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A critical analysis of the digital divide in the context of NEP2020 and implementation strategies

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Abstract

The National Education Policy 2020 centered to transform India's education system through the integration digital technologies in essential circulation training machine. The digital divide will become the sizable obstacle inside the route of a hit implementation of NEP2020. In modern-day education gadget, the virtual era plays pivotal role to provide diverse modern approaches to offers schooling successfully in numerous surroundings. This article severely analyzes the effect of the virtual divide on NEP2020, exploring the disparities in get admission to, affordability, digital literacy, and infrastructure. The take a look at highlights the want for a complete approach to deal with the virtual divide, ensuring equitable get entry to to virtual training for all. The findings of this take a look at have massive implications for policymakers, educators, and stakeholders involved inside the implementation of NEP2020.

Keywords: Digital divide, NEP2020, Implement, Strategies.

1. Introduction

The country, India is a diverse in nature. There is a comprehensive virtual divide a number of the students and instructors and different stakeholders. The digital era with progressive coaching and gaining knowledge of techniques, performs pivotal position to offer same gaining knowledge of opportunities, first-class training, personalized mastering opportunities, collaborative mastering opportunities and adapt progressive pedagogical strategies. The number one purpose at the back of the lifestyles of complete virtual divide in India's training system are financial inequality, low net connectivity and shortage of strength in rural and far off regions. Economically susceptible groups deprived from the various educational facilities which include loss of vital virtual learning instruments such as phone, tablets, laptop and get admission to of reliable net connectivity. Additionally, numerous formerly have a look at discover that linguistic and cultural barriers are another pivotal impediment to triumph over virtual divide for marginalised communities who belongs to numerous cultural and linguistic background. It may be very vital to include digital content material on the idea of cultural and contextual desires of numerous communities to beautify the quality of learning. The new training coverage identifies the enormous position of era in infrastructural development of cutting-edge training gadget. So, the countrywide education policy 2020 emphasis on the necessity of bridging the virtual divide which enables to assure inclusive and equitable access to excellent training to all. The government need to launch critical tasks to enhance virtual literacy, emphasis on the accessibility of generation inside the area of education to beautify learning final results and promoting virtual training. Access to e-content and educational programs will be made 24/7 to satisfy students dwelling in rural regions (Singh, 2010.). Active engagement of communities plays a amazing role to identify nearby obstacles of digital training and sell sustainable virtual inclusion. Faculty individuals ought to want to train educate and development possibilities to beautify their popular ICT capabilities, as well as learn how to efficiently use generation of their coaching practices (Soomro et al.2020). Educators, stakeholders and civil society businesses additionally plays a great role to aid digital initiatives of presidency. Besides virtual initiatives, coverage makers need to broaden monitoring framework to address areas of development, measure progress of initiatives and guarantee responsibility within the manner of implementation.

1. Digital Divide

This virtual divide can be labelled into three primary types: get admission to divide, abilities divide, and usage divide. The get entry to divide belongs to the disparity in get right of entry to virtual gadgets, internet, and connectivity. The abilities divide refers to the distinction in virtual literacy and abilities to efficaciously use generation. Third one is the usage divide which entails the variant in how people use technology, with some the usage of it for fundamental responsibilities and others for extra advanced purposes. Furthermore, the virtual divide refers to the disparity between people, groups, and societies and they may be not able to get get right of entry to of modern statistics and communicate technologies (ICTs), including the mobile gadgets, net connectivity and computer systems and different era associated possibilities. This concept refers no longer only the physical accessibility of a generation but also the essential know-how, and opportunities for the powerful makes use of these virtual era to make lifestyles clean. The constrained get right of entry to of digital technology has an enormous impact on economic growth and social mobility. The virtual divide is the vital reason of existing educational inequalities. So, it is very difficult to offer best schooling to all the deprived businesses. Even, they grow to be socially isolated for the lack

of virtual get entry to and they recognise adjustment problems associated with actual lifestyles and sense disconnected from the rest of society. A stark digital divide exists, where rich individuals and groups have enough opportunities for advanced virtual education and training, while disadvantaged corporations face giant limitations in obtaining fundamental virtual literacy competencies (Nigam, 2024). The virtual divide now not only the obstacle of the get right of entry to of pleasant schooling, however additionally limits the access of facts associated with healthcare and offerings.

