



“Current Status And Future Prospects Of School Library Services In The Age Of Artificial Intelligence: A Case Study Of EMRS Dahi Dhar (Madhya Pradesh)”

Priya vyas

MLIS student
(IGNOU)

Abstract

This research paper examines the current status and future prospects of school library services in the context of the rapid transformation driven by Artificial Intelligence (AI) and Information and Communication Technology (ICT) in the 21st century. The integration of AI into the education system has significantly reshaped teaching-learning processes, improved access to information, and enhanced methods of knowledge dissemination. In this changing environment, school libraries are no longer confined to their traditional role as repositories of books; instead, they are expected to evolve into dynamic digital knowledge centers that support interactive and technology-enabled learning.

The study focuses on EMRS Dahi Dhar, located in Madhya Pradesh, a residential educational institution established to serve tribal students. It critically evaluates the present condition of library services within the institution. The findings reveal several challenges, including inadequate infrastructure, a lack of modern technological resources, poor internet connectivity, and limited awareness among students and staff regarding the effective use of AI and ICT tools. These issues hinder the ability of the library to meet contemporary educational demands and restrict students' access to digital learning opportunities.

In addition to assessing the existing limitations, the study explores the potential role of school libraries in promoting inclusive and community-based learning. It emphasizes that school libraries, particularly in rural and tribal areas, can extend their services beyond academic purposes and function as community knowledge centers. By providing access to digital resources, information services, and learning support, libraries can contribute to the educational development of nearby rural populations.

Furthermore, the paper highlights the importance of adopting innovative approaches such as digital libraries, mobile library services, and AI-enabled tools to improve accessibility and enhance learning outcomes. The integration of such technologies can bridge the digital divide and ensure equitable access to information for all learners.

The study concludes by offering practical suggestions for the modernization and digital transformation of school libraries. It stresses the need for improved infrastructure, better internet connectivity, training programs for users, and policy-level support to ensure the inclusive development of school libraries in rural India. These measures are essential for making libraries relevant and effective in the digital age.

Keywords

Artificial Intelligence (AI), ICT, School Library Services, EMRS, Rural Education, Digital Library, Library Modernization, Community Learning

Introduction

The 21st century is characterized by rapid technological advancements, particularly in the field of Information and Communication Technology (ICT). These developments have significantly transformed various sectors, including education, healthcare, communication, and governance. Among these innovations, the emergence of Artificial Intelligence (AI) stands out as one of the most influential forces shaping the modern world. AI has revolutionized the way information is created, accessed, processed, and disseminated. In the field of education, AI facilitates quick access to vast amounts of information, supports personalized learning experiences, and enhances the overall efficiency of knowledge delivery systems.

In today's educational environment, students are increasingly exposed to a wide range of digital tools, online platforms, and virtual learning resources. Smart classrooms, e-learning platforms, digital content, and AI-powered applications are becoming integral components of the teaching-learning process. However, mere access to information does not guarantee meaningful learning outcomes. Students must be equipped with essential skills such as critical thinking, information evaluation, digital literacy, and the ethical use of technology. Without these competencies, learners may struggle to distinguish between reliable and unreliable information, leading to superficial understanding.

In this context, school libraries play a crucial role in supporting holistic education. Traditionally, libraries were perceived as quiet spaces primarily meant for storing books and facilitating reading habits. However, the role of libraries has undergone a significant transformation in the modern era. Today, libraries are evolving into dynamic knowledge hubs that promote research, innovation, and collaborative learning. They are expected to integrate ICT tools and AI-based technologies to provide efficient, user-centered, and inclusive services to students and teachers. Modern school libraries are no longer limited to physical collections but also include digital resources such as e-books, online databases, multimedia content, and virtual learning platforms.

Eklavya Model Residential Schools (EMRS) are an important initiative of the Government of India aimed at providing quality education to tribal students residing in remote and underdeveloped areas. These schools are designed to bridge the educational gap between rural and urban populations by offering modern infrastructure, academic support, and opportunities for holistic development. EMRS institutions focus on empowering tribal students by providing them access to quality education comparable to that available in urban settings.

During the academic session 2023–24, the researcher had the opportunity to work as a librarian at EMRS Dahi Dhar in Madhya Pradesh. This experience provided valuable practical insights into the functioning and challenges of school libraries in rural and tribal settings. It was observed that despite the recognized importance of libraries in the educational process, the available resources and technological facilities were limited. Issues such as inadequate infrastructure, lack of updated digital resources, poor internet connectivity, and limited awareness about the use of AI and ICT tools were prominent. These challenges restrict the ability of the library to fully support modern educational needs and limit students' exposure to digital learning environments.

