

Use of WhatsApp for Effective Delivery of Library and Information Services

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ABSTRACT

Information communication technology playing a major role in transmitting idea, thought and information between one to another. Social networking websites are a good example of communication network and it is a social structure that lets the user interact and work collaboratively with other users. WhatsApp is a free instant messenger application that allows users to send text messages and multimedia files. In this paper, an online survey was conducted to measure usability of WhatsApp for service delivery in the libraries and information centres. A random sample was selected from social networking sites from all over India and an online questionnaire was used to gather information from respondents. Findings indicated that respondents showed a positive attitude toward getting services over WhatsApp. Most of the respondents believe that use of WhatsApp can improve alert services (CAS, virtual reference, notifications) and libraries can utilise their potential for providing better user services.

Keywords: Social networking; Mobile instant messaging; WhatsApp; Service delivery; Library services

1. INTRODUCTION

Social media has emerged as a great source for information and it provides a platform for interaction among person from different cultural settings¹. An overwhelming majority of person are engaged in mobile instant messaging (or MIM) and text messaging in order to maintain connections and relationships with colleagues, family, and friends^{2,3,4}. The growing popularity of social media tools has motivated researchers to explore the roles such media play in everyday life and in the society. Mobile instant messaging application is one of the tool of social media. They made person connected in real time and most of the person spend a lot of time using these applications. There are many MIM available in the market, such as WhatsApp, Line, Hike, Nimbuzz, WeChat, iMessage, Viber, Skype, Facebook Messenger and Telegram. These applications are free to use and they offer various capabilities for sharing media: text messages, images, audio clips, videos, documents, contacts and even location data. The changing trends of society forced libraries to adjust their operations and services to suit their users and society.

2. LITERATURE REVIEW

The library as an organization is a collection of information resources with the specific purpose of obtaining, processing, preserving and making available for the society. The efficiency and effectiveness of the library as a tool of research and learning is determined by the success of providing relevant and timely information to their users. Previously, libraries measured their successes based on completeness and balance of the collection.

In recent times, the focus has changed towards technology driven service delivery. O'Brien⁵ and Dadzie⁶ assert that for optimal use of information, it must have the following qualities: relevance, accuracy, timeliness, currency, completeness, clarity and cost effectiveness.

Traditional library processes and structures are unable to respond quickly enough in this technology driven environment. However, change is mandatory as technology has much potential that cannot be ignored in modern society. The users of libraries are also changed and they are depended on technology such as cell phones, computers, and access to the Internet, etc. With the impact of technologies and other environmental changes, the role and concept of library services are changing very fast. The range of services that can be delivered by the library is expanding due to the new technology, and it is likely to expand further. Additionally, the scope of some services has become nearly unlimited. Some forms of service can be offered almost as easily around the globe as around the town. Libraries serve and will serve far beyond their walls. All business activities may be seen through marketing lenses. Marketing in case of libraries is necessary to offer benefits to users want, reduce barriers to use and access, persuade and inform the users, and carefully plan to satisfy users' needs effectively.

Instant messaging provides real-time communication between two or more individuals in virtual locations via the Internet. Analysts have estimated that 2.5 billion IM accounts are currently active, roughly 47 billion iMessages are exchanged each day world-wide, and 10 trillion IMs are delivered annually^{7,8}. Furthermore, researchers estimate that cell phone iMessengers will increase to 1.3 billion by 2016⁹. Given that 91 per cent of individuals own cell phones and 81 per cent are

using their cell phones to engage in text and IMessaging¹⁰, it is not surprising that IMessaging is becoming more effective in person's life. Instant messages are also preferred over telephones when more than two person are involved in the communication, or when one of the communicators is unable to maintain privacy given the presence of others who may hear the communication¹¹.

3. WHATSAPP

WhatsApp application was developed in 2009 by Brian Acton and Jan Koum. It is a proprietary cross-platform, encrypted, instant messaging application for smart phones. It uses the Internet to send text messages, images, audio messages, videos, documents, user location, contacts and to other users using a mobile number. It runs over various operating systems like, iOS, Android, Windows OS, Mac OS, BlackBerry OS, Nokia Series 40, Symbian and Tizen. WhatsApp is also available for PCs through a web client, under the name WhatsApp Web in January 2015. It works through web client, which means the web browser mirrors conversations and messages from your mobile device—this means all of your messages still live on your phone and user handset must be connected to the Internet for the browser application to function. WhatsApp Web user interface is based on the default Android one¹¹. WhatsApp had one billion users in February 2016 which made it the most popular messaging application¹².

