

WeeliciousCuisine Quick Response (QR)

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Abstract: *This paper attempts to create a WeeliciousCuisine quick respond (QR) code content which including some guideline video to guide the users on how to use this product and also providing some recipe to teach them how to used and how to made a complete dishes. The target of audience ages are in seventeen to twenty five years old. Besides that, it also aim for the restaurants, shops and bars to provide them a better understanding of how the products have been use as to improve the services of the tourism industry as this application provides the useful information related to the products or ingredients that required by the foreigners, so the users can get the right ingredients in overseas for example, Malaysia. Research conducted by using the descriptive statistics and result shown more than 58% respondents are still not familiar with Quick respond code but more than a half respondents are interested to know more about Quick respond code and requested to improve their content on food and beverage. In conclusion, WeeliciousCuisine Quick Response (QR) is a system that helps user to have a quick look and learn how to cook in short time. The function of this system is to prevent users for choosing the wrong ingredients and also help them to save time and cost in the supermarket.*

Keywords: Quick respond Code, WeeliciousCuisine quick respond code, Guideline video, Recipe, Tourism industry

1. INTRODUCTION

Nowadays, Quick response (QR) code applications can be found in almost all of the Smartphone devices. QR codes are using the URL or other information on user's Smartphone to read the camera's memory. In year 1974, 39 alphanumeric can be encoded (as symbol) approx. and also 30 alphanumeric characters. Then in the early 1980s, multi-level symbolic code approx. are encoded, and also about 100 characters can be stored, such as Code16K and 49 developments. "As a result, QR Code which can contain maximum 7,000 digits of characters including Kanji characters (Chinese characters used in Japan), was developed in 1994." according to Kan, Teng and Chou, 2009.

Previously, users are familiar with bar code which is a machine-readable code in the form of numbers and a pattern of parallel lines of varying widths, printed on and identifying a product. Unfortunately, it can't be scan by the Smartphone. Hence, the travellers who have smart phone, have to equipped with the correct reader software that can easily

access QR coded information (text, photo, video, web page, etc.) when it is available. Thus, travellers can get the detailed information by scanning the QR coded galleries, places, vineyards or monuments and visiting there without using a travel guide. However, the quality of ingredient and the standard of hygiene are very poor, so it may bring sickness to the customers easily.

Besides that, foreigner can use QR code scan as a guide for the ingredient descriptions, because there are some ingredients which is not available in their country. Since there are lacks of those kinds of ingredients, due to lack of information of those ingredients, the foreigner might be confused of how to use those ingredients. In short, the users are allowed to get their information such as recipe and also some short videos by scanning the QR code that pasted on the product cover through the smartphone. With this system, it helps the shops and restaurants to list out the quality of their ingredients and also the nutrition of the food that they provided.

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Problem statement of this research is the hygiene and quality of outside food are poor and primitive, and will easily get sickness such as food poisoning and stomach ache. Besides, teenagers nowadays are not familiar with cookery knowledge and also the ingredients such as fruits and vegetables that use to make dishes. In this situation, a lot of ingredients that purchased by the teenagers who are lack of cooking knowledge will cause wasted of ingredients. Now, the teenagers are more care about their health and will find some meals that are healthy for their daily life. But unfortunately, most of the restaurants are more concern about the price or benefits than the quality of the ingredient that used to serve their customers.

On the other hand, when foreigner goes to some unfamiliar places, there are different languages and culture at different places, so the users might be hardly to find some suitable ingredients to cook. Therefore, QR code becomes the main application for the users. With this system, users are unnecessary to connect to the internet for getting the information that provided in the QR code. It also helps users to save their time on searching through web browser.

The objectives of the system are to provide several videos and recipes which attached in the quick respond (QR) code for some of the products and allow users to scan by using their Smartphone and also show a fast and easy guideline (recipe) to provide better understanding for the user. Besides that, we wish to display some videos that allow users to have a better understanding on the products and guide them with some simple steps of using this product and also to provide more guidelines for the user to choose. This proposes

system also allow the bakery shops, restaurants and bars show the ingredients that they are using for the customers.