Furthermore, this study raises an important question regarding the scope and role of school libraries in rural areas: Should school libraries limit their services only to the students and staff within the institution, or should they extend their services to the surrounding rural communities? In many remote regions, access to educational resources, digital technology, and information services remains scarce. In

such contexts, school libraries have the potential to function as community knowledge centers that serve not only students but also the wider population.

By extending their services beyond the school boundaries, libraries can contribute significantly to promoting literacy, lifelong learning, cultural awareness, and digital inclusion among rural communities. Initiatives such as mobile library services, community reading programs, digital literacy workshops, and access to online information resources can help bridge the knowledge gap. Moreover, the integration of AI-enabled tools can further enhance accessibility, allowing users to retrieve information efficiently and engage in self-directed learning.

Therefore, there is a growing need to re-imagine the role of school libraries in the digital age, particularly in rural and tribal areas. Strengthening library infrastructure, improving technological access, and promoting awareness about digital tools are essential steps toward making libraries more relevant and impactful. This study aims to explore these aspects and provide practical suggestions for the development and modernization of school library services in the context of AI and ICT advancements.

Need of the Study

The importance of EMRS institutions has increased significantly in recent years due to their role in providing education to tribal communities. With more than 1,000 schools across the country, these institutions represent a major step toward inclusive education.

In the current digital age, the integration of AI and ICT into educational systems is no longer optional but essential. Libraries, being central to knowledge dissemination, must adapt to these changes to remain relevant.

However, many EMRS libraries lack adequate infrastructure, technological resources, and trained personnel. This creates a gap between policy objectives and ground reality.

Therefore, this study is necessary to:

- Assess the current condition of library services
- Identify gaps in ICT and AI implementation
- Evaluate the readiness of students and teachers
- Suggest improvements for modernization

Objectives of the Study

- To examine the availability of AI and ICT tools and resources in the school library, including computers, internet access, digital platforms, and AI-based applications.
- To analyze the impact of AI and ICT-based services on students and teachers in terms of learning outcomes, teaching methods, and access to information.
- To assess the level of digital literacy and awareness among students and staff regarding the effective use of AI and ICT tools.
- To explore the possibilities of developing modern, well-equipped libraries by integrating digital resources, e-libraries, and AI-enabled technologies.
- To evaluate the role of school libraries as digital knowledge centers in the 21st century education system.
- To identify the key challenges such as lack of infrastructure, poor internet connectivity, limited funding, and insufficient training.
- To suggest practical and sustainable solutions for improving library services through modernization and digital transformation.
- To examine the potential of school libraries to function as community knowledge centers for nearby rural populations.

Research Methodology

The study is based on a qualitative research approach combining observation, experience, and interaction.

The researcher served as a librarian at EMRS Dahi Dhar during 2023–24 and conducted direct observation of library facilities, usage patterns, and user behavior.

In addition, continuous interaction with students and teachers in subsequent years helped in understanding the evolving scenario.

Sources of Data Collection

Personal experience and observation
Questionnaires from students and teachers
School website data
School and library reports
Informal discussions and feedback

Major Findings of the Study

The study revealed that the library at EMRS Dahi Dhar is still in a developmental phase. Although a designated space exists, it lacks essential resources and modern facilities.

The number of computers is very limited, and they are mainly used for administrative work. Until the academic session 2024–25, the library had no computer access.

The collection of books is restricted to textbooks, with no availability of general knowledge, reference materials, or personality development books.

Internet connectivity is highly unreliable, making it difficult to conduct ICT-based activities.

Library activities such as reading programs, competitions, or awareness sessions are absent.

However, some positive developments were observed in 2025–26, such as the provision of furniture, indicating initial steps toward improvement.

Challenges in the Use of ICT and AI

- **Poor Internet Connectivity**

In rural and remote areas, internet connectivity is often weak and unreliable. This limits access to online resources, digital libraries, and AI-based tools. As a result, students and teachers are unable to fully benefit from modern educational technologies.

- **Lack of Training and Awareness**

Many students and teachers lack proper training in using ICT tools and AI technologies. Without adequate knowledge and awareness, digital resources remain underutilized, reducing their effectiveness in the teaching-learning process.

- **Financial Constraints**

Limited funding is a major obstacle in the implementation of ICT and AI. Schools are often unable to afford modern equipment such as computers, software, and digital subscriptions, which are essential for developing advanced library services.

- **Shortage of Skilled Staff**

There is a lack of trained librarians and technical personnel who can manage digital systems and guide users. This shortage affects the smooth functioning of library services and delays technological advancement.

