Grama Digi Vikasana and Local Self-Government

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Abstract

“Technical revolution becoming global power today.”

The education system in India has made significant progress since Independence, with a rise in literacy rates from 18% to 77.7% in 2022. The education system in India is one of the largest in the world, with over 315 million students, but whether it is the "strongest" is a matter of interpretation and debate. The system has undergone various changes to adapt to the needs of the 21st-century generation, with a strong emphasis on technical assessment and the adoption of digital practices in schools and universities. The use of innovative pedagogies and methodologies has enabled educational institutions to develop learners' skills, fostering independence and ambition.

The digital revolution has further broadened the scope of education across the country and globally, with the evolution of communication, low-cost internet, and digitalization. However, there is still a considerable gap in the establishment of the education system in rural areas compared to urban areas, and Local Self-Government or Panchayat Raj Institutions play a vital role in bridging this gap. These institutions can provide a platform for the goal of complete digitalization in rural education, making it possible to provide quality education to all. Therefore, it is essential to understand the roles and responsibilities of local self-government in digitalizing education in rural India, as they can play a significant role in transforming the education system and providing equal opportunities for all.

Keywords: Grama Digi Vikasana, Digital Education, Digitalization, Local Self-Government

Objectives

1. The aim of this study is to examine the role of Panchayat Raj Institutions in the digitalization of education in India.
2. This study seeks to explore the potential of digitalization in the field of education in rural India.

Introduction

Over the years, the Indian education system has gone through various phases, with initial accessibility only to the elite followed by the post-independence struggle of the rural education system to compete with its urban counterparts. However, India has been strengthening its education system since 2009, when the Right to Education ACT was passed, mandating free and compulsory education. This progress has been significantly hindered by the Covid-19 pandemic exposed the lack of digital infrastructure, resulting in challenges such as a shortage of smartphones, internet availability, and connectivity issues for students, particularly those in government schools and rural areas. As per a United Nations report, with around 67 to 68% of the youth population residing in rural areas, the lack of digital infrastructure has been a significant barrier to education.
Bhanwala, Gyanendra Mani), it is crucial to provide them with the necessary tools to reach their full potential. To modernize the quality, accessibility, and affordability of education in rural India, encouraging technological intervention is key, and digital classrooms are instrumental in standardizing rural education by providing access to resources and knowledge that would otherwise be unavailable. Multimedia teaching tools and student-centered learning techniques can help bridge the information gap, making education accessible in rural areas through digitalization using modern resources such as smart boards and videos to impart various concepts, which would empower teachers to deliver information remotely through multiple channels and increase efficiency. Encouraging the adoption of newer technologies through tech-enabled schools in India can help bridge the divide.

With the widespread use of the internet, more people can access a wealth of knowledge and resources available online, leading to a surge in the popularity of digital education. This has significantly impacted rural education, and the following are a few ways in which digitalization has transformed the landscape.\(^4\)\{Harshal Gala\} Recognizing the significance of digitalizing the education system, both state and central governments have taken measures to establish it in every corner of the country, primarily through Panchayat or local self-government.

**Education and Digitalization in Karnataka**

Universal and compulsory education for all the children in the age group 6-14 was the cherished dream of the government of the Republic of India. This is evident from the fact that it is incorporated as a directive policy in Article 45 of the constitution of India. However, in the recent past, the government appears to have taken serious note of this lapse and has made Primary education a Fundamental Right of every Indian Citizen\(^5\)\{Dr.V.Sasi Kumar\}.

In this regard, The Government of Karnataka State has taken serious and positive steps for education digitalization. The education foundation “Sikhana” has collaborated with Rural Development and the Panchayat Raj department hand-launched “Gram Digi Vikas” under its “Digital Inclusion Program”, which covers 1200 Gram Panchayath across the Karnataka state. Gram Panchayat Libraries are equipped with one Android Tele Vision, four Android Mobile Devices, an Internet Connection/ Wi-Fi hotspot, annual data plan. The device will be loaded with an App and required academic content to enable students/youth to use these devices to supplement their learning. Gram Panchayat enrolls youth and children aged 12 to 25 years (interested youth above 25 years) as members of the “Grama Digi Vikasana” program. Each “Gram Digi Vikasana” would run offline/online sessions for the children and youth on topics indicated above, students/youth and community members are encouraged to utilize the resources for learning and consumption of e-services.

Sikshana Foundation is conducting very serious online/offline training at all the Gram Panchayats on topics related to but not limited to Digital Skills, Functional Arithmetic and English, and Career guidance. This training session will also be available through an offline App that the youth and children can install and access on any smartphone.

The Sikshana Foundation will furthermore develop an android-based software that will enable each of the Gram Panchayat Library to showcase the work happening in their respective Gram Panchayath Library and stipulate simple data regularly which will enable the monitoring and visualizing the progress through dashboards.
Gram Digi Vikasana
The Karnataka state, outside of the major urban centers is largely rural with over 30,000 villages housing over 60% of the state population. Administrative villages are categorized under an administrative entity called Gram Panchayat. There are 6,011 Gram Panchayats in the state and a variety of services are made available at each of the Gram Panchayats. One such service is the availability of a public library at each of these Gram Panchayats Libraries in rural areas have a crucial role in offering information dissemination among the public.

Rural libraries can act as community centers to provide access to information. Meanwhile, the pandemic period has exposed the enormous imbalance in access to digital information which has already impacted millions of children who have not gone to school for 18 months and were unable to attend online classes due to the non-availability of the internet and digital devices. In addition, most social programs are also being provided digitally and access to digital devices for the underserved is very critical now.