The reason of choosing this title is, the sicknesses nowadays are getting serious and the teenagers are the one who get the highest rate of influence than the old citizens. So, with this application, it helps to reduce the chances of get influence by those sicknesses. Besides that, teenagers are encouraged to improve their cooking skills and choose the right ingredients for cooking. By this way, teenagers can reduce of purchasing of outside food. On the other hand, the shops and restaurants are the main priority to improve their management of meals with healthy ingredients and also control the food quality. With this application, it can help to improve their management, and ensure that their business growth well. Furthermore, this application provides the useful information related to the products or ingredients that required by the foreigners, so the users can get the right ingredients in overseas for example, Malaysia.

This project plan provides some functionality, fast and efficiency system, which include some graphical videos compose with descriptions as well as recipe. QR code is design for the user to able to scan through their Smartphone or tablet. In the interior design of the QR code, it provides a short and clear description regarding the product's name and also some videos to guide the users on how to use this product and also with a short explanation known as recipe. Those displayed videos are made by video software and it also provides some short explanations for users to have a better understanding on the use of these products.

Previous studies of QR	Current Studies of QR	Future Study of QR
<ul style="list-style-type: none"> QR code was not widely used in any industry Understanding and awareness to apply QR in our working and lifestyle are very limited Started to be used in online purchase such as : movie ticket 	<ul style="list-style-type: none"> Trying to increase the awareness of QR to public More industries are starting to apply QR code in their product such as : scan the newspaper QR code will enable us to read the full article This research study is trying to expore the interest of public by using QR code to get food ingredients and recipe in cooking 	<ul style="list-style-type: none"> To explore and investigate how to introduce and apply the QR code in all industries To look for a common electronic device that on everyone convenience, affordable and easy to use beside only smart phone can scan for the QR code

The proposed system functionality is given as following:

- The system able to provide video, ingredients and some other information. The system able to provide a short and clear of the product name

- The system able to provide the name of the product and also the recipe of the product
- The system able to provide an easy access and efficient way of using by user's Smartphone

- The system able to provide an efficient way to access information of product such as nutrition level

2. LITERATURE REVIEW

QR Code has a linking functionality which will enable a single symbol to be represented in several symbols by dividing it. Single symbols can be divided into 16 symbols at maximum. A unique QR code is divided into four symbols, and each symbol has indicator showing the number of symbols the original symbol is divided into and in what order that specific symbol would be divided among all the cards. This will allow all data to be edited and presented to the team regardless of what order the symbols that has been read by the reader. For this functionality to link the QR code will be able to be printed, even if the print space is not large enough to have a unique QR code printed.

By having special masking patterns to process, QR code is allowed to have black and white cells arranged in a well-balanced order. To finalize with accurate data had been read, it is necessary to have the black and white cells in a well-balanced manner. To enable this, EX-OR calculation will take place between the cell in the data area and the mask pattern (template) of cells when the data stored and the organization are encoded in the data area. Reading the matrix symbols is carried out using the CCD sensor (area sensor). Data from the scan line captured by the sensor are stored in memory. Then using the software, the details will be discussed and identified a pattern seeker, after that, the position / size / angle of the detected symbol and, finally, will be held the decoding process. Each mode considerations for improving the conversion efficiency and the number of cells necessary for each character in each mode. By making the relationship between nature and type of data stored only for special use, QR code can be easily encrypted. Unless the conversion table between the type of character and the stored data is decrypted, no one will be able to read the QR code. QR Code can have its size freely selected according to the data volume to be stored and the reading method. The symbol size is incremented by four cells in both vertical and horizontal direction – 21x 21 cells, 25 x 25 cells, 29x 29 cells, and up to 177 x 177 cells (maximum). There are 40 size types of set cells in the QR code. Quiet zone is a margin space necessary for reading the QR Code. The quiet zone makes it easier to have the symbol detected from among the image read by the CCD sensor. There is required at least four or more cells for the quiet zone. Difficult

people that distinctions between the system and the traditional AR systems fiducially marker system based generally require a registration process each time a new pattern or a new item appears in the system. Moreover, the QR Code does not need to record any marker when a new QR code on the screen of the camera. The information in any QR Code can be extracted by our system without any difficulty.

