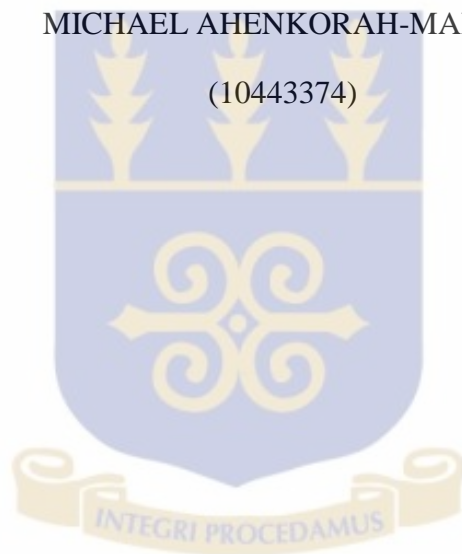


UNIVERSITY OF GHANA, LEGON
DEPARTMENT OF INFORMATION STUDIES

KNOWLEDGE AND USE OF SOCIAL MEDIA BY REFERENCE AND USER
SERVICES LIBRARIANS IN PUBLIC AND PRIVATE UNIVERSITIES IN GHANA

MICHAEL AHENKORAH-MARFO

(10443374)



THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil
INFORMATION STUDIES DEGREE

JULY 2015

DECLARATION

I declare that this thesis is my own work and that all the sources I have used or quoted have been acknowledged by means of complete references. This thesis does not incorporate any material previously submitted for a degree or diploma in any university without acknowledgement.

Michael Ahenkorah-Marfo

(Candidate)

Date



Prof. H. Akussah

Dr. E. Ankrah

Date

Date

DEDICATION

This thesis would be incomplete without acknowledging the unwavering support and incessant prayers offered by my wife, Bernadette and my children Michael Jnr, Reginald, Kobby and Nhyira-Marie. They were a source of inspiration. My dearest friend, Kwabena Nti Sarpong Nyantakyi also offered encouragement throughout the course of this project.

This thesis is dedicated to all these loving people.



ACKNOWLEDGEMENTS

I owe a great deal of gratitude to my supervisors, Professor Harry Akussah and Dr. Ebenezer Ankrah. Their several pieces of advice and careful guidance were invaluable from the start to the finish of this thesis.

Many thanks also go to those who accepted the invitation to participate in the research process-those who agreed to be interviewed and those who completed and returned questionnaire. But for their time and cooperation, this project would not have been possible.

Special thanks to the entire faculty members of the Department of Information Studies, University of Ghana headed by Dr. (Mrs.) Perpetua Dadzie for their efforts, support and assistance, and also all course mates and colleagues who provided insightful information.

Above all, I thank God for his sufficient grace throughout this project.

Finally, I take full responsibility for all shortcomings, misinterpretation and weakness that may be identified in this work.

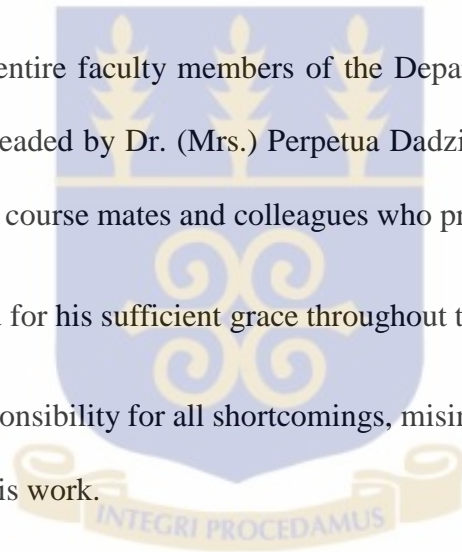


TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS AND ACRONYMS	x
ABSTRACT	xii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.1.1 Study Setting	4
1.2 Statement of the Problem	6
1.3 Purpose of the Study	7
1.4 Objectives of the Study	7
1.5 Research Questions	7
1.6 Scope of the Study	8
1.7 Theoretical Framework	9
1.7.1 Diffusion of Innovations Theory (DOI)	9
1.7.2 The Social Network Theory and the Diffusion of Innovation	10
1.7.3 Technology Acceptance Model (TAM)	12
1.8 Significance of the Study	12
1.9 Organization of the Study	13
1.10 Chapter Summary	14
References	15
CHAPTER TWO	19
LITERATURE REVIEW	19
2.1 Introduction	19
2.2 Knowledge of Librarians in Social Media	19
2.2.1 Social Media Literacy	20

2.2.2 Level of Knowledge of the Librarian 2.0.....	22
2.3 Adoption of Social Media in Libraries	24
2.3.1 Adoption of Social Media in Global Libraries.....	24
2.3.2 Adoption of Social Media in Africa’s Libraries	25
2.3.3 Adoption of Social Media in Ghana’s Libraries	27
2.4 Types of Social Media used in Reference and User Services	27
2.4.1 Facebook.....	28
2.4.2 Blogs, Microblogs and Wikis.....	29
2.4.3 Twitter.....	30
2.4.4 Other Social Media Tools Used in Libraries.....	32
2.5 Perception of Social Media in Reference and User services.....	34
2.5.1 Perceived Benefits of Using Social Media Tools	36
2.5.2 Traditional Methods versus Social Media.....	37
2.6 Challenges Associated with Use of Social Media	38
2.6.1 Lack of Awareness and Low Patronage.....	38
2.6.2 Bandwidth Problem and Unreliable Power Supply	39
2.6.3 Technophobia and Fear of Losing Control over Resources.....	40
2.6.4 Lack of Training and Data on Effectiveness of Social Media Use	41
2.6.5 Multiplicity of Social Media Tools and Other Attendant Challenges.....	41
2.7 Chapter Summary	43
References.....	45
CHAPTER THREE	51
METHODOLOGY	51
3.1 Introduction.....	51
3.2 Research Design.....	51
3.3 Selection of Cases	53
3.4 Selection of Subjects.....	53
3.4.1 Population	54
3.4.2 Sample Size.....	54
3.4.3 Sampling Technique	55
3.5 Instrumentation	55
3.5.1 Quantitative Instrument.....	55

3.5.2 Pre-testing of Questionnaire.....	56
3.5.3 Qualitative Component	57
3.6 Mode of Data Collection.....	58
3.7 Method of Data Analysis	59
3.8 Ethical Issues and Consideration	59
3.9 Chapter Summary	60
References.....	61
CHAPTER FOUR.....	63
DATA ANALYSIS AND FINDINGS	63
4.1 Introduction.....	63
4.2 Quantitative Analysis and Findings	63
4.2.1 Background Information and Response Rate.....	64
4.2.2 Knowledge and Use of Social Media.....	65
4.2.2.1 Knowledge of Social Media.....	65
4.2.2.2 Knowledge of Social Media by Institution Status.....	67
4.2.2.2 Level of Knowledge of Social Media	68
4.2.2.3 Source of Knowledge of Social Media	69
4.2.2.4 Extent of Use of Social Media	70
4.2.3 Adoption of Social Media in Reference and User Services	71
4.2.3.1 Adoption Categories of Respondents.....	72
4.2.4 Support/Motivation from Libraries	73
4.2.5 Major Social Media Tools Used	77
4.2.5.1 Use of Social Media Tools by Type of Institution	78
4.2.5.2 Functions Performed with Social Media.....	85
4.2.6 Perception of Social Media in Reference and User Services	86
4.2.6.1 Ease of Use of Social Media Platforms	88
4.2.6.2 Usefulness of Social Media Tools	89
4.2.7 Challenges Associated with Use of Social Media.....	91
4.3 Qualitative Analysis and Findings	93
4.3.1 Management of Social Media Platforms.....	94
4.3.2 The Role of Social Media in Reference and User Services	96
4.3.3 Policy on Use of Social Media.....	97
4.3.4 Readiness of Libraries for Integration of Social Media	98

4.3.5 Infrastructure and other challenges	101
4.4 Chapter Summary	102
References.....	103
CHAPTER 5	105
DISCUSSION OF MAJOR FINDINGS.....	105
5.1 Introduction.....	105
5.2 Knowledge and Use of Social Media.....	106
5.3 Adoption of Social Media in Reference and User Services	107
5.4 Support from Parent Libraries.....	107
5.5 Types of Social Media Used in Reference and User Services	108
5.6 Perception on Social Media in Reference and User services	111
5.7 Challenges Associated with Use of Social Media.....	113
5.8 Chapter summary	115
References.....	116
CHAPTER SIX.....	119
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	119
6.1 Introduction.....	119
6.2 Summary of Findings.....	119
6.2.1 Knowledge of Social Media Tools.....	119
6.2.2 Extent of Adoption and Support for Use of social media	120
6.2.3 Major Social Media Platforms Used in Reference and User Services	120
6.2.4 Perception of Social Media in Reference and User Services	120
6.2.5 Challenges Associated with Use of Social Media.....	121
6.3 Conclusion	121
6.4 Recommendations.....	122
6.5 Suggestions for Future Research	125
BIBLIOGRAPHY	126
APPENDIX 1	137
APPENDIX 2.....	147

LIST OF TABLES

Table 3.1:	Ranking of Universities-----	53
Table 3.2:	Population of Reference and User Services Librarians-----	54
Table 4.1:	Knowledge of Social Media Concept-----	66
Table 4.2:	Knowledge of Social Media by Institution Status -----	67
Table 4.3:	Support/Motivation from Libraries -----	74
Table 4.4:	Support from Libraries by Type of Institution -----	76
Table 4.5:	Use of Social Media by Respondents -----	77
Table 4.6:	Use of Facebook by Type of Institution-----	79
Table 4.7:	Use of Twitter by Type of Institution-----	80
Table 4.8:	Use of Blogs by Type of Institution -----	81
Table 4.9:	Use of YouTube by Type of Institution -----	82
Table 4.10:	Use of RSS by Type of Institution -----	83
Table 4.11:	Use of Delicious by Type of Institution -----	84
Table 4.12:	Functions Performed with Social Media-----	85
Table 4.13:	Perception of Respondents on Use of Social Media-----	87
Table 4.14:	Level of usefulness of Social Media -----	90
Table 4.15:	Ranking of Challenges-----	93

LIST OF FIGURES

Figure 4.1:	Level of Knowledge of Social Media-----	68
Figure 4.2:	Sources of Knowledge of Social Media-----	69
Figure 4.3:	Extent of Use of Social Media -----	71
Figure 4.4:	Number of Years Respondents have used Social Media-----	72
Figure 4.5:	Ease of Use of Social Media -----	88
Figure 4.6:	Challenges of Using Social Media-----	91

LIST OF ABBREVIATIONS AND ACRONYMS

AAU	-	Association of African Universities
AUC	-	Ashesi University College
CARLIGH	-	Consortium of Academic and Research Libraries in Ghana
DOI	-	Diffusion of Innovations
FREQ	-	Frequency
GLA		Ghana Library Association
GTUC	-	Ghana Technology University College
JISC	-	Joint Information Systems Committee
KNUST	-	Kwame Nkrumah University of Science and Technology
MIT	-	Massachusetts Institute of Technology
NAB	-	National Accreditation Board
RSS	-	Really Simple Syndication
RUSA	-	Reference and User Services Association
RIN	-	Research Information Network
SDI	-	Selective Dissemination of Information
SNT	-	Social Networking Theory
SPSS	-	Statistical Package for the Social Sciences

TAM	-	Technology Acceptance Model
UCC	-	University of Cape Coast
UG	-	University of Ghana
VVU	-	Valley View University

ABSTRACT

Trends in global information communication have necessitated that academic libraries, whether public or private, resort to the employment of web 2.0 technologies such as Facebook, Twitter, Blogs, Wikis, RSS feeds, YouTube, etc. in their services. Indeed the knowledge and use of such platforms has become critical for the survival of academic libraries globally. For this reason, this research focused on investigating the knowledge and use of social media by reference and user services librarians. The main objectives were to determine the level of knowledge, extent of use, the major social media platforms used, as well as the perceptions librarians held about employment of social media in reference and user services.

A mixed methods research approach employing Likert type questionnaire and interviews was used in soliciting the views of 105 librarians from UG, KNUST, UCC, AUC, VVU and GTUC on their knowledge and use of social media. The findings of the study indicate that majority of the librarians were knowledgeable and used social media for both personal and work-related purposes. They, however, lacked the skill needed to use the array of social media platforms available to make a difference in service delivery. As a result, though librarians had a very good perception of social media, they still found the traditional mode of service delivery more comfortable.

Some of the challenges that bedeviled the practice of social media were lack of interest and skill on the part of librarians, low bandwidth and poor internet connectivity, and more importantly lack of policy to guide social media application in libraries. The study therefore, recommended re-training and re-orientation of librarians in the use of social

media by e-resources and reference departments, sensitization workshops by GLA/CARLIGH to whip up interest in librarians to use social media, and adoption of policy document to guide the practice of social media in libraries.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Academic libraries with their mother institutions are integral part of the larger society. They operate within certain social norms but guided by their individual mandate, which generally has to do with connecting users with their information needs. Libraries cannot afford to remain static in delivering this mandate and are thus susceptible to changes that occur in the general society around them. Trends in global information communication have dramatically changed as a result of the ever changing digital landscape. The change has reached an extent that threatens the very survival of academic libraries, unless they respond positively to contemporary mode of information delivery. This is mainly because other knowledge and information facilitators have also emerged that have the tendencies to employ the emerging technologies to outclass librarians. Thus the earlier librarians responded to these evolutionary trends, the better their chances of remaining relevant in their own institutions.

In the advanced countries like United Kingdom and United States of America, librarians have adopted what is referred to as Web 2.0 technologies such as blogs, wikis, Facebook, Twitter, RSS feeds, YouTube/Flickr, podcast and others that allow them to provide improved services. Mavodza (2010) points out that “the use of Web 2.0 technologies in libraries means personalization of information service as users choose what they want and get the opportunity to participate or collaborate in information flow.” This also, according

to Williams *et al.*, (2004) encourages recreation of content and sharing of information and knowledge. The response of academic librarians in Africa to this evolution in global information provision is keen to their survival in universities and colleges, and need to be looked at with all seriousness. Such a response is even more critical for reference and user services librarians.

Reference and user services, severally called information service, customer service, research service, help desk or any other popular name (Tyckoson, 2011) is central to academic work in universities globally. RUSA (2003) defines reference and user services librarians as “librarians who assist, advise and instruct users to access all forms of recorded knowledge.” The assistance, advice, and instruction include both direct and indirect service to patrons. These librarians link users to information sources, and by the nature of their work, they believe that access to information is a human right. They would, therefore, do all within their professional capabilities to ensure that users are connected with the information they need. In addition to helping users to find their information need, they also teach them to become self-sufficient library users. Traditionally, they employed face-to-face conversation with users. Of late, the service environment increasingly demands digital reference service both synchronous and asynchronous. Digital reference service for remote users earlier employed email, fax, chat, and instant messaging (Bopp & Smith, 2011). The digital landscape has changed so rapidly that it has become necessary to employ other alternatives such as social media. Social media evolved from web 2.0, a term Abram (2005) characterizes by open communication, participation, collaboration, and content creation. Web 2.0 was first defined by Tim O’Reilly and Dale Doherty in 2005

(O'Reilly, 2005). Since then, Web 2.0 has become the platform on which social media is based.

