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Challenges in delivering modern library services in the 21st century

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Abstract

This paper explores challenges faced by libraries delivering modern library services in 21st century. In the dynamic milieu of the 21st century, libraries are confronted with multifaceted challenges in the provision of contemporary library services. The advent of digital technologies has revolutionized information consumption patterns, necessitating libraries to integrate digital resources and engage with a tech-savvy audience. This transition, however, presents hurdles related to technology adoption, digital literacy, and the imperative to meet evolving user expectations. Libraries must navigate the delicate balance between traditional print collections and the burgeoning digital sphere while ensuring equitable access for all. Additionally, constrained financial resources further compound these challenges, impacting the acquisition and maintenance of cutting-edge technologies essential for modern library services. The shifting information landscape, propelled by the internet and search engines, mandates libraries to redefine their roles, emphasizing information curation and guiding users through the digital realm. This article comprehensively explores these challenges, illuminating the barriers libraries encounter in delivering relevant, accessible, and user-centric services. By identifying and understanding these obstacles, libraries can strategize and innovate to overcome these hindrances, ultimately ensuring their continued relevance and efficacy in fostering knowledge dissemination and community engagement.

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Introduction

The fundamental aims of education encompass the sharing of knowledge and the cultivation of individuals who are well-informed. Libraries play a pivotal role in both preserving and spreading information, serving as a cornerstone in the field of education. The revolution in libraries has been notably shaped by the introduction of computers. Nowadays, computers are utilized in modern libraries for a range of tasks, such as handling, storing, retrieving, and distributing information. Contemporary libraries have transformed into digital centers, intricately linked to a wide array of internet-based services. Furthermore, the astounding expansion of digital information pertinent to specific professions is indeed noteworthy studied by (Mahajan, 2005). The technology of information has transformed the entire world into a global village, with an international economy increasingly reliant on the creative management and sharing of data. We are now in the midst of the age of knowledge and information in the twenty-first century. Invisible knowledge and information have become powerful drivers in all institutions. Creative individuals are leading the economy in a society that highly values knowledge and information, making knowledge workers highly sought after. Libraries are profoundly affected by the latest innovations. Information technologies, including computing, communication, and large-scale data storage, continuously alter how we can access, retrieve, store, manage, and share

information through libraries highlighted by (B, Bala Sankar, 2022) ^[2].

The transformation from conventional methods of delivering library and information services to a digital dimension, driven by information and communication technologies, is evident. The rise of new information-related requirements and their delivery necessitates libraries to adapt to these evolving user interests and preferences. This adaptation involves creating a more engaging and interactive user experience, catering to the changing landscape of information consumption and engagement (Kowalsky, 2013). The scope of library and information services is undergoing substantial transformation, closely aligned with technological advancements. Libraries, information centers, and the services they provide are experiencing significant changes. Notably, these changes are primarily driven by the advancements in Information and Communication Technology (ICT), which have the potential to place increased demands on professionals in the field of library and information science (Enweani & Eke, 2018) ^[6].

In the rapidly evolving landscape of the 21st century, libraries find themselves at a pivotal juncture, facing a multitude of challenges in delivering modern library services. The traditional role of libraries as repositories of physical books has dramatically expanded to encompass a digital realm laden with e-books, online databases, multimedia resources, and interactive platforms. However, this shift towards a digital frontier comes with its own set of obstacles. Libraries grapple with the integration of cutting-edge technologies, digital literacy, and the demand for seamless, user-friendly interfaces that meet the expectations of a tech-savvy audience highlighted by (Pors, 2016) ^[24]. Furthermore (Fagbola *et al.*, 2011) ^[7] argued that, despite the remarkable advancements linked to the emergence of Information and Communication Technology (ICT), there are fundamental challenges that impede libraries' ability to provide access to knowledge, particularly in developing countries. These challenges encompass issues like unreliable public power supply, insufficient human resources, lack of motivation among staff, inadequate maintenance, and limited funding.

Moreover, the rise of the internet and search engines has altered the way people access and consume information, challenging libraries to redefine their value proposition in an age where information is seemingly ubiquitous. Libraries must not only curate vast amounts of information but also guide users in discerning credible sources amidst the vast sea of data available online studied by (Budd, 2018) ^[3]. Additionally, limited financial resources and budget constraints pose significant hurdles in procuring and maintaining the latest technologies and resources necessary for contemporary library services measured by (Chowdhury & Landoni, 2018) ^[4].