Traditional systems often store bookmarks models on a local server. Sometimes, this form may restrict the applications of these AR systems. Webtag (Fiala 2007), an AR system developed later, is to let the network that serves an average that provides a link to the content. Webtag ID can decode level 2 (a similar concept nested AR marker (Tateno et al., 2007) of the marker, then sends the ID of a web site to index a full URL where you store content. Overall in Webpage, the marker can be used both for monitoring AR and virtual content addressing. This tells us that this is a tendency to place the markers and the local content server for low costs and save resources on the local system. Our system of using a URL embedded in the QR code to access a remote server models, therefore, our system also has the advantage of avoiding the storage of the models on the local server. Moreover, the models on the remote server can also be easily modified through Internet, hence our system is more flexible than traditional systems based marker.

Advances in mobile technology have recently contributed to paving applications viable mobile augmented reality. However, the main problem of mobile AR, as with all implementations of augmented reality, is the accurate and robust feeding live camera recording and digital content (eg, images, videos, 3D models). So far, mobile AR applications make use of GPS and marker technology (fiducials) to solve this problem (eg Sekai Camera, Layar, AR-toolkit, Unifeye). The disadvantages are that, firstly, GPS can only guess the position of the device within 5 to 10 meters, is subjected to weather changes, and does not work indoors. Secondly, although marker registration is very accurate, a marker has to be printed and visible by the camera in order to work. Mobile devices are already equipped with sensors that can tell us where the user is looking at: a gravity sensor and 3-axis digital compass. Even very accurate digital compasses that have not yet been integrated into today's mobile devices are so small that future implementations are quite probable. Therefore, the only problem seems to be the way to discover the precise position of the user. This is the problem we

are trying to solve in this project

QR -Codes are barcodes 2D, in essence, contain a number of bits of information encoded a duotone image, usually in black and white. Like all technology matrix code (Semacode, Aztec Code, etc) QR codes are commonly used to identify objects or redirect the user to a web page. We propose a different use of the QR -Code technology to combine with a mobile AR application. Instead of using a QR code as a link in an object to a web site, we use it as a link from a known and static physical location to a virtual repository for increased data. When the user scans the QR code, calibration and starts two computational threads is achieved. A thread collecting sensor data start to determine exactly where the user is viewing.

The second content download augmented reality Internet location dedicated to this unique QR -Code, and using the sensor data , which is superimposed in the correct place. The accuracy of the system depends on the accuracy of the sensors themselves, and the correct positioning of the user at the time of scanning. The mobile device has to be placed very close to the QR code and the correct orientation to read, making the way two different users scan a QR-Code almost identical.

A suitable scenario for a mobile device would take a picture of a person from the point of QR-Code and upload it so others can see it as increased data by scanning the same code. One of the background and people: two drawings are needed. Using the Open CV library program have created a background subtraction to such increases in image and video data. The accuracy of the result depends on how close the user is standing at the starting point calibration. Public displays have been widely adopted in public places such as train stations, airports and museums, which are often used to show schedules, timetables, but also the advertising or information. But even within organizations or universities, public and semi demonstrations - Government have proved valuable means of promoting awareness of current events, the latest company news or upcoming meetings and conversations. However, opportunistic content sharing between mobile devices and such displays remains a challenge. In this paper, we present a new technique based on QR codes to facilitate interaction with public displays and simplify user interaction.

