

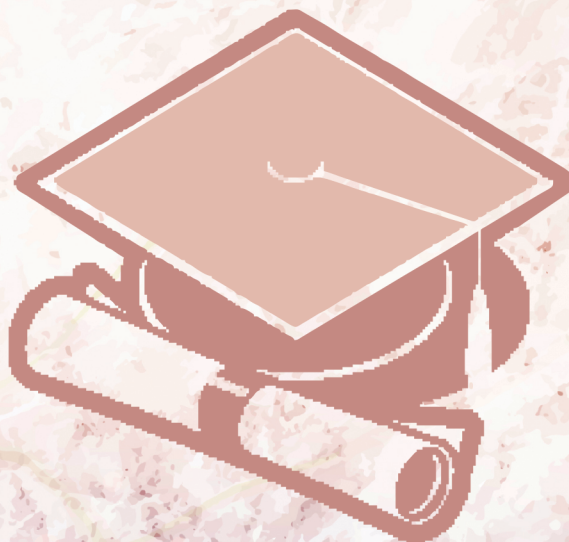
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THE NEW EDUCATION POLICY-2020: TOWARDS A DIGITAL FUTURE

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Abstract:

In India, digitalization is emerging at a faster rate with increase in internet penetration, and has a significant impact on the Indian Education System. NEP 2020 recognizes the importance of digital learning at all levels from school to higher education and aims at mitigating the downside. This paper aims to give an idea about digital learning and technology, its importance in teacher education, challenges to be faced in the process of digitalization and ways to alleviate them. The paper discusses the urgency of preparing teachers so that they can best suit themselves to the changing times and the shift from the traditional method to the digital world can take place effortlessly. It has been found that digitalization ensures greater participation in the overall learning process. Teachers play an important role as facilitators in the digital classroom through creation of contents and providing a learning atmosphere. Educating teachers through digital methods to training teachers to apply the methods in classroom, the journey should be noteworthy. Lastly, the emerging trends in educational technology and its impacts are also discussed. Now, the question still remains whether digital classrooms can totally replace traditional classrooms or blended mode of education is the desired one.

Keywords: Digitalization, NEP 2020, Teacher Education, Challenges, Digital classroom, Educational Technology, Blended mode.

INTRODUCTION:

Digitalization in education refers to the creative use of digital technologies and innovations in the teaching-learning process. It plays a pivotal role in education starting from primary schools, colleges and universities. The process of integrating technologies into education started long back with the advent of digitization and was evolving at a slower pace until 2020, when the COVID-19 pandemic hit the world. The educational sector suffered a major setback and transition from traditional classrooms to virtual classrooms was of utmost importance. The significance of digitalization in this new era was recognized and in this regard the new educational policy of India, NEP 2020 recommends few initiatives that are needed to be taken, acknowledging the potential threats. Alongside, cheap availability and easy access lead to the increase in internet penetration rate from nearly 4% in 2007 to 48.7 % in 2022, in India. Now the aim is to make the best use of technological advancements and bring about considerable development in the field of education. The role of teachers in learning in the digital age is unparalleled and the shift in the teaching-learning process will be hassle free only if the teachers can gain suitable expertise. This change in the system puts emphasis on creativity and innovation. In this dynamic educational environment, teacher acts as a bridge which connects students to technology.

OBJECTIVES:

This paper aims to analyze the importance of digitalization in education. It examines the need for digitalization in Teacher Education. Also, it explores the challenges to be faced in the process of digitalization and discusses the probable solutions. The paper evaluates the impact of educational technology in present times and the potential impact of NEP-2020, towards digitalization in teaching-learning process. Lastly, it proposes meaningful contextual suggestions for quality digital future and the importance of blended mode of learning.

RESEARCH METHODOLOGY:

The present study is conceptual and purely analytical. The data is based on information which is collected from national journals, international journals, books, published reports and other websites and is analyzed. The recent policy document on education is examined thoroughly for the purpose of the study.

IMPORTANCE OF DIGITALIZATION IN EDUCATION:

According to UNESCO, 1.37 billion students in 138 countries all around the globe have been affected, since the outbreak of COVID-19 began, by the closure of schools and universities. Nearly 60.2 million school teachers and university lecturers were unable to take classes in the classroom. Since the whole country went under lockdown, e-education was the best and the only option left. Online video conferencing platforms such as Zoom, Skype, Google Classroom, Meet, helped in continuation of the teaching learning process.

