



Enhancing Library Services Through QR Code With Improved User Engagement.

Author:-

Mahesh H. Aher, ^{[1]*},..

^{[1]*}, SMBT College of Pharmacy Dhamangaon, Nashik, M.S. India-422403, Affiliated to Savitribai Phule Pune University

Mrs. Priti Dnyaneshwar Gangurde - Aher, Librarian, ^{[2]*},..

^{[2]*}, Shaskiya Madhyamik Aani Ucchmadhyamik Ashram Shala, Nanashi, Tal.-Dindonri, Dist. – Nashik, M.S. India- 422 208

Chandrakant Gosavi, Librarian, ^{[3]*},..

^{[3]*}, Late. Bindu Ramrao Deshmukh Arts, Commerce & Science Mahila Mahavidyalaya, Dist. – Nashik, M.S.- 422 101

Mrs. **Shraddha K. Patil**, Librarian, ^{[4]*}

^{[4]*}, Institute of D.Pharmacy, MET League of Colleges, Bhujbal Knowledge City Adgaon, Govardhan, Nashik - 422 003 Dist. – Nashik, M.S.- 422 101

ABSTRACT:

This article investigates the revolutionary potential of Quick Response (QR) code technology to improve library services, especially in light of the COVID-19 pandemic and the digital age. The study looks at the benefits, uses, and organization of QR codes in libraries, emphasizing how useful they are for providing rapid access to data and services. The research highlights the potential of QR codes to engage customers and manage library operations by assessing the wide range of services that libraries can offer using these codes, including access to previous question papers, event marketing, and SMS alerts. In order to secure the longevity of QR code efforts, the paper also addresses the significance of strategic implementation and the requirement for libraries to continue providing high-quality services. In the end, this study promotes the use of QR code technology to improve user communities' interactions with libraries and enhance the entire library experience.

Keywords:- QR Code's, Technology's, Mobile, Pandemic ,Library service.

Highlights:

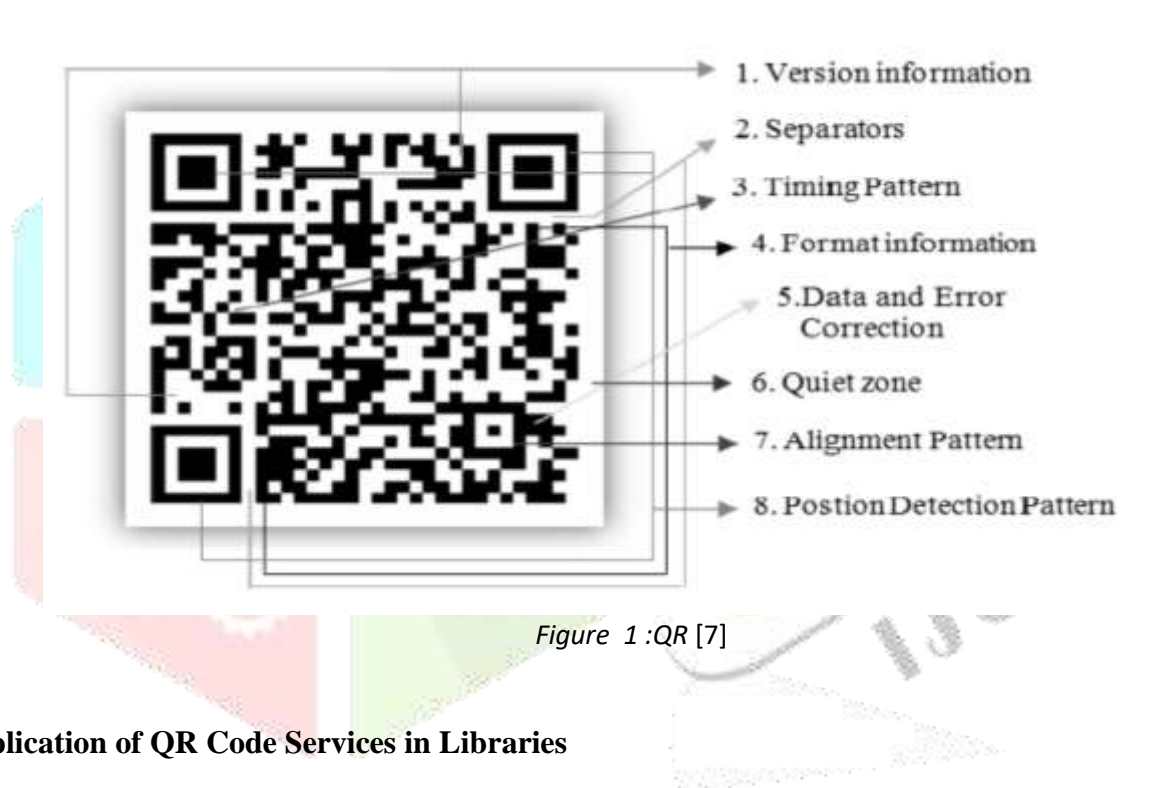
- **User Engagement:** By making library resources and services more accessible and more relevant to tech-savvy users, QR codes dramatically increase user engagement.
- **Many Uses:** Libraries can expand their services by using QR codes for a number of purposes, such as SMS notifications, event advertising, and study materials access.
COVID-19 Adaptation: With the advent of social networking, QR code usage has grown in significance as it enables contactless purchases and interactions.
- **Strategic Implementation:** To guarantee that QR codes effectively meet user needs, extensive planning and ongoing evaluation are necessary for their successful integration.
- **Quality of Services:** Libraries should prioritize providing valuable content because the success of QR codes is directly correlated with the quality of the services they connect to.
- **Future Sustainability:** The expansion of QR code technology in libraries will be contingent upon the accessibility of reasonably priced equipment and the dedication to upholding superior user services.

