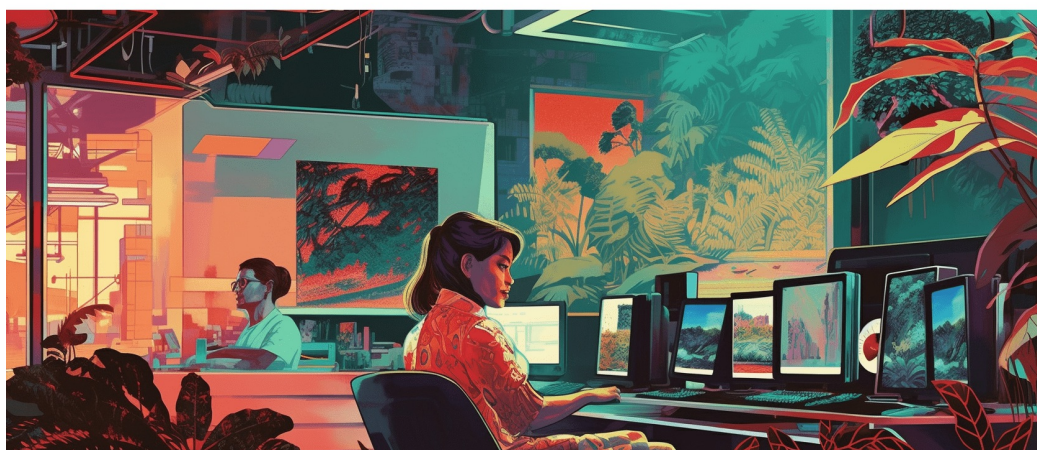


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# [General Review] Digital Transformation of Government Public Library Services in Bangladesh

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## Abstract

**Purpose:** The goal of this study is to review how digitization initiatives have affected public libraries in Bangladesh and to identify the opportunities and threats associated with these initiatives.

**Approach/Methodology:** Review the existing literature to present status of digitalization in public libraries in Bangladesh, taking into account the difficulties encountered.

**Findings:** Some success has been achieved in updating and digitizing Bangladesh's libraries, issues such as a lack of funding and trained staff continue to be a hindrance. Research is required to learn more about the digitization processes at these libraries.

**Originality/value:** The potential advantages of digitizing public libraries in Bangladesh, such as improved access to information and more efficient management, have not before been investigated. This research shows how crucial it is to overcome the specific obstacles that these libraries face throughout their digital transition if we are to reap the full advantages.

**Keywords:** Digital Transformation, Library Service, Public Libraries, Digital Library, Bangladesh.

## Introduction

The digital age has brought about significant changes in how information is accessed and disseminated (“Focus on rights in the digital age - OECD”, 2023; Hanna, 2018; Kitsios et al., 2023). Libraries, traditionally the primary information providers, have had to adapt to these changes to remain relevant and valuable to their patrons (Eje and Dushu, 2018). The digital transformation of government public libraries in Bangladesh is an essential issue as it can significantly impact citizens' access to information and the country's development (Begum et al., 2022). This research paper aims to conduct a qualitative literature review on the digital transformation of government public library services in Bangladesh.

Bangladesh has a rich tradition of library services dating to the British colonial era. However, in recent years, government public libraries in Bangladesh have faced significant challenges, including a lack of funding and resources, inadequate infrastructure, and a shortage of trained staff (Shuva, 2012; Shuva and Akter, 2012). These challenges have led to a decline in the use of libraries and limited access to digital resources for patrons.

## Digital Transformation of Public Libraries

The digital transformation of public library services refers to implementing digital technologies to improve how public libraries provide information and services to patrons. This can include digitizing the library's collections, automating library operations, and providing patrons access to digital resources and services such as e-books, online journals, and databases (Eje and Dushu, 2018; Mainka et al., 2013, 2013).

Digital transformation can also include using technology to improve the user experience and engagement, for example, by providing interactive and multimedia resources, online reference services, and virtual reality, and also enhance the librarian's work such as by using automation to manage the library's catalog and collections and to provide analytics, and by using digital tools to support patrons' needs, e.g. chatbots, recommendation systems (Su and Chen, 2022; Vial, 2019; Zhang et al., 2022).

The process of digital transformation can also involve changes to the organizational structure and culture of the library, such as a shift towards a more customer-centric approach and an emphasis on innovation and experimentation (“Digital Transformation”, 2022; “What is Digital Transformation”, 2023; Hanelt et al., 2021; Kraus et al., 2021).