With the aim of making education more accessible, digital educational system is flourishing day by day. Digital learning offers students to gain control over the place, time and pace of learning. Arisoy, B. (2022). With e-learning programs, education crossed several barriers and made learning mobile, engaging and interactive. Digital learning can be personalized depending upon the demand, speed and capability of the student. As traditional classrooms are time-bound, there is lesser scope for remedial teaching. Use of digitalized tools also makes students smarter. It sharpens their critical thinking skills and they learn to explore by themselves. It gives them opportunities to develop independent research ideas, boosting their self-confidence. Real-time evaluation of performances and auto-generated reports eliminates bias, is more reliable and less time consuming. It helps students measure their own progress. In contrast to the traditional classroom, where the teaching-learning material used were charts, models and blackboards, the digital era brought in the use of videos, power-point presentations, animations which develops interests among the students.

In India, 83% of the kids aged between 13 and 17 years old have access to smartphones, as per the McAfee's Global Connected Family Study Bureau, Mumbai (2022). The data showed a hike from 2014-15 report to 2022 report. Education must make a good use of this

facility, which is only possible through development of engaging learning platforms and an educator to guide them.

Moreover, Artificial intelligence (AI) is becoming an integral part of our everyday lives. Chen,

L. (2020). The advent of Google Bard, Midjourney, ChatGPT and Canva's magic features is transforming industries and reshaping the way we work, learn and communicate. These technological advancements highlight the importance of incorporating AI education into the curriculum to prepare students for the changing times. AI has the potential to personalize each student's learning experience. With AI, student performance, their strengths and weaknesses can be analyzed to create customized lesson plans and assessments. It also assists educators by providing automatic grading opportunities, saving time.

NEED FOR DIGITALIZATION IN TEACHER EDUCATION:

Technology can never replace the role of a teacher. It only leads to the modification of responsibility. Teachers now act as a facilitator than as an autocratic master. Fitria, H. (2020). The shift from "Teaching using Blackboard" to "Teaching on Screen" is not easy and requires special training. The fact that cannot be denied in this changing time is that all of a sudden the teachers are forcefully imposed with online education models, without effective planning and training. Thus professional development of the teachers became critical and should be prioritized Rosa, S. (2020). Here comes the need for teachers to develop digital literacy. They should be good with technology and should know how to develop materials that can be used over e-learning platforms. Managing online classrooms requires a different skillset. In online classrooms students get much freedom and have a liberty to join or leave the session. Thus, it is the duty of the teacher to keep them active and aware in online classrooms.

To make teachers proficient users of new technologies, courses should be included in teacher education programs that will help them develop their technical skills. Students now have easy access and can retrieve information from several resources like YouTube and other EdTech platforms. Simply searching an answer in Google does not promote deep thinking. Teachers should teach students to learn how to evaluate and question their sources. They must come up with innovative ideas and push students to acquire new levels of creativity. The teacher should acquaint the students with the concept of anti-plagiarism and cyber bullying, which is gaining world-wide concerns.

CHALLENGES:

In most developing and underdeveloped countries, the process of digitalizing the entire education system is facing a huge challenge. We have seen how with each passing day, education is becoming considerably dependent upon digital technologies. But in a country where digital divide between the privileged and deprived is massive, the role of traditional classrooms cannot be neglected. While we consider digital learning as the future

of education, a considerable chunk of our population still lacks the necessary resources such as infrastructure, suitable device or they belong to low-socio economic background where digital literacy is yet to penetrate. Though NEP 2020 gives emphasis on digital education, to accomplish the objectives, suitable measures are needed to be taken, beginning with robust infrastructure and connectivity in remote and semi- urban regions of the country.

The next challenge lies in the implementation of educational technologies at all levels starting from schools, colleges to higher educational institutes. Zagami, J. (2018). Higher educational institutions are not properly equipped to transfer learning through online mode. Gohain, M. (2022). According to UGC, institutions offering online courses should develop their own learning resources. Despite of that, some institutions are outsourcing and taking learning material from other sources, decreasing the efficacy of the process. Also, institutions are not collaborating among themselves.

Science education through online mode necessitates the use of virtual labs and schools and universities are failing to develop them, which is becoming a major setback in the teaching- learning process.

With drastic shift in the teaching-learning mode, during the pandemic, the teachers who had very little experience and training had to switch from face-to-face interactive teaching to distance teaching mechanisms. Gandi, R. (2021). They had difficulty in adapting with online teaching tools and technology. Still now, relevant progress is not seen in teacher training programs.

PROBABLE SOLUTIONS:

Effective educational technology strategies must link the “Three Ts”- teaching, technology, and use of time to bring in improvements and to ensure that all students benefit from the opportunity that digital learning has to offer Seethal, K. (2019). The digital divide should be narrowed down by development of cost effective EdTech software. The connectivity issues in the rural areas can be readily solved by suitable governmental initiatives. Opportunities should be provided to students to make easy access of technologies. Proper facilities need to be set up. Schools, colleges and higher educational organizations should collaborate and assist each other in development of resource materials. Initiatives should be taken to groom the teacher-students and courses should be included in teacher education programs that will enhance their professional skills.

