NEP (2020): Integrating Technology in Education

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Abstract- Education plays a major role in the growth and economic development of a country. To make India a Vishwa Guru, strengthening and improving quality education are important. The NEP is a comprehensive framework that outlines the vision and goals for transforming the education system in a country. With the rapid advancement of technology, there is a growing emphasis on leveraging educational technologies to enhance teaching and learning experiences. Technology has the power to provide teaching, learning, assessment, and connectivity to every corner of the nation, bridging the digital divide. The National Education Policy (2020) places a strong emphasis on the use of educational technology to increase access to educational opportunities, improve the quality of education, address issues of inclusion and diversity, and improve the accessibility, quality, equity, affordability, and accountability of the nation's educational system. This research paper explores the integration of technology in education within the context of the National Education Policy (NEP).

Keywords- National Education Policy 2020, Technology, Accessibility, ICT

I. INTRODUCTION

India's National Education strategy (NEP) 2020 is a national education strategy that intends to reform the educational system in that nation. Education will be essential to this shift, but technology will also be essential to enhancing educational practices and results. As a result, there is a reciprocal relationship between technology and education at all levels. The Union cabinet passed the New Education Policy (NEP) in July 2020. Its only objective is to make education available to everyone from basic preschool through high school. The National Policy of Education from 1986 was repealed in favour of the NEP-2020. It is an inclusive framework that will concentrate on India's primary through higher education levels. No one can deny the National Education Policy, 2020 is revolutionary in every way.

The policy is an innovative and forward-thinking document that acknowledges the crucial role that technology plays in advancing learning and teaching. It is important to establish a coordinated plan of action for fostering technical proficiency to support successful engagement with technology (and its potential advancements) while ensuring efficient data security and privacy protections. The policy acknowledges that information will become more digital and dematerialized in education in the future. This level of awareness is a major accomplishment for India's historically rigid educational system.
The 2020 Policy acknowledges the necessity to resolve the difficulties related to technology and practical elements to make education open and accessible to everyone without discrimination. No matter where you are, whether in a city, a town, or another distant place, having reliable internet and energy, as well as a qualified academic professional and laptop device, should be enough.

II. BACKGROUND OF INDIA’S NATIONAL EDUCATION POLICY 2020
For the purpose of developing the National Education Policy, the Ministry of Human Resource Development established a committee under the direction of Dr. K. Kasturirangan. In June 2017, the Committee was established. On May 31, 2019, the Committee submitted its report. In both urban and rural India, basic and higher education are covered under the national policy on education.

III. LITERATURE REVIEW
Dr. Vikas Inamdar (2021) conduct research on “Integration of Technology in ODL: NEP-2020 Initiatives & its Fall-out Effects.” The ODL model of education offers fairness and room for growth, much work still needs to be done to make it excellent. The UGC has already given permission to the top 100 institutions according to the NIRF Rankings (2020) to introduce the ODL form of study. A new mixed form of education will manifest after the COVID-19 epidemic, which is essential and unavoidable.
Dr. Nidhi Sharma conducts research on Integration of Technology: researchers found key factor of NEP 2020 states have launched and implemented the new policy and many others are in the process but still a long way has to be covered. If the center and states go hand in hand, the New
Education Policy will pave the way for making the learners’ future ready as it stresses upon the learning of skills and technology.

IV. OBJECTIVE

A. To analyze the integration of technology in education as outlined in the National Education Policy (NEP).

B. To Understand the benefits and challenges of technology integration.

V. RESEARCH METHODOLOGY

This paper utilizes a descriptive research design approach based entirely on analysis of secondary data. Relevant information is gathered from credible secondary sources such as published research papers, policy documents, government reports, books, and journal articles. The paper aims to review and synthesize key aspects of the National Education Policy 2020 pertaining to integration of technology in teaching and learning. It further explains and discusses the potential benefits and challenges associated with effective adoption of technology in education.

The methodology is qualitative and descriptive in nature. No primary data collection has been done. Using secondary literature, the technology-focused initiatives proposed under NEP 2020 have been studied and salient points presented. Both advantages of educational technology as well as limitations and barriers have been described based on existing literature.