Investigated how Web technologies can be used in both the client side and the own infrastructure for

the purpose of providing a lightweight, and versatile architecture. As proof of concept, we developed PresiShare a web-based platform to present and sharing - photos, music and documents on any screen. We evaluated our approach by a study that examines user formal techniques proposed interaction. Moreover, we report our Findings from a live deployment within our research group, where the qualitative feedback and usage statistics were collected. The server was implemented using PHP in conjunction with the Apache web server. We use PHP to handle all web requests from clients and displays. Files and application data, such as folders, stored in a MySQL database. This choice was motivated by the fact that all these components are part of the XAMPP Apache distribution¹ which makes it particularly easy deployment. The web server also hosted the PresiShare web application that was delivered to the screens and the user interface displayed on mobile devices to end users. The PresiShare application was implemented using HTML 5, CSS and JavaScript. Our implementation of the mobile client PresiShare compatible with any device that is capable of running a web browser and is equipped with a suitable camera to scan QR codes. Compatible devices include most Android devices (smartphones, tablets), iOS devices (iPhone, iPad, iPod) and Windows Phones. Unfortunately, we encountered some technical limitations arising from how the different mobile operating systems implemented _le load the HTML.

The role of information technology in everyday decision-making of people is increasing. For example people decide what route and transportation to move the house to visit a friend, what restaurant to go to dinner, or to buy food products based on the information and options presented in the applications of information technology

This change offers tremendous opportunities for human-computer interaction (HCI) research for providing interventions to help people to make self-beneficial or favourable social decisions. Many researchers have studied ways to use technology to convince people to adopt sustainable and healthy way of life according to Kan, Teng and Chou, 2009. One of the most common approaches used information and feedback to encourage behaviour change. Including users to set a goal and gives them feedback about their current behaviour, these approaches seek to increase people's awareness of issues and encourage them to change their behaviour.

Researchers have devised technologies to encourage people to adopt healthy lifestyles in the diet. For example, Chi et al.'s. Smart kitchen provides nutritional information about the ingredients when cooking for people to adjust ingredients accordingly found in Chi, Chen and Chu, 2007. Autom, a robot control weight, helps people keep track of what they have eaten that day and calculates the calorie and nutrition information in relation to its stated objectives. These and other applications to help people make informed decisions about what they eat, providing nutritional information, tracking your behaviour and provide feedback. Ecological sustainability is of increasing interest and the production and disposal of food over-consumption is a major concern for sustainability, ethics and economics. However, there is a deficit in understanding how current technologies could be used in this area. At this point, focus on food waste and a report on a qualitative study to determine daily food practices around business planning, gardening, storage, cooking and throwing food, and its relationship to waste. The findings point to design-relevant factors such as vision loss and reordering; spatial, temporal and social constraints, trust and appreciation of food source, and bustle, unpredictability and effort. The main contribution of this work is to determine the feeding practices and, in turn present seven dimensions of visibility draw implications for the design of mobile and ubiquitous technologies to this new space for design.

3. METHODOLOGY AND DATA

According to the Anderson et al. (1976) used "determinant analysis" in a survey in the USA and stratified their sample according to convenient and service. So that the research process streamline the effectiveness of study research in Quick response (QR) code applications. This is in order to determine to what extent public which are never using in accepting Quick response (QR) code applications. In our research, the research conducted by using the descriptive statistics. Because the descriptive statistics is the most appropriate statistic technique used to determine the awareness of public in accepting Quick response (QR) code applications. The statistical techniques such as percentage distribution and frequency count, averages summarize are appropriate testing for project analysis. It is based on average rating for which an individual may consider using Quick response (QR) code applications.

