

## DIGITAL LIBRARY SERVICES AND BLENDED LEARNING: IN CONTEXT TO SUSTAINABLE EDUCATION

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### ABSTRACT:

In higher education, blended learning-which combines traditional instruction with online learning-has grown in importance. Such creative teaching and learning methods are greatly aided by the library, an essential component of academic institutions. By digitizing collections, acquiring born-digital information, and providing a variety of digital services such as web-based, instructional, personalized, and search engine services, libraries are adapting to the demands of blended learning.

These services have been further improved by emerging technologies like Web 3.0 and Web 4.0, such as context-aware systems and augmented reality, which connect them with user expectations and foster a seamless digital experience. Because they provide access to a variety of resources, promote high-quality instruction, and encourage faculty and student involvement, digital library services are essential to sustainable education.

Librarians must acquire the skills necessary to deliver creative services, adjust to technological developments, and get past obstacles like a lack of resources and a lack of expertise if they want to stay relevant in the digital age. Libraries can full-fill their objective of encouraging learning and innovation in the constantly changing educational landscape by utilizing these abilities and offerings.

**KEYWORDS:** Library, Digitization, Digital Library Services, Education.

## **INTRODUCTION:**

The evolution of information technology has revolutionized traditional libraries and their services, enabling the storage, sharing, and retrieval of knowledge through digital technologies. This shift has led to the development of digital libraries, which focus on collecting, storing, processing, and disseminating information electronically. Reference materials such as dictionaries, encyclopedias, and indexing services are now produced in digital formats, making access to modern information sources a key aspect of digital libraries. These repositories provide searchable, globally accessible, and space-efficient platforms, reducing the costs and resources associated with physical libraries.

Digital libraries are comprehensive collections of databases and digital materials accessible via computer networks. They support the full lifecycle of knowledge creation, dissemination, and use, integrating tools like e-books, e-journals, e-theses, and e-dissertations. Additionally, they enable services such as Selective Dissemination of Information (SDI), Current Awareness Services (CAS), document scanning, and online access to databases. Libraries also utilize technologies like web 2.0, mobile devices, and cloud platforms to enhance accessibility and user experience.

The rise of digital library services has supported educational advancements, particularly in blended learning, which integrates traditional and e-learning methods. Tools like video conferencing, instant messaging, and collaborative technologies facilitate this approach, relying on digital library resources to provide e-materials for teaching and learning. Libraries play a vital role in delivering quality education by digitizing collections and acquiring born-digital materials, ensuring access to diverse resources in formats preferred by users.

In the digital age, libraries are central to promoting literacy and sustainable development by providing essential resources and services that align with modern educational practices. As education is crucial for societal progress, libraries must adapt to meet the evolving needs of learners and educators, emphasizing digital content to enhance their impact.

## **REVIEW OF LITERATURE:**

Ahmed, Salim; Ashtamy L., & Devi, Mini B. (2023) This paper discusses the evolution of digital library services in response to technological advancements, highlighting web-based, search engine, instructional, and personalized services. It also covers the concepts of Web 3.0

and Web 4.0, with Web 4.0 introducing augmented reality, context-aware libraries, and limitless creative spaces. These innovations improve library services and meet user expectations.

Banker, Vipul P. (2018) The present paper focuses on an evaluative study of digital resources and services available in state university libraries. the prime function of any library is to provide efficient services to its users. Various aspects related to resources and services of the library are examined, such as library resources. Digital Resources to enhance library services and increase academic productivity. Most of the users as students, researchers, and teachers are reliable on digital resources.

Horsfall, Millie N.; Omehia, Anthonia E., & Onyema, Nsirim (2021) Blended learning combines traditional teaching with online methods, driving the adoption of digital content and library services in higher education. Libraries support this innovation by digitizing collections, offering digital services, and equipping librarians with the necessary skills to enhance blended learning. This chapter discusses digital library services, librarians' roles, required competencies, and challenges in the digital age.

Tom-George, Nnenda & Onyema, Nsirim (2022) The shift to digital lifestyles, blended learning, and e-learning has increased reliance on digital content, challenging libraries to support quality education through digitized and born-digital collections. This chapter explores digital library services, their role in sustainable education, platforms used, librarians' skills, future trends, and challenges in enhancing education quality.

### **DIGITAL LIBRARY SERVICES:**

Digital library services combine advanced computing, storage, and communication systems with software to replicate and enhance traditional library functions like cataloging, finding, and disseminating information (Gladney et al., 1994). Over the past three decades, digital libraries have transitioned from novelty to mainstream (Arms, 2012). Initially, libraries focused on metadata, with MARC cataloging and indexing services like Medline at their peak. By the 1990s, advancements in computing enabled libraries to offer large online collections, and by the decade's end, systems like DSpace and projects like Carnegie Mellon's Mercury Electronic Library exemplified the shift toward digital repositories.

Modern digital library services cater to academic, public, and specialized libraries through electronic platforms. They encompass synchronous tools like video conferencing and instant messaging, as well as asynchronous methods such as websites, email, and FAQs. These services aim to update users about new arrivals, provide access to resources, educate users, and deliver documents. According to White (2001), they also serve as customer support channels via electronic means like email and online forms, while playing a crucial role in digital preservation.

Key services include reference and document delivery, borrowing and renewing, e-library functions, user education, and current awareness services. For instance, Online Public Access Catalogues (OPAC) have replaced traditional card catalogs, enabling efficient resource access. E-journals, another significant offering, are accessible in formats like PDF and HTML, providing up-to-date content but raising copyright concerns.

Digital library services also involve metadata management, online instructions, institutional repositories, and tools like SDI and CAS. They integrate physical and digital resources, ensuring seamless access and preservation while adapting to users' evolving needs in a technology-driven era.