This introduction aims to shed light on these challenges and more, offering a comprehensive exploration of the obstacles libraries face in delivering modern, relevant, and accessible services to their communities in this digital era. By understanding and addressing these issues, libraries can adapt, innovate, and strategically position themselves to fulfill their critical societal role as hubs of knowledge, education, and community engagement.

Statement of the problem

The 21st century has witnessed an unprecedented transformation in the way information is accessed, utilized, and disseminated, significantly impacting the role and operations of libraries. Libraries, traditionally revered as bastions of knowledge, are now confronted with a myriad of challenges as they endeavor to deliver modern library services in this rapidly evolving digital era. This paper seeks to comprehensively illuminate and analyze these challenges, spanning technological advancements, shifting user expectations, financial constraints, and the imperative for information literacy. By delving into the intricacies of these challenges, we aim to provide insights that empower libraries to adapt, innovate, and strategically position themselves as indispensable repositories of knowledge and essential community hubs, ensuring their continued vitality and relevance in the 21st century. Through a thorough examination of the hurdles faced and potential strategies to overcome them, this paper endeavors to contribute to the advancement of library services, advocating for their pivotal role in the dissemination of information, fostering of critical thinking, and engagement with diverse communities.

Objective of the study

Following are the objective of the study

1. To identify the challenges in delivering modern library services in the 21st century.
2. To ascertain the barriers to the sustainable transformation of library and information services in the 21st century.
3. To determine the reasons for the need to transform these aspects of library and information services.

Significance of the Study

This study holds immense significance in the rapidly evolving landscape of modern libraries. As society hurtles into an era dominated by digital advancements and information abundance, libraries, as pivotal repositories of knowledge, face a critical juncture. Understanding and addressing the challenges they encounter in delivering modern library services is of paramount importance. This research aims to shed a spotlight on these challenges, ranging from technological intricacies to financial constraints and evolving user expectations.

By identifying and comprehending these hurdles, libraries can strategize and innovate, ensuring they remain relevant and effective in meeting the diverse needs of their communities. Moreover, this study strives to advocate for the continued significance of libraries in the 21st century. Libraries, beyond being repositories of books, are indispensable in fostering information literacy, critical thinking, and community engagement. Through an in-depth analysis of the challenges faced, this study seeks to raise awareness regarding the pivotal role libraries play in shaping an informed and educated society.

Furthermore, the findings and recommendations of this research endeavor to guide policymakers, library professionals, and stakeholders in formulating strategies and policies that support libraries in overcoming these challenges. By doing so, libraries can flourish and evolve, embracing

technology, and adapting to the evolving landscape, ultimately ensuring their enduring relevance and contribution to an enlightened and empowered society.

Literature Review

Modern Library Services

Modern library services have evolved significantly to meet the diverse needs of users in the digital age. Libraries now offer a plethora of online resources, including e-books, academic databases, and multimedia content, enhancing accessibility and convenience points by (Mizrachi, 2016) ^[16]. Furthermore, many libraries provide personalized assistance through virtual reference services, allowing patrons to seek help remotely mentioned by (Jones & Watson, 2017) ^[9]. Collaborative workspaces, maker spaces, and technology hubs within libraries facilitate innovation and creativity (Liu, 2018) ^[13]. Additionally, advanced data analytics and user-focused technologies enable libraries to tailor their services to individual preferences and interests noted by (Van Deusen, 2019) ^[27]. Overall, these modernized library services embrace technology and community engagement, ensuring libraries remain vital hubs of knowledge and learning in the 21st century.

Challenges in delivering modern library services

Libraries, as essential pillars of knowledge dissemination and community engagement, have significantly evolved to meet the demands of the 21st century. In this dynamic era characterized by rapid technological advancements and shifting societal needs, libraries face a multitude of challenges in delivering modernized services that cater to diverse user expectations. This article explores and analyzes the prominent challenges libraries encounter in their quest to provide contemporary services, adapting to the modern landscape while preserving the core values of access, equity, and intellectual freedom.

Long-term access to resources

Long-term access to resources refers to the continuous and sustained availability of essential assets, materials, or services over an extended period, typically spanning beyond immediate or short-term needs. It involves ensuring that resources are managed, utilized, and replenished in a way that supports present requirements without compromising the ability of future generations to meet their own needs. According to (Kaur, 2015) ^[11] the primary challenge and responsibility of research libraries is to collect materials and ensure their long-term accessibility, regardless of technological or ideological changes. Preserving knowledge has been the central role of libraries since ancient times, and the concept of a library as a "memory institution" continues to be a crucial service that justifies the continued existence of research libraries in society.