JISC (2010) defines social media as “innovative online tools designed to enhance communication and collaboration” In simpler terms, it is media for social interaction whose content is consumer-generated and highly interactive. Social media consists of innovative online tools designed to enhance communication and collaboration. The term social media “encompasses any internet-based or mobile application which operates for the purpose of collaboration, where participants can connect, create, comment, view, share, rate, discover, profile and exchange user-generated content” (Bradley & McDonald, 2011; Hanna, Rohm, & Crittenden, 2011; Rheingold, 2002). According to Dagan and Hogan (2013), social media is a revolution that started in the late 1990s and keeps growing, and that librarians can take advantage of social media to provide dynamic services. Social media is also synonymous with social networking, a term that can be defined as the creation of profile with the purpose of building a personal network to connect with others (Lenhart & Madden, 2007). According to Kaplan & Haenlein (2010), social networking is always mentioned in conjunction with social media.

There are many types of social media. The most popular ones with respect to libraries according to Xie and Stevenson (2014) are Facebook, Twitter, Blogs, RSS feeds, YouTube, and wikis. Interactivity is the trump card of social media and according to Zabel (2011) one of the best ways of making a library popular is to make it interactive. This way, a library will be able to mingle with its users and help them in every way possible.

In terms of specific library and information service functions, social media provides useful additional platforms. For example, information discovery and access can be facilitated through the use of social book-marking and blogging, instruction and related activities can benefit greatly through the inclusion of YouTube videos and podcasts. News and current awareness services have greater immediacy and reach when relayed by library Twitter accounts and blogs. There is the need, therefore, for academic libraries whether public or private, to integrate social media in their services.

1.1.1 Study Setting

The study was situated in the public and private university setting in Ghana, where ownership of universities was the prerogative of the state until 1979. Three of the private universities and three of the public universities were selected for this study based on their ranking. The universities include University of Ghana, Kwame Nkrumah University of Science and Technology, University of Cape Coast, Valley View University, Ashesi University College and Ghana Technology University College. In Ghana, public universities are typically run under the supervision of the state or government. They are funded either in part or in full by tax payer's money and they enjoy subsidies from state and other public institutions. There are currently about nine national public universities in Ghana (NAB, 2014). The premier of the public universities, University of Ghana was established in 1948. This was followed by Kwame Nkrumah University of Science & Technology in 1951 and the University of Cape Coast in 1961. The University for Professional Studies was established in 1965, University of Education, Winneba and University for Development Studies were both established in 1992, and the University of

Mines and Technology was founded in 2001. Quite recently in 2011, the University of Health and Allied Sciences was established and a year later in 2012, the University of Energy and Natural Resources. The public universities offer bachelor, masters, and doctoral programmes, and have a combined student population of about 100,000.

Private universities on the other hand are run by private organizations, individuals and corporate as well as religious bodies. Until the late 1970's, Ghana had no record of private university establishment. The first private university college and currently Ghana's only full-fledged private university, Valley View University was founded in 1979. Since then, Ghana has seen the establishment of several university colleges about 37 of which are accredited by the National Accreditation Board.

Academic libraries are the heart of academic work in universities. They facilitate access to all forms of recorded knowledge on the various curricula run by universities. Traditionally, all interactions between librarians and users were carried out within the confines of the library building. Escalating enrolment figures, distance learning exploits, and mobile agility of students have necessitated that academic libraries employ new trends in information delivery in order to meet the information needs of their patrons. The public and the private universities under this study have strong ICT infrastructural base. Their libraries have access to the internet and they all participate in CARLIGH which enables them to facilitate access to online resources for their numerous users.

1.2 Statement of the Problem

Social media has gained popularity among people from diverse cultural and institutional backgrounds and the academic library is not an exception. The literature reveals that libraries generally and reference services in particular have a lot to do with social media (Bell, 2007). Reference and user services librarians who do not appreciate the importance of social media in their services are likely to encounter problems in providing access to information for their users everywhere.

In several university libraries internationally, social media has been adopted not only for communication but also for collaboration in research. Notable libraries that have employed social media in their services include Cambridge University in Britain, Yale Science University, Adelphi University, Carnegie Mellon University libraries in the United States of America, and Norwegian University of Science & Technology in Norway. Ohio University for instance has created Biz wiki subject guide with links to business resources and this allows collaboration between academic librarians and students.

Though the use of social media in academic libraries has been studied, very little is found in literature that focused on use of social media by reference and user services librarians who are the target for this study. Neither has any in-depth analysis been made on the impact of social media on reference and user services, especially in Ghana. Again most of the studies on the application of social media available in the literature have been done employing quantitative approach (Dickson & Holley, 2010; Ayiah & Kumah, 2011). In most of these studies, researchers suggested the need for qualitative studies to provide

richer information that will lead to in-depth analysis and more revealing findings. This study sought to fill these gaps.

1.3 Purpose of the Study

The purpose of the study was to investigate the knowledge and use of social media by reference and user services librarians in selected Ghana's public and private universities.

1.4 Objectives of the Study

The study specifically sought to do the following:

1. To determine the level of knowledge of librarians in the use of social media;
2. To find out the extent of adoption of social media in academic libraries;
3. To examine the level of support offered by parent libraries;
4. To find out the types of social media platforms that are used;
5. The find out the perception of social media use in reference and user services;
6. To identify the challenges associated with the use of social media in reference and user services; and
7. To make recommendations to improve on the use of social media.

1.5 Research Questions

The specific questions that needed to be answered in order to address the research problem included the following:

1. What is the level of knowledge of reference and user services librarians in the use of social media?
2. To what extent have academic libraries in Ghana adopted social media?
3. What is the level of support/motivation from libraries on the use of social media?
4. What types of social media platforms have been integrated in reference and user services?
5. What is the perception of librarians on social media use in reference and user services?
6. What are the challenges encountered in the employment of social media in reference and user services?
7. What is needed by librarians in order to improve the use of social media in reference and user services?

1.6 Scope of the Study

The study was limited to reference and user services librarians in the six selected public and private universities in Ghana. They included all professional and paraprofessional library staff in University of Ghana, Kwame Nkrumah University of Science and Technology, University of Cape Coast, Valley View University, Ashesi University College and Ghana Technology University College, with the exception of those in the technical services departments. This was because they were deeply involved in assistance, advice and instruction. The study was also limited to social media tools such as Facebook, Blogs,

Twitter, Delicious, YouTube, and RSS. This was because a cursory observation of the activities of the academic libraries in Ghana and information gathered from the literature indicated that they were the most popular with library users.

1.7 Theoretical Framework

According to Creswell (2012), theoretical framework can be defined as a collection of theories or models from the literature which underpins research. It is a fundamental part of research as it explains the research questions or hypotheses. He continues that theories provide an explanation for behaviours and attitudes, and are also used to explain cause and effect. The study of social media is an emerging one and lacks one coherent and methodological approach. Various researchers have resorted to some theoretical concepts on adoption of new technologies. Among these, the integration of the following were adopted for the study:

- Diffusion of Innovations Theory (DOI);
- The Social Network Theory (SNT); and
- Technology Acceptance Model (TAM).

1.7.1 Diffusion of Innovations Theory (DOI)

According to Roger's (2005) Diffusion of Innovations Theory, "the adoption of innovations [like social media] does not happen simultaneously in a social system." While some may be on board early, others may catch it late. The theory establishes five adopter

categories namely, innovators, early adopters, early majority, late majority, and laggards. This however, does not happen by chance. Some factors influence the adoption of innovation and the extent to which these factors influence adopters put them in various adopter categories. The factors include:

- The degree to which an innovation is seen as better than the idea, program or product it seeks to replace or support
- How consistent the innovation is with the values, experiences, and needs of the potential adopters
- The extent to which the innovation can be tested or experimented with before a commitment to adopt is made
- The extent to which the innovation provides tangible results
- How difficult the innovation is to understand and/or use

The adoption, perception, types of platforms used, relative importance of social media and the challenges associated with the use of social media were analyzed based on the theory to determine which categories reference and user services librarians in Ghana's libraries belong.

1.7.2 The Social Network Theory and the Diffusion of Innovation

The diffusion theory centers on four main elements. These include the innovation, communication of the innovation, the time span over which the innovation is adopted, and

the members of the social system, who are considered as adopters. Clearly from the theory, the adoption or rejection is hinged on the decision or the behaviour intentions of individuals (Valente, 2006), and their organization has very little to do with it. This is mainly so because the diffusion theory has individuals as subject of analysis (Rogers, 2005). Vanywnsberghe *et al.*, (2014) are, therefore, right when they question the applicability of the diffusion theory to an organization such as the library. In order to take care of this, Rogers suggests a social network approach to the diffusion of innovation theory, where diffusion focuses on the interaction and exchange of resources between individuals and not just the behaviour intentions of the individuals.

Frank, Zaho and Borman (2004) also extend the social network approach to social process approach to take care of the role played by organizations such as the library to influence the adoption or rejection of innovations like social media. Two main roles are identified; "social pressure and informal help". Social pressure is characterized by the provision of knowledge, social and psychological rewards as well as access to resources, training in the use of social media tools, and other incentives. This is to help individual members of the organization to adopt or reject an innovation in order to achieve a common goal. The other leg of the social process, according to Gallivan, Spitler and Koufaris (2005) is the valuable help that comes from the informal social interaction among workers of the organization. The social pressure and the informal help have been combined by social media theorists such as Korupp and Szydlik (2005) as social capital theory, and has been used to support research on the adoption of information and communication technology. Hence it was adopted in this study.

1.7.3 Technology Acceptance Model (TAM)

Earlier in the background, it was indicated that social media is an online technology. Thus incorporating social media in one's work is akin to accepting to use a new technology. The technology acceptance model theorizes that "the behavior intention to use a system is determined by two beliefs, namely:

- Perceived usefulness, that is the extent to which a person believes that using a system will enhance his job performance
- Perceived ease of use, defined as the extent to which a person believes that using a system will be free of effort" (Venkatesh & Davis, 2000).

The theory also adds that perceived usefulness is influenced by perceived ease of use. Guided by the theory, the research also aimed at establishing how perceived usefulness and ease of use influenced the use of social media in reference and user services.

1.8 Significance of the Study

It is anticipated that academic libraries in Ghana would find the findings of the study useful in planning for improved library services. Libraries in general would also find the results of the study useful in developing policy guidelines for the use of social media in libraries. In addition, the findings would help change the perspectives of reference and user services librarians about the nature of reference work. Beyond these, higher education policy makers in Ghana and elsewhere would find the results useful in decisions on the types of social media platforms to use in universities and colleges. Policy makers are additionally expected to find the results useful in the planning and delivery of resources to academic

libraries in Ghana. Finally, the study was intended to add to the body of knowledge in the field of social media.

1.9 Organization of the Study

The report was structured into six (6) chapters.

Chapter One is the introduction and captures the background of the study. It gives a general background and continues by defining the problem and providing the study setting. The research objectives and questions are also outlined. The purpose of the research, the theoretical framework underpinning the research, and the significance are also outlined in this chapter.

Chapter Two is the review of the literature of closely related studies.

Chapter Three explains the research plans and methods. It focuses on the methodology that was adopted for the study.

Chapter Four presents the analysis of data and findings of the study.

Chapter Five is the discussion of the major findings.

Chapter Six comprises the summary of findings, conclusion, and recommendations made from the findings of the study.

1.10 Chapter Summary

In chapter one, the background of the study was given, clearly defining the research problem and subsequently outlining the research questions and objectives. The study setting and the importance of the research were also established.

References

- Abram, S. (2005). Web 2.0-Huh?! Library 2.0, Librarian 2.0. *Information Outlook*, 9(12), 44.
- Ayiah, E. M., & Kumah, C. H. (2011). Social networking: A tool to use for effective service delivery to clients by African libraries. *Proceedings of IFLA Conference*, 13 – 18 August, San Juan, Puerto Rico. Available at: <http://conference.ifla.org/ifla77> [Accessed: 10/12/2014]
- Bell, S. (2007). Building better academic libraries with web 2.0 technology tools. *Library Issues*, 28(2), 1-4.
- Bopp, R. E., & Smith, L. C. (Eds.) (2011). *Reference and information services: An introduction*, 4th ed. Santa Barbara, CA: ABC-CLIO
- Bradley, A., & MacDonald, M. (2011). *The social organization*. Boston, Massachusetts: Harvard Business Review Press.
- Cook, T., & Hopkins, L. (2006). Social media or “how I learned worrying and love communication”: An introduction to the power of Web 2.0. Available at: <http://www.leehopkins.net/2006/10/30/social-media-for-business-101-free-white-paper/> [Accessed: 10/12/2014]
- Creswell, J. W. (2012). *Research design: Qualitative, quantitative, and mixed methods*, Thousand Oaks, CA: Sage.
- Dagan, A., & Hogan, L. (2013). *Reference services and social networking – being on the cutting edge of engagement*. Available at: www.slideshare.net/Ancientties/reference-services-social-networking-25697714 [Accessed: 10/12/2014]

Dickson, A., & Holley, R.P. (2010). Social networking in academic libraries: The possibilities and the concerns. *New Library World*, 111 (11/12), 468-479 DOI: 10.1108/0307480/011094840

Frank, K. A., Zhao, Y. & Borman, K. (2004). Social capital and the diffusion of innovation within an organization: The case of computer technology in schools. *Sociology of Education*, 77(2), 148-171.

Gallivan, M. J., Spitler, V. K., & Koufaris, M. (2005). Does information technology really matter? A social information processing analysis of coworkers' influence on IT usage in the work place. *Journal of Management Information Systems*, 22(1), 153-192.

Ghana National Accreditation Board (2014). Public universities. Available at: www.nab.gov.gh [Accessed: 17/12/2014]

Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of social media ecosystem. *Business Horizons*, 54(3), 265-273. Doi: 10.1016/j.bushor.2011.01.007

JISC (2010). Activity by topic: Web 2.0 Available at www.jisc.ac.uk/whatwedo/topics/web2.0.aspx [Accessed: 10/12/2014]

Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 52(1), 59-68.

Korupp, S. E. & Szydlik, M. (2005). Causes and trends of the digital divide. *European Sociological Review*, 21(4), 409-422.

