

**GOVERNMENT'S DIGITAL EDUCATION INITIATIVE A WAY TOWARDS
TRANSFORMATION OF EDUCATION**

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Introduction

India has the world's second largest school system, after China. COVID pandemic era has changed the traditional education system to the educational technologies model in which teaching and assessments are conducted online. The structure of the Indian education system i.e. learning methodology, teaching techniques and assessment methodologies, is quite affected, resulting in a shift to online education with most focus on virtual education to accomplish the set aims and objectives. In this globalised era, ICT skills are becoming increasingly relevant in every context, especially in the workplace, therefore one of the prime objectives for educational institutions has become preparing future professionals to be able to deal with problems and search for solutions, including digital competence as a vital skill set. Different policies, initiatives and strategies are currently being proposed by the government also to address educational technology innovations in education sector. India is a vast country with much diversity in culture, language, heritage etc. and so is its education system. We have schools with all digitized air-conditioned classrooms as well as the transportation; there are schools which believe in emphasizing on value education by following Gurukul system where students are taught under the trees despite of having world-class infrastructure. At the same time there are schools which emphasize on books and physical development of students by conducting in-house activities whereas others can afford international exchange programs. At the same time we have schools where students struggle for books. India holds an important place in the global education industry. According to the report of National Sample Survey Office, the country has more than 1.4 million schools with over 227 million students enrolled and more than 36,000 higher education institutes. India has one of the largest higher education systems in the world. However, there is still a lot of potential for further development in the education system.

Digital technology transformation is considered as one of the current trend in industry. In Indian education system there is an enormous scope for digital transformation especially in

schools, universities and colleges. Though, digitization and digital approaches are way to digitizing the content of lectures and to opening access to education or learning modules by providing them online. The power of technology can never be under-estimated. With a huge population of 1.31 billion people in the country, the ratio of technology has highly increased in the last few years. With around 140 million mobile phone users and being a country for the second most social site users, India has a huge opportunity to grow in this field and to grasp the positive vibes of technology in the field of education. With huge responsibility in digital technology, Prime Minister Modi has introduced initiatives like Digital India. This is to transform India into a digitally empowered society and knowledge economy. Digital India is a concept to change the education system in India. It gives an opportunity to access learning sources to a global platform. Nowadays students are spending lot of time on the internet and smart phone to get a lot of content online and upgrade their knowledge. Educational institutes, Schools College and Universities are left with no choice but to adapt these new technologies.

The outreach of educational programs is improving day by day with the digitalization of education. Worldwide research has shown that information and communication technology or digitalization plays an important role in student learning and positive impact on student achievement. In India student's efficiency is increasing day by day due to use of digitalization, awareness about digital program, govt. policies & facilities to promote digital education. The main target of government is now on encouraging states for improvement within the quality of education, so digitalization in education can be a boon in quality of education. The new education policy which was approved on 29 July 2020 suggests equipped school digitally, more virtual labs and friendly software which makes teaching and learning more interesting and interactive. For ensuring quality of digital education at primary school level both the teachers and the learners requires skill. Some prominent initiatives in India taken up in this direction include SWAYAM, NEPTel, e Pathshala, NCERT textbooks and many more.

It is important that States/UTs view technology in education as a means to an end rather than an end itself. It is also important to tailor the ICT infrastructure at the school/class to the requirement, desired outcomes or results in different contexts. ICT infrastructure and solutions have to constantly evolve to be effective in constantly changing circumstances in order to deliver desired results. **[NEP Para 24.4.(b),]**

Technology updation for teachers

Every teacher is expected to innovatively use ICT in teaching learning process by selecting and integrating a wide variety of ICT tools and Free and open-source software (FOSS) (including

subject specific tools like GeoGebra for Math; Stellarium, PhETs imulations, Kalzium etc. for Science; Open street map and Marble for Geography; concept mapping tools like Free Mind etc.) [NEP Para 24.4(g)]

Digital education is providing both teachers and students with new opportunities to teach and learn thereby ensuring greater participation in the overall learning process. With the advent of new technology-aided learning tools such as smartphones, smartboards, MOOCs, tablets and laptops etc has transformed the way education is being imparted in schools and colleges. The Internet of Things (IoT) is further proving to be one of the most cost-effective ways to educate students. It is also powerful system to integrate a world-class learning experience for everyone. The EdTech companies are constantly working to find innovative solutions to increase access to education.

Major Government Initiatives

New Education Policy: National Education Policy, 2020 aims at making India a global knowledge superpower by introducing several changes from the school to college level in the Indian education system with special emphasis on digital education.

SWAYAM (Study Webs of Active- Learning of Young Aspiring Minds) - This program is launched by government of India on 9th July 2017 and designed to achieve three principles of education policy- access, equity & Quality. SWAYAM has been developed by MHRD and AICTE with the help of Microsoft. This platform provides free access from 9th to post graduation. SWAYAM has four quadrants: e-content, e tutorial, discussion forums & assessments. According to SWAYAM there are 12,541,992 students are enrolled and 2,748 completed courses are present. Under digital India, government of India provides free entry to web courses. SWAYAM is dedicated to bridging the digital divide, extending educational opportunities to students who have thus far been underserved by the digital revolution, thereby enabling them to participate more fully in the knowledge economy. The courses offered on SWAYAM MOOCs are interactive and meticulously curated by the nation's most esteemed educators, and the best part is that they are available FREE of charge to all learners.

