

# IMPACT OF ICT O EDUCATION: A NEP 2020 PERSPECTIVE

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## ABSTRACT

Technology is a gift of God. After the gift of life it is perhaps the greatest of God's gifts. It is the mother of civilizations, of arts and of sciences. Technology has certainly changed the way we live. It has impacted different facets of life and redefined living. Undoubtedly, technology plays an important role in every sphere of life. Several manual tasks can be automated, thanks to technology. Also, many complex and critical processes can be carried out with ease and greater efficiency with the help of modern technology. Thanks to the application of technology, living has changed and it has changed for better. Technology has revolutionized the field of education. The importance of technology in schools cannot be ignored. In fact, with the onset of computers in education, it has become easier for teachers to impart knowledge and for students to acquire it. The use of technology has made the process of teaching and learning all the more enjoyable. Well defined and futuristic education policy is essential for a country at school and college levels due to the reason that education leads to economic and social progress. Different countries adopt different education systems by considering the tradition and culture and adopt different stages during their life cycle at school and college education levels to make it effective. The main objective of this study is to explore the National Education Policy 2020 in India. The study would be useful for the Indian in planning and upgrading their educational system and improve quality of education in future.

**Keywords:** Modern, Technology, Teaching, National, and Education Policy

## INTRODUCTION

The era of 21st century is often regarded as an era of technology. Technology, today, plays a very important role in our life. It is seen as a basis of growth of an economy. An economy which is poor in technology can never grow in today's scenario. This is because technology makes our work much easier and less time consuming. The impact of technology can be felt in every possible field one such field is Education. Modern technology in education According to the latest insights as to how exactly modern students of today prefer to use technology and how does their learning get an impact if they use technology, it was revealed that the use of modern equipment technology and tools, the learning and interactivity of students increases. They also find it much more interactive, as well as full of interesting areas, when aided by technology. The transfer of knowledge becomes very easy and convenient, as well as effective. What this means is, that our minds now tend to work faster when assisted with the use of modern technology, be it any part of life, here we talk about education. The reliance and dependence of such an innovation that simply makes life an easy, smooth journey is completely unavoidable these days even in schools, universities and colleges. Students today can make use of technology in the following ways:

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- Internet connection and round the clock connectivity: The internet has grown in importance by many folds, over the process of decade. Its importance in the education world can now never be undermined. Despite the chances of fraud and drawbacks, the use of the internet is like a blessing for students.
- Using projectors and visuals: Visual images always have a strong appeal compared to words. Using projectors and visuals to aid in learning is another form of great technological use. The learning part also becomes pretty efficient when it comes to technology.
- Digital footprint in the education sector: As the power of digital increases, there are and there will be more applications that will assist students in development and learning.
- Online degrees with the use of technology: Online degrees now have become a very common phenomenon. This is a concept that will continue to rise as it gets more support and awareness. The online degree scenario around the world is more famous among students who work and look for flexible studying programs.

The teacher must be at the centre of the fundamental reforms in the education system. The new education policy must help re-establish teachers, at all levels, as the most respected and essential members of our society, because they truly shape our next generation of citizens. It must do everything to empower teachers and help them to do their job as effectively as possible. The new education policy must help recruit the very best and brightest to enter the teaching profession at all levels, by ensuring livelihood, respect, dignity, and autonomy, while also instilling in the system basic methods of quality control and accountability.

### **NEW EDUCATION POLICY 2020**

Recently, the Union Cabinet has approved the **new National Education Policy (NEP), 2020** with an aim to introduce several changes in the Indian education system - **from the school to college level.**

- The NEP 2020 aims at making **“India a global knowledge superpower”**.
- The Cabinet has also approved the **renaming** of the Ministry of Human Resource Development to the **Ministry of Education.**
- The NEP cleared by the Cabinet is **only the third major revamp of the framework of education** in India since independence.
- The **two earlier education policies** were brought in **1968 and 1986.**

### **OBJECTIVES OF THE STUDY**

1. To know the impact of ICT on education and explore NEP 2020 in India.
2. To examine the vision of NEP 2020 and digital education.
3. To discuss the significance of National Education Policy 2020 and upgrading educational system.

### **METHODOLOGY**

The methodology consists of a conceptual discussion on highlighting the gist of the national educational policy framework, highlighting various sections of the policy of NEP 2020. Identifying the innovations made using the focus group discussion method.