Lenhart, A., & Madden, M. (2007). Social networking websites and teens: An overview. Available at: <http://www.pewinternet.org/Reports/2007/social-networking-websites-and-teens.asp> [Accessed: 10/12/2014]

- Mavodza, J. (2010). Knowledge management practices and role of an academic library in a changing information environment. The case of the Metropolitan College of New York: (PhD thesis), University of South Africa.
- O'Reilly, T. (2005). What is Web 2.0: Design patterns and business models for the next generation of software? Available at: www.oreillynet.com/pug/a/oreilly/tim/news/2005/09/30/what-is-web-2.0.html?page=1 [Accessed: 10/12/2014]
- Rheingold, H. (2002). *Smart mobs: The next social revolution*. Cambridge, Massachusetts: Perseus Publishing
- Rogers, E. M. (2005). *Diffusion of innovations*, 5th ed., New York: Free Press
- RUSA Task Force. (2003). Professional competencies for Reference & User Services Librarians. Available at: www.ala.org/rusa/resources/guides/professional [Accessed: 10/12/2014]
- Tyckoson, D. A. (2011). *History and functions of reference service*, in Bopp and Smith (Eds.), *Reference and information services: An introduction*, 4th ed. Santa Barbara, CA: ABC-CLIO, p3.
- Vanywnsberghe, H., Bouldry, E., Vanderlinde, R., & Verdegem, P. (2014). Experts as facilitators for the implementation of social media in library? A social network approach. *Library Hi Tech*, 32(3), 529-545
- Venkatesh V., & Davis, F. D. (2000). Final version of Technology Acceptance Model (TAM). *Management Science*, 46(2), 186-204.
- Williams, A., Guise, N., Koonce, T., Kou, Q., & Guise, D. (2004). Using knowledge management practices to develop a state-of-the-art digital library. *Medical Information*, 11(1), 99-103.

Xie, I., & Stevenson, J. (2014). Social media application in digital libraries. *Online Information Review*, 38(4), 502-523.

Zabel, D. (Ed.) (2011). *Reference reborn: Breathing new life into public services librarianship*. Santa Barbara, CA: Libraries Unlimited.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Review of the literature offers a researcher the opportunity to explore the results of other studies that are largely related to the study being undertaken. According to Creswell (2012), the literature relates a current study to the larger ongoing dialogue in the literature about a topic, filling in gaps and extending prior studies. A research is supposed to add to existing knowledge. It would therefore be difficult, if not impossible to do a research without reference to other scholars. Literature on the world, African, and Ghanaian views of the use of social media in reference and user services in libraries was reviewed. The literature was reviewed along the following subheadings:

- Knowledge of librarians in social media;
- Adoption of social media in academic libraries;
- Major social media platforms used in reference and user services;
- Perception of social media use in reference and user services; and
- Challenges associated with the use of social media in reference service.

2.2 Knowledge of Librarians in Social Media

Social media is an emerging field of study. Limited study has been conducted on the knowledge of librarians in social media. A study by Chu & Du (2013) indicates that 71.1% of librarians in the UK were knowledgeable in social media and used it in their work while

13.1 percent planned to use it in the future. Choi's (2012) study also indicate that 92% of academic librarians in Australia were knowledgeable in social media, and were prepared to engage users with it. Olajide and Oyenira's (2014) study revealed that Nigerian librarians were knowledgeable in the use of social media but that most of them used social media for personal instead of library services. According to Hendrix *et al.*, (2009), most librarians are knowledgeable in social media tools and they use them in pushing out announcement, marketing their libraries, posting photos, providing chat reference and establishing presence in social networks. Among the social media tools that librarians are knowledgeable in include Facebook, Twitter, Blogs, YouTube, Wikis, and RSS. These empirical findings suggest that knowledge in social media is keen to practice of social media in libraries.

2.2.1 Social Media Literacy

Kaplan and Haenlin (2010) classify social media into six categories. These are collaborative projects, blogs and microblogs, content communities, social networking sites, virtual game worlds, and virtual social worlds. The unifying term for these categories is web 2.0, a term that is characterized as being “user-centered, open, participatory, interactive and knowledge sharing” (Gu & Widen-Wulff, 2011). Due to its ability to support collaborative creation and dissemination, social media has become the toast of students, academics and other researchers who constitute the patrons of the library. Currently, social media is also purported to be used at almost all stages of the research process – from definition of problem to dissemination of results (RIN, 2010). Some level

of social media literacy is, therefore, needed by today's reference and user services librarian.

“Social media literacy is defined as the practical and critically cognitive competencies possessed by users of social media as well as the motivation to employ these media effectively and appropriately for social interaction and communication on the web” (Vanywnsberghe & Verdegem, 2013). The competencies of academic librarians in the use of social media has not been well established. Anttiroiko & Savolainen (2011) state that although there seems to be much literature on the use of social media in libraries, the actual application of social media can be said to be in its infancy. This could be the reason most of the literature available is on potential use of social media in libraries and competencies required of librarians to use social media (Huvila *et al.*, 2013). While it is a positive development for researchers to use of social media, it is equally prudent for reference librarians to employ the use of social media. This is mainly because librarians are the ones that help facilitate access to information needed by most researchers. Can this however, be said of academic librarians?

As the world around the library evolves at a rapid rate and patrons of the library become more and more technologically informed, innovative ways need to be explored to meet the ever changing needs of the sophisticated users. In the face of this evolution, Loo *et al.*, (2014) maintain that reference and user services librarians' central mandate remains unchanged, that is, “connecting information seekers and information sources together”. They only need social media literacy and this can be obtained through continuing

professional development designed to train librarians in the use of new technologies and innovations. In 2013 for instance, the National Library Board and the Institute of Public Administration and Management (Singapore), knowing that social media has become a way of life for many today, organized a workshop for librarians on the following topics:

- Writing and communicating in social media;
- Harnessing the potential of new media communication;
- Increasing traffic to your website;
- Facebook for effective communication and engagement (Loo et al., 2014).

There is no doubt such conferences and workshops equip reference and user services librarians with knowledge of social media.

2.2.2 Level of Knowledge of the Librarian 2.0

Earlier, web 2.0 was defined to characterize activities that enable content creation, participation, collaboration, communication, and sharing. According to Kroski (2007), the evolution of social networking tools in libraries is traced to the emergence of web 2.0. As social media became more and more popular, academic libraries and other types of libraries also joined in order to promote their services and this led to what is commonly referred to as Library 2.0 (Dickson & Holley, 2010). Thus, library 2.0 is a product of web 2.0, and librarian 2.0 a by-product of web 2.0. Waiske (2011) simply describes librarian 2.0 as “a new brand name for a master of information age who strives to understand the power of the social media opportunities and not only practices it but is also able to connect users to

expert discussions, conversations, and participation”. In his view, “successful librarians in social media environment need to be aware of this emerging technology, understand the social paradigm and information contexts that are emerging within web 2.0, and play active role in facilitating online resources made available from social media.”

O’Dell (2010) posits that the librarian’s knowledge of social media has given a boost to outreach capabilities of academic libraries. According to O’Dell, though library outreach programs cannot be said to be innovation, the approaches introduced by the use of social media tools like Facebook, Twitter, online video (YouTube), RSS feeds, etc. have brought a lot of innovations and enhanced services not only to students but also academics, especially those who cannot be physically present in libraries to access services. The reference librarian’s knowledge of social media, therefore, needs to be constantly known and steps taken to upgrade it.

In a study to determine the levels of knowledge of social media among Nigerian librarians, Olajide & Oyenira (2014) reveal that about 90% of respondents were highly knowledgeable in the use of social media, and that majority of them acquired their knowledge of social media from professional workshops. While this revelation is a positive development and quite refreshing, the same study reveals that though librarians were quite knowledgeable in the use of social media tools they employed them mostly for personal communication among friends and acquaintances instead of official library work. This revelation is a worrying one that needs to be studied further.

2.3 Adoption of Social Media in Libraries

Only few academic libraries had adopted social media by 2009 (Xu, Ouyang & Chu, 2009). The number, however, kept increasing. Mahmood and Richardson's (2011) study reveals that Facebook and Twitter had become very popular with academic libraries only two years later. The only worrying situation according to that study is students' attitude. Students thought that social media was for only communicating among friends.

2.3.1 Adoption of Social Media in Global Libraries

It is interesting to note that earlier studies in the United States suggest that library services had no business dealing with social media (De Rosa *et al.*, 2007). Directors of libraries, librarians, and sponsors thought that social media as an innovation was not consistent with services of the library and did not see the need to engage in their use. Social media was thought to be unsuitable at this stage for reference and user services and could not be used to replace or even augment the traditional face-to-face reference services. Later, however, the possibility of using social networking sites in libraries were demonstrated by the use of Facebook and Myspace (Chu & Nalani-Meulemans, 2008) as many librarians were identified online and reached by patrons for synchronous services. This ensured that patrons, especially remote users did not have to travel distances to access information from the premises of the library as it used to be in the past. This way, social media attempted to give the fullest meaning to automation in libraries. For what would be the essence of reducing the staff intervention in check in/check out when patrons cannot do it in remote places using the social media sites linked the library's website?

The adoption of social media technologies has changed the librarian-patron relationship dramatically. O’Rielly (2005) who coined social media as web 2.0 technologies states that social media “involves services, not packaged software, with cost effective stability, control over unique, hard to recreate data sources that get richer as more people use them, trusting users as co-developers; harnessing collective intelligence; leveraging the long tail through customer self-service.....” Users are allowed to participate in library services and not just be served. Bosque, Leif and Skarl (2012) indicate that users participate in library cataloguing through folksonomy, and also make comments on books and nature of services through blogging. While the literature reveals that social media has actually been adopted in library services of many universities in the advanced countries, it is interesting to note that the same could be written of libraries in Africa.

2.3.2 Adoption of Social Media in Africa’s Libraries

The practice, requirements and expectation of academic libraries are similar globally. They facilitate the information needs of their patrons including faculty, students, and other researchers. Academic libraries in Africa are, therefore, expected like their counterparts in the developed world, to respond to the needs of their patrons by employing efficient and interactive social media technologies. This will ensure that today’s patrons of academic libraries in Africa can also participate in the services of the library and not just be served.

The literature on the adoption of social media in Africa’s academic libraries, however, indicates a gap between the African situation and that of the rest of the world. While social networking sites have been employed to deliver effective and efficient reference and user

services to clients in most international university libraries, collaborate and connect librarians to users, the same cannot be said of many academic libraries in Africa. Earlier study by Ayiah and Kumah (2011) reveals that quite a number of the 180 universities from 30 countries then making the AAU did not have social media sites. There is, however, a phenomenal growth in the adoption of social media in reference and user services currently. Information gathered from the websites of African universities indicate that South Africa's universities such as University of Pretoria, University of South Africa, and University of Witwatersrand are among the leaders in the use of social media.

Mutula (2011) reports that "the most popular social media in Kenya's libraries is Facebook, followed by Twitter, RSS, SlideShare, YouTube, Flickr, and blogs in that order". He continues that some academic libraries [and their librarians] have social media accounts but they are dormant. This is mainly because they do not perceive social media to be a very important tool in reference and other user services. Some of the services rendered with social media include easy updating of information and services to users (Johnson, 2001), enhanced interaction between users and librarians, empowering users to contribute library content, and allowing users to participate in management of libraries through suggestions (Mutula, 2011).

African librarians need to embrace social media in reference and user services. This is because it offers a level platform for sharing resources among academics, librarians, students and other patrons. It is important to find out if librarians in the academic libraries in Ghana are also typical of the African situation.

2.3.3 Adoption of Social Media in Ghana's Libraries

Currently in Ghana the use of social media in reference and user services is gradually catching up with librarians in academic universities. Observation of the websites of universities in Ghana indicate that quite a number of universities, including those under this study and their libraries are linked to at least two social networking sites. Whether they are accessed by the patrons remain another matter for investigation. It is, however, an improvement on Ayiah and Kumah's earlier study which revealed that no social networking site was linked to any of the webpages of the academic libraries in Ghana. It is imperative for librarians to build on the new positive development with respect to adoption of social media in reference and user services.

2.4 Types of Social Media used in Reference and User Services

There are basically six types of social media. These are; Social Networks, Bookmarking, Social News, Media Sharing, Microblogging, and Blog Comments and Forums. The social media examples under the study can be categorized under the various types as follows:

- Social Networks- Facebook, YouTube
- Bookmarking - Delicious
- Social News - RSS
- Microblogging -Twitter
- Blog Comments and Forums -Blogs

Dickson and Holley (2010), studying social media in academic libraries observe that Facebook, Myspace, Twitter, Second Life, Delicious, Blogs and wikis are but some of the

most used social networking tools in the library. The most used according to the same study is Facebook which has been found to capture about 85 percent market share of college students globally, and especially in the United States.

2.4.1 Facebook

Primarily, Facebook is used to support outreach programs of the library. It is used to market the library, advertise hours, location and website. Farkas (2007) as reported in Dickson and Holley (2010), states that by linking Facebook to the library's webpage all the available resources at the library can be marketed. More importantly, Farkas reveals that libraries can embed subject guides within Facebook pages so as to provide reference services such as "ask a librarian", 'chat' and instant messaging. A typical example is what is found at the Harlan Hatcher Graduate Library of the University of Michigan where a Facebook page incorporates a catalogue search function, ask-a-librarian, lib guides, a world cat search and links to all essential library webpages (Dickson Holley, 2010). Within Facebook a user has access to all available services in the library web page. Through Facebook, librarians are able to interact with patrons in order to know their information needs and help them meet the needs. Facebook can also forge collaboration among librarians, helping to know one another better.

Research has revealed that Facebook in particular is engaging to students and according to Graham (2009), Facebook had been used to facilitate the development of professional relationships in and beyond libraries.

2.4.2 Blogs, Microblogs and Wikis

Blogs consist of web pages with user supplied content in chronological order (Boxen, 2008). Romero (2011) observes that blogs offer varied types of information exchange. They include recommendations of books, activities of a library, news bulletins, cultural activities, notices of workshops, and many others. He continues that blogs can be used to market activities and services rendered with other social media platforms such as Twitter, Facebook, Flickr, Delicious and chat. Blogs allow librarians to post messages, share information on particular subjects or issues and expect instant reaction from patrons. Blogs allow users to provide feedback on the information they are served with. They are mostly used to create subject guides. This is suitably so because they allow frequent updates to reflect the most current sources of information in a particular subject area. College students would usually want to create their own blogs so they are very popular with blogging. Libraries can therefore take advantage of blogging to improve on service to student users.

Microblogging presents a newer blogging option as a platform for social interaction. The difference between blogging and microblogging is that while blogs allow librarians to contribute content like articles, news on topical issues, and expect instant reaction from users, microblogging limits users to short messages in not more than 140 characters. Wiki is a free online encyclopedia that gives a background knowledge and definition of concepts. It offers a platform for users to access, edit and contribute to content (Fernandez, 2009). A study of wiki use among academic librarians shows wikis are rather more open to the public than blogs and microblogging tools. Librarians have an option to control this exclusiveness

by using private settings to indicate who to read and edit wikis. Xu and Chu (2009) indicate that 50 percent of wikis using such options are created by librarians.

According to Kroski (2007), wikis are used by academic librarians to create collaborative subject guides. That is, “subject wikis can be created with links to resources on chosen topics, including information on databases and also on search tips”. Wiki-based subject guides allow effective collaboration among academic librarians and users, including students and faculty. A typical example of subject wikis is the Bis wiki of business resources of Ohio University.

2.4.3 Twitter

In the library environment Twitter utilizes microblogging application to interact with patrons. Staff as well as patrons can be kept updated on the library’s activities, new additions, databases, etc. Users may take advantage of this to send short messages for requests and receive instant responses. Bosque, Leif and Skarl (2012) posit that there are many features that make Twitter suitable and probably preferred to use in libraries. One such feature is that Twitter is free and thus eliminates cost implications for use. Again because Twitter utilizes microblogging, staff time involved is minimal. Moreover, because many patrons use Twitter, it is easy to forge connections with them using Twitter.