Malhotra, N.K. (2004), S. Uebersax, John. (2006)

found that the one way ANOVA, Bivariate correlation analysis and independent sample-t test is being selected purposely to determine the level of acceptance and awareness of public in accepting Quick response (QR) code applications. Since the survey of public acceptance of Quick response (QR) code applications cannot be determined the actual of level of acceptance and awareness toward their knowledge and behaviour in accept the Quick response (QR) code applications. Nonparametric test which include nominal scale and ordinal scale are the needs of the research questionnaire. Moreover, according to Malhotra, N.K. (2004) statistical techniques that may be used on interval scale data can be used to apply to nominal and ordinal data. Besides that, according to S. Uebersax, John. (2006), likert scale also can be applied on it too. Furthermore the researchers use the stratified sampling in selecting the public (Students and teenagers) as the target respondents to make the sample more efficient in the project research study. In Our research study, researchers are purposely measure the level of acceptance and awareness of non-Muslim in Quick response (QR) code applications. Researchers are preferred public in Kuala Lumpur, as our target respondents. Due to the tremendous growth in QR, so many industries also started to promote Quick response (QR) code applications in their industry. This was provided customers with an alternative choice besides the "conventional method".

Whitson, B. and Phillips, M. (1998-2001) found that these are contemporary accounts of an event, written by someone who experienced or witnessed the event in question. These original documents (i.e., they are not about another document or account) are often diaries, letters, memoirs, journals, speeches, manuscripts, interviews and other such unpublished works. They may also include published pieces such as newspaper or magazine articles (as long as they are written soon after the fact and not as historical accounts), photographs, audio or video recordings, research reports in the natural or social sciences, or original literary or theatrical works. According to Whitson, B. and Phillips, M. (1998-2001), since the primary data is the original source which obtained through direct observation, questionnaire, and depth interviews. However, the researchers focused more on the result gathered though questionnaire and depth interviews. Zikmund (2003) found that in order to measure the awareness of public in accepting Quick response (QR) code applications, questionnaire is the basic technique to collect reliable information from a sample of people. Most of the standard

questionnaires are developed through the fixed-alternative question. Fixed-alternative questions are closed questions asking the respondents to choose most close viewpoint by giving the respondent the specific, limited and alternative responses. These questionnaires are designed, which are purposely for the respondent's convenience in answering the questions. The instrument of research in the questionnaire consists in many sections which we need to determine the knowledge of respondent on the Quick response (QR) code applications.

The pre-testing procedure is important in the questionnaires design to have better quality result. The verbal and non-verbal communication in the questionnaire design is important to ensure that language utilized is not critical of respondents and sensitivity of respondents is considered. In this research study, the questionnaire focus on the awareness and level of acceptance of public in Quick response (QR) code applications. Before distributing questionnaire to the respondents, the researchers are required to ensure the logicity and rationality of the questions is being asked. To be prudent, the questionnaires had been reviewed and assessed before distribution to public. Researchers decide to select 100 respondents as our research sample. Zikmund (2003), John Wiley & Sons, (1994) found that there was a few methods which can be used to this research project. According to Zikmund (2003), the selection of the sampling was based on the larger population of the public in Kuala Lumpur. Non probability is a sampling technique in which units of the sample are selected on the basis of the personal judgment and convenience. For this research, non-probability is not allowed because it is based on personal judgment.

Stratified sampling is most appropriate to adopt in this research study compared with random sampling. Stratified sampling defined as probability sampling procedure in which simple random subsamples are draw from within stratum (Zikmund, 2003). Since the target respondents are students and teenagers, therefore stratified sampling is more applicable for this research study. Stratified sampling can divided into two categories such as the awareness of the Quick response (QR) code applications, understanding of the Quick response (QR) code applications and the level of acceptance of Quick response (QR) code applications. According to John Wiley & Sons, (1994), probability which is a subject repeatedly attempts a task with a known probability of success due to chance, and then the number of actual successes is compared to the chance expectation. If a subject scores consistently

