The Social Science Review A Multidisciplinary Journal. Special Issue, Summer 2025. 195-198

Published by: Pather Dabi Educational Trust, (Regn No: IV-1402-00064/2023), Under Govt. of West Bengal, India

The Social Science Review
A Multidisciplinary Journal
ISSN: 2584-0789
(Open-Access, Peer-Reviewed, Refereed, Bi-Monthly, International e-Journal)
Homepage: www.tssreview.in

THE IMPACT OF DIGITAL TRANSFORMATION ON EDUCATION WITH SPECIAL REFERENCE TO NEP-2020

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RESEARCH ARTICLE

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DOI:
https://doi.org/10.70096/tssr.250307035

Abstract

The necessity and urgency of integrating digital technology into education have been highlighted by the global epidemic of 2020. In the field of education, digital transformation has led to the digitization of procedures as well as the adoption of services by institutions to improve the online teaching and learning experience. Compared to conventional education, digital technologies make it easier for students, teachers, and other stakeholders to access learning resources. A variety of learning modalities, such as online quizzes, interactive tests, films, and micro lessons, are revolutionizing education. AI and computer technology make it possible for educational approaches like adaptive learning, which gives each student the freedom to study in a way that suits them and creates personalized learning experiences. Consequently, the National Education Policy 2020 highlights the significance of utilizing technology's benefits while also recognizing its possible drawbacks. The Ministry of Education made major changes to the educational framework under NEP 2020 on July 29, 2020, marking a momentous day in the Indian educational system. The Policy states that "the extensive use of technology in teaching and learning, removing language barriers, increasing access as well as education planning and management" would be one of the fundamental tenets of the educational system. NEP offers chances for improvement in every area as the education sector battles with rote acquisition of information, sluggish skill development, and limited unemployment. Although NEP is a much-needed, forward-thinking strategy, its full potential will not be realized if its execution is not supported by technology. Effective use of technology is essential for improving educational results and student achievement. The execution of NEP is crucial to its having succeeded, and this can only be accomplished if the institutions give digital transformation top priority.

Keywords: *Digital Transformation, School Education, NEP-2020*

Introduction

One of the teaching and learning resources in the field of learning that has significantly impacted education is digital education. Digital schooling has both advantages and disadvantages. Additionally, there are advantages and disadvantages to the resources for technology that are currently attainable. Given that the effects of digital education are mostly dependent on technological advancements, it would be prudent to look at both the favorable and bad effects of digital education. More significantly, knowledge of those consequences serves as a vital basis for future studies on how to strengthen digital education as a vital instrument in the field of education. NEP 2020 aims to modernize and overhaul the country's educational system. It places a strong emphasis on integrating education from early life to high school. The NEP 2020 places a special emphasis on online education. Colleges and organizations like NITs and IGNOU will lead experimental research projects to boost the advantages of digital learning in India. To accommodate innovative ideas for producing content, in-class materials, assessment tools, profiles, and other items that will facilitate consistent communication, the architecture of online tools and platforms such as DIKSHA and SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) will be changed. Another major goal is the creation of an open, digital, and interoperable framework that may be applied at many stages. For distant and comprehensive learning, better classroom interactions, more advanced teaching strategies, flexible educational programs, and flexible connections between students and teachers, digital technology has become more and more significant. Because it recognizes the enormous potential of digital consolidation in education, the National Education Policy (NEP) 2020 has carefully reviewed the elements of digital education for its system.

Objective of the study

This paper efforts to study Impact of Digital Transformation on Education with Special Reference to NEP-2020.

Research Methodology

This paper is completely based on secondary data. The author has depended on research papers, online news articles, governmental websites, and documents.

Literature Review

(Kumar, 2022) Our attempts to make India a smarter nation has benefited from the quick development and reform of the educational system. Significant expenditure on infrastructure, strong electrical and telecommunications networks, tech-savvy teachers who understand English, and other requirements are necessary to introduce digitalization in the realm of education. (Nageswari, 2022) Only as an instrument to help improve the learning process should innovation be employed; the "human-component" of education must be disregarded. In order to safeguard individual privacy and minimize data theft, it is also important to look at how technology is utilized, manipulated, transferred, and preserved. Fundamental safety protocols should also be put in place. (Vishwakarma & Singh, 2023) Improved NEP 2020 execution boosts development, economic growth, living standards, and community health. Therefore, the government and policymakers ought to concentrate on proper execution of NEP as well as those aspects of education that actually raise people's quality of life.