Kim and Abass (2010) observe that though Twitter is relatively young, it has become one of the most innovative ways for libraries to reach their patrons and that librarians at Yale University and Massachusetts Institute of Technology make use of Twitter to link online

archives, provide short announcement on workshops, notices on classes/instructions, study group information, and other posts. Thomas (2010) also notes that libraries have already harnessed the use of Twitter in customer service and other external communications. Steiner (2009) observes that because it puts no restrictions on profile setting, libraries have taken advantage of Twitter as an outreach communication tool. Bosque, Leif and Skarl (2012) state that all types of libraries have embraced Twitter. While public libraries use Twitter to announce changes in hours, publicize teen events and upcoming programmes academic libraries tweet about service issues including answering users requests and sharing information with users both within and outside institutions. Fields (2010) provides accounts of the use of Twitter among reference staff of Koerner Library and the Humanities and Social Sciences Library at the University of British Columbia, and states that “KoeranerRef” is used to tweet reference questions and provide responses.

According to Stuart (2010), 30 percent of 433 libraries studied made one post per day for the duration of their account’s life and 59 percent of the libraries were following fewer than a hundred Twitter accounts. Also in a survey conducted by Mahmood and Richardson (2011) involving one hundred academic libraries of the Association of Research Libraries, it was revealed that a total of 85 libraries were using Twitter for news, announcements and other user services. This does not imply that Twitter has been accepted by all academic libraries. In a survey by Cassidy *et al.* (2011) it was revealed that Twitter was not very popular with students of Sam Houston University as 69 percent of students surveyed had no interest in using Twitter for personal engagements and 75 percent had no interest in using Twitter for library services. Del Bosque, Leif and Skarl (2012) indicate that

librarians that had Twitter accounts were more associated with private academic libraries. This was evidenced in their study in which 62 percent of private university libraries as against 27 percent of public academic libraries had Twitter accounts.

In spite of its popularity, other studies suggest that Twitter has not yet caught up with some libraries. In a survey of over 6,200 student library users' utilization and preference of popular online communication tools at Sam Houston State University, only 21 percent were users of Twitter. Mathews (2008), however, found out that libraries that use Twitter have many practical applications for it. These include assessment, communication, and collaboration with users. Thus, despite some negative revelations, it can generally be summed up from the literature that Twitter presents another new channel for reference librarianship.

2.4.4 Other Social Media Tools Used in Libraries

Other social media tools that have engaged both users and librarians include YouTube, RSS, and Delicious. YouTube and Flickr are social photo and video sharing tools. In the library setting, they are used for sharing and distributing new images of library collections. Thus librarians can share and distribute cover page of new arrivals of books and journals to users via Flickr. Chauhan (2013) indicates that in India not only do librarians share photos with users but also events such as important highlights of inaugural lectures, conferences and workshops are disseminated via YouTube.

Social bookmarking allows users to store their tagged bookmarks and also share them with other similar bookmarking websites. Gilmour and Strickland (2009) describe bookmarking as “collecting and labeling information sources for personal use and also for sharing with others.” The most popular bookmarking website, according to Dickson and Holley (2010) is Delicious, which allows users to share information resources that have been tagged with specific keywords. They intimate that academic librarians can create resource lists for various departments with keywords for the classes using delicious and users on the internet can just tap into them. This is what happens at Pennsylvania State University where a university-based social bookmarking website has been created and linked to the library’s catalogue. Thus users from the university community can tag online resources from the catalogue and also view resources tagged by librarians, fellow students and faculty members. This idea is also shared by Kroski (2007) who indicates that reading lists and subject bibliography can be compiled by tagging resource lists from different departments.

The popularity of social media tools differ from region to region, country to country and even among libraries. While Facebook and Twitter for instance can be said to be the most popular because of their capability in syndicating and disseminating information (Cahill, 2009), Sina Weibo has been found to be one of the most popular in China’s libraries, capturing over 57 percent of China’s microblogging. A similar thing can be said of the use of social media sites in the United States where Myspace and Twitter are the very popular ones, with Myspace alone having over 70 million users in the United States (Arango, 2009). Also, as many as 55 libraries in MIT alone make announcements using Twitter. These include announcements on the libraries’ resources, workshops, courses, etc.

The sheer numbers of social networking sites available today can be overwhelming, and the numbers keep increasing, meaning more and more innovative ways to deliver services are evolving. Thus only the major ones have been reviewed in this literature.

2.5 Perception of Social Media in Reference and User services

Social media is an innovation, therefore, perceptions of librarians on the use of social media in libraries is keen to its adoption. The literature reveals that social media use has become very popular with both librarians and patrons in the UK. Maness (2006) claims that the popularity stems from the fact that “social media is interactive, collaborative, user-centered, socially rich, and community-innovative.” Many librarians are excited by the fact that it allows users to give feedback which can be used to improve services in real-time.

Librarians over the world are getting hooked to the use of social media as personal norm and also as a means of engaging with patrons. Thus they provide computers and free internet for patrons to use social media tools such as Facebook, Twitter, YouTube and Flickr in order to promote library services and resources in academic libraries. Librarians’ perception of the use of social media also depends on the environment in which libraries are situated. Where social media use is prevalent on a university or college campus, it encourages communication among academics, students and also librarians.

In most UK universities, Bell (2007) states that academic libraries do not only use social media as communication tool, but also for research and collaboration. Librarians, therefore, see the use of social media as good platform to accept reference queries, organize research

consultations, and inform users about events, announcements, and current services. This view is also shared by academics. For both librarians and academics, the potential benefits of social media in libraries are enormous because majority of undergraduate students are users of social media (Mack *et al*, 2007).

Most Librarians in Asia have also embraced the integration of social media in reference and user services. Chauhan (2013) reports that social media has enhanced library services and this has improved the library profession tremendously in India. Social media tools like Facebook, Myspace, Blogs, Wikis, LinkedIn, Twitter, YouTube, Flickr, and Library thing are among the many social media tools that librarians in India perceive to be good for marketing reference service, promoting strategic dissemination of information and other services.

In Choi's (2012) study to assess the readiness of Australia's academic librarians for social media use, it was found that 92 percent of 330 academic librarians thought that libraries should use social media to communicate with users, while 84.7 percent thought that social media should be used to communicate among themselves. This portrays a positive perception of Australia's librarians on the use of social media in library services. This positive perception of social media is key for librarians in general and for reference and user services librarians in particular to remain relevant in the ever changing digital landscape. Librarians have virtually no choice but to follow users' posts, conversations, updates, and events in the academic environment so as to proactively improve on advice, assistance and instruction to users.

2.5.1 Perceived Benefits of Using Social Media Tools

Social media appears to have lots of benefits for academic libraries yet according to Hendrix *et al.* (2009), the use of social media has not been pervasive and this is partly due to librarians' perceived limitations in their abilities to set up profiles and maintain them. While librarians may deem the services rendered with social media as beneficial, the ability to set up, the technical know-how to maintain them, and the time needed to do these can be overwhelming. This could render the use of social media less beneficial.

In a study by Chu and Du (2013), it was revealed that librarians perceived social networking tools to be very helpful in terms of information and knowledge sharing, enhancing reference services, and promoting other user services. This revelation denotes a shift in a previous study by Charnigo and Barnett-Ellis (2007) that found librarians to be indifferent towards the use of social media tools. But other aspects of Chu and Du's study revealed that no specific benefits accrued from the integration of social media tools basically because students did not use them. Thus in terms of relative importance of social media, librarians were both hopeful and doubtful.

In Chung and Hussain's (2010) study it was revealed that the adoption of a new technology depends not only on the match of availability of technology and the task on hand but also personal experiences, preferences, costs and accessibility. This could be a reason why some social media tools are adopted only to be abandoned in a relatively short while. The social media tool Second Life had been used for some time and abandoned because it was deemed to be time consuming. Some libraries were also found to have experimented with blogs and

stopped using them because students rather preferred using other utilities in the university portal. In this case, the perceived importance or otherwise of social media tools in library services could not be attributed to only librarians but also users, majority of whom were students.

Romero (2011) suggests three perceived benefits that the use of social media in libraries has over the traditional face-to-face method. First, it has potential for improving the image of libraries. This is mainly because library activities and services which were not valued because they were not known can be better publicized. Thus social media possesses greater image building potential than the traditional face-to-face method.

Next, allowing collaboration, participation and sharing with users through comments on Twitter, Facebook, Blogs, etc. can result in product improvement. Finally and most importantly, the users' experience with library services has the potential of being improved with the use of social media, and this in turn will enhance the relevance of academic librarians.

2.5.2 Traditional Methods versus Social Media

Fagan and Calloway (2002) reveals that the traditional reference desk has some advantages over the online services rendered by the use of social media. Respondents in that study, as part of their evaluation of traditional methods of reference and user services intimate that the services are direct; implying librarians can physically show where materials are, staff are readily available physically to attend to users, and services are devoid of technical

difficulties that are associated with online service delivery. Librarians with this mind set hardly reckon social media as important relative to the traditional method of service delivery.

Bradley & McDonald (2011) report that not all academic librarians are enthused about the use of social media in libraries. There are some librarians who reject the use of social media on the basis of triviality, the time it consumes, and security issues. Such librarians intimate that social media is generally inconsistent with library services. In a study by Charnigo & Barnett-Ellis (2007), 54 percent of 126 academic librarians surveyed did not believe that Facebook had academic purpose. They thought it was for interaction among the youth. Thus from the literature, the relative importance of social media from the perspective of academic librarians is not a straight forward issue. It differs among librarians.

2.6 Challenges Associated with Use of Social Media

Challenges are demanding or difficult situations which can become problems if they are not well managed. This section reviewed the literature on the challenges that are associated with integration of social media in reference and user services in particular, and library services in general. The challenges were found to be rather similar in most cases.

2.6.1 Lack of Awareness and Low Patronage

Chauhan (2013) intimates that most librarians, especially those in the developing countries are not aware of the array of social networking services available to libraries, and that some of those who are aware also see them to be inconsistent with library services. Equally

guilty are some users, who are also not aware of the protocols associated with social communication. Thus most users as well as librarians do not concede the productive uses of social networking sites in library services. This lack of awareness leads to slow adoption and low patronage of social media in academic libraries.

A study by Mathews (2008) reveals that out of messages sent to 1,500 undergraduate and graduate students on Facebook by an academic librarian, only 48 responded. In a related study on wiki use in academic libraries, it was found that six out of 24 academic libraries reported difficulties with low participation rates (Chu, 2009). Students and other users of academic libraries must be seen to be receptive of the use of social media in reference and other user services.

2.6.2 Bandwidth Problem and Unreliable Power Supply

The use of social media demands users to stay online. Several devices have been found to support social media use. These include desktop, laptop, palmtop, smartphones, android, apple, iPad, kindle fire etc. (Olajide & Oyenira, 2014). Irrespective of the device one uses to participate in social media, there is the need for adequate bandwidth and power to stay connected. Madden's study (2013) reveals that ownership of smartphones in the United States surged from 35 percent to 56 percent between May, 2011 and May, 2013. This could be linked to the increase in the use of social networking sites. This however, is not peculiar to United States and other advanced countries. Earlier, it was indicated that Africa and Ghana in particular, had also been cited among regions and countries with the highest penetration of smartphones apparently due to the use of social media. Inadequate

bandwidth implies internet based services that use these smartphones could delay unnecessarily.

Griffey (2010) observes that sometimes reasons for not granting access to social media in libraries could be legitimate, but further suggests that because the internet has become largely social, libraries have no choice but to be part of it. Unfortunately most institutions, and for that matter their libraries, have limited bandwidth to support social media practices and this poor connectivity affect their online participation. Closely linked to this challenge is that some developing nations are bedeviled with low supply of electricity. This also affects negatively the use of all types of devices for social media. This has the tendency to discourage librarians and users from participating in internet based discussions using social media.

2.6.3 Technophobia and Fear of Losing Control over Resources

Social media tools involve innovation or the use of new technologies. As indicated by Roger (2005), the adoption of an innovation is influenced by varied factors including ease of use. Most librarians and users are perceived to be afraid of handling computers. This, according to Chauhan (2013) makes the traditional library services the comfort zone of such librarians as they lack the eagerness to accept and sustain change.

Another challenge related to this is academic librarians' fear of losing control over their resources if they use social networking tools that allow users' participation in what traditionally used to be the preserve of librarians. For example "tools like folksonomy that

allow users to assign tags to resources that then replace the traditional subject headings established by librarians can result in lack of synonym control, lack of precision in subject terms, lack of hierarchy among categories, and lower recall ability” (Kroski, 2007).

2.6.4 Lack of Training and Data on Effectiveness of Social Media Use

It is believed that many librarians and library staff were born before the advent of the internet and for that matter the associated technologies. They, however, have to communicate, collaborate and share information with users, mostly young students and faculty members belonging to the Google generation. The lack of 21st century skill to interact with today’s user on social media needs to be dealt with. This calls for effective, consistent and sustained continuing education programmes to equip librarians with the needed skill.

Though studies abound in social media use in libraries, Dickson and Holley (2010) maintain that most of the concerns about social media application in libraries center on lack of quantitative data on the effectiveness of social media in student outreach. Boxen (2008) corroborates this by intimating that most of the discussions on social media use in libraries are anecdotal, making it difficult to determine if social networking approaches are worth engaging by the reference librarian.

2.6.5 Multiplicity of Social Media Tools and Other Attendant Challenges

The evolutionary tendencies of social media tools pose a big challenge to librarians and users alike. The sheer numbers of social media or social networking sites are

overwhelming. Before users got to know or acquaint themselves with one tool, several others would have evolved. They are increasingly becoming too many to learn and this poses a challenge.

There is also the threat posed by lack of privacy or too much exclusiveness. Information communicated through social media cannot be said to be confidential. It can be intercepted and utilized by many including service providers and telecom companies. Phillips (2010), however, reports that the advent of Facebook pages for dedicated organizations has taken care of this problem. A study by Charnigo and Barnett-Ellis (2007) suggests that 19 percent of librarians surveyed had concern over privacy related social media issues. Also in a similar study by Madden *et al.*, (2005), 85 percent of adults surveyed expressed concern over privacy issues and suggested control over who has access to their personal information. Despite these concerns, Chad & Miller (2005) are of the view that librarians have little choice, and that libraries that reject the application of social media in their services risk losing their patrons. This is because patrons will seek information from other sources.

Lack of time to set up and maintain social media has also been cited by some researchers to be a challenge. In a study by Hendrix *et al.* (2009), (36%, 22/61) respondents linked their inability to use Facebook to lack of time. In that same study most respondents who were users of Facebook indicated they spent up to 120 minutes a week in maintaining and updating their Facebook page. Some librarians' indifference towards the use of social

media is another challenge, and Charnigo and Barnett–Ellis (2002) corroborate this general attitude of librarians.