With the increased demand for tech-enabled information access, the existing rural libraries can be enabled with digital devices with a tech-enabled solution allowing the students and the youth to access vast resources available online in the most effective and efficient way, accelerating the information flow amongst the community. Sikshana Foundation in collaboration with Rural Development and Panchayat Raj Institutions department is working towards modernizing the conventional libraries into digital libraries by equipping them with digital devices and internet connectivity.

Digital Device Library
Set up a library of digital devices in each Gram Panchayat along with a broadband internet facility for beneficiaries to borrow the device and consume online services. For individual use, Android devices are provided so that users will have access to various approved Apps as essential. Also, an Android Tele Vision will be set up which will enable group training/learning activities by allowing for easy Chromecast of various apps and resources directly from the internet.

In this regard the Department of Library Directors has developed the https:www.Karnatakadigitalpubliclibrary.org/ portal to allow users to access the content remotely and to support those who cannot afford access, the libraries are being upgraded with computers and laptops. {Sneha Ramesh}.

School & Gram Panchayat Connect
With the device preloaded with school content, the student in this Gram Panchayat can continue learning as we navigate the pandemic. Content developed and curated by the Department of State Educational Research and Training (DSERT) will be pre-loaded on these devices including classes four to tenth and can be easily accessed using GPSTEP App.

Vocational Skill
Vocational Education is becoming extremely important in the perception of the current economy where labour with highly specialized skillsets is needed. Training of the workforce requires a meet the current demand and hence training needs to be provided based on demand/supply data of specific skills and their potential for adaptation. For this an online platform called Gram Panchayat marketplace has been established by Sikshana Foundation and based on the need, domain experts and other NGOs will be brought in to cater to training needs.
Under this program, each library will be equipped with four mobile devices, an Android television, and an internet facility. In addition to this, the program will also train the youth on the necessary digital life skills, provide vocational training, and educate them on various career choices. 75 selected youths from Gram Panchayaths across the state will be provided with special training for engineering and medical competitive examinations.

**Vritti Nakshe**
Sikshana Foundation which pioneered Learning Maps in school will youth navigate them. Career counseling camps will be run periodically at the Gram Panchayat library to help youth understand the several career choices that are available today. Content from partner non-governmental organizations who specialize in these programs will be offered by the Sikshana Foundation team positioned in each of the Zilla Panchayaths.

**Elite 75 Program**
Five youths from Zilla Parishats across the state who show the potential for higher learning will be selected from the Gram Panchayat and provided special training for various Engineering Entrance Exams. Additionally, technical training is also provided.

**Project Details**
- All the 5700 Gram Panchayat libraries in the state will be selected.
- 21st Century and Digital Literacy training program across the State with a target of ten lack youth.
- The Elite 75 program will be run across all the Zilla Parishad.
- Gram Panchayath will have a Digital Device Library setup which consists of:
  - All the 5700 Gram Panchayat libraries in the state will be selected.
  - One dedicated Sikshana Foundation Coordinator for each of the districts will be provided.
  - Monitoring and management software development by Sikshana Foundation to handle the current Gram Panchayat libraries will be extended to manage this initiative.
  - Secure learning environment through Sikshanapedia App an offline learning app developed by Sikshana Foundation.

**Implementation**
Sikshana Foundation will take absolute ownership of the project and will implement the project in a phased manner. The foundation will partner with CSRs to raise the necessary funds for the internet, Digital Devices, Monitoring Staff, and the necessary software. The government of Karnataka will provide essential logistic support at each of the selected Gram Panchayat to enable the implementation of the project. This incorporates promoting the availability of digital resources in the villages of the Gram Panchayats assigning additional duties to the currently dedicated librarian in each of the Gram Panchayats to manage these digital resources and provide the required space/infrastructure to run The Digital Device Library.

**Prerana {Motivation}**
Sikshana Foundation started in 2003 by a group of professionals to improve the quality of education delivered by the public school system has progressed over the years. The first decade of the foundation
was spent on developing modules to improve learning outcomes in primary schools and the program named “Prerana” has since been implemented by the Karnataka Education Department in 2018<sup>10</sup>

While various pilots are being conducted to address the National Education Policy 2020 expected with the education department, the foundation’s flagship program is currently Grama Digi Vikasana, a program to convert Gram Panchayat Libraries into Digital Transformation Centers in collaboration with Rural Development and Panchayat Raj Department. This Program engaged in helping the Department of Health with a software solution, a girl-child program<sup>11</sup>to address the challenges and issues faced by rural girls in their education and beyond, the rural sports events. In Sikshana every product that develops has one common element that can be observed which is” Motivation”. It is the first program itself called “Prerana” which is designed to motivate the entire school ecosystem.

In another area where development of Mobile Apps and other Information Technology support systems for some of the homes in Karnataka state data entry like the school program management app called NIB-KA {Nipun Bharath-Karnataka } and student learning systems like Sikshanapedia App and EPBL web app also activated. Along with this Foundational Literacy and Numeracy (FLN) refers to proficiency in reading with understanding and Numeracy. STEP is geared towards motivating schools to engage and integrate technology in their daily teaching and learning process, and SGEP is completely focused on empowering girls from socio-economically backward families<sup>12</sup>.

Conclusion:
The education system of India has evolved significantly since its independence. The interference of technology has made it easier and much more insightful than it ever was. The benefits of imparting relevant education have been understood by the government which has done its bit to strengthen the existing system for all sections of society. But complete “Digital India can only be possible when every rural household can access all things digital.

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