Technological advancements

Keeping up with technological advances in libraries denotes the ongoing challenge libraries face in staying abreast of evolving digital technologies. This includes updating infrastructure, acquiring and integrating modern software and tools, training staff to utilize new resources effectively, and meeting the expectations of tech-savvy users. Failing to keep up may hinder the library's ability to provide cutting-edge services and access to information in a rapidly changing

digital landscape.

According to the (LISEDUNETWORK, 2023) ^[12] libraries face difficulties in keeping pace with rapid technological advancements. The constant release of new software and online resources requires continuous effort and investment to stay relevant. However, staying up-to-date with these technological advances can be both expensive and time-consuming for libraries. (D-Tech International Ltd, 2018) ^[5], Young individuals today heavily rely on technology for accessing information and managing their daily tasks. To effectively support students and keep up with evolving learning methods, academic libraries must embrace new technologies. E-books have become popular for research purposes, but their high cost and restrictions on viewing, printing, and downloading present challenges for libraries. Moreover, digital preservation efforts are crucial to address potential inaccuracies and unreliability found in online information sources.

Bridging the digital divide

According to (National Digital Inclusion Alliance, 2021) ^[18] the digital divide remains a persistent challenge. Libraries must strive to provide equitable access to digital resources and technology, addressing disparities in technological literacy and internet accessibility among different segments of society. This research report by the Pew Research Center explores broadband adoption trends and the digital divide, shedding light on the disparities in internet access and usage, which libraries often strive to address (Horriggan, 2009) ^[8]. This research article delves into the role of libraries in combating the digital divide through remedial and digital literacy training, emphasizing the impact on academic library patrons highlighted by (Vahid & Isfandiyari, 2008) ^[26]. These references provide valuable insights into the digital divide and the efforts made by libraries to bridge this gap, making them important resources for understanding this crucial challenge.

Information overload and curation

(OCLC, 2019) ^[19] measured that the vast amount of information available in the digital realm poses a challenge in terms of curation and information literacy. Libraries need to efficiently curate, organize, and guide users in navigating this information overload to access reliable and relevant content. (Wang & Konstan, 2012) ^[28] delves into collaborative filtering and the value of local experience in managing information overload, which is pertinent to the curation of digital resources in libraries. (Marchionini, 2008) ^[15] discusses exploratory search, providing insights into ways to manage information overload and enhance the user's understanding of the vast amount of information available. These references offer a deeper understanding of the challenges related to information overload and the strategies employed, including curation, to address this issue effectively in modern libraries.

Staying up-to-date with research

Staying up-to-date with research in libraries refers to the challenge of continuously monitoring and accessing the latest academic and scientific literature. This includes maintaining current subscriptions to research databases, tracking new publications, collaborating with researchers, and ensuring that library users have access to the most recent and relevant

information. Overcoming this challenge is vital for libraries to support scholarly endeavors and provide accurate, up-to-date resources to their patrons.

(D-Tech International Ltd. 2018) ^[5] University librarians have the dual responsibility of overseeing library operations and supporting research publication. They must acquire skills like data management to offer students relevant academic resources. However, the challenge lies in training staff adequately to handle such information, which can be both time-consuming and expensive.

Copyright management and intellectual property rights

Copyright management and intellectual property rights in libraries encompass the complexities libraries face in handling the legal aspects of copyrighted materials. This involves ensuring adherence to copyright laws, licensing agreements, and fair use provisions, while also safeguarding the intellectual property rights of authors and creators. Striking the right balance between information accessibility and copyright compliance is crucial for libraries to ethically and legally serve the needs of their users.

According to the (LISEDUNETWORK, 2023) ^[12] libraries face challenges with copyright and intellectual property laws when dealing with digital resources. Navigating these complex laws requires careful attention to compliance. Effective systems for managing digital resources are necessary to meet these legal requirements. Additionally, educating patrons about copyright laws and intellectual property rights is crucial to prevent any potential infringement issues.

Obsolete library policies

Obsolete library policies pertain to outdated rules, regulations, and guidelines that no longer align with contemporary library practices or the expectations of library users. These obsolete policies can impede the library's ability to operate efficiently, limit access to modern resources and technologies, and hinder the library's capacity to meet the dynamic needs of its patrons. It is crucial for libraries to identify and revise such policies to remain relevant, adaptive, and responsive to their communities in the digital age.