Most of the services are rendered digitally and are now regarded as digital library services. They are itemized as follows:

- Computerized interactive search
- IT services
- E-library services
- online user education/instruction
- Selective Dissemination of Information (SDI)
- Current Awareness Services (CAS)
- Referral service
- Reprographic service
- Webliography service
- Digital reference services
- online document delivery service

- Online Public Access Catalogue (OPAC)/Web-Based Public Access Catalogue (WEBPAC),
- Audio-visual Service
- Online indexing and abstracting
- institutional repositories
- Computerized **Interactive Search**: Enables users to perform advanced and intuitive searches using digital tools for quick access to information.
- **IT Services**: Support services that include hardware and software solutions to enhance library operations.
- **E-Library Services**: Access to digital collections like e-books, journals, and other multimedia resources.
- Online **User Education/Instruction**: Training and tutorials to help users navigate digital resources and tools effectively.
- Selective **Dissemination of Information (SDI)**: Personalized service delivering tailored information based on user preferences.
- Current **Awareness Services (CAS)**: Regular updates about new additions to the library's collection or recent publications in specific fields.
- Referral **Service**: Guidance to external resources or institutions when specific information is not available within the library.
- Reprographic **Service**: Facilities for photocopying, scanning, and digital reproduction of documents.
- Webliography **Service**: Compilation of links and resources available online relevant to specific subjects or topics.
- Digital **Reference Services**: Online assistance in answering user queries or providing research support.
- Online **Document Delivery Service**: Electronic delivery of requested documents, such as journal articles or book chapters.
- Online **Public Access Catalogue (OPAC)/Web-Based Public Access Catalogue (WEBPAC)**: Digital platforms to search and locate materials within the library's catalog.
- **Audio-Visual Service**: Access to multimedia resources such as videos, audio recordings, and presentations.

- Online **Indexing and Abstracting**: Tools to help users find and review summaries of academic and research papers.
- Institutional **Repositories**: Digital archives to store, preserve, and provide access to an institution's intellectual output, like research papers, theses, and reports.

Digital library products are utilized for digital library services. Digital library products include:

- E-book
- E-journals
- E-newspaper
- E-magazine
- Electronic Projects, Theses and Dissertations
- **E-book**: Digital versions of books that can be read on computers, tablets, or e-readers. These often include search functions, annotations, and bookmarking capabilities.
- **E-journals**: Online versions of scholarly journals offering access to research articles, reviews, and studies in various academic fields. These are essential for researchers and academics.
- **E-newspaper**: Digital newspapers that provide up-to-date news and archives of previous editions, accessible anytime and from anywhere.
- **E-magazine**: Electronic versions of magazines covering diverse topics such as current affairs, lifestyle, technology, and hobbies, available in digital formats for easy access.
- **Electronic Projects, Theses, and Dissertations**: Digital repositories of academic projects, theses, and dissertations submitted by students and researchers, ensuring wide accessibility and preservation of intellectual contributions.

### MAJOR FINDINGS:

- **Evolution**: Libraries transitioned from traditional to digital over three decades, enhancing cataloging, searching, and dissemination with advanced technologies.
- **Early Innovations**: Metadata systems (MARC, Medline) and digital repositories (DSpace, Mercury) set the foundation for modern services.
- **Comprehensive Services**:

- Key offerings: OPAC, SDI, CAS, reprographic services, digital reference, online document delivery.
- Tools: User education, multimedia resources, institutional repositories.
- **Digital Products:**
  - **E-books:** Searchable, feature-rich digital books.
  - **E-journals:** Crucial for academic research.
  - **E-newspapers & E-magazines:** Accessible news and niche content.
  - **Electronic Theses:** Preserves academic output.
- **User Focus:** Personalized services (SDI, CAS), online education, and real-time tools (video conferencing, messaging).
- **Challenges:** Copyright issues and digital preservation remain critical concerns.
- **Hybrid Integration:** Combines physical and digital resources for seamless access.
- **Impact:** Improved resource access, research efficiency, and global reach through digital platforms.

## SUGGESTIONS:

- **Introductory Overview:** Start with a brief definition of digital libraries.
- **Categorize Services:** Group services into categories like **Search Tools**, **User Support**, and **Content Management**.
- **Real-World Examples:** Include examples of digital tools and platforms (e.g., DSpace, JSTOR).
- **Address Challenges:** Mention issues like digital preservation and copyright concerns.
- **Focus on User Needs:** Highlight personalized services like SDI and CAS.
- **Simplify Structure:** Use consistent bullet points and shorter paragraphs.
- **Emerging Trends:** Mention innovations like AI, VR, and blockchain in digital libraries.
- **Use Visuals:** Add charts or tables for clarity.
- **Conclude with Future Impact:** End by discussing the future of digital libraries.

## CONCLUSION:

**Digital Evolution:** Digital libraries have evolved from traditional to advanced digital platforms, revolutionizing information access and dissemination.

1. **Comprehensive Services:** Key services include OPAC, SDI, CAS, digital reference, and document delivery, offering a wide range of resources and user support.
2. **Focus on User Needs:** Personalized services (SDI, CAS) and real-time tools enhance the user experience, making resources more accessible.
3. **Digital Products:** E-books, e-journals, e-newspapers, and electronic theses have become vital in academic and research settings.
4. **Challenges and Preservation:** Despite progress, digital preservation and copyright issues remain significant challenges.
5. **Hybrid Integration:** Combining physical and digital resources ensures seamless access and preservation.
6. **Future Impact:** The future of digital libraries is marked by continuous innovation, with emerging technologies like AI, VR, and blockchain shaping their growth.

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