higher or lower than the chance expectation after a large number of attempts, one can calculate the probability of such a score due purely to chance, and then argue, if the chance probability is sufficiently small, that the results are evidence for the existence of some mechanism (precognition, telepathy, psycho kinesis, cheating, etc.) which allowed the subject to perform better than chance would seem to permit. So that researcher found that probability sampling is more appropriate to determine the target respondent in which every number has equal chance being selected compared to non-probability sample which the sample is selected based on personal judgment. Generally, most of the researcher preferred to use random sampling as their sampling technique. This is because random sampling ensures that each sampling element has an almost equal chance of being selected within the sample and it could be taken as a good representation of the entire populations. Additionally, it can also eliminate time consuming factor and the response errors such as acquiescence bias, extremity bias, interviewer bias, auspexes' bias and social desirability bias and auspices.

Zikmund (2003) found that the rule of measurement is an instruction to guide a number of assignment or other measurement designation object, attributes, occurrences or processes. In addition, a scale is a continuous spectrum or series of categories. The purpose of the measurement instrument is to measure what the researcher intend to measure. It consists of four type of measurement scale such as nominal scale, ordinal scale, interval scale and likert scale. Zikmund (2003) found that the most widespread and popular used of the measurement scale is nominal scale. These simple types of nominal scale are known as non-parametric test. The nominal scale as the number or the letters assigned to objects serve as labels for identification. For example, the respondent's personal information would be measured in nominal scale such as age, gender, education level and religion. Zikmund (2003), Naresh K.Malhotra (2004) found that application of interval scale in parametric test, nominal and ordinal data will be different. According to Zikmund (2003), interval scale is a scale that not only indicates order, but also measure order in units of equal interval. It is also known as parametric test in measurement scale. S. Uebersax, John, (2006) found that a Likert scale is a multi-item scale, not a single item. A single item, regardless of its format, should not be called a Likert scale. A Likert item, which is a single item or question, should adhere to certain format requirements. An item that is merely

ordered-categorical, even if it is combined with similar items in a composite scale, should not be called a Likert item or a Likert-type item. The term, discrete visual analog scale (DVAS) is more generic and an alternative in many cases. An items with ordered response levels but which has neither a Likert nor a DVAS format should simply be called an ordered-category item. A scale composed of several ordered-category items which are not Likert items should be referred to by the more generic name, summated rating scale. This is purposely to indicate the rank factor based on the highest significant performance to the least significant preferences individual choosing the Quick response (QR) code applications.

4. ANALYSIS OF FINDING

This chapter discusses the results obtained from the finding of the analysis of the data collection in Chapter 3. Based on those information collected through the gathering primary data collection, analysis has been show the strength and weakness of the proposed system. For data collection, questionnaire is the method to analyse the result in this project. There are 500 questionnaires were distributed to the selected email address and the publication of the questionnaire in the forum and social networking site like Facebook and University. Fortunately there are 425 numbers of questionnaires report return with valuable information. In fact, that information's are from the point of view of the user with respect to the proposed system.

Result shown that over 60 percentage respondents are using android operating system, users are prefer a system able to be user friendly like android instead of IOS that only able to share through the same domain and at the same time also more than 69% respondents are having data plan. However from the questionnaire result, we noted that most of the respondents are still not use to it with QR code, also QR Code are still new for nowadays user although QR Code already exists since 1991 but more than a half, 51% respondents are familiar with QR code.

In the total of 425 respondents, 238 respondents are feeling convenient to use QR code, because it able to reduces their work task and also able to ease their task. From respondents feedback to our propose QR code system, there are more than 92 percentage respondents are willing to try in this system in their daily life.