2. NEP2020's Provisions for Digital Education

The National Education Policy 2020 (NEP2020) is a comprehensive framework and the digital schooling emerge as the maximum focused place of this new schooling policy and remodel India's training machine closer to digitalization. Various have a look at explores the desires of virtual training to dispose of disparities quality and accessibility in instructional opportunities. The National Education coverage emphasizes the significance of virtual training in attaining pleasant, equity, and accessibility in schooling. The NEP2020 set several provisions to sell digital schooling. The coverage surely speak approximately the development of National Digital Education Architecture (NDEAR) to use up the makes use of digital era specifically in the education zone. Each and every instructional institute get the access of high-pace internet, virtual labs, smart school room and well-skilled trainer to make coaching mastering process more effective and interesting to students. Similarly, the policy emphasizes at the development of digital sources which includes diverse on-line guides, e-content material and uses of numerous coaching mastering online platforms. The integration of era has transformed the schooling area, main to full-size shifts in instructional methods, advanced evaluation strategies, and scholar learning stories (Ali, 2022). The NEP2020 directly promotes the online and mixed getting to know method to offer same get entry to of great schooling to all. Teachers play a crucial position to put into effect this advice so it's far essential to provide instructor training with digital pedagogy. These properly-educated teachers take a notable function to correctly combine technology into the coaching studying technique. NEP2020 want to create a greater inclusive, accessible, and powerful schooling device for the twenty first century through integrating virtual technology.

3. Digital divide inside the context of NEP2020

The digital divide is an important problem in India. Still huge quantity of novices is suffering from susceptible net connectivity or other virtual technological issues related to schooling in India. Limited virtual literacy is some other considerable barrier of virtual inclusion in which minimum variety of humans have the fundamental laptop abilities. Some studies reveals that the socio-financial and local disparities are some other critical motives of digital divide. Urban regions and rich communities getting better get entry to of net connectivity and opportunity to take part in various digital literacy programs held by way of authorities and private sector. In the alternative hand, who belongs to rural regions, marginalized groups and disadvantaged agencies face numerous challenges to get admission to digital education. To offer popular access to current technology India's sizeable size populace and great student face considerable demanding situations. Insufficient funding for infrastructure improvement and instructor schooling similarly complicates the issue (Tayade & Chavan, 2023). The NEP2020 highlights, limited virtual literacy as a barrier of virtual education. There is a loss of necessary technological talents amongst teachers and students for the utilization of digital technologies in their coaching and mastering method. The coverage also identifies the infrastructural problems as a barrier of digitalization. The far-off areas of India are going through various challenges which include loss of digital gadgets- computer systems, laptops, and smartphones, lack of dependable connectivity of net and adequate strength supply, and lack of well-skilled educator. The limited financial investment is another crucial reason of digital divide. The maximum educational establishments are unable to preserve and improve digital infrastructure for low economic budget. As a result, freshmen and educators permit to gather virtual training for insufficient digital sources which limiting their possibilities closer to social mobility. Digital training inaccessible to many college students mainly for those college students who belong with low socio-financial historical past, not able to access high-value virtual devices and internet plans. The new national training coverage 2020 suggest to become aware of the limitations in the route of digitalization and take essential steps to enforce the ones initiative which at once and in a roundabout way promotes digitalization.

4. Implementation strategies of digital education

Initially the implementation of digital education faced various challenges such as financial, infrastructural, attitudinal and low management capacity. At the present situation, development of digital infrastructure is the foundational pillar which ensuring equal access of educational opportunities for all. The huge amount investment is essential to provide digital infrastructure and reliable internet connectivity.

1. Inclusion of technology in education

The new education policy 2020 clearly mention about the usefulness and integration of technology in the present education system to transform India into digital empowered country. Each and every institute have to facilitate technological infrastructure to provide digital education. Develop E-learning content, technological teaching and learning methods and teaching -learning platforms. Avail various digital learning tools to students for successful integration of technology in education.

2. Developing quality E-content

Digital education is the new concept in the 21st century, government emphasis on the urgent implementation of digital education but it is not possible without quality E-content. So, NEP2020 say about the development of a standard e-content and courses for both students and teachers. Develop various teaching learning methods like gamification, simulation, virtual reality and augmented reality. The digital E-learning content will be accessible in multiple languages even in mother tongue to maintain equality in education.

3. Development of ICT competencies among teachers

It is very essential to empower teachers and students both with infrastructural digital facilities to promote digital education. Furthermore, need to provide various training courses for teachers and equips teachers with the knowledge and competencies needed to navigate the digital effective landscape and make teaching-learning process more interesting and efficient with the use of technologies. Therefore, teachers need to acquire minimum digital knowledge to operate digital platforms and conduct online classes.