1. Introduction:

In the continually evolving realm of technology, libraries are provided with unique opportunities to enhance their services and promote user engagement. One such innovation is the use of Quick Response (QR) codes, which have proven increasingly crucial in connecting consumers to information both online and offline. As Ranganathan noted in the fourth law of library science, "Save the time of the reader," the integration of QR codes corresponds perfectly with this idea by providing speedier access to information. The Role of QR Codes in Modern Libraries QR codes serve as a bridge between the physical and digital realms, allowing library visitors to access information and services easily. They may encapsulate numerous types of information, such as URLs, contact details, and even access to wireless networks, making them excellent tools for libraries. As libraries attempt to meet the requirements of tech-savvy consumers, QR codes can considerably boost the efficiency and efficacy of library services. Addressing User Needs [1–7]The modern library user needs quick and easy access to information. QR codes can serve this demand by linking users directly to library catalogs, resources, and services with a simple scan. This functionality not only saves time but also increases the user experience by offering immediate access to essential information. Furthermore, QR codes can be leveraged to promote library events, new arrivals, and other services, hence improving user engagement and interaction with library materials. The Importance of Technology AdoptionAs libraries continue to digital their services, the adoption of QR codes becomes crucial. They offer a significant development in how libraries can distribute information and services to its clients. By adopting QR codes, libraries may create a more dynamic and user-friendly environment that responds to the demands of contemporary customers, thereby increasing the whole library experience [1–7]

Objective of QR Code Services in Libraries

Improving the efficiency and accessibility of library resources is the main goal of introducing QR code services in libraries. QR codes can easily connect consumers to library catalogs, resources, and services by bridging the gap between digital and physical information. Customers don't need to go through several steps or physical locations to find the information they need; they can immediately find it by scanning a QR code. The goal of this technology is to offer a user-friendly experience that meets the demands of contemporary library patrons who are used to having rapid access to knowledge. QR codes can also support virtual reference services, which allow libraries to provide immediate support and assistance. The ultimate objective is to establish a more dynamic and effective library environment that accommodates the changing needs of its users and encourages the use of technology for information distribution. [1–7]



Application of QR Code Services in Libraries

Due to their ability to offer creative solutions that satisfy user needs, QR codes have emerged as a crucial instrument for improving library services. The following are a few ways that libraries are using QR code services: Access to materials: Libraries can offer mobile users rapid access to a variety of materials by using QR codes. Information retrieval is made more effective by users being able to scan codes to access digital catalogs, e-books, and other online resources. Convenience and Speed: Information can move from a physical to a virtual state with ease thanks to technology. Instantaneous access to the information users require is especially helpful in hectic work environments when time is of the essence. Different Information Formats: QR codes can connect to different kinds of information, such as emails, social media, websites, and maps. Because of their adaptability, libraries can meet the needs and tastes of a wide range of users and offer a thorough information experience. Enhanced User Engagement: Libraries can encourage users to explore different resources by including QR codes into their services. This interactive strategy creates a more captivating library atmosphere that facilitates users' discovery of new resources and offerings. Help

That Is Context-Sensitive: QR codes can offer context-sensitive information that is relevant to particular library resources or locations. This focused approach improves consumers' overall experience by making it easier for users to access pertinent information. Support for Virtual Services: Libraries can provide users with real-time assistance by using QR codes to enable virtual reference services. Customers who might find it difficult to visit the library in person will find this especially helpful since it guarantees that assistance is always available when needed. Cost-Effective Solution: Libraries can improve their services at a minimal cost by implementing QR codes. Due to its low creation costs and ease of integration into current systems, the technology is available to libraries on a tight budget. Dynamic Content Updates: Libraries don't have to reprint QR code links since they can change the information associated with them. This adaptability makes sure that patrons always have access to the most recent data, which increases the efficiency of library services. Encouraging Diversity: Libraries may reach a wider audience—including people with disabilities—by utilizing QR codes. Libraries can guarantee that every user gets the most out of their services by providing links to extra resources or formats that are accessible. [1–7]

Advantages of QR Codes in Library Services

QR codes offer various advantages that enhance library services, making them more efficient and user-friendly. Here are some significant benefits:

Increased Accessibility: QR codes enable consumers with instant access to library resources such as catalogs, e-books, and databases. By just scanning a code, users can connect to a variety of information without needing to negotiate complex systems

