Digitalized Education and NEP 2020: Reinventing the Classroom

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Abstract

"Education is the most powerful weapon which you can use to change the world" (Nelson Mandela)

Mandela recognized education as a great vehicle to bring equality of opportunity to the world. Two years back, the teaching-learning approach in India was preferably classic or traditional. In those days teachers preferred to teach in offline mode but as the Covid -19 outbreak entered the world as well as in India, the complete education system switched from offline to online mode. As it is a well-known fact that every disaster brings some opportunities so did Covid -19. It came with some challenges as well as opportunities. In India, before Covid -19 teachers were using the conventional methods for teaching and learning, i.e. teachers were the focal point of learning in the classroom. But the situation has changed now. As the world is grappling with the third Covid-19 wave, digital learning is helping children to learn by making them more engaged in their school activities. National Education Policy, 2020 has a special focus on online and digital education. as it recognizes the importance of leveraging the advantages of technology while acknowledging its potential risks and dangers. The paper discusses the growth of Online Education during the Coronavirus pandemic, tries to identify the new trends in Education and analyzes the challenges in the implementation of Digital Education with a few recommendations regarding NEP-2020.

Keywords

NEP, 2020, Offline learning, online Learning, Digital Education, Covid-19, etc.

Introduction

The New Education Policy (NEP) 2020has been proposed by the newly renamed Ministry of Education (formerly Ministry of Human Resource Development) and approved by the union cabinet of India in July 2020. The vision of NEP2020 is to reinvent and reshape the education system in the global world. Today's work pressure is expected to be highly educated and to acquire 21st-century skills by engaging in lifelong learning. Learning and teaching through online network technologies is the most important tool for today's education (**Zhang 2004**). Covid-19 pandemic has forced the educational institutions all across the globe to adopt new age technologies and utilize the virtual zone to shift to online learning in which we are gradually moving away from the advantages that could be imbibed through the offline learning which are as we said mainly the concept of discipline and social relations which are very important aspects. Studies suggest that people are getting physically and emotionally detached and isolated due to the virtual connections that technology offers through digital platforms. On the other hand by using virtual zone learners can receive a personalized, customized and a very creative learning experience.

Objectives of The Study

1. To study the growth of Online Education during the Coronavirus pandemic.

2. To study the key initiatives in Education regarding NEP-2020

3. To analyze the challenges in the implementation of Digital Education with a few Recommendations

Research Methodology

The study is descriptive type and tries to understand the new trends in Education regarding NEP2020 and tries to explore the growth of online education during the crucial period of the Covid -19 pandemic and other natural disasters. The challenges associated with the implementation of digital education and online learning and a few recommendations were also recognized through previous studies. The research method used for the study is descriptive type and the tool used for analyzing the data collected from different sources for this study is content analysis. This study is an attempt to reflect the holistic and long-term thinking of the researcher based on reviews from various resources. It is completely based on secondary data. Secondary sources of data used are (i) journals, (ii) scholarly articles, (iii) company websites, (iii) newspaper reports (iv) research papers (v) case studies and other academic publications that showed the paradigm shift in the teaching-learning process from Offline to Online.

Literature Review

Online Education in the time of Covid-19

In March 2019, as the novel coronavirus escalated as a global pandemic, all the educational institutions had to shut their doors forcing them to shift universally into virtual learning which was a troublesome period for all educators, students and parents as well. Meredith Salmon, a Biology teacher at the Peddie School in New Jersey said that all the educators were under great stress. A quick shift from offline to Online in such a short time was really difficult (**Jon Gorey, 2019**). Globally around 1.2 billion children are out of the classroom. As a result, the teaching-learning process has changed drastically, with the distinctive rise of online learning. During this pandemic, the concern is not about the quality of education through online classes, it is about how educational institutions will be able to adopt online learning in such a massive manner (**Carey, 2020**). It's not just School education that has seen a paradigm shift many competitive exam aspirants have now entirely switched to digital learning. They are choosing online platforms like Unacademy for UPSC, NEET, SSC, NET and JEE preparation among others(**Animesh Kumar,2021**). Research suggested that online learning has been shown to improve the retention power of learners and take less time, meaning the paradigm shift from offline to online mode Coronavirus has caused might be here to stay (**Cathy & Farah, 2020**) A philosophy of teaching and technology can be defined as a conceptual framework that embodies certain values from which we view the many aspects of education (**Zinn, 1990**), including the field of e-learning. Digital learning is a new domain of learning that combines distance education with the practice of face-to-face instruction utilizing computer-aided communication (**Harasium (1989)** An article showed that during COVID-19 the effect of school lockdowns on Ugandan children, the study has shown that due to national lockdowns education sector was severely affected as schools had to close down completely. As a result, most of the children who belonged to rural areas, had to discontinue their studies due to the lack of electricity required for the internet and other electronic gadgets, which enable them to study remotely. **Jonathan, Small (2022)** advocated the positive benefits along with some challenges of online learning and gave seven tips while taking online classes. The fifth annual report on the state of online learning in U.S. higher education given in Five Years of Growth in Online Learning stated that Online enrollments have continued to grow at rates far more than the total higher education student population, Almost 3.5 million students were taking at least one online course during the fall 2006 term; a nearly 10 percent increase over the number reported the previous year and nearly