- **Inadequate Infrastructure**

The physical infrastructure of many school libraries is not suitable for digital transformation. Problems such as insufficient space, poor electricity supply, and lack of proper furniture hinder the effective use of ICT tools.

- **Lack of Technological Equipment**

Many libraries do not have enough computers, projectors, or digital devices. Even when some equipment is available, it is often insufficient to meet the needs of all students, creating barriers to access.

- **Limited Technical Knowledge**

Users often lack the necessary technical skills to operate digital systems, search for information efficiently, or use AI-based tools. This limits their ability to take full advantage of available resources.

- **Lack of Modernization**

Many school libraries still rely on traditional methods and have not adopted digital technologies. The absence of modernization prevents libraries from evolving into dynamic knowledge centers required in the 21st century.

Future Prospects of School Libraries in the AI Era

With proper planning, investment, and institutional support, school libraries have the potential to transform into powerful centers of learning in the age of Artificial Intelligence (AI). The integration of AI and Information and Communication Technology (ICT) can significantly enhance the quality, accessibility, and effectiveness of library services, especially in rural and underdeveloped areas.

AI can play a crucial role in modernizing library operations. For instance, smart cataloging systems can automate the organization and retrieval of books and digital resources, making information access faster and more efficient. AI-based tools can also provide personalized learning recommendations based on students' interests, reading habits, and academic needs. This helps in promoting self-directed learning and improving overall academic performance. Additionally, AI enables easy access to digital content through advanced search systems and virtual assistants, allowing users to find relevant information quickly. The concept of virtual libraries further expands access by enabling students to use library services anytime and from anywhere.

Apart from AI integration, school libraries can adopt various innovative practices to enhance their services. The introduction of e-books and digital resources can reduce dependency on physical materials and increase accessibility. Online learning platforms can support interactive and flexible learning experiences for students. Moreover, mobile library services can be especially beneficial for rural and remote areas, where access to educational resources is limited. These services can bring books and digital tools directly to communities, promoting literacy and awareness.

Overall, the transformation of school libraries into digital knowledge centers will play a vital role in bridging the digital divide. It will ensure equal access to information, promote inclusive education, and empower students with the skills required for the 21st century. Such developments are essential for creating a more equitable and knowledge-driven society.

Conclusion (Improvement and Suggestion-Based)

The present study concludes that the library at EMRS Dahi Dhar requires significant improvement to effectively meet the demands of the digital age. Although the library plays an important role in supporting the teaching-learning process, its current condition reflects several limitations in terms of infrastructure, technological resources, and digital integration. In the era of Artificial Intelligence (AI) and Information and Communication Technology (ICT), it is essential for school libraries to evolve into modern knowledge centers that provide both physical and digital access to information.

To address these challenges, several practical suggestions can be implemented. First, ensuring reliable internet connectivity is crucial, as it forms the backbone of all digital services. Without stable internet access, the use of online resources, digital libraries, and AI-based tools remains limited. Second, the provision of adequate technological tools such as computers, projectors, and digital devices is necessary to facilitate effective learning and information access.

Another important step is the organization of regular training programs for students, teachers, and library staff. These programs can help improve digital literacy, enhance awareness about AI and ICT tools, and encourage their effective utilization. In addition, the appointment of skilled and trained staff, including professional librarians and technical support personnel, is essential for managing digital resources and guiding users.

Digitization of library services is also a key requirement. This includes the development of digital catalogs, access to e-books, online databases, and the use of AI-enabled systems for efficient information retrieval. Such initiatives will make library services more user-friendly, accessible, and relevant in the modern educational context.

Furthermore, school libraries should extend their services beyond the institution and cater to nearby rural communities. By functioning as community knowledge centers, libraries can promote literacy, digital inclusion, and lifelong learning among rural populations.

In conclusion, by implementing these measures, school libraries can play a vital role in enhancing the quality of education, reducing the digital divide, and contributing to national development. The modernization of libraries is not only a necessity but also an opportunity to empower future generations with knowledge and skills.

Some pictures



Library



Bibliography / References

1. Government of India. (2021). EMRS Guidelines. Ministry of Tribal Affairs.
2. National Education Policy (2020). Government of India.
3. UNESCO (2021). AI in Education.
4. IFLA (2015). School Library Guidelines.
5. Kumar, R. (2019). Library Science in Digital Era.
6. Sharma, P. (2022). ICT in Education.
7. EMRS Dahi Dhar Official Website
8. School & Library Reports (2023–26)