Digital India's New Education Policy (NEP) 2020

India has become a "data focused society" in the last ten years, and the necessity to adopt innovative practices in education is becoming more and more pressing. Accordingly, the Policy stated that the "wide application of innovation in teaching and learning, reducing linguistic barriers, extending access as well as education arranging and the executives" will be one of the fundamental tenets directing the educational framework. Students and teachers are being forced to reconsider traditional teaching and learning methods in the current "pandemic conditions," where virtual learning is taking the place of face-to-face encounters. The Policy's introduction at this crucial juncture is noteworthy because it broadened the notion of education for coming generations.

Key Subjects for NEP- 2020

The creation of virtual labs where students can practice theoretical knowledge and the availability of educational resources in several languages are key components of NEP 2020. To improve digital learning, the newly renamed Ministry of Education intends to establish a dedicated section. Expertise in education, educational innovation, organization, and e-administration will make up the specialized unit, which will focus on the requirements of online learning for both higher education and the classroom. More focus will be placed on online tests and evaluations.

The World Wide Web, which is one of the primary drivers of the current era of digital innovation, are currently having an impact on the world. Both the education provider and the education seeker were prepared by the internet, which then brought them together virtually.

As a result, the idea of the virtual classroom is currently being advocated globally. So, online innovation is essential to education in the present era, and because of its versatility, online educational innovation has grown in popularity. The underprivileged groups currently have greater access to online learning than they do to in-person training. The following are the key NEP management domains for digitization - Primary Education, Professional and Higher Education, Adapting AI, Content Curriculum and Pedagogy, Assessment, Teacher Training etc.

National Educational Technology Forum (NETF)

The Ministry of Human Resource Development (2020) states that the National Educational Technology Forum will be created as an independent, stand-alone organization to promote candid discussions about how to Utilize technology in primary, secondary, and postsecondary education in an efficient manner. Teaching, grading, planning, and other facets of education will all benefit from this. Enabling decision-making on the introduction, deployment, and efficient use of technology in educational institutions is the aim of NETF. It will give central, state, and different educational institutions leadership, the most recent information, and best practices.

Types of Digital Learning

Blended Learning

Combining online and offline learning in a manner that enhances each other is known as blended learning. It gives people the chance to experience the best of the worlds. For instance, a learner may take lessons in a traditional classroom environment and then complete online multimedia assignments to enhance the curriculum. Online and in-person instruction are both included in blended learning options. Schools may differ in how much online learning occurs and how it is incorporated into the curriculum. Teachers and students in remote locations can overcome distance with the use of blended learning.

Mobile Learning

It is quite easy to access mobile learning from almost anywhere. Additionally, it is utilized to share content nearly instantly among users, which results in immediate comments and advice. Mobile phones, tablets, laptops, and handheld computers are

examples of mobile technologies. The use of portable technology by students, such as mobile tools for producing educational resources and aids, has become a significant component of informal education.

Adaptive Learning
Another name for adaptive learning is adaptive teaching. It is a teaching strategy that plans interactions with students and provides them with resources and activities that are tailored to meet their individual needs.

The incorporation of EdTech in the education of teachers
NEP 2020 emphasizes a high priority on teacher education and professional growth in EdTech because it recognizes that instructors are essential to using technology for effective instruction. The goal of the policy is to give teachers the abilities and information they need to use technology to improve instruction.

Open Educational Resources (OER)
The creation and distribution of Open Educational Resources (OER), or publicly available, openly licensed educational materials, are encouraged by NEP 2020. OER integration seeks to lower educational costs, improve accessibility, and promote teamwork in content production.

