A Review on QR Optimization in Academic Event Management System

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ABSTRACT

This paper shows how a QR- code can be generated from a simple procedure. We can see lot of QR codes or mobile barcodes around us on websites, books, gadgets, T-shirts etc. which are making our work easier with just 1 click decode with high speed. With respect to old barcodes, QR- codes are very fast and they can store lot of data, making it more superior. QR-Codes originated within the technology hungry country of Japan, and have only recently began to become popular within the Middle East and Europe. Barcodes that you see on any commercial product are extremely beneficial as their reading speed, supreme accuracy and their functionalities are main keys. As barcodes reached their peak and began getting used worldwide, the need for more data and character types to be stored was inevitable. Developers began trying to expand on the current amount of bars within the barcode and how their positioning resides to allow further data capacities. The need for smaller barcodes also was another defining factor in QR- Codes development. Here we try to make use of QR code for any conference, workshop and other academic procedure to carry out.

1. INTRODUCTION

As we know the importance of regular up date and its very important in academic profile. But it always a new thing to search for new workshops seminar and other happenings in the regular pattern. So to reduce this scenario and to increase the effective ness of the research scholar we are developing the system which helps makes and interactive communication with latest technology by making use of QR code where all data required will be filled by the user and submit with complete authentication. The system is designed in such a way that n number of QR codes will be generated and help to increase the productivity of the projects. Since authentication using QR includes many parameters which are details of the participants in any paper presentation workshop or conferences, the participant can upload the paper and can have the functionality to up load the diagrammatic representation if any.

At the time of high economic growth period of Japan in 1960s, the supermarkets were selling a wide range of goods that are foodstuff, clothing, household accessories etc. At the cash counters, price of these goods had to enter manually in the cash registers. Consequently, many cashiers faced the wrist problems and carpel tunnel syndrome. So the cashiers wanted to find some way to reduce the burden of this manual typing. The invention of barcodes was the first step towards the solution of this problem and the use of barcodes gave a relief to the cashiers. When the codes printed on the product were scanned by optical sensor then the price and other basic information of that product was automatically displayed on the cash register.

As the use of barcodes spread, one of the prominent limitations came in the way that a barcode can only store 20 alphanumeric characters of information. But the users were demanding more storage capacity in the barcodes and then after many years of research, Denso Wave Corporation developed a new type of code which has greater storage capacity than earlier barcodes and has fast readability also. Hence the code was named as "Quick Response code" (i.e. QR code). This paper gives an understanding of QR codes and its characteristics in the next section

1.1 Characteristics of QR Code

High Storage Capacity A QR code symbol can store up to 7,089 characters of information, which is a huge amount as compared to 1-D barcode.

Encodable Character Set
- Numeric data (Digits 0-9)
- Alphanumeric data (upper case letters A-Z; Digits 0 - 9; nine other characters: space, : % * + - / _ $)
- Kanji characters

Small Printout Size The information in QR code is stored in both horizontal and vertical directions. Due to

this feature, for the same amount of data, space acquired by QR code is one fourth times less than the space acquired by 1-D barcode.

360 Degree Reading QR code is readable from any direction. This feature is provided by the finder patterns present at three corners of the symbol. The finder pattern helps to locate the QR code.

Capability of Restoring and Error Correction If the part of code symbol is damaged or dirty, data can be recovered. The error detecting procedure can focus on the region of correct information. There are four levels of error correction of QR code that are L, M, Q and H. The level L has the weakest and level H has the strongest error correction capability

1.2 Significance of QR Code

It provides simple creation and easy access to QR code readers. Hence the QR codes are being widely used for linking to companies' website, advertising products, online menus and contest sign-up pages. QR codes printed on a building might enable the visitors to know about the history of the building or it may give the information of its architect and about how the building was built. There are many ways of using QR code. Some of them are listed below.

