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Effective use of QR code technology for library and information services: a special reference to BLDE (Deemed to be University) Vijayapura.

Mr.Sunil Kundaragi*

Library Assistant, BLDE (Deemed to be University) Shri.B.M.Patil Medical College Hospital and Research Center Vijayapur-586 103, Karnataka, India. sunil.kundaragi2010@gmail.com

Mr.Suryakanth.Halburgi

Library Assistant (BLDE Deemed to be University) Shri.B.M.Patil Medical College Hospital and Research Center Vijayapur-586 103, Karnataka, India. surya0142.sh@gmail.com

Mr. U.A.Kaladagi

Library Assistant, (BLDE Deemed to be University) Shri.B.M.Patil Medical College Hospital and Research Center Vijayapur-586 103, Karnataka, India. ukappashi@gmail.com,

Abstract:

Information is no longer confined to a single physical location due to advances in information technology. With the advancement of mobile technology, information is now available with a single click from anywhere and at any time.

The prompt answer using QR scanner-equipped cell phones instead of remembering complex web addresses has made it easier to get information. By displaying an end-current user's location in the library. Today's students are typically multitasking experts who rely heavily on online resources rather than offline library materials. This is due to the convenience of accessing knowledge with a single click rather than spending time looking for a book at a library.

Whether it is computerisation and automation or other ICT to improve facilities and services, the BLDE (DU) Central Library has been a pioneer in experimenting with new technology breakthroughs. This paper's ambition is to revise the essential idea of QR Codes, their structure, positive nature, and activities. This research paper is primarily concerned with the effectiveness of QR Codes and their applications on library services in the current context.

Key Words: *QR Code Technology, ICT, QR Code Reader, OPAC, Library Services.*

1 INTRODUCTION:

As new technology trends emerge, library platforms develop, providing opportunities to improve people's access to accurate information in a timelier manner, everywhere and at any time. QR codes are still in existence, and it will take some time for them to make the transition to the digital world as a whole. As the internet has become an integral part of everyone's lives, QR codes will become a

requirement for obtaining any specific information. Libraries should adopt it in various areas and encourage users to use it as it is introduced to make users' lives easier. It provides new ways of communicating and exchanging information and knowledge, with the aid of ICT(Information and communication technology) tools, causing revolutionary changes in the way information is stored, retrieved, and disseminated for automating their activities, such as creating dynamic websites with useful features, context, and easily accessible links, and so on.

2 OBJECTIVES:

- To provide scholarly users with quick library information services.
- To promote mobile learning and services based on mobile technology.
- To determine the kind of applications for which QR codes are utilised in libraries.
- To make people aware of the QR Code's working mechanism.

3 WHAT IS A QR CODE?

A QR (Quick Response) code is a barcode that can hold a lot more data than regular barcodes. QR codes have a distinct appearance. QR codes are often square in design, with slanted markers and more squares inside the body, rather than merely bars and numbers like a barcode on a can of veggies. A QR code may hold up to 4296 characters, plenty for a URL, e-mail address, and other information.

3.1 CONCEPT OF QR CODE:

QR codes are 2-dimensional image sensors that a programmed processor controls. The three squares in three corners, each with a smaller square, are used to maintain the size, orientation, angle of viewing, and so on.

3.2 BRIEF HISTORY OF QR CODE TECHNOLOGY:

Originated in Japan in the 19th century where Masahiro Hara's Denso wave created, it came up with the QR code method in 1994. The main goal was to keep track of automobiles while they were being made. It was primarily created to comply with component scanning at fast speeds. Although these codes were originally intended to monitor parts in automobile manufacture, they are now employed in larger organisations. Both commercial tracking programs and convenience-oriented apps aimed at smartphones are available in this area.

3.3 Q R (QUICK RESPONSE) CODE STRUCTURE:

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3.4 TYPES OF Q R CODES:

QR Code Models 1 and 2:

The most complex and largest version of this code is 14(73x73 modules), which can store up to 1,167 numbers.

