classroom. Aside from changes required in pedagogy, online assessments also require a different approach. There are various challenges before online education. For the overcoming on such challenges technology helps to the education policy 2020. There are many encounters to conducting online examinations point of view, for e.g. limitations on the types of questions that can be asked in an online examination, preventing bad practices, handling network and power disruptions etc. Between any types of programme or course, such as Commerce, Arts and science practical have limitations in the technological education space, which can be overcome to a partial extent with inventive measures. Further, unless online education is mixed with experiential and activity-based learning, it will tend to become a screen-based education with limited focus on the social, affective and psychomotor dimensions of learning.

Key Initiatives for Digital Technology:

Technology in education is changing day by day. It is not fixed and sustain will be needed to arrange the various ecosystem players to implement policy objectives. A dedicated unit for the purpose of arranging the structure of digital infrastructure, digital content and capacity building will be created in the Ministry to look after the online education wants of both school and higher education. Since technology is rapidly developing, and essentials specialists to deliver high quality online education, a vibrant ecosystem has to be encouraged to create solutions that not only solve India's challenges of scale, diversity, equity, but also evolve in keeping with the rapid changes in technology, whose half-life reduces with each passing year. This centre will, therefore, consist of experts drawn from the field of administration, education, educational technology, digital pedagogy and assessment, e-governance, etc

From school level to higher education NEP 2020 recommends following key aspects for emergence of digital technologies and the emerging importance of leveraging technology.

1) **Pilot studies for online education:**

Appropriate agencies, such as the NETF, CIET, NIOS, IGNOU, IITs, NITs, etc. will be identified to conduct a series of pilot studies, in parallel, to evaluate the benefits of integrating education with online education while mitigating the downsides and also to study related areas, such as, student device addiction, most preferred formats of e-content, etc. The results of these pilot studies will be publicly shared and used for continuous improvement.

2) **Digital infrastructure:**

There is a need to invest in design of open, interoperable, evolvable, public digital infrastructure in the education sector. This can be used by multiple platforms and point solutions, to solve for India's scale, diversity, difficulty and device penetration. This will ensure that the technology-based solutions do not become invalid with the rapid advances in technology.

3) **Online teaching platform and tools:**

Appropriate existing e-learning platforms such as SWAYAM, DIKSHA, will be extended to provide teachers with a structured, user-friendly, rich set of assistive tools for monitoring progress of learners. Tools, such as, two-way video and two way-audio interfaces for holding online classes are a real necessity as the present pandemic situation has shown in online education.

4) **Content creation, digital repository, and dissemination:**

A digital repository of content including creation of coursework, Learning Games & Simulations, Augmented Reality and Virtual Reality will be developed, with a clear public system for ratings by users on effectiveness and quality. For fun based learning student-appropriate tools like apps, gamification of Indian art and culture, in multiple languages, with clear operating instructions will also be created. A reliable backup mechanism for disseminating e-content to students will be provided.

5) **Addressing the digital divide:**

Given the fact that there still persists a substantial section of the population whose digital access is highly limited, the existing mass media, such as television, radio, and community radio will be extensively used for telecast and broadcasts. Such educational programmes will be made available 24/7 in different languages to cater to the varying needs of the student population. A special focus on content in all Indian languages will be emphasized and required; digital content will need to reach the teachers and students in their medium of instruction as far as possible.

6) **Virtual Labs:**

Existing e-learning platforms such as DIKSHA, SWAYAM and SWAYAMPRABHA will also be leveraged for creating virtual labs so that all students have equal access to quality practical and hands-on experiment-based learning experiences. The possibility of providing adequate access to SEDG students and teachers through suitable digital devices, such as tablets with pre-loaded content, will be considered and developed.

7) **Training and incentives for teachers:**

Teachers will undergo difficult training in learner-centric pedagogy and on how to become high-quality online content creators themselves using online teaching platforms and tools. There will be emphasis on the teacher's role in facilitating active student engagement with the content and with each other.

8) **Online assessment and examinations:**

For online assessment of students various bodies are formed such as the proposed National Assessment Centre or PARAKH, School Boards, NTA etc. It will design and implement assessment and evaluation frameworks encompassing design of competencies, portfolio, rubrics, standardized assessments, and assessment analytics. Studies will be undertaken to pilot new ways of assessment using education technologies focusing on 21st century skills.

9) **Blended models of learning:**

While promoting technological learning and education, the importance of face-to-face in-person learning is fully recognized. Accordingly, different effective models of blended learning will be identified for appropriate imitation for different subjects.

10) **Laying down standards:**

As research on technological education emerges, NETF and other appropriate bodies shall set up standards of content, and pedagogy for technological teaching-learning. These standards will help to formulate guidelines for online learning by States, Boards, schools and colleges etc.

Conclusion:

With the help of above discussion researcher has concluded that Education will play an important role in transforming the whole nation into a digitally empowered society. Technology itself will play a crucial role within the improvement of educational processes and outcomes; thus, the connection between technology and education in the least levels is bidirectional. Technology will effect education in multiple ways. New technologies involving AI , machine learning, block chains, smart boards, handheld computing devices, adaptive computer testing for student development, and other sorts of educational software and hardware won't just change what students learn within the classroom but how they learn, and thus these areas and beyond would require extensive research both on the technological also as educational fronts.

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