Enhanced User Interaction: QR codes promote increased connectedness between users and library services. They can link to numerous resources, including the library's website, new arrivals, and institutional repositories, promoting a more participatory experience for users

Information Capacity: Unlike regular barcodes, QR codes can contain substantially more information—up to 2500 characters compared to a barcode's 25 characters. This allows libraries to contain detailed information, such as URLs to specific resources, boosting the user experience

Information Capacity: Unlike regular barcodes, QR codes can contain substantially more information—up to 2500 characters compared to a barcode's 25 characters. This allows libraries to contain detailed information, such as URLs to specific resources, boosting the user experience

Cost-Effective Implementation: Implementing QR codes is a low-cost alternative for libraries wishing to upgrade their services. They can be simply generated and integrated into current systems without considerable financial investment

Dynamic Content Updates: Libraries can update the information attached to QR codes without needing to reprint them. This adaptability guarantees that customers always have access to the most current information, boosting the effectiveness of library services

Support for Remote Services: QR codes can facilitate virtual reference services, allowing libraries to assist people who may not be able to come in person. This is particularly crucial in the context of the COVID-19 pandemic, where remote access to services has become critical

Promoting Inclusivity: QR codes can help libraries reach a broader audience, including individuals with impairments. By referring to accessible formats or additional materials, libraries may ensure that all users benefit from their services [1–7]

Conclusion –

The integration of QR codes into library services offers a transformative chance to enhance user engagement and streamline access to information. Here are the key conclusions taken from the research:

Potential for Engagement: QR codes have significant potential to engage a group of mobile and tech-savvy students. Their ease of implementation allows libraries to connect effectively with users, facilitating access to resources and services in a way that resonates with contemporary expectations

Support for Academic Functions: By utilizing QR codes, libraries can not only simplify various chores but also strengthen connections with users. This technology supports the integration of activities that enhance academic functions, making library services more useful and accessible

Growing Usage Across Fields: The increasing use of QR codes across various sectors, including marketing and travel, shows the growing technological landscape. Libraries are part of this trend, leveraging QR codes to meet the needs of their academic user group

User-Friendly Experience: QR codes contribute to a user-friendly experience, especially in the context of social distancing measures. They enable contactless transactions and interactions, which have become increasingly important in the wake of the COVID-19 pandemic

Need for Strategic Implementation: While QR codes offer numerous benefits, their implementation must be well-planned to achieve desired outcomes. Libraries should regularly review their use of this technology to ensure it meets user needs effectively

Quality Over Quantity: The effectiveness of QR codes in libraries hangs on the quality of the services they link to. Libraries must avoid saturating their environments with QR codes that provide little value, as this could deter users from connecting with future QR codes

Future Growth and Sustainability: The future growth of QR code technology in libraries will rely on the availability of affordable smartphones and internet access. However, maintaining high-quality services is important for the long-term sustainability of QR code initiatives

In conclusion, QR codes represent a valuable tool for libraries, enhancing accessibility and user interaction while necessitating careful and strategic implementation to maximize their benefits. [1–7]

Acknowledgment –

I would like to thank our SMBT College of Pharmacy for the resources and support you have given us by offering library services. I would also like to express my gratitude to Dr. Yogesh V. Ushir and Dipak thorat for their assistance and guidance

Funding None.

Acknowledgements:

The authors are grateful to SMBT Trust, Nashik for providing the necessary facilities to collect the data from available resources.

Availability of Data and Materials Not applicable.

Compliance with Ethical Standards

Ethical Approval Not applicable.

Conflict of Interest The authors declare no competing interests.

References:

- [1] Padmavathi, Application of QR Code Services in Libraries, International Journal of Research in Library Science (2020). <https://doi.org/10.26761/IJRLS.6.1.2020.1317>.
- [2] V. Kumar Verma, M. Ranjan, APPLICATION OF QR CODES IN LIBRARY SERVICES: BEYOND Q, n.d.
- [3] L. Parabhoi, N. Bhattacharjya, Use of QR Code in Library, 2017. <https://www.researchgate.net/publication/318259063>.
- [4] S.T. Ghorpade, QR Code: Useful Application In Library Services, International Journal of Research in Library Science 7 (2021) 19–23. <https://doi.org/10.26761/ijrls.7.2.2021.1393>.
- [5] I. Das, A. Librarian, D. Das, QR Code And Its Effectiveness in Library Services QR Code And Its Effectiveness in Library Services QR CODE AND IT'S EFFECTUALITY TOWARDS LIBRARY SERVICES, n.d. <https://digitalcommons.unl.edu/libphilprac>.
- [6] V.B. Gopale, QR Code and Useful Applications in Libraries, n.d. <http://www.ijlis.org>.
- [7] I. Das, A. Librarian, D. Das, QR Code And Its Effectiveness in Library Services QR Code And Its Effectiveness in Library Services QR CODE AND IT'S EFFECTUALITY TOWARDS LIBRARY SERVICES, n.d. <https://digitalcommons.unl.edu/libphilprac>.