## IMPACT OF ICT ON EDUCATION

The role of technology in the field of education is four-fold: it is included as a part of the curriculum, as an instructional delivery system, as a means of aiding instructions and also as a tool to enhance the entire learning process. Thanks to technology; education has gone from passive and reactive to interactive and aggressive. Education is essential in corporate and academic settings. In the former, education or training is used to help workers do things differently than they did before. In the latter; education is geared towards creating curiosity in the minds of students. In either case, the use of technology can help students understand and retain concepts better. In educational context, ICT has the potential to increase access to education and improve its relevance and quality. The National Education Policy (NEP) 2020 of India emphasizes the transformative role of Information and Communication Technology (ICT) in enhancing the quality and accessibility of education across the country. Recognizing the potential of digital tools to revolutionize traditional teaching and learning methods, NEP 2020 advocates for the seamless integration of technology at all educational levels. The Key Aspects of ICT Integration in NEP 2020:

- **Establishment of the National Educational Technology Forum (NETF):** NEP 2020 proposes the creation of NETF, an autonomous body dedicated to providing a platform for the free exchange of ideas on the use of technology to improve learning, assessment, planning, and administration. NETF aims to facilitate decision-making on the induction, deployment, and use of technology by providing evidence-based advice to educational institutions and government agencies.
- **Promotion of Digital Infrastructure:** The policy emphasizes the need to develop robust digital infrastructure, especially in rural and remote areas, to bridge the digital divide. This includes ensuring access to electricity, internet connectivity, and devices for students and educators, thereby enabling equitable access to digital learning resources.
- **Integration of Technology in Teacher Education:** Recognizing the pivotal role of teachers in the successful integration of ICT, NEP 2020 underscores the importance of incorporating technology training in teacher education programs. This initiative aims to equip educators with the necessary skills to effectively utilize digital tools and resources in their teaching practices.
- **Development of High-Quality Digital Content:** The policy advocates for the creation and dissemination of engaging and interactive digital content in multiple languages. This includes virtual labs, simulations, and educational games designed to enrich the learning experience and cater to diverse learning needs.
- **Emphasis on Online and Blended Learning Models:** NEP 2020 encourages the adoption of online and blended learning approaches to complement traditional face-to-face instruction. This flexibility allows for personalized learning experiences and can help in reaching a larger number of students, including those in underserved communities.
- **Enhanced Learning Outcomes:** The use of multimedia and interactive content can make learning more engaging, leading to better understanding and retention of concepts among students.

- **Increased Accessibility:** Digital platforms can provide learning opportunities to students in remote areas, ensuring that quality education is not confined to urban centers.
- **Continuous Professional Development for Teachers:** Online training modules and resources enable educators to up skill themselves continually, staying abreast of the latest pedagogical advancements.
- **Efficient Educational Administration:** The adoption of ICT tools can streamline administrative processes, including student enrolment, attendance tracking, and assessment management, thereby reducing the administrative burden on educators.

In conclusion, NEP 2020's emphasis on integrating ICT into the educational framework aims to create a more inclusive, effective, and future-ready education system in India. By leveraging technology, the policy aspires to bridge existing gaps and elevate the overall quality of education across the nation.

### **THE VISION OF NEW EDUCATION POLICY 2020**

The Union Cabinet on Wednesday approved the National Education Policy 2020. This is the first education policy of the 21st century and replaces the thirty-four-year-old National Policy on Education (NPE), 1986. The new policy aims for universalisation of education from pre-school to secondary level with 100 per cent Gross Enrolment Ratio (GER) in school education by 2030 and aims to raise GER in higher education to 50 per cent by 2025.

- NEP 2020 will bring two crore out of school children back into the main stream.
- The 10+2 structure of school curricula is to be replaced by a 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively. It will include 12 years of schooling and three years of Anganwadi and pre-schooling.
- NCERT will develop a National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) for children up to the age of eight.
- NEP 2020 calls for setting up of a National Mission on Foundational Literacy and Numeracy by the Education Ministry. States will prepare an implementation plan for attaining universal foundational literacy and numeracy in all primary schools for all learners by grade 3 by 2025.
- A National Book Promotion Policy is to be formulated.
- All students will take school examinations in Grades 3, 5, and 8 which will be conducted by the appropriate authority. Board exams for Grades 10 and 12 will be continued, but redesigned with holistic development as the aim.
- A new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), will be set up as a standard-setting body.
- NEP emphasises on setting up of Gender Inclusion Fund and also Special Education Zones for disadvantaged regions and groups.