4. Development of digital infrastructure

The development of digital infrastructure plays a significant role in the implementation of digital education. It will facilitate online educational resources, online platforms, tools, high speed internet connectivity and access of digital content. Ensure reliable network and server infrastructure which helps to operate digital educational platforms without disruption and enabling students to learn smoothly. Digital payment infrastructure is useful for students to access educational content and resources through online transactions. This digital infrastructure can create easy access, maintain equity and provide quality education to all.

5. Adapt innovative teaching learning methods

The innovative teaching learning methods plays a crucial role to increase students' engagement, level of motivation and academic achievement by integrating digital technologies in education. Education is a dynamic process and it encourages experimentation, creativity, innovation and development of new teaching methods, tools and technologies. The integration of innovative teaching learning methods directly promotes the digital education. Innovative teaching learning methods such as flipped classroom, gamification, blended learning etc.

6. Use online assessment

Online assessment is the crucial part of digital education. It facilitates students to take assessment from anywhere and anytime especially for those students who belongs with mobility and location constraints. It also provides instant feedback and saves time which enables teachers to focus on teaching and mentoring, and enables students to track their progress, identify their weakness and improve their learning strategies. Online assessment reduces biases in examination process and it is beneficial for both students and teachers. Various assessment tools such as quizzes, games and simulations promote the digital education.

7. Identification of digital divide

There is a digital disparity among students in India for vastness and diverseness of country. So, it is very essential to take necessary step for the identification of digital divide or gap, especially in rural areas. Previous studies identify some common barriers of digital education such as lack of digital literacy and lack of digital infrastructure. Through the identification of digital divide in rural areas can be achieved by providing skilled teachers, multilingual educational programs, e-material, and e-content. For the rural students, access to these digital resources will be made available 24/7, ensuring equal opportunities for learning.

5. Strategic initiatives of MHRD to make India digital

1. Study webs of active-learning for young aspiring minds (Swayam)
2. Impacting research innovation and technology (imprint)
3. Global initiative of academic network (GIAN)
4. National program on technology enhanced learning
5. Swayam Prabha
6. National academic depository (NAD)
7. National digital library (NDL)
8. National institutional ranking framework

6. Impact of Digital Divide on Education

The digital divide has a profound impact on the present education. The digital divide enhancing the level of existing inequalities and hindering the access of quality education. Students without the access of digital technology, are facing various educational challenges in several ways. Still in this digital era, most of the students unable to get access of online educational resources such as e-book, online courses for the internet connectivity and inadequate digital devices for economic problem. The integration of technology-based teaching-learning modules has transformed the Indian education system, offering vast benefits beyond traditional classroom settings (Dalal, 2023). Digital education plays a significant role to provide collaborative and interactive learning environment which helps to develop essential abilities and digital skills of students such as communication skill, problem solving skill and critical skills.

These skills are playing a crucial role to get success in this digital age. Some direct effects of digital divide are discussed below:

- Students without the access of internet connectivity and digital technological facilities, unable access educational resources, information and other academic facilities.
- The digital divide creates a knowledge gap and inequalities in education.
- The digital divide is the profound obstacle of social mobility and skill development.
- Teachers who have lack of digital competency, are unable to provide quality education by using digital technology.
- In the other hand students who have lack of digital skill, are struggling engage in the learning process.

- The students feel demotivate for the lack of technical knowledge and fall behind their peers in terms of academic achievement.
- The students are unable access e-materials and e-content in multiple languages.
- Without digital technological access students feel socially isolated and later they face various difficulties like communication and collaboration problems.

7. Conclusion

After analysis the present status of digital divide in India, it is clear that digital divide is the significant issue in our country. There are various obstacles in the path of digital education such as lack of digital infrastructure, lack of digital literacy, socio-economic and regional disparities. Digital education plays a significant role to provide quality education and promote social mobility. So, it is very essential thing to address the reason of digital divide where policymakers take a crucial role. The government must emphasise in the investment for the purpose of digital infrastructure especially in the remote areas. The government also needs to launch various initiatives to implement effective digital education which helps to promote digital literacy among individuals. Even educators and practitioners gain minimum technological knowledge to held technology-based teaching method. Educators need to ensure that students of the modern generation have the skills to get success in the present digital age.

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