QR Code Model Level-2:

It's a significant device, with the largest version having 40 (177x177 modules that can store up to 7,089 numbers.

QR Code Model One and Model Two are the most common QR codes, and they serve as the foundation for all other types.

Micro QR Code: This type of QR Code has one position detection pattern and smaller printing size.

IQR Code: This is a QR code that comes in square and rectangular shapes, allowing it to be printed on cylindrical objects. In comparison to a standard one, it holds more data in less space.

SQRC: stands for Secure Quick Response Code, and it ensures the security of encoded data by restricting access to it.

Frame QR codes: QR codes with a canvas area that may give the code multiple shapes and make it more appealing to users and consumers.

3.5 ADVANTAGES OF A QR CODE:

QR codes assist in the automation of a variety of processes. For example, by scanning the QR code in a product's supplied manual, you can access a product website. You can also use the code to provide password-free Wi-Fi access to your guests. It's as simple as scanning a code with their Smartphone and logging in. As a result, QR codes are a viable option because they are faster than manually retrieving content. However, unless you have a genuine added value, you should avoid using QR codes; and There is no specific skill required and it can be used anywhere and quick.QR codes can be used in a variety of ways. With the right idea behind it, you can display marketing materials in an interesting way while also making digital content easily accessible. It is critical to make the benefits apparent to the user. This could include exclusive content, faster access to content, and receiving and sharing content quickly. There isn't much you can't do if you can tick off these advantages.

4. DIS ADVANTAGES OF A QR CODE:

The abundance of options may tempt you to use QR codes even when they make little sense. In such cases, QR codes can quickly become a gimmick, and users will not interact with them. QR codes may pose security risks as well. QR codes can be pasted over or otherwise manipulated in public spaces: Anyone scanning these codes risks being directed to a malicious URL and it are difficult to tell whether or not you've been duped at first glance. Only by getting close to the code can you tell if it has been taped over. QR code must also be placed in a static, stationary location to read the

graphic. Scanning is impossible when placed on moving objects such as a vehicle. It does not function without a decoder, as do Android phones; it occasionally, Codes fail to work at times due to decoder compatibility issues

4. BENEFITS OF A QR (QUICK RESPOSE) CODE IN PRESENT SCENARIO

To save contact information, use business cards. And To enthral and educate children, Advertisements in print entice readers to visit the website and register for an event; transactions can be made through mobile payment apps. Consumers should be able to receive complete product information from product packaging.

To make things easier for the guests, send out wedding invitations. Invitation cards that direct attendees to their phone are mapping application so they can find the place.

4.2 QR CODE SYSTEM REQUIREMENTS

In order to run a QR code, we also require some hardware and software. They are as follows:

Computer: where we can access QR code generator websites in order to generate the code. It could be a computer or a laptop.

LAN: (Local Area Network) connection is required to connect to the network to access the internet.

Creating Websites- We must be aware of various websites that convert simple information into coded information.

Data- To generate the code, we need the data/information that we want to encode into the QR code.

Scanner: To decode the coded information in QR code, a scanner or a decoder is required. An Android phone is the best example of a decoder.

4.3 I HAVE LISTED SOME WEBSITES BELOW WHERE WE CAN GENERATE QR CODES

Beaconstac: Beaconstac's QR Code generator solution can assist you. Make a QR Code with your company's logo. Manage and personalise global QR Code campaigns

QR Code Maker: We provide these Static QR Codes for free and they never expire. Once generated, it is yours forever, but you will be unable to edit the content or track its scans.

Monkey's QR Code: QRCode Monkey is a popular free online QR code generator with millions of QR codes already created. It is one of the best free QR code generators on the web for commercial and print purposes due to the high resolution of the QR codes and the powerful design options.

Scanova 4: Create, customise, and track QR Codes. Now is the time to sign up for a free trial. Create a QR code, customise it, and track scans. Now is the time to sign up for a free trial.