twenty percent of all U.S. higher education students were taking at least one course in the fall of 2006 **(Allen & Seaman,2007)**

Growth of Online Education during Covid-19 Pandemic

The world we live in is dynamic. We all see new inventions and technology every day. A few major inventions that almost changed the way we do things are the invention of the Computer and the Internet. A combination of Computer, Internet, Webcam, Headphones, etc. formulated a new way of teaching for everyone all around the world. After Covid -19 we can't imagine our life without the digital platform. Due to the present Epidemic, all the educational institutions have been closed out suddenly to save all of us from the infection after that so many schools and colleges start teaching through Zoom App, and Google meets with the help of the internet. Now there has been a sudden shift in the use of all such technologies. Previously Schools and colleges were already using Smart Classes as a way of teaching students. This started to gain popularity as it gave a more attractive way of explaining things to the students by use of effective images, videos and animations. Online teaching has also proved to be a very effective way of teaching as we can reach a large number of students very easily and no one has to travel long distances which saves time as well. Students get an opportunity to study by using the Distance Learning Programmes of various schools and colleges. Offline we have to be at the location where it is taking place whereas online courses could be availed at our convenience from our home from a cafeteria or from whichever location we have available. Digitization has introduced new career options that will ensure that skill and talent remain relevant. Recent studies indicate that the number of funds being spent on digital transformation services and technologies is set to rise from $1.31 trillion to $2.39 trillion by 2024. EdTech has witnessed a 100% rise in digital enrolments in new-age courses over the last year. In fact innovations in technology are creating new career options because of the convenience of digital learning. Varied career options like cryptographer, fashion data scientist, brand experience designer, and e-commerce director. These career options require a willingness to learn and up skills, technical expertise, as well as a deep understanding of the digital domain and changing trends **(Sumanth Palepu, 2022)**

Key initiatives in Education regarding NEP-2020

NEP, 2020 realized the importance of digital technologies and leveraging technology for teaching–learning at all levels from school to higher education. Following are the key initiatives recommended by NEP,2020:

a) **Experimental trial for Online Education**: In NPE educational agencies such as CIET, NIOS, NETF, IITs, NIT, IIMs, and IGNOU, etc. will be identified to conduct a series of pilot studies to evaluate the benefits of digital education along with other study areas like modules of e- content, student device addiction, etc. The results of these pilot studies will be used for the continuous improvement of online education**.**

b) **Digital framework:** 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) **E- platform and tools:** E-learning platforms such as SWAYAM and DIKSHA will be extended to provide teachers with a structured, user-friendly, rich set of assistive tools for monitoring the 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 has shown.

d) E Content creation and digital repository: A digital repository of content including the 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.

e) **Accessibility of digital devices:** A major 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 telecasts and broadcasts. Such educational programs 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) **Development of Virtual labs:** 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.

g) Developing tech-savvy 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 an emphasis on the teacher's role in facilitating active student engagement with the content and with each other. National Education Policy 2020

h) Assessment Framework: Proposed National Assessment Centre or PARAKH, School Boards, NTA, and other identified bodies will design and implement assessment frameworks encompassing the design of competencies, portfolios, rubrics, standardized assessments, and assessment analytics. Studies will be undertaken to pilot new ways of assessment using education technologies focusing on 21st-century skills.