In the total of 425 respondents, more than 45

percentages users are requested to improve on food & beverage. On the other hand, 35 percentages users are requested without download any apps to use QR code and awareness of using this system. In our questionnaires study to our targeted respondents group, we found that over 69 percentage respondents are enjoying cook their own meal instead of purchasing outside food and 31 percentages are disagreeing with enjoying cook their own meal. There are few possibility that they disagree with this question, which is either they lag of cooking knowledge or lag insufficient time for preparing. Besides that, the result also shown that even respondents enjoying self-cooking but majorities of them which more than 70% of respondents are not good in cooking. Respondents giving their feedback to us during the questionnaires section, the reason of not cooking by themselves due to lag of time and also lack of the knowledge in preparing cooking ingredient for their dishes. Base on the respond of the questionnaire, most of the users are interested and requested a system that able to help them to improve their cook skills.

5. CONCLUSION

Majorities of the respondents are interested and willing to accept our proposed new QR code system. Questionnaires result shown that respondents are having high level of interest and willingness to self-cooking if there is a tools that able to ease their cooking job which our propose system is just nice to fix their needs.

WeeliciousCuisine Quick Response (QR) is a system that helps user to have a quick look and learn how to cook in short time. The function of this system is to prevent users for choosing the wrong ingredients and also help them to save time and cost in the supermarket. Primary data collection is shows that the development of WeeliciousCuisine QR Code System is actuality stimulated. Questionnaire is the main method to analyse and conclude the result the understanding this system from the users. By developing this system, author using Life Cycle model consist of planning phase, analysis phase, design phase, implementation phase, testing and maintenance phase. Once the system developed all the phases, the model has been carrying out.

Finally, the tools used throughout the project are Master Collection CS5, Microsoft Office and HTML / PHP. All tools are chosen based on the required project and ease of use. Apart from the phases of the system, the merits and weaknesses of the system can be a guide for the purpose of improving

the quality and performance of the system in the future, so that it can meet the need of the user.

REFERENCES

- Camerer, C., Issacharoff, S., Samuel, C., & Loewenstein, G. (2003). Regulation for Conservatives: Behavioural Economics and the Case for "Asymmetric Paternalism." *University of Pennsylvania Law Review*, 151, 1211-1254.
- Chi, P.-Y., Chen, J.-H., Chu, H.-H. & Chen, B.-Y. (2007). Enabling nutrition-aware cooking in a smartkitchen. In *Proceedings of CHI'07*, 2333-2338.
- FIALA, M. 2007. Webtag: A worldwide internet based AR system. In 6th International Symposium of Mixed and Augmented Reality.
- Fogg, B.J. (2002). *Persuasive technology: Using computers to change what we think and do*. Morgan Kaufmann.
- International Organization for Standardization. QR Code 2005 Bar Code Symbology Specification. ISO/IEC 18004:2006, 2006.
- Intuitive Automata, <http://intuitiveautomata.com>
- Kan, T. W., Teng, C. H., & Chou, W. S. (2009, December). Applying QR code in augmented reality applications. In *Proceedings of the 8th International Conference on Virtual Reality Continuum and its Applications in Industry* (pp. 253-257). ACM.
- LIU, T.-Y., TAN, T.-H., AND CHU, Y.-L. 2007. 2D barcode and augmented reality supported English learning system. In 6th IEEE/ACIS International Conference on Computer and Information Science.
- TATENO, K., KITAHARA, I., AND OHTA, Y. 2007. A nested marker for augmented reality. In *Proceedings of IEEE Virtual Reality Conference (VR '07)*, 259-262.
- Malhorta, K.N. & David F. B. (2003), "Marketing Research: an applied approach" Pearson Education Limited Essex pg 296
- Uebersax, J.S. (2006). Likert Scales: Dispelling the confusion. Retrieved August 10, 2008 from <http://ourworld.compuserve.com/homepages/jsuebersax/likert.htm>
- Whitson, B. & Phillips, M. (1998-2001). Library Research Using Primary Sources. Retrieved May 11, 2008 from <http://library.ucse.edu/ref/howto/primarysecondary.html>
- Zikmund, N.G. (2001). *Business Research Methods (7th Edition)* United States: Thompson Learning.