Fernandez (2009) also outlines some of the challenges librarians face in using social media in reference services. These include “unsavory remarks that can sabotage the library’s social website, changes in websites that make it difficult for libraries to manage, and the tendency for users to unsubscribe at any time. He explains that when changes do not match design priorities of the libraries’ websites, it becomes a challenge for librarians who may not be technologically inclined to manage their own created websites. These often happen when social media providers change hands and for that matter, rules and design layouts subsequently change. It was found in Loudon & Hall’s (2010) study for instance that, some Library and Information Science staff found it difficult to integrate Twitter into library work. In a similar concern, Waiske (2013) notices that social media sites are not static and are subject to changes by their owners who have their own vested interest. When such changes become frequent, they present challenges for librarians. According to him, the challenges presented are in two-fold. First is the potential tracking of profiles, finding out what information is used and how it is used. The second is the challenge they present for librarians who may not be adept in managing the accompanying technological changes.

2.7 Chapter Summary

In this chapter, the literature relating to the use of social media in reference and user services was reviewed. The review was done with the purpose of finding out findings in literature that are applicable to the current study. Reviewing the literature offered the

researcher the opportunity to recap the ideas, methodologies, theories, and findings of other scholars. This helped in finding and filling gaps, and eventually extending knowledge. Reviewing the literature helped not only to do the above but also to identify some notable researchers in the area of social media use in academic libraries in order to familiarize with their style of writing.

References

- Anttiroiko, A., & Savolainen, R. (2011). Towards library 2.0: The adoption of web 2.0 in public libraries. *International Journal of Libraries and Information Services*, 61(2), 87-99.
- Arango, T. (2009). *MySpace set to lay off 400 workers*. The New York Times, June 16. Available at: www.nytimes.com [Accessed: 10/01/2015]
- Ayiah, E.M., & Kumah, C.H. (2011). Social networking: A tool to use for effective service delivery to clients by African libraries. *Proceedings of IFLA Conference*, 13 – 18 August, San Juan, Puerto Rico. Available at: <http://conference.ifla.org/ifla77> [Accessed: 10/12/2014]
- Bell, S. J. (2007). Building better academic libraries with web 2.0 technology tools. *Library Issues*, 28(2), 1-4
- Bosque, D.D., Leif S.A, & Skarl, S. (2012). Libraries atwitter: Trends in academic library tweeting. *Reference Services Review*, 40(2), 199-213. DOI: 10.110800907321211228246
- Boxen, J. (2008). Library 2.0: A review of the literature. *The Reference Review* 49(1), 21-34
- Bradley, A., & MacDonald, M. (2011). *The social organization*. Boston, Massachusetts: Harvard Business Review Press.
- Cahill, K. (2009). Building a virtual branch at Vancouver Public Library using Web 2.0 tools. *Program: Electronic Library & Information Systems*, 43(2), 140-155.
- Cassidy, E.D., Britsch, J., Griffin, G., Manolovitz, T., Shen, L, & Turney, L. (2011). Higher education and emerging technologies. *Reference & User Services Quarterly*, 50(4), 280-391.

- Chad, K., & Miller, P. (2005). Do libraries matter? The rise of library 2.0 in Waiske, J., Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- Charnigo, L., & Barnett–Ellis, P. (2007). Checking out facebook.com: The impact of a digital trend on academic libraries. *Information Technology Library*, 26(1), 23-34.
- Chauhan, M. (2013). Use of Social media in libraries.
Available at: www.alibnet.org/bookofpaper/ppts [Accessed: 10/01/2015]
- Choi, C. (2012). Is your library ready for a social media librarian? Presented at ALIA, Sydney
Available at: <http://conferences.alia.org.au/alia2012> [Accessed: 10/01/2015]
- Chu, M., & Nalani-Meulemans, Y. (2008). The problems and potential of MySpace and Facebook usage in academic libraries. *Internet Reference Services Quarterly*, 13(1), 69-85
- Chu S.K.W. & Du, H. (2013). Social networking tools for academic libraries. *Journal of Library & Information Science*, 15(1), 64-75
- Chung, K.S.K., & Hussain, L. (2010). Towards a social network model for understanding communication technology use for general practitioners in rural Australia. *Computers in Human Behaviour*, 26(4), 562-571
- Creswell, J. W. (2012). *Research design: Qualitative, quantitative, and mixed methods*, Thousand Oaks, CA: Sage.
- De Rosa, C., Cantrell, J., Havens, A., Hawk, J., Jenkins, L., Gauder, B., Limes, R., & Celleni, D. (2007). Sharing, privacy and trust in our network world. *OCLC Membership Report, Dublin, OH*
- Dickson A., & Holley, R. P. (2010). Social networking in academic libraries: the possibilities and the concerns. *New Library World*, 111(11/12), 468-479.

Available at: http://dx.doi.org/10.1108/03.034_801011094840. 01/10/2014
[Accessed: 10/01/2015]

Fagan, J., & Calloway, M. (2002). Creating an instant messaging reference system. *Information Technology and Libraries*, 20(4), 202-212

Farkas, M. (2007). Going where patrons are. *American Libraries*, 38(1), 27

Fields, E. (2010). A unique use for reference services. *Library Hi Tech News*, 27(6/7), 14-15.

Fernandez, J. (2009). A SWOT analysis for social media in libraries.

Available at: www.onlinemag.net [Accessed: 10/01/2015]

Gilmour, R., & Strickland, J. (2009). Social bookmarking for library services: Bibliographic access through Delicious. *College & Research Libraries News*, 70(4), 234-273.

Graham, J.M., Faix, A., & Hartman, L. (2009). Crashing the Facebook party: One library's experiences in the students' domain. *Library Review*, 58(3), 226-236

Griffey, J. (2010). Social networking and the library. *Library Technology Reports*, 46(8), 34.

Gu, F., & Widen-Wulff, G. (2011). Scholarly communication and possible changes in the context of social media: A Finish case study. *The Electronic Library*, 29(6), 762-776

Hendrix, D., Chiarella, D., Murphy, S., & Zafron, M. L. (2009). Use of Facebook in health sciences libraries. *Journal of the Medical Library Association*, 97(1), 44-47

- Huvila, I., Holmberg, K., Kronqvist-Berg, M., Nivaskoki, O., & Widen, G. (2013). What is librarian 2.0 – new competencies or interactive relations? A library professional viewpoint. *Journal of Librarianship and Information Science*, 45(3), 198-205.
- Johnson, M. (2001). *Computer ethics*. Englewood Cliffs: Prentice-Hall
- Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 52(1), 59-68.
- Kim, Y.M., & Abass, J. (2010). Adoption of Library 2.0 functionalities by academic libraries and users: A knowledge management perspective. *The Journal of Academic Librarianship*, 36(3), 211-218
- Kroski, E. (2007a). Folksonomies and user-based tagging, in Dickson, A., & Holley, R. P., Social networking in academic libraries: The possibilities and the concerns. *New Library World*, 111(11/12), 468-479
- Kroski, E. (2007b). The social tools of web 2.0: Opportunities for academic libraries. *Choice*, 44(12), 2011-2021
- Loo, J., Chow, W. H., Chan, B., & Ten, S. (2014). “UP” Your reference quotient at the National Library of Singapore. <http://creativecommons.org/licenses/by/3.0> [Accessed: 10/01/2015]
- Loudon, L., & Hall, H. (2010). From triviality to business tool: The case of Twitter in library and information services delivery. *Business Information Review*, 27(4), 236-241. Doi: 10.1177/0266382110390480.
- Mack, D., Behler, A., Roberts, B., & Rimland, E. (2007). Reaching students with Facebook data and best practices. *Electronic Journal of Academic and Special Librarianship*, 8(2). Available at: http://southernlibrarianship.icaap.org/content/v08n02/mack_d01.html. [Accessed: 29/09/2015]

- Madden, M. (2013). Data to live by: understanding the social media technology landscape. Available at: <http://www.pewinternet.org/2013/06/12/data-to-live-by-understanding-the-social-media-technology-landscape> [Accessed: 10/01/2015]
- Madden, M., Fox, S. Smith, A., & Vitak, J. (2007). Digital footprints: Online identity management and search in the age of transparency, in Waiske, J., Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- Mahmood, K., & Richardson, J.V. (2011). Adoption of Web 2.0 in US academic libraries: A survey of ARL libraries. *Program: Electronic Library and Information Systems*, 45(4), 365-375.
- Maness, J. (2006). Library 2.0 theory: Web 2.0 and its implication for libraries. *Webology*, 3(2)
- Matthews, B. (2008). Moving beyond the reference desk: Being where users need us. *The Reference Librarian*, 48(2), 9-13
- Mutula, S.M. (2011). Proposal for “Funding of for the Pre-SCECSAL conference Workshop, Nairobi, Kenya”, in Waiske, J., Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- O’Dell, S. (2010). Opportunities and obligations for libraries in a social networking age: A survey of Web 2.0 and networking sites. *Journal of Web Administration*, 50(3), 237-251.
- Olajide, A. A., & Oyenira, K.G. (2014). Knowledge and use of social media among Nigerian librarians. *Library Philosophy and Practice (e-journal)*, 1145. Available at: <http://digitalcommons.uni.edu/libphilprac/1145> [Accessed: 10/01/2015]
- O’Reilly, T. (2005). What is Web 2.0: Design patterns and business models for the next generation of software. Available at: www.oreillynet.com/pug/a/oreilly/tim/news/2005/09/30/what-is-web-2.0.html?page=1 [Accessed: 10/01/2015]

- Phillips, N. K. (2010). Academic library use of Facebook: Building relationship with students. *The Journal of Academic Librarianship*, 37(6), 512-522. Doi: 10.1016/j.acalib.2011.07.008
- RIN (2010). If you build it, will they come? How researchers perceive and use Web 2.0. Available at: www.rin.ac.uk/system/files/attachments/web_2.0_screen.pdf [Accessed: 10/01/2015]
- Rogers, E. M. (2003). *Diffusion of innovations*, 5th ed., New York: Free Press
- Romero, N. L. (2011). ROI. Measuring the social media return on investment in a library. *The Bottom Line: Managing Library Finances*, 24(2), 145-151. Doi: 10.110888045111169223.
- Steiner, H. (2009). Reference utility of social networking sites: Options and functionality. *Library Hi Tech News*, 26(5/6), 4-6.
- Stuart, D. (2010). What are librarians doing with Twitter? *Online*, 34(1), 45-47
- Thomas, L.C. (2010). Twitter at the office? *Journal of Web Librarianship*, 4(1), 79-82.
- Waiske, J. (2013). Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-16.
- Vanywnsberghe, H., Verdegem, P. (2013). Integrating social media in education. *Clcweb –Comparative Literature and Culture*, 15(3).
- Xu, C., Ouyang, F., & Chu, H. (2009). The academic library meets web 2.0: Applications and implications. *Journal of Academic Librarianship*, 35(4), 324-331.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The methodology of a study is generally referred to as the overall research process from the theoretical underpinning to the collection and analysis of data. Mouton (2006) refers to it as the means required for executing a certain stage in the research process, and that it includes methods of definition, sampling, measurements, data collection, and data analysis. This section, therefore, described the sample design, participants/subjects of the study, mode of data collection and data collection instruments, as well as analysis and procedures that were employed.

3.2 Research Design

A research design is a plan which is developed to achieve research objectives or answer research questions. It situates the structure or framework that will be used to solve the main research problem. Traditionally, research designs are primarily based on experiments, surveys or case studies. Yin (2003) as cited in Mavodza (2010) states that the choice of a research design is influenced by “three conditions: the type of research questions posed, the extent of control the investigator has over actual behavioural events and the focus of contemporary as opposed to historical events.” Where a variable is manipulated and dependent variables are controlled, the tendency is towards employing experimental design. In this case, there is “cause” and “effect.” In a study where no such relationship exists and the design involves detailed study in a specific case, the tendency is towards a

case study. Lastly, in a situation where the research strategy involves asking questions of respondents in order to obtain data for the study, it is described as survey. It must be noted that a survey questionnaire can be used in a case study.

The study employed the mixed methods approach. Thus qualitative and quantitative techniques were combined in collecting and analyzing the data for the study. In the view of Creswell (2012a), the “mixed methods approach increases the overall strength of a study more than using either of qualitative or quantitative.” Again a mixed methods approach expands the scope and breadth of research and offsets the weakness of either alone (Creswell & Plano, 2007). Also in mixed methods, qualitative data provides deep understanding of survey responses. According to Driscoll et al., (2007), mixed methods design provide pragmatic advantages, especially when exploring complex research questions. While the qualitative data provides deeper understanding of survey responses, the statistical analysis can also provide detailed assessment of patterns and responses. Thus they intimate that for a research that neither requires extensive analysis of qualitative data nor multivariate analysis of quantitative data, mixed methods is the most appropriate. In Chen, Chu and Xu’s (2012) study to determine how librarians use social networking sites to interact with users, “the quantitative results generated from the analysis on the sampled post were supplemented by librarians’ perceptions and experiences in the use of social networking sites that were concluded from the interview. This helped to achieve more robust answers to the research questions.

3.3 Selection of Cases

Six universities (three public and three private) were selected as cases for the study. The public universities included University of Ghana, Kwame Nkrumah University of Science & Technology, and University of Cape Coast. The private universities comprised Valley View University, Ashesi and Ghana Technology University Colleges. These universities were selected because they were the most highly ranked public and private universities in Ghana during the period that the study was conducted (www.webometrics.info/en/world, 2014). The rankings of the selected universities and university colleges are shown in Table 3.1

Table 3.1: Ranking of universities

Institution	Ghana Ranking	World Ranking
UG	1	2063
KNUST	2	3231
UCC	3	5046
AUC	5	5634
VVU	6	6738
GTUC	8	7006

Source: University Web Ranking, 2014

3.4 Selection of Subjects

This section covers the choice of population, determination of the sample size and the sampling technique used.

3.4.1 Population

A population refers generally to the group from which a sample is selected. It is a group of much interest to researchers and whose views eventually determine the outcome of a study. The target population for the study consisted of all reference and user services librarians in the six selected public and private universities numbering one hundred and five (105). These included professional and paraprofessional staff of Reference, Circulation, E-resources, Development Information, and departments of other special collections. Table 3.2 represents the population of the study.

Table 3.2 : Population of Reference and User Services Librarians

Public Academic Libraries	Population Size
UG	28
KNUST	34
UCC	25
Private Academic Libraries	
AUC	3
VVU	11
GTUC	4
Total	105

Source: Balme Library Staff Directory (2014), KNUST Annual Report (2014), UCC Staff List (2014), AUC Staff list (2013), VVU Handbook (2014), GTUC Library staff list (2014)

3.4.2 Sample Size

A sample in a research is the group on which information is obtained (Fraenkel & Wallen, 2008). One participant each from the three public and three private universities, totaling six were selected for interview. Beyond this, all the remaining 99 professional and

paraprofessional staff participated in the quantitative component of the study to back the qualitative component.

3.4.3 Sampling Technique

Participants for the interview were selected by employing purposeful criterion sampling method (Creswell, 2012b). Heads of e-resources departments were purposely selected to participate in the interview. This was because they were responsible for the creation of social media platforms, regular updates, monitoring, and generation of usage statistics. There was no sampling for the quantitative component because the number 99 was relatively small and could be conveniently covered.

3.5 Instrumentation

The device a researcher uses to collect data is called an instrument. However, according to Fraenkel and Wallen (2008), instrumentation is the whole process of collecting data. It involves not only the selection or design of the instrument but also the condition under which the instrument is administered. The questionnaire and the interview instruments were employed in this study.