- Every state/district will be encouraged to establish "Bal Bhavans" as a special daytime boarding school, to participate in art-related, career-related, and play-related activities. Free school infrastructure can be used as Samajik Chetna Kendras.
- A common National Professional Standards for Teachers (NPST) will be developed by the National Council for Teacher Education by 2022, in consultation with NCERT, SCERTs, teachers and expert organizations from across levels and regions.
- NEP 2020 aims to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3 per cent in 2018 to 50 per cent by 2035 and aims to add 3.5 crore new seats to higher education institutions.
- Multidisciplinary Education and Research Universities (MERUs), at par with IITs, IIMs, to be set up as models of best multidisciplinary education of global standards in the country.
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree.
- The National Scholarship Portal will be expanded to track the progress of students receiving scholarships.
- Private HEIs will be encouraged to offer larger numbers of free ships and scholarships to their students.
- Measures such as online courses and digital repositories, funding for research, improved student services, credit-based recognition of MOOCs, etc., will be taken to ensure distance learning is at par with the highest quality in-class programmes.
- A comprehensive set of recommendations for promoting online education consequent to the recent rise in epidemics and pandemics in order to ensure preparedness with alternative modes of quality education whenever and wherever traditional modes of education are not possible, has been covered.
- A dedicated unit for the purpose of orchestrating the building of digital infrastructure, digital content and capacity building will be created in the HRD ministry to look after the e-education needs of both school and higher education.
- An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration.
- Internationalisation of education will be facilitated through both institutional collaborations, and student and faculty mobility and allowing entry of top world ranked universities to open campuses in India.
- Policy aims to achieve 100% youth and adult literacy.
- The Centre and the States will work together to increase the public investment in Education sector to reach 6 per cent of GDP at the earliest.

## ONLINE AND DIGITAL EDUCATION: AN OVERVIEW

New circumstances and realities require new initiatives. The recent rise in epidemics and pandemics necessitates that we are ready with alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible. In this regard, the National Education Policy 2020 recognizes the importance of

leveraging the advantages of technology while acknowledging its potential risks and dangers. It calls for carefully designed and appropriately 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 ICT-based educational initiatives must be optimized and expanded to meet the current and future challenges in providing quality education for all. . However, the benefits of online/digital education cannot be leveraged unless the digital divide is eliminated through concerted efforts, such as the Digital India campaign and the availability of affordable computing devices. It is important that the use of technology for online and digital education adequately addresses concerns of equity. Teachers require suitable training and development to be effective online educators. It cannot be assumed that a good teacher in a traditional classroom will automatically be a good teacher in an online classroom. . Given the emergence of digital technologies and the emerging importance of leveraging technology for teaching-learning at all levels from school to higher education, this Policy recommends the following key initiatives:

(a) **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.

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

(c) **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 interface for holding online classes are a real necessity as the present pandemic has shown.

(d) **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. A reliable backup mechanism for disseminating e-content to students will be provided.

(e) **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.

(f) **Virtual Labs:** Existing e-learning platforms such as DIKSHA, SWAYAM and SWAYAMPBHA 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.



(g) **Training and incentives for teachers:** Teachers will undergo rigorous 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.

### SIGNIFICANCE OF NATIONAL EDUCATION POLICY 2020

An NEP is a comprehensive framework to guide the development of education in the country. The NEP proposes sweeping changes including opening up of Indian higher education to foreign universities, dismantling of the UGC and the All India Council for Technical Education (AICTE), introduction of a four-year multidisciplinary undergraduate programme with multiple exit options, and discontinuation of the M Phil programme. The policy also proposes phasing out of all institutions offering single streams and that all universities and colleges must aim to become multidisciplinary by 2040.