(Shonhe, 2019) ^[25] states that the absence of a library policy is a significant drawback in many countries. A library policy serves as a set of guidelines for the library's actions and decisions, making it essential for the effectiveness of school library programs. This policy acts as a roadmap for managing school libraries and their practices.

Addressing financial challenges in libraries

Financial challenges faced by libraries include limited budgets, rising operational costs, and the need to invest in digital transformation while still maintaining traditional services. These challenges can impact resource acquisition, technology upgrades, and the overall ability to meet the diverse needs of library users effectively.

(Shonhe, 2019) ^[25] admitted that inadequate funding results in insufficient resources and understaffing in school libraries. To address this problem, the issue of school library budget and funding should be included in both the school library policy and the National school library policy within the Ministry of Education. (Mojapelo, 2018) ^[17] emphasizes that the lack of funding is a significant obstacle to academic

library development, hindering efforts to establish and maintain functional school libraries.

(Joseph & Urhiewhu, 2016) ^[10] stated that funding plays a crucial role in the establishment and operation of effective academic libraries. Unfortunately, many academic libraries, particularly in Nigeria, are facing significant underfunding, making it challenging for them to sustain their operations. This lack of adequate financial support has led to a struggle for survival, and it is disheartening that libraries do not receive the same level of respect and priority as other academic facilities from stakeholders in Nigerian Universities. The vulnerability of these libraries becomes evident during accreditation exercises when universities suddenly focus on them after prolonged neglect. (Okwu & Oporum, 2021) ^[22] the statement emphasizes the direct correlation between funding and the expansion of library collections or resources. Adequate funds are essential for acquiring both physical and digital resources, establishing technological infrastructure, investing in staff development, and maintaining library facilities. Unfortunately, libraries frequently face insufficient funding, which hampers their ability to develop and enhance their collections as needed.

Inadequate library facilities

Challenges of inadequate library facilities include limited space for collections, insufficient seating and study areas for users, and inadequate technology infrastructure. These limitations can impede access to resources, hinder effective learning and research, and restrict the library's ability to accommodate the needs of its patrons adequately.

Another challenge faced by libraries and information centers is the lack of contemporary facilities, which hinders their ability to provide adequate services and information for sustainable development. This limitation affects their capacity to meet the increasing demands of the 21st-century millennial. To address these issues, there is a pressing need to invest in modern facilities to cater to the evolving needs of the current generation highlighted by (Abata-Ebire *et al.*, 2018) ^[1].

Inadequate infrastructure

"Inadequate infrastructure in libraries" denotes the challenges resulting from insufficient physical and digital resources necessary for smooth library operations. This encompasses limitations such as cramped space for collections and users, outdated technology hindering access to digital resources, limited internet bandwidth affecting connectivity, and insufficient hardware and software for modern library services. Overcoming these challenges is vital to improve user experience, support research and learning, and ensure the library's continued relevance in the digital era.

(Ogbuagu *et al.*, 2014) ^[20] define library infrastructure as comprising generating sets, electrical installations, ICT facilities, furniture, fittings, information materials, and the library building. The significance of library infrastructure in efficiently providing essential services to patrons is well recognized in contemporary literature. Insufficient library infrastructure has detrimental effects on university libraries, such as personnel attrition and compromised services for users. The continued success of academic libraries hinges on the proper provision and upkeep of infrastructure and its human capital described by (Okoro *et al.*, 2014) ^[21].

ICT infrastructure

Difficulties faced by libraries in implementing and maintaining Information and Communication Technology (ICT) systems. These challenges may include inadequate funding, outdated hardware and software, limited technical expertise, and difficulties in keeping up with the rapidly evolving digital landscape. These obstacles can hinder the effective use of technology in providing modern library services to users.

In a study conducted by (Olumide *et al.*, 2022) ^[23] the computer skills of librarians in academic libraries in Ondo and Ekiti State, Nigeria, were investigated. The research revealed a lack of computers and computer proficiency among the professionals. To address this issue, the study recommended increasing funds for training and acquiring ICT infrastructure in Nigerian university libraries. Additionally, library administration should seek financial support and assistance from foreign agencies and foundations that are interested in promoting this cause.