3.5.1 Quantitative Instrument

The questionnaire was used as the instrument in the quantitative component of the study. Koufogiannakis, Slater and Crumley (2004) in Mavodza (2010) state that questionnaires are arguably the most used data gathering methods in library and information science. The main advantages of the questionnaire according to Powell and Connaway (2004) are that

they are inexpensive, easy to collect and analyze in a relatively short period of time. Questionnaires may be either closed-ended in which case respondents have the option to select responses from given fixed choices. They may also be open-ended where respondents have the option to give their own unrestricted opinion about questions. Most of the questions were closed-ended and employed the five categories of the Likert scale namely, strongly agree, agree, neutral, disagree and strongly disagree.

The questions were guided by the theoretical framework and information from reviewed literature. The questions sought to gather information on librarians' knowledge of social media, adopter categories of libraries on social media platform(s), the types of platforms, perceptions on use of social media and the challenges encountered in using social media.

3.5.2 Pre-testing of Questionnaire

The success of a research project largely depends on the quality of data that is gathered. A good research design and a representative sample will not guarantee a successful project if the analysis is based on inaccurate data.

The survey instrument was pre-tested using reference and user services librarians of University of Education, Winneba-Kumasi campus and Garden City University College.

This was to help:

- Test the adequacy of the research instruments
- Assess the feasibility of the full scale study
- Establish whether the sampling frame and technique were effective

- Identify logistical problems which might occur (Teijlingen & Hundley, 2011)

The selection of the two universities for the pilot study could be justified by their proximity to the researcher and also due to the fact that they have similar setting and mandate to the selected cases for the study. Out of the 50 copies of questionnaire sent out to the two institutions, 32 were completed and returned. This gave a response rate of 64%. Suggestions were made per the responses that helped to improve the quality of the questionnaire instrument. Some of the suggestions were that the categories of the Likert scale were too many and should be reduced from seven to five. The questionnaire was therefore improved on the basis of the pilot study.

3.5.3 Qualitative Component

The interview method was used to collect qualitative data. The interview is a qualitative data gathering instrument which plays an important part of research. It offers the researcher the opportunity to gather data which otherwise may not be obtained with other instruments like the questionnaire. Interviews can take different forms and Yin (2008) gives three, which include open-ended, focused, and structured. Interviews can also add depth and validity to a study. Questionnaire, especially when it is closed-ended has a tendency to restrict the quality of data that can be collected, so relying on only this method to collect data can affect the outcome negatively. Again categorized questions can cause respondents to overlook or omit points which are not explicitly included in questionnaire though space may be provided for additional comments.

A face-to-face interview was employed in this study. The interview protocol was semi-structured. The questions were also based on the theoretical framework and information from the reviewed literature. This was to help adequately examine the research questions.

The interview sought to find information on the following:

- Management of the social media platforms
- Policy issues on social media use
- The role of social media in reference and user services
- The readiness of libraries for integration of social media
- Infrastructural and other challenges associated with use of social media

3.6 Mode of Data Collection

The survey instrument was administered live to the participants. Basically, there are four modes of data collection in a survey. These include live administration, administration by telephone, email, and face-to-face (Fraenkel & Wallen, 2008). The choice of live administration was informed by its comparative low cost as well as fast response rate relative to other modes of administration. Synopsis of possible areas of the interview was also sent to six participants ahead of scheduled interview with participants. Each interview lasted a maximum period of 20 minutes. Earlier letters of introduction were taken from the Department of Information Studies to seek permission for the study to be conducted on the selected universities.

3.7 Method of Data Analysis

Data analysis involves making sense out of the data collected from the questionnaire and other sources. According to Creswell (2012b), data analysis involves “preparing the data for analysis, conducting different analyses, moving deeper and deeper into understanding the data, representing the data, and making interpretation of the larger meaning of the data.”

Data collected from the survey were screened for errors. The SPSS was used to analyze the data collected from the questionnaire. It was a descriptive analysis where summaries were expressed in tabular form for adequate interpretation.

All interviews were audio-recorded and transcribed. Qualitative content analysis was used to analyze the data that was gathered from the interview transcripts, and open-ended survey responses. Analysis of the qualitative and quantitative findings were done simultaneously. This was to enhance the interpretation of the study results. The findings were compared and contrasted with other findings in the literature.

3.8 Ethical Issues and Consideration

Ethical practices that regulate research of this nature were appropriately observed. A letter of introduction was taken from the Department of Information Studies to seek permission from the institutions to be involved before the study was conducted. Again informed consent was sought from the participants who were made aware that the study is purely an academic exercise and that their confidentiality was assured. All scholarly work and data consulted in any form or format were duly acknowledged. The University of Ghana code

of conduct for research was adhered to, and data was not manipulated to suit the research objectives.

3.9 Chapter Summary

This chapter focused on the research methods and methodology used for the research. The study employed the mixed methods approach. Thus, qualitative and quantitative methods were combined to collect and analyze data. Live administration of questionnaire and face-to-face interviews were used in collecting data for the study. Also purposive sampling was employed to collect the qualitative data while census approach was used to collect the quantitative data.

References

- Chen, D.Y., Chu, S.K., & Xu, S. (2012). How do librarians use social media to interact with users? *ASIST*, October, 28-31.
- Creswell, J. W. (2012a). *Research design: Qualitative, quantitative, and mixed methods*, Thousand Oaks, CA: Sage.
- Creswell, J.W. (2012b). *Qualitative inquiry and research design: Choosing among the five approaches*, Thousand Oaks, CA: Sage
- Creswell, J.W., & Plano Clarke, V.L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage
- Driscoll, D. L., Appiah-Yeboah, A., Salib, P., & Rupert, D. J. (2007). Merging qualitative and quantitative data in mixed methods research: How to and why not. *Ecological and Environmental Anthropology*, 3(1), 19-28
- Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education*, 4th ed. Boston: McGraw – Hill, p. 4532.
- Koufogiannakis, D., Slater, L., & Crumley, E. (2004). A content analysis of librarianship research. *Journal of Information Science*, 30, 227-239.
- Mavodza, J. (2010). Knowledge management practices and role of an academic library in a changing information environment: The case of the Metropolitan College of New York. (PhD thesis), University of South Africa.
- Mouton, J. (2006). *Understanding social research*. Pretoria: Van Schaik
- Powell, R. R., & Connaway, L. S. (2004). *Basic research methods for librarians*. London: Libraries Unlimited.

Teijlingen, E. R. V., & Hundley, V. (2011). The importance of pilot studies. *Social Research Update*, 35 Available at: www.sru.soc.surrey.ac.uk/SRU35.html [Accessed: 17/01/2015]

Web of University Ranking (2014). Available at: www.webometrics.info/en/world [Accessed: 17/01/2015]

Williams, A., Guise, N., Koonce, T., Kou, Q., & Guise, D. (2004). Using knowledge management practices to develop a statute-of-the-art digital library. *Medical Information*, 11(1), 99-103.

Yin, R.K. (2008). *Case study research: Design and methods*. Thousand Oaks, California: Sage

Yin, R.K. (2003). *Case study research: Design and methods*. Thousand Oaks, California: Sage

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The data analysis and findings of the study presented in this chapter reflects the methodological approach of mixed methods. Descriptive statistics was used for the quantitative component of the study while the qualitative part which was mainly interview, was analyzed based on themes. The data analysis was thus presented in two parts – quantitative and qualitative components.

4.2 Quantitative Analysis and Findings

This first part of the data analysis and findings focused on the data gathered from the questionnaire. The Likert scale was interpreted in a manner that gave strongly agree – 1, agree – 2, neutral (undecided) – 3, disagree - 4 and strongly disagree – 5. However, weighted averages were calculated with SPSS to indicate the tendency towards agree, neutral, and disagree. Descriptive statistics was then used to analyze the data. These categories, according to O’Sullivan, Russel and Burner (2008) are the most commonly used. These were also used because it was believed that respondents had a clear-out opinion on the topic considering their background. The analysis and presentation of the findings were based on themes derived from the research objectives. These included:

- Knowledge and use of social media;
- The adoption of social media in reference and user services;
- The level of support offered by parent libraries;
- The types of social media platforms used;

- The perception of social media use in reference services; and
- Challenges associated with the use of social media.

4.2.1 Background Information and Response Rate

The respondents comprised reference and user services librarians from three public and three private universities in Ghana. A total of 87 out of 99 copies of questionnaire were fully completed and returned. This represents 87.8% response rate. Such a high response rate is characteristic of self-administered questionnaire, as intimated by Powell and Connaway (2004).

Nineteen (19) out of 27 copies of questionnaire expected from the University of Ghana were returned. This represented 21.8% of the total respondents. Respondents from the Kwame Nkrumah University of Science & Technology returned 31 completed questionnaire. This was three short of the 34 copies administered and represented 35.6% of the total respondents. The University of Cape Coast returned 22 copies of questionnaire out of the expected 24, representing 25.3% of the total respondents. The private universities returned all questionnaires administered to them with 2(2.3%) coming from Ashesi University College, 10(11.5) from Valley View University and 3(3.4%) completed questionnaire from Ghana Technology University College.

Librarians from the public universities constituted 72(82.8%) respondents and 15(17.2%) respondents came from their private counterparts. This was a true reflection of the sizes of the institutions involved in the study, their libraries and particularly their staff strength.

A total of 29(33.7%) respondents were professionals with the remaining 57(66.3%) being para-professionals.

4.2.2 Knowledge and Use of Social Media

This section analyzed the knowledge of respondents in social media, the level of knowledge, and their source of knowledge of social media. It focused on analyzing the use of social media by respondents and the extent to which respondents could apply social media in both personal and work-related activities. It finally analyzed the differences between respondents in private and public universities with respect to their knowledge in social media.

4.2.2.1 Knowledge of Social Media

The first objective the study sought to find out the knowledge of respondents in social media, they were asked to give their opinions on a number of definitions relating to social media. The responses received are presented in Table 4.1.

Table 4.1: Knowledge of the Social Media Concept

Concepts	Responses							
	Agree		Neutral		Disagree		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%
Group of professional with similar social life	29	33.3	17	19.5	32	36.8	9	10.3
Online platform for social workers	30	34.5	17	19.5	32	36.8	8	9.2
Online platform for collaboration and communication	76	87.4	6	6.9	2	2.3	3	3.4
Internet-based tools for sharing and discussing information	75	86.2	6	6.9	1	1.1	5	5.7
Online platform for media activities	57	65.5	10	11.5	11	12.6	9	10.3

Source: Field data, 2015

It can be seen from the table that 29(33.3%) respondents affirmed social media as a group of professionals with similar social life, 17(19.5%) were undecided about this while 32(36.8%) respondents disagreed. Thirty (34.5%) respondents saw social media as online platform for social workers but 32(36.8%) respondents disagreed. A majority of 76(87.4%) respondents knew social media to be online platform for collaboration and communication. Another 75(86.2%) respondents affirmed social media as internet based tools for sharing and discussion of information, 6(6.9%) were ambivalent with their responses while 1(1.1%) respondent disagreed. A significant number of 57(65.5%) respondents indicated that social media is online platform for media activities.

4.2.2.2 Knowledge of Social Media by Institution Status

The researcher probed further to find out possible differences in the knowledge of respondents by institution status. It was revealed that there was but little difference between respondents in private and public universities with respect to their knowledge of social media. This can be seen in Table 4.2.

Table 4.2: Knowledge of Social Media by Institution Status

		Institution Status			
		Public		Private	
Social Media Concepts	Responses	Frequency	Percentage	Frequency	Percentage
Online platform for collaboration and communication	Agree	65	90.3	11	73.3
	Neutral	2	2.8	4	26.7
	Disagree	2	2.8	0	.0
	No Response	3	4.2	0	.0
Online platform for social workers	Agree	27	37.5	3	20.0
	Neutral	14	19.4	3	20.0
	Disagree	24	33.3	8	53.3
	No Response	7	9.7	1	6.7

Source: Field data, 2015

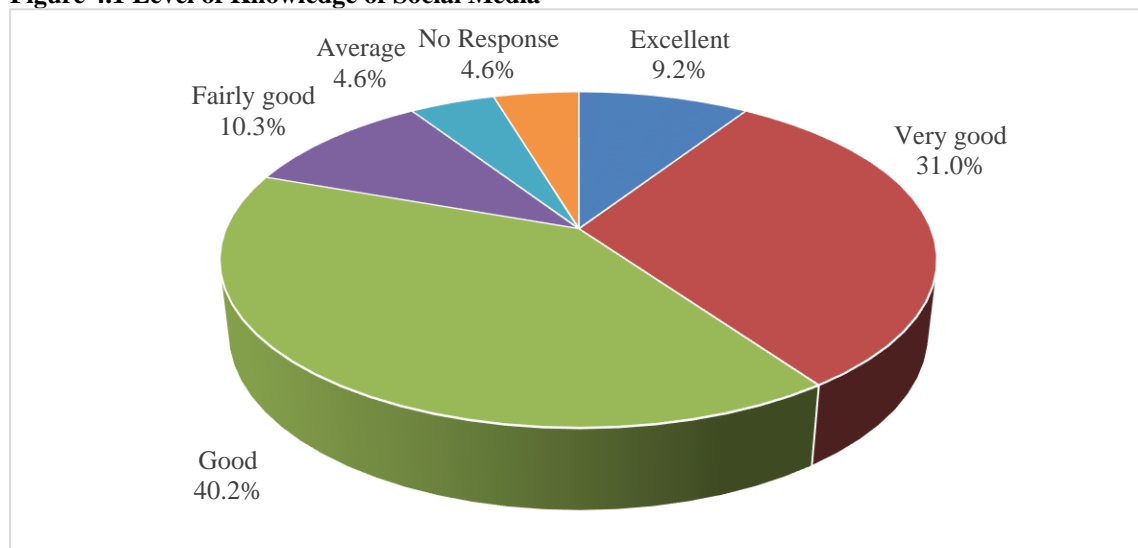
From the table, 65(90.3%) respondents in public universities saw social media as online platform for collaboration and communication while 2(2.8%) respondents disagreed.

Similarly, 11(73.3%) respondents from the private universities knew social media to be online platform for collaboration and communication while no respondent disagreed. In both cases, more respondents agreed while fewer disagreed. However, there were some differences concerning what social media is not. More respondents from the public universities saw social media to be online platform for social workers than respondents from the private universities. Respondents from the private universities could, therefore, be said to have a better understanding of social media than those in the public universities because social media is not necessarily a platform for social workers.

4.2.2.2 Level of Knowledge of Social Media

The desire to use an innovation could be influenced by one's level of knowledge of a specific innovation. Respondents were, therefore, asked to indicate the level of their knowledge of social media. The responses obtained are presented in Figure 4.1.