- **Recognising Importance of Formative years:** In adopting a **5+3+3+4 model for school education starting at age 3**, the policy recognises the primacy of the formative years from ages 3 to 8 in shaping the child's future.
- **Departure from Silos Mentality:** Another key aspect of school education in the new policy is the breaking of the strict division of arts, commerce and science streams in high school. This can lay the foundation for a multi-disciplinary approach in high education.
- **The Confluence of Education and Skills:** Another laudable aspect of the scheme is the introduction of vocational courses with an internship. This may nudge the vulnerable sections of society to send their children to school. Also, it would help in realisation of the goal of Skill India Mission.
- **Making Education More Inclusive:** The NEP proposes the extension of the Right to Education (RTE) to all children up to the age of 18. Further, the policy seeks to leverage the huge potential of online pedagogy and learning methodologies for increasing gross enrolment in higher education.
- **Light But Tight Oversight:** According to the policy, in spite of periodic inspection, transparency, maintaining quality standards and a favourable public perception will become a 24X7 pursuit for the institutions, leading to all-round improvement in their standard.
- **Allowing Foreign Universities:** The document states universities from among the top 100 in the world will be able to set up campuses in India. This will lead to an infusion of international perspective and innovation, which will make the Indian education system more efficient and competitive.
- **Ending Hindi vs English Debate:** Most crucially, NEP, once and for all, buries the strident Hindi versus English language debate; instead, it emphasises on making mother tongue, local language or the regional language the medium of instruction at least till Grade 5, which is considered the best medium of teaching.

### ISSUES AND CHALLENGES RELATED TO NEP 2020

Technology in education is a journey and not a destination and capacity will be needed to orchestrate the various ecosystem players to implement policy objectives. A dedicated unit for the purpose of orchestrating the building of

digital infrastructure, digital content and capacity building will be created in the Ministry to look after the e-education needs of both school and higher education. Since technology is rapidly evolving, and needs specialists to deliver high quality e-learning, 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. There are various types of issues and challenges related to National Education Policy 2020 and way forward.

- **Knowledge-Jobs Mismatch:** There is a persistent mismatch between the knowledge & skills imparted and the jobs available. This has been one of the main challenges that have affected the Indian education system since Independence. NEP 2020 failed to check this, as it is silent on education related to emerging technological fields like artificial intelligence, cyberspace, nanotech, etc.
- **The Requirement of Enormous Resources.** An ambitious target of public spending at 6% of GDP has been set. Mobilising financial resources will be a big challenge, given the low tax-to-GDP ratio and competing claims on the national exchequer of healthcare, national security and other key sectors.
- **Need for Cooperative Federalism:** Since education is a concurrent subject (both the Centre and the state governments can make laws on it), the reforms proposed can only be implemented collaboratively by the Centre and the states.
- **Strive Towards Universalisation of Education:** There is a need for the creation of 'inclusion funds' to help socially and educationally disadvantaged children pursue education. Also, there is a need to set up a regulatory process that can check profiteering from education in the form of unaccounted donations.
- **Bridging Digital Divide:** If technology is a force-multiplier, with unequal access it can also expand the gap between the haves and have nots. Thus, the state needs to address the striking disparities in access to digital tools for universalization of education.
- **Interministerial Coordination:** There is an emphasis on vocational training, but to make it effective, there has to be close coordination between the education, skills and labour ministry.

## CONCLUSION

Technology has a positive impact on education and at the same time may also pose negative effects. Teachers and students should take advantage of this in the good light and eliminate the drawbacks which are pulling back many of students as well as schools from achieving excellence. It is thus time for every country to introduce a more technologically equipped education sector in the future. The main agenda behind introducing the New Education Policy 2020 is the need of the hour and it will prepare the students to face the challenges of the new world. The NEP will promote skill-based education and enhance the practical skills of the students. Addressing the nation on 74th Independence Day, PM Modi stated that the New Education Policy will play an important role in making India self-reliant. According to him, the NEP has been introduced with an aim objective to strengthen research and innovation in the country. NEP gives a special focus on the National Research Foundation because innovation is one of the most



important parts for a country to progress. Only when research and innovation are strong enough we will be able to progress in this competitive world. Some of the important benefits of the New Education Policy 2020 are as follows:

- The New Education Policy will give importance to students' practical knowledge instead of just pushing them towards rote learning.
- It will help students to develop scientific temper from a young age.
- The NEP aims to make it easier to set up new quality of higher educational institutes which will be at par with the global standards.
- Since NEP will make it easier for foreign colleges to set up their campuses here many students who are unable to go abroad due to multiple reasons will be able to experience it and get global exposure.
- This will promote value-based education.

The new National Education Policy (NEP) 2020, is a good policy as it aims at making the education system holistic, flexible, multidisciplinary, aligned to the needs of the 21<sup>st</sup> century and the **2030 Sustainable Development Goals**. The intent of policy seems to be ideal in many ways but it is the implementation where lies the key to success.

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