Utilizing AI and New Technologies
Recent advances in technology and artificial intelligence (AI) have emerged as essential components of the educational environment. In order to improve student achievement and customize learning experiences, NEP 2020 promotes the use of AI. Learning becomes more efficient and interesting when tools like data analytics and intelligent tutoring systems are utilized to customize lessons to each student's needs. To keep education up to date with technological breakthroughs, the policy encourages the investigation and incorporation of modern technologies.

The Positive Effects of Digital Education

It has been discovered that a nations development in general is significantly influenced by the caliber of digital education provided inside that sector. Essentially, research has shown that a nation's economic prosperity is strongly correlated with the quality of its educational system. It is crucial to remember that one of the most significant technological innovations that has contributed to the success of digital learning is still the internet. Essentially, it only takes a few seconds to access specific learning resources from around the globe. The majority of educational institutions that offer digital learning have developed strategies that require them to follow up with online students by assigning them a lot of assignments to ensure that the quality of their education is raised to the standard that is needed. As a result, learners have been identified to be able to swiftly obtain this data and information within the required time for their learning. Even though numerous researchers have demonstrated that digital education improves educational quality, there are still a number of issues with quality, particularly in distance learning.

The Adverse Effects of the Digital Education

Because there lacks supervision assigned to this function, it is practically impossible to determine who is taking an exam. Since many people who sign up for online courses have occupations and only participate in classes occasionally, digital learning has led to an upsurge in assignment tampering worldwide. Additionally, many distance learners choose to pay or hire someone to complete their assignments and tests because they don't have sufficient time to devote to their studies. Efficiency and the short time take to earn a degree or other academic certificate are the only motivating factors in digital education.

Discussion

The World Wide Web, which is the primary drives of the current era of digital innovation, are currently having an impact on the world. Both the education service provider and the education aspirant were prepared by the internet, which then brought them together virtually. This is the reason why the idea of the virtual classroom is presently being advocated globally. Therefore, online innovation is essential to education in the present day, and because of its versatility, online educational innovation has gained recognition. Nowadays, internet education is more accessible to less specialized groups than the unified classroom education framework. It is imperative that all students, both in rural as well as urban settings, utilize digital devices like computers, smartphones, and tablets solely for educational purposes.

As of right now, a larger percentage of students from low-income families have restricted access to power, the internet, and technology. It is imperative that practical solutions be found for these issues and that efforts are reinforced with access to various conveniences, such as power supply, basic infrastructure, and widespread awareness of the significance and use of creativity, even though the Policy acknowledges the existence of limitations and the need to eliminate them through coordinated efforts, such as the Digital India campaign and the availability of affordable processing devices.

Only as a tool to help improve the learning process should innovation be employed; the "human-component" of education cannot be disregarded. In order to safeguard learners' privacy and stop data theft, it is also important to look into how technology is used, handled, transferred, and stored. Basic security measures should also be put in place. Although the Policy is a creative and sensible document that recognizes the critical role that innovation plays in supporting education, it is crucial to promote a deliberate approach to building mechanical skills to support successful innovation (and its future developments) while offering strong protections for information security and protection.

Conclusion

Many of the issues of digital learning are related to the design of high-quality learning, which is made possible by technology. For the welfare of learners, educators, and institutions, instructional designers are essential in bridging these divergent fields. Additionally, an organized approach to design supports tackling learner struggle, low student performance, and lower dropout rates. Advantages include lower design costs, uniformity in appearance and fuel transparency, quality assurance, and standardization. While digital education refreshes students' knowledge, conventional education techniques have educated generations. It has grown more challenging for individuals to fully abandon traditional approaches and accept the modern forms of digital education, even if you think they have outlived their usefulness. Still, with the introduction of technology into the sector, improvements to the traditional procedures have become possible. However, it would still take some time for a full digital transformation of education to take hold.

Acknowledgment: No
Author's Contribution: *Ramprosad Das:* Data Collection, Literature Review, Methodology, Analysis, Drafting, Referencing; *Dr. Neerja Dhankar:* Methodology; & *Dr. Urmi Chackraborty:* Methodology.
Funding: No
Declaration: All the authors have given consent for the publication.
Competing Interest: No

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