IMPACT OF EDUCATIONAL TECHNOLOGY IN PRESENT TIMES:

Fusing technology with education is a modern technique and an innovative approach used by educators. It has a huge impact on the learning process and outcome, which is both positive and negative. Positive impacts include personalization of courses of study, huge range of connectivity among teachers and students, decrease in human labor and many more. It is needless to mention that it is less time consuming, more effective in the faster pacing world and has changed the work life and personal life of individuals to a great

extent. But educational technology has also taken a toll on the health of the teachers and students. It increases tension and anxiety, as teachers are forced to be creative. They are pressurized to acquire technological skills, even when there is lack of technical resources and equipment necessary. Fernández- Batanero, J.M. (2021). Students also become addicted to devices and become dependable. Oftentimes they fail to make proper use of technologies and become ignorant in classrooms.

Potential Impact of NEP-2020: Towards digitalization in Teaching Learning process:

Education plays a powerful role in deciding the nation's future and destiny of the people. The newest education policy, NEP-2020 addresses the growing developmental needs of the country. It focuses on easy access, equity, accountability and quality education. Digitalization introduces flexibility and lifelong learning and thus is an essential and significant aspect of this policy. The policy takes into account the benefits of merging technology with education which includes low cost, quick access, easiness, and flexibility. Saileela, et al. (2020). As per the recommendations, proper use of online teaching platforms like SWAYAM, DIKSHA will benefit both teachers and students by providing structured and user-friendly learning environment, with easy monitoring facilities. Reliable apps for assessment will facilitate easy and continuous evaluation of students. It also emphasizes on gamification of learning through introduction of student-appropriate

gaming apps. Digital libraries will provide extensive educational materials such as e-books, journals, articles, and multimedia contents which being easily accessible and cost-effective will have a greater reach. Virtual labs will provide quality experiment based learning experience. The policy talks of setting up a dedicated unit which will look after the e-education needs of both school and higher education. Thus, the focus should be on right implementation of NEP-2020 as it will strengthen social well-being and will have a huge impact on improving the quality of life.

MEANINGFUL CONTEXTUAL SUGGESTIONS FOR QUALITY DIGITAL FUTURE:

To build a powerful digital future, the first priority should be of providing cost effective internet services that will reach all parts of the country including the rural areas. Along with that, appropriate devices must be provided to students and teachers. Schools and higher educational institutes should invest in development and proper maintenance of their digital infrastructure. Digital libraries should provide with enriching contents that will encompass various courses. Institutions should prepare their own educational materials. Instructions should be available in all Indian languages. Innovative learning apps must be designed that will encourage playful learning instead of monotonous learning platforms. It should provide sufficient opportunities for the student-teacher interaction, encouraging collaborative and cooperative learning. Several awareness programs must be arranged. They should make good use of the existing mass media such as radio and television for this purpose. Teachers should be made digitally competent through proper training so that they can engage their students over digital platforms. Teaching materials should be individualized and students

should be allowed to learn at their own pace. Frequent assessments will help to reduce distractions. Parents should also be guided and proper counseling is necessary. Also, the optimization of the screen time is essential, keeping in mind the effects of device addiction.

BLENDED MODE OF LEARNING:

The blended or hybrid mode of learning is an adaptive technique essential in the time of digital revolution. It is the combination of digital learning tools with traditional face-to-face classroom learning. In these changing times, where digitalization is an ongoing process and digital divide is a major concern, blended mode of learning can be an effective solution. While promoting digital learning, NEP-2020 also gives importance to in person learning. Blended mode of learning

provides better interactional opportunities which will help students develop their social skills as well as focus on their psychomotor and affective domain. It provides better opportunity in case of experiential learning. Virtual labs are stills under development and courses which need hands-on training must use blended approach.

FINDINGS:

In the study, we have found that digitalized education system caters to the individual needs of the student. It connects teachers and students across the globe. These days, more number of students is having access to smartphones and this facility needs to be utilized in the right manner. The first step to bring digitalization in the classrooms is to prepare tech-friendly teachers by incorporating digitalization into teacher education. The NEP 2020 strongly recommends the use of digital learning systems, keeping in mind the upcoming challenges that need to be dealt with. The prime concern is to reduce the digital divide. We have also noticed that digital education improves the quality of life, benefiting both teachers and students. Until the digital gap is mitigated and the suitable infrastructural changes are made, blended mode of learning can be useful.

CONCLUSION:

Digital learning is the need of the hour. With the increase in smart-phone users rising to 85%, digitalization is no longer a far-fetched dream. Digital media today is the blend between the classical and conventional way of learning. If the negative impacts can be minimized, it is the future we aspire for. Considering probable outcomes, NEP 2020 strongly recommends the integration of technology into education. As of now, the blended mode of education can be a suitable option. Subjects which need hands-on training cannot depend upon digital learning entirely. Digitalization brings in more hopes and opportunities for the academicians and researchers.

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