Digital transformation can greatly benefit patrons by providing greater access to information and resources, improved services, and more engaging experiences. It can also help public libraries to remain relevant and valuable in the digital age, increase the number of patrons, and make the library more efficient and cost-effective (Gayshun, 2016).

## The world view of Digital transformation of Public Libraries

The digital age has significantly changed how information is accessed and spread. Libraries, traditionally the primary information providers, have had to adapt to these changes to remain relevant and useful to their patrons. The digital transformation of public libraries is a global issue, and many countries have undergone similar changes (Otike et al., 2022; “Transforming Our Libraries from Analog to Digital”, 2017; Washington Post, 2021). This literature review aims to examine the digital transformation of public libraries in different parts of the world, including their challenges and opportunities.

## North America

In North America, the digital transformation of public libraries has been ongoing for several decades. Libraries have been implementing technology to improve services and access to information for patrons. For example, the New York Public Library has been digitizing its collections since the 1990s, providing patrons access to digitized books, manuscripts, and photographs. Additionally, many libraries in North America have implemented automated systems for circulation, cataloging, and reference services (Ashcroft and McIvor, 2001; Burgin et al., 2011; Shiri and Chase-Kruszewski, 2009; Spasser, 2002).

## Europe

Many nations in Europe have recently prioritized the digitization of public libraries. The European Union, recognizing the value of digital libraries, has launched a number of programs to increase library patrons' familiarity with and comfort with digital technologies. (Audunson and Shuva, 2016; Gotzamanis et al., 1999; Makris et al., 2011; Management Association, 2015).

## Australia

For many years, Australia has prioritized the digital transformation of public libraries. Through numerous efforts, such as the Digital Futures Framework, the Australian Library and Information Association (ALIA) has promoted the use of digital technology in libraries. Many libraries in Australia have incorporated digital technology to enhance patron services and information access. Many libraries, for example, have digitized their holdings and adopted automated circulation and cataloging systems (Gunjal, Bhojaraju et al., 2013; Karatzogianni et al., 2016; Wolski et al., 2020).

## South America

The digital transformation of public libraries in South America is a continuing effort. However, many libraries have used digital technology to enhance patron services and information accessibility. Numerous public libraries in Brazil, for instance, have begun digitizing their holdings and offering clients with digital resources and services, such as e-books and online journals. Nevertheless, many libraries in South America continue to confront obstacles such as a lack of financing and resources, poor facilities, and a dearth of skilled personnel (Caribbean, 2020; OECD, 2017, 2018, 2019a, 2019b, 2019c; OECD and Inter-American Development Bank, 2016)

## Asia

In a great number of Asian nations, the digital transformation of public libraries is still in its infancy. In China, for instance, public libraries have used digital technology to enhance patron services and information access. This involves digitizing library holdings, automating library operations, and giving users with access to digital resources and services such e-books and online journals. However, many Asian libraries continue to confront obstacles such as a lack of financing and resources, poor facilities, and a dearth of skilled personnel (adbheadhoncho, 2022; Alvarenga et al., 2020; OECD and Inter-American Development Bank, 2016; Wilkes and Munoo, n.d.).

Overall, the digital transformation of public libraries is a global issue that has been ongoing for several decades. Many libraries have been implementing digital technologies to improve services and access to information for patrons. However, libraries still face challenges also.

## Digital transformation of libraries in Bangladesh

There have been some efforts to modernize and digitalize libraries in Bangladesh. For example, the National Library of Bangladesh has been undergoing digitalization and automation in recent years to improve access to its collection and services. Additionally, the Bangladesh Association of Librarians, Information Scientists, and Documentalists (BALID) has been actively promoting using digital resources and training librarians on how to use technology to improve library services (Begum et al., 2022; "Strategy Primer for the Future of Digital in Bangladesh", 2021).

However, despite these efforts, the digital transformation of government public libraries in Bangladesh is a process that has yet to be fully realized. The libraries still face several challenges, including a lack of funding and resources, inadequate infrastructure, and a shortage of trained staff. Furthermore, limited research specifically focuses on the digital transformation of government public libraries in Bangladesh (Alam and Mezbah-ul-Islam, 2020; Hasan, n.d.; Karim et al., 2017; Shuva, 2012; Shuva and Akhter, 2011; Zaman Shuva, 2014).