4. BENEFITS OF USING WHATSAPP FOR SERVICE DELIVERY

WhatsApp has its own advantages for service delivering in libraries and information centres. Some of the benefits are as follows:

- WhatsApp will facilitate collaborations and promote effective communication between library staff and their patrons
- Financially the costs of WhatsApp perceived to be low and requires little training
- It helps gather feedback to enhance user services
- It promotes library services and disseminates news quickly and delivers the information in real time to the users
- It increases the engagement and interactions among library staff and their users
- The promotion of library holdings via WhatsApp can help increase usage of the content and maximum utilisation of documents
- It can be used for outreach activities through resource sharing. A user can able to ask for their required document from other libraries in real time environment.

5. CHALLENGES OF USING WHATSAPP

There are some challenges are also associated with using WhatsApp in libraries. Some challenges are as follows:

- WhatsApp require considerable time commitment from library staff
- It also requires technological expertise, for using the WhatsApp web client system to deliver services
- The levels of interest and skills for service provided by WhatsApp vary across library staff

- There are limited funds available in libraries, to support more advanced social media tools and the training that would be required to enable this
- A library needs to work hard to maintain engagement of staff with their users. It is also very difficult to maintain popularity by delivering satisfactory services
- It can be difficult to maintain library branding for resources made accessible via WhatsApp
- External factors such as Internet connectivity, hardware issues, lack of training and technological infrastructure may restrict access.

6. SCOPE AND OBJECTIVES

The study is focused over use of WhatsApp in the different kind of libraries worldwide but the data collection is limited to persons from India only. The persons participate in the survey were broadly divided into four categories students, research scholars, working professionals (including librarian and library staff), library interns (new graduates in library and information science). There was no participation of faculty members in the survey.

By examining benefits and challenges of using WhatsApp, we expect libraries to use WhatsApp to deliver services over it. A descriptive research design was used in implementing a web-based survey to address the following objectives:

- To examine the application of WhatsApp in libraries
- To describe librarians' and users' perceptions of the usefulness of WhatsApp for information/knowledge sharing and enhancement of library services
- To analyse users' attitude toward getting services over WhatsApp
- To examine factors that might influence libraries' decisions on using WhatsApp.

7. METHODOLOGY

A structured online questionnaire was prepared over Google forms platform and distributed. The sample for the study was taken from social networking sites and random sampling method was applied to select persons across the India. The sample size comprises 150 persons and questionnaire was sent by e-mail to the respondent. We received 134 responses and the response rate was 89.33 percent. The questionnaire comprises three sections in which, Section 'A' deals with the demographic profile of the respondents. It includes questions related to category of respondents, age group and discipline. Section 'B' covers the usability of the Internet. This section includes questions related to availability of smart phones, internet usability, purpose of using internet and usability of WhatsApp by the respondents. Section 'C' investigates user's opinion about using WhatsApp for delivering services in libraries.

8. DATA ANALYSIS AND DISCUSSIONS

The data was collected online and the process of data collection took the period of one month (November, 2016). The collected data is analysed and interpreted in various ways. There presentative graphs made for better understanding of data. The analysis is based on the questionnaires received.

8.1 Demographic Profile of Respondents

The demographic data contain a variation in the result. There are 134 respondents were there, and out of them 88 were male and 46 were female. There are 44 students, 8 research scholars, 28 working professionals and 8 library interns among male respondent, whereas the female respondents contain 12 students, 6 research scholars, 20 working professionals and 8 library interns as shown in Table 1.

Table 1. Classification of respondents

Category	Male – 88 (65.67%)	Female – 46 (34.33%)	Respondents N=134
Student	44	12	56
Research Scholar	8	6	14
Working Professional	28	20	48
Library Intern	8	8	16

Table 2 shows respondents are from different disciplines. It contains 55 (42 male and 13 female) respondents from Arts and Humanities, 7 (4 male and 3 female) respondents from Commerce, 28 (16 male and 12 female) from Science and Technology, 38 (22 male and 16 female) from social Sciences and 6 (4 male and 2 female) respondent from Medicine.