The QR Code Generator:

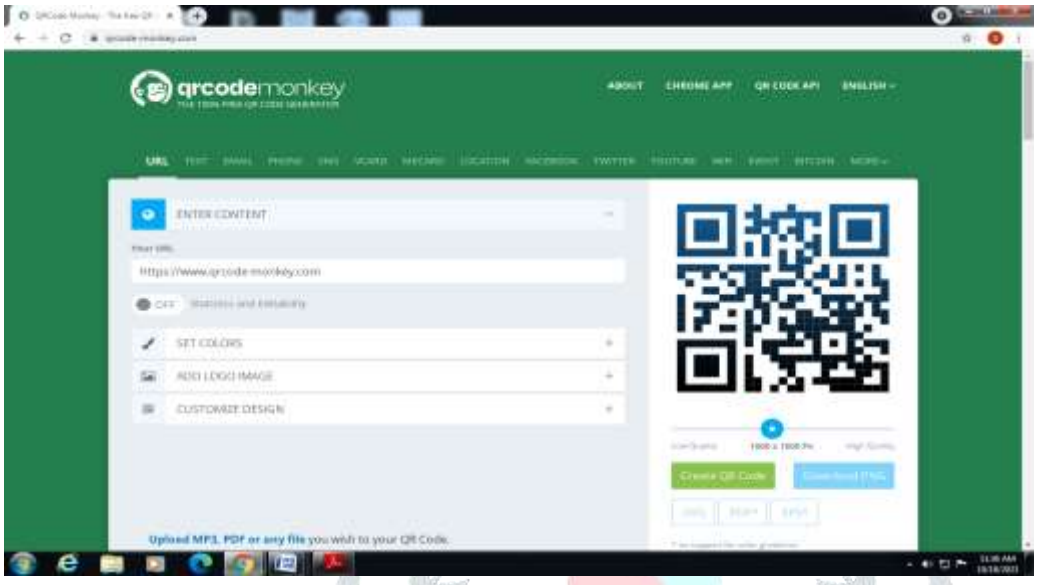
Shopify

QR Stu

4.4 STEPS TO BE FOLLOWED TO GENERATE A QR CODE (Quick Response Code)

- **Go with web browser https://www.qrcode-monkey.com/**

Image 1



EXAMPLE: LIBRARY WEB PAGE

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CREATE QR CODES FOR:

Website of the URL:

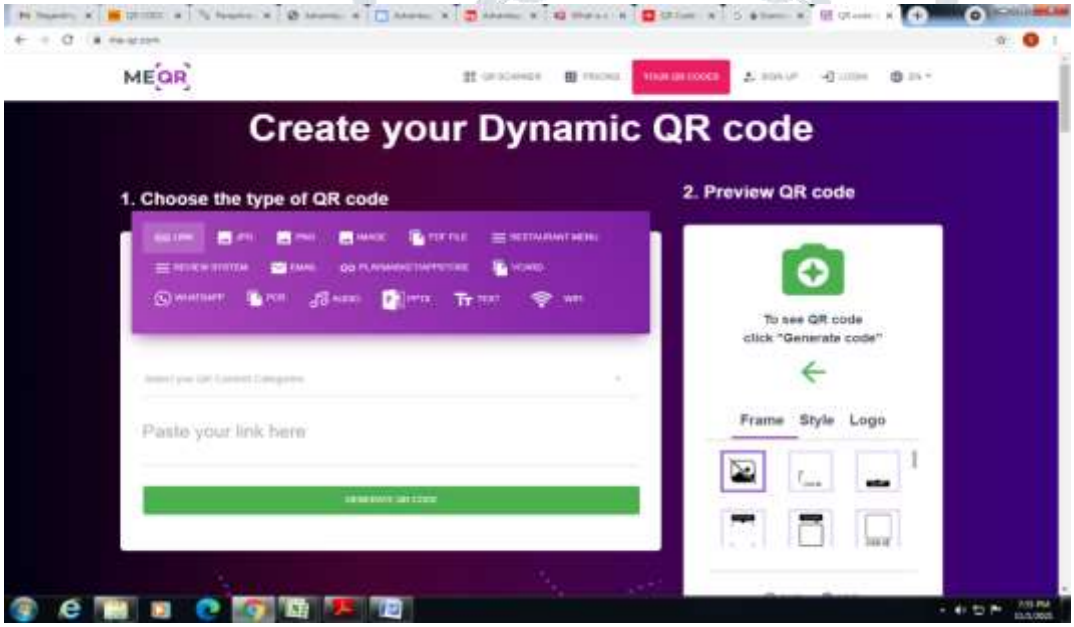
YouTube Links: Make a QR code for a YouTube video. Learn how to use it for advertising purposes.