On Company Business Cards An excellent location for QR codes is business cards. Meet somebody at any gathering, scan a code and get their contact information saved in your smart phone automatically. Magazine Advertisements The ad of a product in a magazine along with a QR code may bring the reader to the company's site and customer may read about the product and he may end up buying the product. Cafes and Restaurants The preferred customers of a cafe or any restaurants may be offered something free or special discounts with their next meal by using the printed QR code on their dining tables.

Equipment Manufacturers The product manufacturer may add QR codes on instruction manual that can take people to the online content for helping them to use their products. Talking Labels A product label may become alive by printing QR code on it. The code may take the visitors to a video or may display some interesting photos of the product that may impress the buyers.

2. LITERATURE SURVEY

QR-Code is the 2-dimensional barcode (data matrix) [1] [2] which is designed to have its contents decoded at a high speed. The acronym QR means "Quick Response", which was termed by Denso Wave Company [4] because the creator intended that such barcode's contexts should be decoded at higher speeds. QR-Codes originated within the technology hungry country of Japan, and have only recently began to become popular within the Middle East and Europe. Barcodes that you see on any commercial product are extremely beneficial as their reading speed, supreme accuracy and their functionalities are major keys. As barcodes reached their peak and began getting used worldwide, the need for more data and character types to be stored was inevitable. Developers began trying to expand on the current amount of bars within the barcode and how their positioning resides to allow further data capacities. The need for smaller barcodes also was another defining factor in QR- Codes   development.   Such developments failed as reading and printing implications caused more problems than solutions. The 2D barcode was then born.

Here we do the secure transaction between the patient and the hospital management system. The basic concept is that the paper less transaction between hospital and patient using the QR code generation with the otp. Here we store the information in digital. QR code is an image of a matrix barcode that stores data in two dimensions. Data is presented as square dots with specific pattern in both horizontal and vertical dimensions. Specific imaging devices (QR scanners) can read this image and retrieve the stored data based on the pattern of square dots. This method is simple and efficient authentication method, Number of people using smart phone increasing day to day. The SMS based one-time password is very popular now days where the patient provides an phone number. QR code is quick response code and it is the two dimensional bar code which can be read on devices such as mobile device, tablet, etc. The qr code is generated using the qr code generator

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3. PROPOSED SYSTEM

Following are the methods to understand the proposed system:

- Conference details including name of participants, soft copy of paper and images if any
- A new QR code will be generated every time when we update the above field.

- The participant visiting the college page will scan the QR code and fill the details as mention and the process continue with data validation
- Once it complete it proceed with payment procedure using various third party gateway
- In this way the data is secured and help to reduced traditional we are using previously
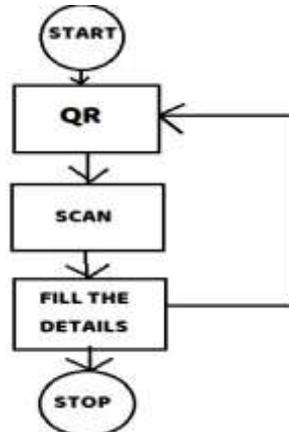

Fig. 1: Flowchart

4. ADVANTAGES AND DISADVANTAGES

4.1 Advantages

- It uses highly interactive procedure to make the participant comfortable
- It makes use of updated technology to adapt with the environment
- It is easy to use and proceed the registration process
- It allows the feedback system to modified if necessary

4.2 Disadvantages

- Since QR code is unique it requires another copy to generate for new updates
- It depend upon network connectivity

5. CONCLUSION

In this way, the system can be designed in such a way that n number of QR codes will be generated and help to increase the productivity of the projects. Since authentication using QR includes many parameters which are details of the participants in any paper presentation workshop or conferences, the participant can upload the paper and can have the functionality to up load the diagrammatic representation if any. In addition, the private level does not affect in anyway the reading process of the public level. In the future, we are going to develop an Advance learning system, which adopts the designed scheme to trace visitors' trajectories in our campus. Besides, we are now going to apply the designed scheme to analyze sport postures. In the future, we are going to develop an Advance learning system, which adopts the designed scheme to trace visitor's trajectories in our campus. Besides, we are now going to apply the designed scheme to analyze sport postures.

6. REFERENCES

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