Table 2. Discipline wise distribution of the respondents

Stream/Discipline	Male – 88 (65.67%)	Female – 46 (34.33%)	Respondents N=134
Arts & Humanities	42	13	55
Commerce	4	3	7
Science & Technology	16	12	28
Social Science	22	16	38
Medicine	4	2	6

8.2 Availability of Smart Phones

Smart phones are very useful in many ways. New technologies facilitate one to use their mobile as a computer. Table 3 shows out of 134 respondent, 128 person use a smart phone, whereas 6 respondent do not have smart phone.

Table 3. Availability of smart phones among respondents

Response	Respondent	Percentage
Yes	128	95.52
No	6	4.48

8.3 Internet Usability

Smart phones are useless if it does not have an internet connection. Most of the useful features of smart phones are run by using internet. Table 4 shows there are 129 respondents use internet where as 5 respondents do not use the Internet on their mobile.

Table 4. Internet usability of respondents

Response	Respondent	Percentage
Yes	129	91.05
No	5	8.95

8.4 Purpose of Internet Usability

The Internet has many features and person use it according to their requirement. We provide multiple options and allowed respondent to choose more than one option. Table 5 shows, 122 person use the Internet for social networking sites, 116 person use for study purpose, 108 person for news, 96 person for E-mail facility, 14 person for research purpose and 46 person use it for searching jobs and 88 person for entertainment purpose.

Table 5. Purpose of using internet over smart phones (multiple answers are permitted)

Purpose of using internet	Respondent	Percentage
Social Networking	122	91.04
Study Purpose	116	86.57
News	108	80.60
E-mail	96	71.64
Research Purpose	14	10.45
Searching Job	46	34.33
Entertainment	88	65.67

8.5 Awareness and use of WhatsApp

Instant messaging apps became the part of our life and it's very popular among person of different ages especially in youngsters. Table 6 shows, most of person use WhatsApp. There are 132 respondent use WhatsApp whereas only 2 person do not use it. Thus the usability rate is considered as very high.

Table 6. Use of WhatsApp by respondents

Awareness	Respondent	Percentage
Yes	132	98.51
No	2	1.49

8.6 Purpose of using WhatsApp

WhatsApp provides a platform to connect person with others. Person have their own usability of it according to their need. Some use it just for chatting while some use it to share scholarly contents. Table 7 shows a changing trend in its usability. We provide multiple options and allowed person to choose more than one option for purpose of using WhatsApp. The result shows 86 person use it for sharing knowledge contents, 122 for chatting, 96 person for photo and video sharing, 64 person using for connecting with friends, 77 person for Study in a group and 46 person use it to just forward messages as shown in Table 7.

8.7 Duration of using WhatsApp

WhatsApp has no option to log out and it works in the background while the Internet is connected. Person generally use it in their leisure time. There is 106 person use it for 1 h - 3 h, 16 person use for 3 h - 6 h, 8 person use for 6-10 and 4 person use it more than 10 hours daily as shown in Table 8.

Table 7. Purpose of using WhatsApp by respondents (multiple answers are permitted)

Purpose of using	Respondent	Percentage
Sharing knowledge content	86	64.18
Chatting	122	91.04
Photo and Video Sharing	96	71.64
Using connectivity with friends	64	47.76
Study in a group	77	57.46
Just forward messages	46	34.33

Table 8. Daily time spend on WhatsApp by respondents

Duration	Respondent	Percentage
1-3 Hour	106	79.10
3-6 hours	16	11.94
6-10 hours	8	5.97
10> Hours	4	2.99

8.8 Opinion toward using WhatsApp in Libraries

WhatsApp can be very useful in delivering services in libraries and information centres. It is very effective in delivering alert services as well as CAS and abstract services. In the present study, we found a positive attitude toward using WhatsApp in the libraries and information centres by person. There is 122 person said they would like to use WhatsApp for getting library services and only 12 person do not want to get library services over WhatsApp as shown in Table 9.