Figure 4.1 Level of Knowledge of Social Media



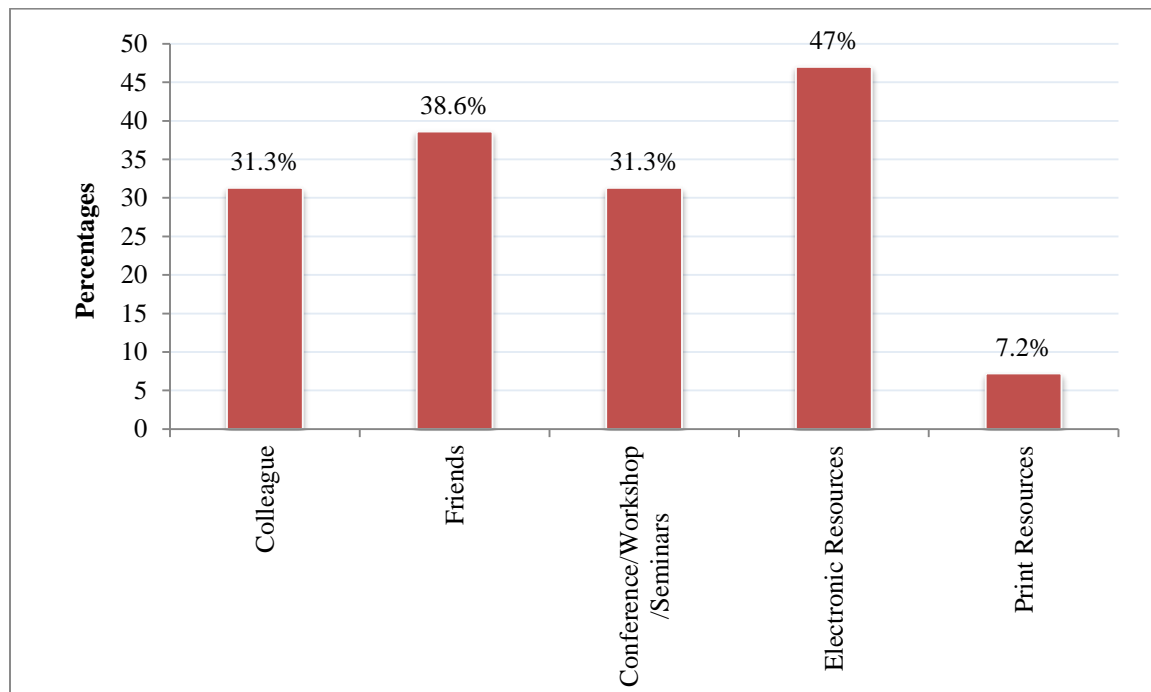
Source: Field data, 2015

As can be seen from the figure, 8(9.2%) indicated they had excellent knowledge of social media, 27(31%) respondents claimed to have very good knowledge, 9(10.3%) had fairly good knowledge while 4(4.6%) indicated they had average knowledge of social media.

4.2.2.3 Source of Knowledge of Social Media

Social media is not only an innovation but also an emerging area. Thus, new platforms keep emerging. Sources of knowledge of the different platforms could help librarians expand their knowledge and use of social media. The study sought to find out where reference and user services librarians acquired their knowledge of social media. This was necessary to help find ways of reaching out to librarians who still lacked the knowledge of the array of social media tools. The responses are represented in Figure 4.2.

Figure 4.2: Sources of Knowledge of Social Media

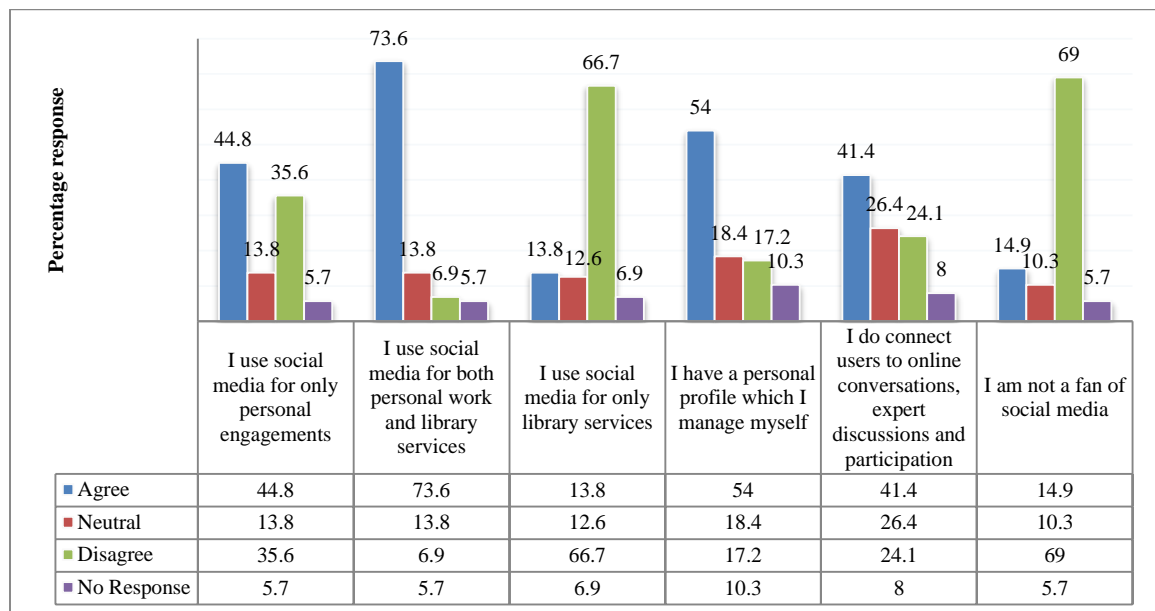


Source: Field data, 2015

From the figure, 26(31.3%) respondents indicated they acquired their knowledge of social media from colleagues, 32(38.6%) respondents got to know about social media from their friends, and 26(31.3%) learnt about social media at conferences, workshops and seminars. Another 39(47.0%) respondents acquired their knowledge of social media from electronic sources while 6(7.2%) respondents acquired their knowledge of social media from print sources. This reflected a wide range of sources of knowledge.

4.2.2.4 Extent of Use of Social Media

A 21st Century librarian was earlier described as “a new brand name for a master of information age who strives to understand the power of the social media opportunities and not only practices it but is also able to connect users to expert discussions, conversations, and participation” (Waiske, 2011). Waiske intimates that “successful librarians in social media environment need to be aware of this emerging technology, understand the social paradigm and information contexts that are emerging within web 2.0, and play active role in facilitating online resources made available from social media”. The second objective sought to find out the extent to which respondents used social media. The responses received are represented in Figure 4.3.

Figure 4.3: Extent of Use of Social Media by Respondents

Source: Field data, 2015

It can be seen from the figure that 39(44.8%) respondents agreed using social media for only personal engagements, 12(13.8%) were undecided on the extent to which they could use social media. A total of 64(73.6%) respondents used social media for both personal work and library services while 12(13.8%) used social media for only library services. A total of 47(54%) respondents agreed having the ability to manage profiles, 16(18.4%) were ambivalent on this and 15(17.2%) disagreed with having the ability to manage profiles. Thirty-six (41.4%) could connect to online conversations, expert discussions and participation while 21(24.1%) disagreed with the fact that they could do so. Most respondents saw themselves as social media fans as only 13(14.9%) agreed they were not.

4.2.3 Adoption of Social Media in Reference and User Services

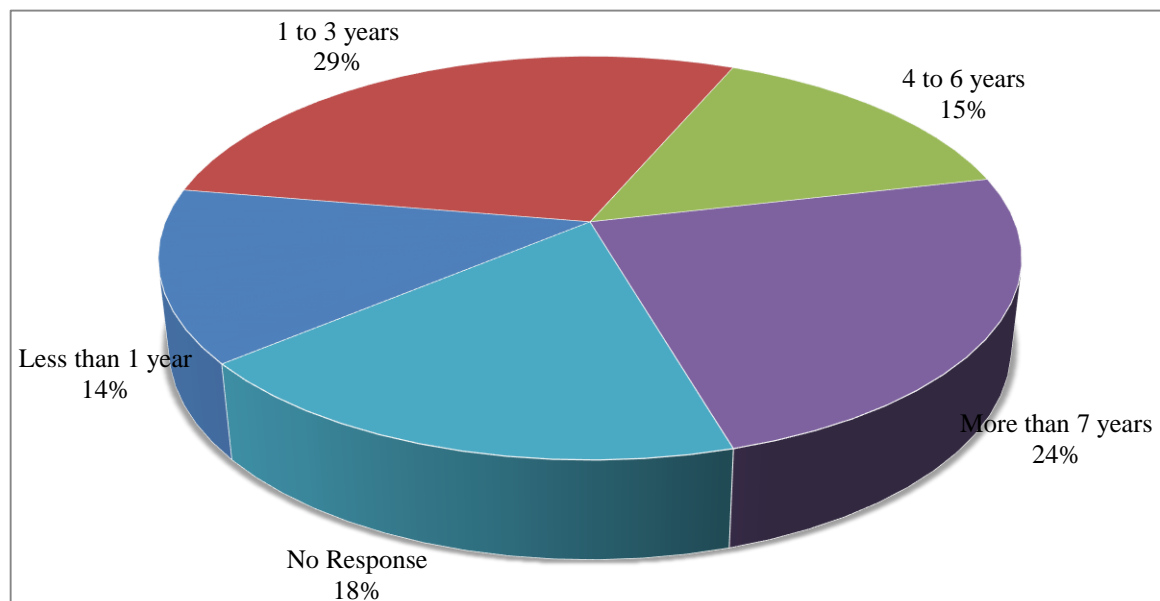
Earlier studies in the United States suggest that library services had no business dealing with social media (De Rosa *et al.*, 2007). Directors of libraries, librarians, and sponsors

thought that social media was not consistent with library services and did not see the need to engage in their use. Later, however, “the possibility of using social networking sites in libraries were demonstrated by the use of Facebook and Myspace as many librarians were identified online and reached by patrons for synchronous services” (Chu & Nalani-Meulemans, 2008). Librarians adopt social media at different times and this puts them into different categories of adoption. This section thus analyzed the data on the adoption categories of respondents based on how long respondents had used social media.

4.2.3.1 Adoption Categories of Respondents

The study sought to find out when respondents adopted the social media innovation. Four adopter categories were identified: “laggards”, those who had used social media for less than a year; “late majority” - 1 to 3 years; “early majority” - 4 to 6 years; and “early adopters” – More than 7 years. The results are represented in Figure 4.4.

Figure 4.4: Number of Years Respondents have used Social Media



Source: Field data, 2015

From the figure, 12(13.8%) respondents indicated they had used social media for less than one year. Another 25(28.7%) respondents affirmed using social media for between one and three years, 13(14.9%) respondents had used it for between four and six years, while 21(24.1%) respondents had used social media for more than seven years. Thus considering the fact that the application of social media in libraries started in 2005 (Kroski, 2007), 14% of respondents were classified as laggards, 29% as late majority, 15% as early majority and 24% of respondents as early adopters.

4.2.4 Support/Motivation from Libraries

The section analyzed the levels of support respondents had enjoyed from their parent libraries and universities. Motivation from parent libraries is key to a successful adoption of social media. The third objective of the study sought to find out if respondents were motivated, and if so, how it was done. Responses received from respondents on support offered by parent libraries are represented in Table 4.3.

Table 4.3: Support/Motivation from Libraries

Type of Support/Motivation	Responses							
	Agree		Neutral		Disagree		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%
The library offers in-house training and the use of social media	33	37.9	17	19.5	32	36.8	5	5.7
There exist informal help among librarians on the use of social media	44	50.6	21	24.1	16	18.4	6	6.9
The library has guidelines for responding to queries through social media	34	39.1	21	24.1	28	32.2	4	4.6
There are different guidelines for specific media tools	31	35.6	30	34.5	20	23.0	6	6.9
The library does nothing to motivate the use of social media	22	25.3	12	13.8	48	55.2	5	5.7

Source: Field data, 2015

From the table, 33(37.9%) respondents indicated that their libraries offered in-house training in the use of social media. Another 32(36.8%) respondents disagreed with this fact. On informal help among colleagues, 44(50.6%) respondents agreed to the existence of such help, 21(24.1%) respondents were ambivalent while 16(18.4%) respondents disagreed with existence of informal help. Thirty four (39.1%) respondents indicated that their libraries had guidelines for responding to queries that came through social media and another 31(35.6%) affirmed that their libraries had different guidelines for specific social media tools. However, 20(23%) respondents disagreed with the existence of such guidelines. In a

situation where there existed no support and guidelines, individual interests and decisions were bound to dictate the use of social media tools. Forty-eight (55.2%) respondents disagreed with the fact that their libraries did nothing to motivate the use of social media, 22(25.3%) affirmed this and 12(13.8%) offered non-committal responses on this fact.

4.2.4.1 Support offered to Librarians by Institutions

There was a significant difference between respondents from public universities and those from private universities with respect to support to librarians. This can be seen from the cross-tabulation in Table 4.4

Table 4.4: Support from Libraries by Institutions

		Institution Status			
		Public		Private	
Variables	Responses	Frequency	Percentage	Frequency	Percentage
The library offers in-house training in the use of social media	Agree	26	36.1	7	46.7
	Neutral	12	16.7	5	33.3
	Disagree	29	40.3	3	20.0
	No Response	5	6.9	0	.0
There exists informal help among librarians in the use of social media	Agree	35	48.6	9	60.0
	Neutral	19	26.4	2	13.3
	Disagree	12	16.7	4	26.7
	No Response	6	8.3	0	.0
The library does nothing to motivate the use of social media	Agree	20	27.8	2	13.3
	Neutral	10	13.9	2	13.3
	Disagree	37	51.4	11	73.3
	No Response	5	6.9	0	.0

Source: Field data, 2015

The table shows that 26(36.1%) respondents from public universities agreed with receiving support by way of in-house training, while 29(40.3%) respondents disagreed. The same trend could not be seen of the private universities where on the other hand more respondents agreed and fewer disagreed with receiving support by way of in-house training. Obviously, the private universities were inclined to offer more support through

in-house training than the public universities. Thirty five (48.6%) respondents agreed while 12(16.7%) disagreed from public universities on support by way of informal help. The trend was same for respondents from private universities. In both private and public universities, more respondents agreed on informal help than those who disagreed.

4.2.5 Major Social Media Tools Used

The commonly used social media platforms in the library include Facebook, Twitter, Wikis, YouTube, RSS (Xie & Stevenson, 2014). The fourth objective of the study sought to find out which social media platforms were used in reference and user services. In this direction, questions were asked to find out how often respondents used specific social media tools for work-related purposes. The responses are represented in Table 4.5.

Table 4.5: Use of Social Media by Respondents

Types of SM	Daily		Weekly		Monthly		Occasionally		Never		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
<i>Facebook</i>	28	32.2	16	18.4	3	3.4	16	18.4	20	23.0	4	4.6
<i>Twitter</i>	8	9.2	7	8.0	2	2.3	25	28.7	37	42.5	8	9.2
<i>Blogs</i>	2	2.3	11	12.6	5	5.7	26	29.9	35	40.2	8	9.2
<i>YouTube</i>	12	13.8	8	9.2	3	3.4	35	40.2	21	24.1	8	9.2
<i>RSS</i>	3	3.4	4	4.6	2	2.3	24	27.6	45	51.7	9	10.3
<i>Delicious</i>	-	-	3	3.4	2	2.3	14	16.1	60	69.0	8	9.2

Source: Field data, 2015

It can be seen from the table that Facebook was the most popular social media tool used. On daily basis, 28(32.2%) respondents used Facebook and 16(18.4%) respondents used it weekly. Only 8(9.2%) respondents used Twitter on daily basis while 37 (42.5%) respondents never used it. Blogs, RSS feeds and Delicious had woefully low patronage as indicated by 35(40.2%), 45(51.7%), and 60(69%) respondents respectively who never used them.