(Source: PDF of National Education Policy, 2020 at Ministry of Education, India Website)

Challenges in the implementation of Digital Education with few Recommendations

The new era of virtual learning has likely taken place in the education system, from the last two years most of the teaching has been virtual as per Gov. Guidelines and we have switched to online teaching. Virtual learning faces many challenges ranging from students' issues, educators' issue, content issues and their way of presenting issues. For educational institutions, it would be the biggest challenge to shift from face-to-face lectures to online classes overnight **(Shivangi Dhawan, 2020).** Teachers also have to update themselves through all these online resources so that they can guide their students as well. It is a challenge for educators to switch from offline to online mode overnight and also to develop the content to engage students **(Kebritchi et al., 2017)**. At the beginning of online classes, teachers were not received any training programs to develop e-contents, or e-resources to maintain standards for quality. In fact, till now educators are not been effectively trained for all these unavoidable matters. Classroom teaching requires teachers to work with a blackboard and handwritten notes whereas with changing times it is challenging for a teacher as well as for the students to adapt to the online teaching learning process. The teachers have to become tech savvy to conduct online courses. Various resources such as internet connection, working laptop, etc., are required to conduct a successful online program. Integration of multimedia content is a challenge for the faculty while conducting online teaching courses. The teachers are still not well trained and equipped to develop various e-content using different software. This problem should be handled at the earliest so that everyone can avail benefits of e-learning. **(Cojocariuet et al., 2014).** Teachers should use different instructional strategies.

They must help students in developing fruitful academic habits. : Learner's Expectations: Learner's expectations may vary from person to person. It becomes difficult for the teacher taking the online course to understand what each student is expecting out of the course. There are instances of lack of communication which is why the teacher cannot mold the course easily in due time according to the students. It is a challenge to motivate the students to work in an online learning program as compared to classroom learning. Due to the lack of one-to-one conversation in an online course, not every student is equally interested and motivated to study. Students are seeing everything in apps and videos, but in school, they see all of that in reality. Engagement with every student becomes difficult in an online teaching course. Most of the time the students cannot cope with the teacher during online teaching, hence, lose interest to participate. The teacher has to put in extra effort along with the teaching to keep a check whether all the students are equally studying and responding or not. The recent report of The Delhi government's directorate of education (DoE) disclosed the fact that over 40%govt school students did not attend online classes. In E-learning there is a major issue of proper internet connectivity. Certain elites are blessed with facilities and comforts, on the other hand, the Middle class will suffer the most, students of rural areas are deprived of all these facilities, they are having poor internet connections and many students are not having android phones to attend their online classes. In that case, they have to borrow phones from others to attend online classes.

Educational Implications of the Study

1. The government needs to allocate more funds for better implementation of Digital Education.

2. Identifying the more ways and means for better implementation of digital education along with face-to-face teaching.

3. The prime importance is to train teachers to develop effective e-content and to learn how to use various educational apps and software. Before presenting their modules in front of their students, teachers must be confident and it can be developed only when teachers are aware of new technologies. The government has started various e-platforms for teachers' training too.

4. Provide facilities for digital education like a virtual lab and internet facility to all educational institutions.

5. Conduct awareness campaigns regarding technology and related issues through education,

6. As per the NEP, 2020, the implementation of Digital education is very essential for the 21st century.

7.	Effect on social and emotional development should be lightened by fixing technology time and allowing students to connect socially with people around them.

8.	Resuming offline classes the schools must also retain the use of technology to achieve all-around development of their students.

Conclusion

To conclude this new education policy that has been proposed by the Government of India to improve the Indian education system is a great challenge. The new normal in the post-Covid era is Compute and Communication technology-driven growth. The emerging technologies include Unmanned Aerial Vehicles (UAV) or drones, High altitude platforms (HAP) balloons and Low Earth Orbit (LEO) satellites, 5Gand more, there is an emergent need to acquaint ourselves with knowledge of these technological advancements both in computer science and communication. After 34 years Indian Govt. is going to change the way we study, in this context Ministry of Education appropriately mentioned the importance of digital education and online education in the recent NEP, 2020. As we all know that anything new requires time and patience to achieve the results. NEP, 2020 proposal has many new things, yet to be implemented and tested. Just wait and watch the outcomes of the NEP, 2020.

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