## Challenges

Lack of funding and resources is one of the main challenges for Bangladesh's digital transformation of government public libraries. This leads to outdated collections and a need for more access to digital resources for patrons. A study found that due to a lack of funding, many Bangladesh libraries cannot purchase new books and periodicals, leading to outdated collections. Additionally, the study found that many libraries lack enough funding to provide access to digital resources such as e-books, online journals, and databases (Alam, 2017; Chowdhury, 2012; Hasan, n.d.; Karim et al., 2017; Philosophy and Science, 2013; Sathish et al., 2020; Shuva and Akhter, 2011; Zha et al., 2019).

The requirement for additional skilled personnel is another important obstacle to the digital transformation of government public libraries in Bangladesh. Many librarians in Bangladesh need further training and knowledge to exploit digital

technology and resources efficiently. Numerous librarians in Bangladesh are found to be unfamiliar with digital technologies and untrained in their efficient use. This restricts the capacity of libraries to offer clients with digital materials and services (Alam and Mezbah-ul-Islam, 2019; Balasubramanian et al., 2009; Bhuiyan, 2010; Chowdhury and Khan, 2012).

Inadequate infrastructure is also a significant challenge for Bangladesh's digital transformation of government public libraries. Many libraries need more computers and internet access, which limits the ability of patrons to access digital resources. Hosssain and Islam found that many libraries in Bangladesh need more computers or internet access to effectively provide digital resources and services to patrons (Ashaye and Irani, 2019; Hossain et al., 2020; Islam et al., 2022).

## Opportunities

Despite the challenges government public libraries face in Bangladesh in their digital transformation process, there are also significant opportunities to improve access to information and services for patrons ("Strategy Primer for the Future of Digital in Bangladesh", 2021).

One opportunity is using digital technologies to expand access to library resources beyond the library's physical location. Digital resources such as e-books, online journals, and databases can be accessed remotely, providing greater access to information for patrons who may be far from physical libraries or have mobility issues. Additionally, digital libraries can be available 24/7, providing patrons access to resources at any time (Bolt and Burge, 2008).

Another opportunity is using digital technologies to improve user experience and engagement. Digital resources can be more interactive and engaging than traditional print materials, making them more appealing to patrons, particularly younger patrons. This can increase using libraries and attract new patrons. Additionally, digital libraries can implement recommendation systems to personalize the service according to the user, which increases user engagement and satisfaction (Sarwar et al., 2001).

Another opportunity is using digital technologies to improve the efficiency and cost-effectiveness of library operations. Digital technologies can automate routine tasks, such as cataloging and circulation, saving staff time and reducing costs. Additionally, digital libraries can be operated with fewer staff and lower overhead costs than physical libraries, which can free up resources for other library services (Charalabidis et al., 2022).

Additionally, digitalization could positively impact the preservation of library collections as digital copies can be created and stored securely, minimizing the risk of loss due to factors such as natural disasters, wear, and tear, and mishandling.

Finally, digital libraries can offer new services, such as online reference, chat services, and digitized special collections and archives. The digital transformation of government public libraries in Bangladesh is an important issue that can significantly improve access to information and services for citizens and contribute to the country's development. However, the process is still ongoing and is facing several challenges, including a lack of funding and resources,

inadequate infrastructure, and a shortage of trained staff. Despite these challenges, there are also opportunities for the digitalization of libraries in Bangladesh, such as remote access to library resources, an improved user experience and engagement, cost-effectiveness and efficiency of library operations, and preservation of library collections (Shuva, 2012; Shuva and Akhter, 2011; Zaman Shuva, 2014; Zaman, 2015).

Addressing these challenges and taking advantage of the opportunities presented by digital technologies is crucial for the success of the digital transformation of government public libraries in Bangladesh. This includes providing enough funding and resources to libraries, investing in the training and development of library staff, and making sure that libraries have the necessary infrastructure to provide digital resources and services to patrons.

It is also important to note that the Digital transformation of public libraries should be aligned with the overall digital transformation strategy of the country; otherwise, the investment may need to be more effectively used. Furthermore, it is essential to consider the needs and preferences of the local community, which should be at the center of the digital transformation strategy.

In summary, the digital transformation of government public libraries in Bangladesh is a complex process that requires a multifaceted approach. By addressing the challenges and taking advantage of the opportunities presented by digital technologies, libraries can improve citizens' access to information and services and contribute to the country's development.

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