Image and PDF Files: PDF files containing a lot of text should be placed here. Our website also allows you to generate a QR code for a PDF file.

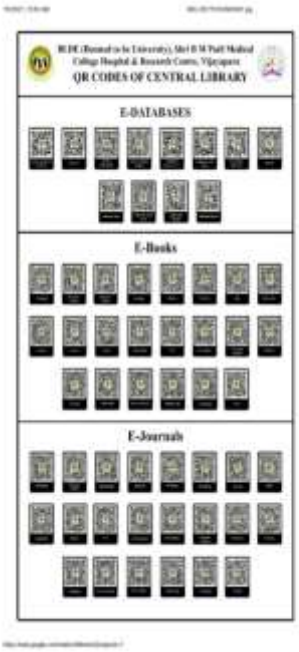
Google Maps Locations: Links to even Google Map also so on

SMS: SMS QR code: convert your phone number into a QR code. Use an easy method to share contact information.

E-mail Alerts: E-Mail QR codes are created. Learn how to share your alerts regularly



4 QR CODE INITIATIVE AND APPLICATIONS AT THE BLDE (DU) CENTRAL LIBRARY IN VIJAYPURA



5.1 USE OF QR CODES IN LIBRARY SERVICES

BLDE(DU) Central Library is adopting QR Code Technology Services in day to day library services for easy communication for the our patrons.the library started using QR codes for many purposes such as

Banners of the Library Orientation:

Library orientation program registration for students we make it the banner of QR Code.

Access E-Books and E-Journals:

In addition to physical books, any user can access it using a QR code on their mobile phone. It will appear on your devices that the respective educational institution has subscribed to and you will only need to scan, read, and download it.

Database:

Depending on the availability of resources, if any users need databases quickly, they can scan a QR code and direct link to the databases. It will be delivered to your phone without difficulty.

Institutional Repository:

QR codes can access additional links for thesis and dissertations, Question papers and faculty publications based on users' needs.

Workshop, training, seminar: Online workshop, training and seminar links to the QR Code system.

Book shelving location:

Once prepare the list of documents in the Rack, we will display it in the QR Code system and easily scan QR code and it will reach the exact location books in the library.

User feedback:

We will take user feedback in a Google form and make it QR Code system.

Library Exhibition:

Users can receive up-to-date information about library exhibitions, including their features, planning, and designs, which they can quickly locate using a QR code.

New Arrivals:

The library frequently has extensive collections in the form of new arrival books and videos. As a result, the new arrival item QR Code helps users significantly in promoting library materials.

Web OPAC:

If you provide a specific QR Code for opening the library's OPAC, you will often find these links there.

5.2 CONCLUSION: The use of QR codes is growing day by day. It has covered a wide range of topics, including marketing, business purposes, travel, and libraries, to name a few. So, in other words, it is a reflection of evolving technology and its impact on our academic user community. Users faced more challenges in the coming days as a result of their use of this fantastic tool. Because of their high reading speed, accuracy, and functionality, barcodes have become quite popular in today's world. Because of the QR code's increasing importance and popularity, its implementation in libraries is reprehensible. The power and capacity of modern technologies enable every reader to obtain information.

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