According to the (LISEDUNETWORK, 2023) ^[12] purchasing and sustaining ICT infrastructure, including hardware, software, and equipment, can be a costly endeavor for small libraries. Due to limited budgets, they may struggle to invest in the latest technology. Keeping up with software and online resource demands also poses a financial challenge. Moreover, the regular maintenance of ICT hardware and software adds to the expenses. (Shonhe, 2019) ^[25] examines that in the modern era, having strong technological infrastructures in the education system is crucial. However, many schools in developing countries lack such infrastructure, leading to limited opportunities for students to access information through ICTs. This deficiency in ICTs within school libraries results in the continuous availability of outdated information resources for students.

Addressing these challenges requires a proactive approach, collaboration with stakeholders, and a commitment to innovation and continuous improvement in delivering modern library services in the 21st century. Libraries must navigate these obstacles while upholding their fundamental purpose of providing access to knowledge and fostering informed and engaged communities.

Research Gap

We know that libraries face difficulties in the modern age. But, we haven't yet studied the detailed problems they encounter. Libraries are dealing with new technology, changing expectations from users, and things like pandemics and economic issues. Previous research has given us an overview, but we need more specific studies to look closely at the exact problems, solutions, and new ideas libraries are using to provide up-to-date services in the digital world. So, the research gap is about the need for a closer look at the challenges libraries face in meeting the diverse and ever-changing needs of their users in the 21st century.

Search Strategy/Method

Our research delved into the literature by engaging with library databases, catalogs, relevant publications, and online search platforms. Although we discovered certain journals within the Library Science domain, including Library Trend and Library and Information Science Abstract (LISA), as well as the International Journal of Library and Information Science. Additional publications retrieved from databases

such as Elsevier, ProQuest, and SAGE covered a range of topics. These materials were included to provide a more comprehensive insight into the subject matter. Our search strategy, applied across various databases such as Google Books, Google Scholar, Google Advanced Search, and other search engines, relied on Boolean search commands. The primary key terms used in our search included "Modern Library Services" OR "Challenges and libraries" OR "Libraries in 21st century" OR "Challenges in 21st century"

Conclusion

In the 21st century, libraries are confronted with an array of challenges that are transforming the very essence of their existence. As this paper has meticulously examined, the challenges span a wide spectrum, from navigating the intricate world of technology to adapting to evolving user expectations and confronting budgetary constraints. However, these challenges are not insurmountable obstacles but rather opportunities for growth, innovation, and relevance.

The library's role in society has never been more crucial. It stands as a beacon of information, a bastion of knowledge, and a hub for community engagement. To continue fulfilling this role effectively, libraries must remain agile, adaptive, and technologically adept. They must become not just storehouses of information but dynamic spaces that foster learning, critical thinking, and inclusivity.

The recommendations presented in this paper offer a roadmap for libraries to navigate this new terrain successfully. By embracing technology, understanding and meeting user needs, forming strategic partnerships, advocating for funding, investing in staff training, and promoting information literacy, libraries can evolve and thrive in the 21st century.

In conclusion, the challenges faced by libraries in delivering modern library services are indeed formidable, but they are matched by the library's unwavering importance in our ever-evolving digital society. With dedication, innovation, and a commitment to their mission, libraries can not only overcome these challenges but also emerge as even more vital and indispensable pillars of knowledge, education, and community engagement in the 21st century.

Recommendations

1. Libraries should invest in robust technological infrastructure and stay updated with the latest advancements. Embrace integrated library systems, automated cataloging, and user-friendly interfaces to enhance accessibility and ease of use for patrons.
2. Libraries should actively seek partnerships with tech companies, educational institutions, and other community organizations to pool resources, share knowledge, and co-create innovative solutions. Collaboration fosters the development of comprehensive, accessible, and cost-effective services.
3. Library professionals and stakeholders should advocate for increased funding at local, regional, and national levels. Highlight the essential role libraries play in society and emphasize the need for sustained financial support to ensure the provision of quality modern library services.
4. Embrace agile management principles to enhance adaptability and efficiency in responding to

technological advancements. Regularly train library staff to keep them updated with the latest technologies and equip them with the necessary skills to provide modern services effectively.

5. Libraries should actively engage with the community, organizing events, workshops, and outreach programs. By being visible and accessible, libraries can attract new users, understand community needs, and tailor services to meet local requirements effectively.
6. Develop and communicate comprehensive policies that guide the use of digital resources, privacy protection, and acceptable behavior within the library's digital space. Clarity in guidelines ensures a safe and respectful digital environment for all users.

These recommendations aim to guide libraries in addressing the challenges identified in delivering modern library services. By implementing these strategies, libraries can navigate the evolving landscape successfully and continue to serve as vital hubs of knowledge, education, and community engagement in the 21st century.

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