In summary, this is a descriptive research paper that comprehensively reviews and analyzes secondary data from credible published sources on the topic of National Education Policy 2020 and integration of technology in Indian education. The aim is to highlight and discuss the critical aspects of this policy that can potentially transform the quality, accessibility and innovation in India's education system through use of appropriate technologies.

VI. NEP (2020): INTEGRATING TECHNOLOGY IN EDUCATION

The key technology-powered changes brought by the 2020 Policy are summarized below:

a) National Educational Technology Forum

The National Educational Technology Forum (NETF) will be established as part of National Education Policy 2020 to provide a forum for the open exchange of ideas on how to utilize technology to improve learning, assessment, planning, administration, and other areas, on both a national and international scale. for both higher education and school. By providing the leadership of educational institutions, State and Central Governments, and other stakeholders with the most recent information and research as well as the chance to consult and share best practices, the NETF will facilitate decision making on the introduction, deployment, and use of technology.
b) **E-libraries**

The 2020 Policy makes advantage of technology by granting access to e-libraries to both instructors and students for quick access to books, resources, question banks, the most recent syllabus, journals, and papers. Teachers can use their devices, such as smartphones, tablets, computers, and other ones with access to the digital library, to access these services. The digital library may be accessed by students using any of the approved devices from their educational institution.

c) **Virtual Labs**

The Virtual Labs initiative provides online access to simulation-based labs in a number of science and engineering fields in order to solve the issue of inadequate lab facilities and qualified professors. Another goal is to pique the kids' curiosity and provide them with the freedom to learn at their own pace. Through simulation-based experimentation, this student-centered method supports the assimilation of both fundamental and sophisticated concepts. The utilization of extra web resources, video lectures, animated demonstrations, and self-evaluation are also made possible via internet-based experimentation.

d) **Academic Bank of Credits (ABC)**

It is a virtual/digital repository that holds information on the credits that students have racked up throughout their academic careers. Students will have a variety of options for enrolling in and leaving colleges or universities, as well as the ability to create an account. There will be "multiple exits" and "multiple entries" points throughout the higher education career, and credits will transfer seamlessly via the ABC. Any student's credit history can always be checked using ABC, a dependable resource. As a result, the ABC concept helps boost teacher output and motivates students to embrace a multidisciplinary approach to learning. The objectives are to develop students as "skilled professionals" and to promote their overall development.

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VII. **BENEFITS OF TECHNOLOGY IN EDUCATION**

a) Technology may narrow access gaps to high-quality education by offering digital materials, online courses, and e-learning platforms. By connecting with kids in underprivileged neighbourhoods and remote locations, it can increase educational possibilities.

b) Digital resources and information are made possible by technology. Examples include interactive multimedia, instructional applications, and textbooks. These tools may make learning more enjoyable, keep students interested, and accommodate different learning preferences.

c) Learning that is personalised and adaptive: Technology enables learning that is personalised and adapted to the requirements of each learner. Assessing students'
strengths and weaknesses enables adaptive learning platforms and intelligent tutoring systems to provide tailored information and feedback, encouraging self-paced learning.

VIII. CHALLENGES

a) **Infrastructure and Connectivity:** The efficient application of technology in education can be hampered by unequal access to dependable internet connectivity, particularly in rural and distant places. To provide equal access, connection issues and insufficient infrastructure must be fixed.

b) **Digital Divide:** Differences in pupils' access to technology and online resources can widen already-existing educational disparities. To guarantee that all students can benefit from technology-enhanced education, it is imperative to address the digital divide.

c) **Training and Support for Teachers:** Teachers need sufficient professional development and training in order to successfully incorporate technology into their teaching methods. To maximise the advantages of technology in education, it is crucial to improve teachers' digital literacy abilities and offer continuing assistance.

IX. CONCLUSION

The NEP 2020 recognizes the transformative potential of technology in education and highlights the importance of digital learning, online education platforms, and the integration of technology in pedagogy. The effective integration of technology has the potential to transform teaching and learning, preparing students for the demands of the digital age and fostering innovation and creativity in the education ecosystem. Addressing the associated challenges is essential to fully leverage the benefits of technology and ensure inclusive and equitable access to quality education for all learners.

REFERENCES