Digital Infrastructure for Knowledge Sharing (DIKSHA) platform: DIKSHA is the national platform for school education available for all states and the central government for grades 1 to 12 and was launched in September 2017. It has been adopted by 35 states across as

well as CBSE and NCERT also. As part of Prime Minister eVidya announced under the Atmanirbhar Bharat Programme, DIKSHA is the 'one nation, one digital platform' for school education in India. It offers learning material to students, parents and teachers. Students revise lesson, do worksheet and understand concepts as well as teachers have access to worksheets, activities & lesson plans to make enjoyable class experience. Diksha makes it possible to use of technology for the benefit of teachers and learners across the India.

NISHTHA : National Initiative for School Heads' and Teachers' Holistic Advancement:

The Department of School Education and Literacy has launched a National Mission to improve learning outcomes at the elementary level through an Integrated Teacher Training Programme called NISHTHA under the Centrally Sponsored Scheme of Samagra Shiksha in 2019-20. NISHTHA (National Mission to improve learning outcomes at the elementary level) is a capacity building programme for "Improving Quality of School Education through Integrated Teacher Training". It aims to build competencies among all the teachers and school principals at the elementary stage. NISHTHA is the world's largest teachers' training programme of its kind. The basic objective of this massive training programme is to motivate and equip teachers to encourage and foster critical thinking in students. The initiative is first of its kind wherein standardized training modules are developed at national level for all States and UTs.

Swayam Prabha TV Channel: To support and reach those who do not have access to the internet. It is education learning platform which is launched by the Ministry of Human Resource Development (MHRD) on 7th July 2017 to provide 32 high quality of channels on 24/7 basis. It has new content every day for at least 4 hours and would be repeated 5 times in a day. DTH channels cover the higher students, school students (9 to12), curriculum based course and assist students for competitive examinations. The contents are provided by NEPTTEL, UGC, CEC and IGNOU. Swayamprabha.gov.in web portal has an archive of telecasted videos which can be assessed anytime and students can find information about upcoming programs and timetable on website easily.

National Digital Library of India (NDLI) - NDLI provides free accessible books in English and other Indian language. The portal has open access for all people around the world; some contents are available for only registered user. Most of School don't have proper computer

facilities which decreased the importance of digital library so the Govt. should first establish the well maintained computer labs in the schools.

PMeVidya is an innovative and unique initiative by the Ministry of Education, Government of India to sustain education by leveraging ICT and to facilitate learning and teaching at school level. It offers multifarious educational resources in multi-platform mode viz. digital/online through 12 DTH TV Channels, community radio, content for Divyangs (CwSNs), podcast etc. Takes advantage of the several streaming platforms available across the country to telecast educational content in audio/video mediums.

PRASHAST - 'A Disability Screening Checklist for Schools' booklet and mobile app covers the 21 disabilities, including the benchmark disabilities as per the RPwD Act 2016. This initiative facilitates early screening, leading to certification of Children with disabilities, as per the provisions of Samagra Shiksha. It is a small step towards realising the vision of Equitable and Inclusive Education, of NEP 2020, RPwD Act, 2016, RTE Act, 2009 and Goal 4 of the Sustainable Development Goals.

e-PGpathshala- It is a gateway of post graduation courses being executed by the UGC. This platform provides curriculum based, high quality and interactive e-content in 70+ languages by the subject experts working in Indian Universities. It provides digital textbooks, learning material for all classes. Video, audio and workshops are available for students, teachers, parents, educators and researchers. It is an open education source where no teacher support is available for students. Every subject has a team of content reviewer, paper coordinator, content writer and multimedia team.

e-Basta- In this project government of India provides books in digital form as e books to be read and used on laptops and tablets. The main purpose of this platform to bring various publisher and schools together on one platform and students can easily access the dynamic content with text, graphics, videos and charts. e-Basta are portable and delivered through the internet with no shipping and packaging. It is a collection of e- content 'Anywhere and Anytime'.

Online Massive Open Online Course (MOOC): MOOC courses relating to National Institute of Open Schooling (from grades 9 to 12 of open schooling) are uploaded on SWAYAM portal; around 92 courses have started and 1.5 Crore students are enrolled.

Conclusions

In a flash, education was transformed from a traditional classroom practice to a remote, digitalized one. Suddenly, an entire generation had to start managing and mastering with digital tools to participate in education. Digital learning in India is going to be the key face of future education in the subcontinent. It is surprising to see how smart technologies are changing the overall educational framework in the country. The government is also taking radical steps to come up with policies that will boost the digital education market in the country. The Centre has directed State Education Departments to map the online access available to all their students in order to adequately plan curriculum and teaching methods. In the days to come, digital education like all other professions will see noteworthy changes.

Education is most important weapon for heightening of the country and education institutes started to become digitalized, online learning became a necessity. The central government and state governments have taken many initiatives to reach every student of the nation. Online learning is need of the nation for the achievement of digital literacy environment before 2030.

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