Table 9. Respondent's view toward using WhatsApp in libraries

Usability in libraries	Respondent	Percentage
Yes	122	91.04
No	12	8.96

8.9 Opinion toward Services which can be Delivered on WhatsApp

Respondents showed a very positive response toward getting library services over their WhatsApp. They are keen to receive services over WhatsApp because it will save their time and they will be connected to their library. We provide multiple options and allowed person to choose more than one option for services which can be delivered over WhatsApp. There is 42 respondent would like to get library news and events, 22 person like to get e-resources information, 12 person like to get announcement about workshops and exhibitions, 64 person would like to get list of new books, 44 like to get help for catalog search, 28 person for Information literacy and library instructions, 32 person would like to get all above mentioned services whereas 8 person do not shown interest to getting these services over WhatsApp as shown in Table 10.

8.10 Virtual Referencing Service

The reference librarian assists user to find their required information in the library. WhatsApp can save user's time for

Table 10. Opinion toward services can be delivered on WhatsApp (multiple answers are permitted)

Library Services	Respondent	Percentage
Library news and events	42	31.34
List of e-journals and e-resources databases	22	16.42
Announcements about workshops and exhibitions	12	8.96
List of new books	64	47.76
Help for catalog search	44	32.84
Information literacy and Library instructions	28	20.90
All of the above	32	23.88
None of these	8	5.97

getting reference in real time. They can get reference service without going library at their own place. There is 122 person would like to get virtual referencing service on WhatsApp whereas 12 person do not show interest in it as shown in Table 11.

Table 11. Respondent's view on using WhatsApp for virtual referencing

Attitude toward getting virtual referencing	Respondent	Percentage
Yes	122	91.04
No	12	8.96

8.11 Current Awareness Service

Current awareness service (CAS) is the most important service delivered to researchers and it makes them aware about new research and development in their area of interest. WhatsApp can be a useful medium of delivering CAS service in real time. A user can get immediate notification about articles of his subject and the new arrival of the library. There is 126 person would like to get CAS service over WhatsApp and only 8 person denied for it as shown in Table 12.

Table 12. Respondent's view on using WhatsApp for current awareness services

Attitude toward getting CAS	Respondent	Percentage
Yes	126	94.03
No	8	5.97

8.12 Opinion about Receiving Notification from Libraries

WhatsApp can be an effective medium for sending notification alerts in libraries. Libraries easily send notifications about new arrival, availability of books, about due dates and fine charges. Most of the person (128) said that they would like to receive notifications from the library over their WhatsApp whereas only 6 person did not show interest as shown in Table 13.

Table 13. Respondent's view about getting notification on WhatsApp

Attitude toward getting CAS	Respondent N=134	Percentage 100%
Yes	128	95.52
No	6	4.48

8.13 Efficiency of WhatsApp in Library Service

WhatsApp can be proved a useful platform for providing library services and person can get their required services on their mobile phones. We tried to measure the person's opinion about the effectiveness of WhatsApp for providing library services in which 32 person *Strongly Agree*, 62 person *Agree*, 18 persons *Somehow Agree*, 16 persons *Neutral* and 6 person *Disagree* about it as shown in Table 14.

Table 14. User's perception toward effectiveness of using WhatsApp in libraries (multiple answers are permitted)

Effectiveness	Respondent N=134	Percentage 100%
Strongly Agree	32	23.88
Agree	62	46.27
Somehow agree	18	13.43
Neutral	16	14.94
Disagree	6	4.48

9. SUGGESTIONS

Libraries can use WhatsApp for delivering library services. There are some suggestions for libraries for delivering services over WhatsApp;

- (i) New additions, timings, holidays, announcements/notices of library
- (ii) Share images/videos about library sections, events, library staff, etc
- (iii) Notification about membership and services of the library
- (iv) Notification about book discussions, reviews, new publications, new acquisition
- (v) Information about new developments in the library
- (vi) Share information about institution's publications, reports etc
- (vii) Creation of user groups, belong to the same subject and ask them about the required documents.

10. CONCLUSIONS

Information technology has changed the nature of library services. In the present age of information, the use of internet based tool is increasing rapidly. The future of the internet depends upon the mobile technologies. It is the golden opportunity for the libraries to implement mobile based services for their users. There are many mobile based tools and techniques through which libraries can provide services to their users.

WhatsApp is an MIM application which can be used in libraries for delivering various services. It has many features

like, multimedia sharing, instant message delivery, real-time audio recording conversation and group messaging. Libraries can deliver various library services over WhatsApp for better service satisfaction. In this study, users showed a positive attitude toward getting library services over WhatsApp.

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