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Primary Education *e*-Access Initiatives in India

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Abstract

The Constitution of India guarantees free and compulsory education to all children in the age group of 6–14 years. But all children in the country are unable to get equitable access to primary education. Therefore, the Government of India has come up with numerous initiatives and programmes to create an environment so as to achieve the aim of Universalisation of Elementary Education (UEE). Some of these government initiatives encourage collaboration, cooperation, and promotion of universal, equitable, open and free access to Information and Communication Technology (ICT). The government is also keen to address the issue of openness, which provides free accessibility to resources by surfing the Internet. This paper gives an overview of various digital platforms for primary education in India, which have been initiated by the Central government for open access resources in different formats and languages. It also tries to create awareness among teachers for optimum utilisation of open access resources for primary education.

INTRODUCTION

The *Constitution of India* guarantees free and compulsory education to all children in the age group of 6–14 years. It was made a Fundamental Right as enshrined in Article 21A of the *Constitution* in the year 2010 (*Right to Education Act,* 2009). Even Article 45 of the Directive Principles of State Policy makes education for children in the age group of 6–14 years compulsory. It says, "The State shall endeavour to provide, within ten years from the

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commencement of this *Constitution*, free and compulsory education for all children until they complete the age of 14 years."

The *Sarva Shiksha Abhiyan* (SSA) is the government's flagship programme for achieving Universalisation of Elementary Education (UEE). The programme aims to address the educational needs of all children (aged 6–14 years) in the country.

As per the draft *Educational Statistics—At a Glance* circulated by the Ministry of Human Resource Development[1] (MHRD), Government of India, there were 8,40,546 primary, 4,29,624 upper primary, 1,39,539 secondary and 1,12,637 senior secondary schools in the country in 2015–16. Thus, in 2015–16, there were a total of 15,22,346 schools in India. But the number of schools was far less as compared to that of children's projected population at 12,99,42,000 in 2017 (Department of School Education and Literacy, MHRD, 2018).

INITIATIVES FOR OPEN ACCESS

Keeping in view the aforementioned data, the Government of India launched a few initiatives to make elementary education accessible via open access to all children from Classes I to XII. Some of these initiatives are follows.

National Digital Library of India

The project was developed by the Indian Institute of Technology, Kharagpur, under the aegis of MHRD, Government of India. The National Digital Library of India (NDLI) is a virtual repository of learning resources with a single window search facility and supports users at all academic levels, including researchers. It is accessible from all devices. Moreover, it offers features to ensure easy accessiblity by differently abled learners as well. To access the NDLI portal, the users will have to register themselves. For this, they require an email ID and need to create a password. It is only then that they would be able to access it.

One may access the website at https://ndl.iitkgp.ac.in/. The NDLI website gives the option to browse by 'Type' (audio, images, video, presentation, animation, simulation and application), 'Subject' (first, second and third level of the subject), 'Source' (NPTEL or NCERT) and 'Learning Resource' (article, audio lecture, books, question papers, videos and theses). The portal also offers facilities like search as per the education level, i.e., from Class I onwards.

One may access the portal in three languages — English, Hindi and Bangla.

Curricula for ICT in Education

The *National Policy on ICT in School Education* aims to prepare students so that they may be able to participate creatively in the establishment, sustenance and growth of knowledge

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[1] Under the New Education Policy–2020, the name of the Ministry of Human Resource Development has been changed to the Ministry of Education.

using Information and Communication Technology (ICT). It states that children must not merely be treated as passive consumers of knowledge but as its active producers. The Digital India Campaign (2015) strives to transform India into a digitally empowered society and a knowledge economy. It focuses on imparting digital literacy to children and their empowerment. Hence, the ICT curriculum, which may be accessed at ictcurriculum.gov.in, has been designed keeping in view the requirements of curricula for teachers, as well as, students in Indian classrooms. The curricula promote optimal utilisation of infrastructure and resources related to school programme. The website is a step towards achieving the goals of the *National Policy on ICT in School Education* and the *National Curriculum Framework* (NCF) 2005.

Following the guidelines as stated in NCF–2005, the website, i.e., ictcurriculum.gov.in, does not offer any separate course for primary students. Instead, it integrates ICT based games with core subjects at the primary level. The website has integrated 130 games for students from Classes I to V. These games are based on open source technology and may be translated into various languages (as per a student's choice). The basic aim of the games is to inculcate ICT skills in the students and help them to learn the subject. Some of the games available are — 'Make the Ball go to Tux', 'Penalty Kick', 'Rebuild the Mosaic', 'Complete the Puzzle', 'Explore World Music', etc. The main objective of these ICT games is to make the students learn the use of e-resources in learning the curricular subjects.

e-Pathshala

This is an initiative of the Central Institute of Educational Technology (CIET) at the National Council of Educational Research and Training (NCERT) to bring students, teachers, teacher–educators and parents on a single platform with the help of ICT. The portal may be accessed at http://epathshala.nic.in/. It allows the students to access digital textbooks, supplementary material, e-resources and flipbooks (e-books). The learners may access the 'flipbooks' on their desktops, laptops, mobile phones, tablets, etc. These flipbooks are responsive and enabled with features that allow users to select, zoom, bookmark, highlight, navigate, share and listen to the text using text to speech (TTS) apps, along with making digital notes. The flipbooks are available for Classes I to XII.

Similarly, parents, too, may be able to access various curriculum documents online, including National Curriculum Frameworks, National Focus Group Position Papers, syllabi, committee reports, etc., and help their wards with studies.

Teachers may also enrich their knowledge by accessing e-textbooks, e-resources, e-journals, etc., and devise innovative learner centric pedagogic strategies.

Conclusion

Technology is being employed to develop a digital and virtual classroom culture in the country, right from the primary level of education. Hence, it may be said that India is moving towards creating a more accessible, accountable and affordable education, where quality is maintained and all children have equal access to education and its sources. The Government of India has taken a number of initiatives to provide quality education to all children, including those at the primary level, by using open access resources.

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