4.2.5.1 Use of Social Media Tools by Type of Institution

The researcher further compared the trends in use of the individual social media tools by institution status and the analysis and findings are given below.

4.2.5.1.1 Facebook

Facebook is a type of social media site that allows users to interact by adding friends, joining groups, commenting on profiles, and having discussions. Libraries can embed subject guides within Facebook pages so as to provide reference services such as “ask a librarian”, ‘chat’ and instant messaging. Comparatively, the trends in the use of Facebook in both private and public universities were same for “daily” up to “occasionally”. These are shown in the cross-tabulations in Table 4.6.

Table 4.6: Use of Facebook by Type of Institution

		Institution Status			
		Public		Private	
Variable	Responses	Frequency	Percentage	Frequency	Percentage
Facebook	Daily	24	33.3	4	26.7
	Weekly	14	19.4	2	13.3
	Monthly	3	4.2	-	-
	Occasionally	14	19.4	2	13.3
	Never	13	18.1	7	46.7
	No Response	4	5.6	-	-

Source: Field data, 2015

Responses for frequencies of use decreased from “daily” to “weekly”, decreased further from “weekly” to “monthly”, and increased from “monthly” to “occasionally” Relatively, more respondents from the private universities never used Facebook, an indication that respondents from the public universities had the tendency to use Facebook more than those from the private universities.

4.2.5.1.2 Twitter

Twitter is a type social media tool that utilizes microblogging application to interact with patrons. It can keep librarians and users updated on the library’s collections. This is because users can send short messages to librarians and receive instant responses. Analysis of data

gathered also indicate that there were inconsistencies in the trends of use of Twitter between respondents from private and public universities. This can be seen from Table 4.7.

Table 4.7: Use of Twitter by Type of Institution

		Institution Status			
		Public		Private	
Variable	Responses	Frequency	Percentage	Frequency	Percentage
Twitter	Daily	5	6.9	3	20.0
	Weekly	7	9.7	-	-
	Monthly	-	-	2	13.3
	Occasionally	20	27.8	5	33.3
	Never	33	45.8	4	26.7
	No Response	7	9.7	1	6.7

Source: Field data, 2015

For the public universities, the data revealed that 5(6.9%) respondents used Twitter daily, 7(9.7%) used it weekly, and no respondent used Twitter monthly. It was an increase in use from “daily” to “weekly” and a decrease from “weekly” to “monthly”. The trend was different for respondents from private universities where 3(20%) respondents used Twitter daily, no respondent used it weekly and 2(13.3%) respondents used Twitter monthly. In this case, it was a decrease in use from “daily” to “weekly” and an increase from “weekly” to “monthly”. A relatively low figure of 4(26.7%) respondents from the private universities

never used Twitter. Obviously, there was a difference in the use of Twitter among respondents by virtue of the type of university they belonged to.

4.2.5.1.3 Blogs

Blogs consist of web pages with user supplied content in chronological order. Libraries can post messages, share information on a particular subject and expect instant reaction from their users. The researcher probed further by comparing private and public universities with respect to trends in the use of Blogs. The cross-tabulations on this are represented in Table 4.8.

Table 4.8: Use of Blogs by Type of Institution

		Institution Status			
		Public		Private	
Variable	Responses	Frequency	Percentage	Frequency	Percentage
Blogs	Daily	-	-	2	13.3
	Weekly	7	9.7	4	26.7
	Monthly	5	6.9	-	-
	Occasionally	24	33.3	2	13.3
	Never	30	41.7	5	33.3
	No Response	6	8.3	2	13.3

Source: Field data, 2015

It can be seen from the table that no respondent from the public universities used blogs daily while 2 (13.3%) respondents from the private universities used it. On the other hand, no respondent from the private universities used blogs monthly while 5(33.3%) respondents from the public universities used it. More respondents from the public universities never used blogs. Respondents from the private universities had the tendency to use blogs more than those from the public universities.

4.2.5.1.4 YouTube

YouTube is a social photo and video sharing tool. It allows users to interact by sharing photos or videos and commenting on user submissions. They can be used for sharing and distributing new images of library collections. Cross-tabulations on the use of YouTube within private and public universities revealed mixed indicators. These are depicted in Table 4.9.

Table 4.9: Use of YouTube by Type of Institution

		Institution Status			
		Public		Private	
Variable	Responses	Frequency	Percentage	Frequency	Percentage
YouTube	Daily	6	8.3	6	40.0
	Weekly	8	11.1	-	-
	Monthly	3	4.2	-	-
	Occasionally	31	43.1	4	26.7
	Never	16	22.2	5	33.3
	No Response	8	11.1	-	-

Source: Field data, 2015

From the table, it can be seen that responses from the public universities indicate an “up-and-down” trend from “daily” through “never”. The table also indicates that 6(40%) respondents from the private universities used YouTube daily while no respondent used it either weekly or monthly. Relatively, more respondents from the private universities never used YouTube. Obviously the trends were different.

4.2.5.1.5 Really Simple Syndication (RSS)

RSS is a web content syndication format used to publish frequently updated works such as blog entering and news bulletins in a standardized format (Mohammed, Reshma & Manu, 2014). RSS can benefit readers who may want to subscribe to timely update from favourite websites or to aggregate feeds from many sites into one place. The researcher again compared the trends in the use of RSS. The detailed cross-tabulations on the use of RSS are shown in Table 4.10.

Table 4.10: Use of RSS by Type of Institution

		Institution Status			
		Public		Private	
Variable	Responses	Frequency	Percentage	Frequency	Percentage
RSS	Daily	3	4.2	0	.0
	Weekly	2	2.8	2	13.3
	Monthly	2	2.8	0	.0
	Occasionally	20	27.8	4	26.7
	Never	37	51.4	8	53.3
	No Response	8	11.1	1	6.7

Source: Field data, 2015

While 3 (4.2%) respondents from the public universities used RSS, no respondent from the private universities used it. Again, while responses for “daily “to weekly” reduced from 3 (4.2%) to 2 (2.8%) in public universities. There was an increase from zero to 2 (13.3%) in private universities. Trends in use between librarians in public and private universities clearly differed.

4.2.5.1.6 Delicious

Delicious is a social bookmarking site. Users interact by tagging websites and searching through websites bookmarked by others for information on specific subjects. There was virtually nothing to choose between the respondents from private and public universities with respect to the use of Delicious as both had very little to do with Delicious. This was the revelation of the cross-tabulations shown in Table 4.11.

Table 4.11: Use of Delicious by Type of Institution

		Institution Status			
		Public		Private	
Variables	Responses	Frequency	Percentage	Frequency	Percentage
Delicious	Daily	-	-	-	-
	Weekly	2	2.8	1	6.7
	Monthly	2	2.8	-	-
	Occasionally	12	16.7	2	13.3
	Never	49	68.1	11	73.3
	No Response	7	9.7	1	6.7

Source: Field data, 2015

The table shows that 49(68.1%) respondents from public universities never used Delicious and 11(73.3%) respondents from the private universities also never used it. On daily basis no respondent, whether from public or private universities, used Delicious.

4.2.5.2 Functions Performed with Social Media

Earlier studies indicate that some social media platforms were not consistent with library services. It was imperative to find out which functions of reference and user services were consistent with social media. The responses are shown in Table 4.12.

Table 4.12: Functions Performed with Social Media

Functions performed with social media	Responses							
	Agree		Neutral		Disagree		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%
Responding to reference queries	38	43.7	15	17.2	25	28.7	9	10.3
Commenting on users' post	24	27.6	15	17.2	37	42.5	11	12.6
Sharing pictures	25	28.7	12	13.8	38	43.7	12	13.8
Notification on new arrivals	32	36.8	20	23.0	30	34.5	5	5.7
Client enquiries and feedback	41	47.1	16	18.4	24	27.6	6	6.9
Social bookmarking	18	20.7	26	29.9	35	40.2	8	9.2

Source: Field data, 2015

It can be seen from the table that 38(43.7%) respondents affirmed using social media to respond to reference queries, 15(17.2%) respondents gave non-committal responses on this

but 25(28.7%) respondents disagreed. Another 37(42.5%) respondents disagreed with using social media to comment on user's post though 24(27.6%) indicated they used social media for that purpose. Thirty-eight (43.7%) respondents did not share pictures with social media but 25(28.7%) saw sharing pictures with social media to be consistent with reference services. Thirty-two (36.8%) respondents used social media to notify users of new arrivals but 30(34.5%) respondents indicated they did not. A total of 41(47.1%) respondents agreed with responding to client enquires and receiving feedback through social media though 24(27.6%) disagreed with the consistency of social media for this function. Social bookmarking was unpopular with respondents and this was indicated by 35(40.2%) respondents who disagreed that it is consistent with reference services.

4.2.6 Perception of Social Media in Reference and User Services

The adoption of an innovation is influenced by the degree to which an innovation is perceived to be better than the existing one; how consistent the innovation is with existing values, experiences and needs; the extent to which the innovation can be tested; the extent to which it provides tangible results; and how difficult the innovation is (Rogers, 2005). Because of the different settings, experiences and needs of librarians, it was imperative to find out their perception on use of social media in reference and user services. Responses to questions asked are represented in Table 4.13.

Table 4.13: Perception of Respondents on Use of Social Media

Perceptions of Social Media	Responses							
	Agree		Neutral		Disagree		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%
Social media is preferred to traditional methods of service delivery	42	48.3	12	13.8	26	29.9	7	8.0
Social media cannot be a better alternative to the traditional services	37	42.5	14	16.1	33	37.9	3	3.4
Social media has been introduced but has not brought any tangible difference	15	17.2	21	24.1	45	51.7	6	6.9
Social media is not consistent with library services	21	24.1	13	14.9	49	56.3	4	4.6
Social media is too trivial to reference and user services	10	11.5	26	29.9	46	52.9	5	5.7

Source: Field data, 2015

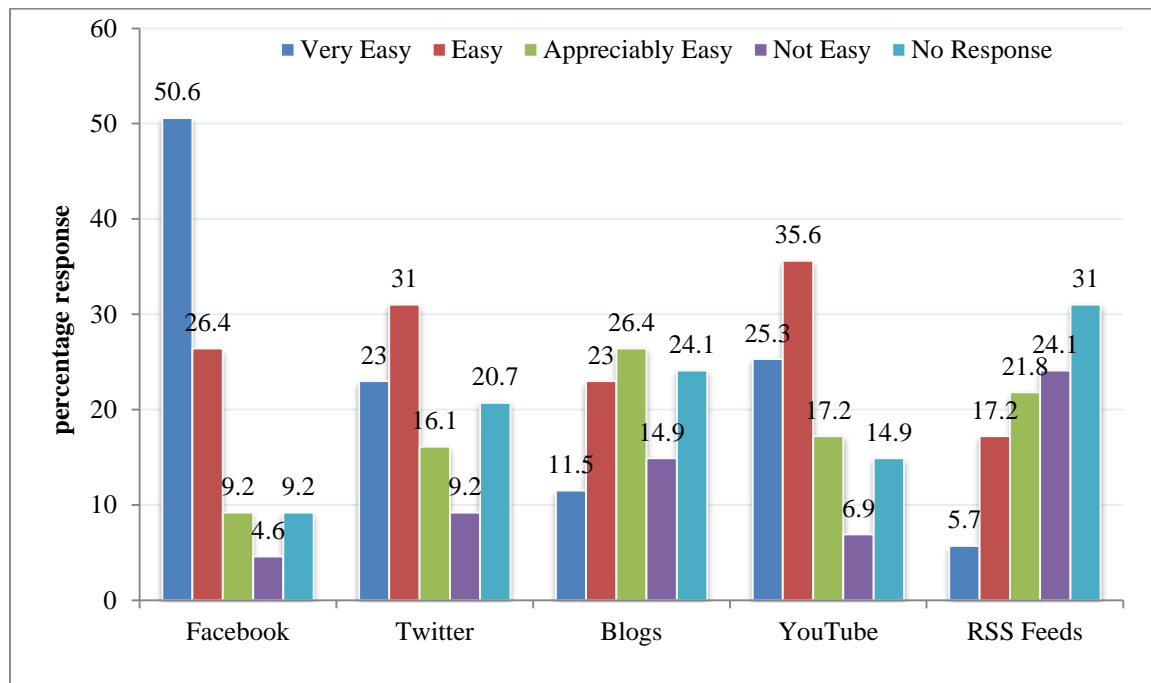
From the table, it can be seen that 42(48.3%) respondents had the perception that social media was preferred to traditional services but 26(29.9%) disagreed. Thirty-seven (42.5%) respondents had the perception that social media could not be a better alternative to traditional service while 33(37.9%) respondents disagreed. Only 15(17.2%) respondents agreed that social media had been introduced but had not brought any tangible difference. Ten (11.5%) affirmed that social media is trivial to reference and user services. Another

26(29.9%) were non-committal on this while 46(52.9%) disagreed with the fact that social media is trivial to reference services.

4.2.6.1 Ease of Use of Social Media Platforms

According to the technology acceptance model, the adoption of an innovation is influenced by the perceived ease of use of the innovation (Venkatesh & Davis, 2000). Rogers (2005) also theorizes that the adoption of a new technology is influenced by factors such as the perceived difficulty involved in using the technology. There was the need to find out from respondents how easy they found the use of social media tools in reference services. Attempts were, therefore, made to find out the perceived ease of use of the individual social media platforms. The responses are represented in Figure 4.5.

Figure 4.5: Ease of Use of Social Media



Source: Field data, 2015

It can be seen from the figure that 44(50.6%) respondents indicated they found Facebook characteristically very easy to use while only 4(4.6%) respondents found Facebook not easy to use. Twenty-seven (31%) respondents found Twitter easy and another 20(23%) respondents found it very easy to use. Twenty (23%) respondents indicated that Blogging was easy, while 13(14.9%) respondents did not find it easy. YouTube seemed to be appreciably popular with respondents as a significant number of 31(35.6%) respondents claimed it was easy. Again, only 5(5.7%) respondents affirmed RSS to be very easy.

4.2.6.2 Usefulness of Social Media Tools

Librarians might not want to adopt an innovation simply because it is a norm. They may rather want to put it into their own context to know its value before deciding on adoption and use. Respondents were asked to indicate the perceived level of usefulness of some specific social media tools in their services. The responses received are presented in Table 4.14.

Table 4.14: Level of usefulness of Social Media

<i>Type of Social Media</i>	Very Useful		Useful		Somewhat Useful		Little Useful		Not Useful		No Response	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Facebook	33	37.9	25	28.7	14	16.1	4	4.6	5	5.7	6	6.9
Twitter	20	23.0	29	33.3	18	20.7	3	3.4	6	6.9	11	12.6
Blogs	15	17.2	26	29.9	18	20.7	8	9.2	4	4.6	16	18.4
YouTube	21	24.1	28	32.2	15	17.2	8	9.2	5	5.7	10	11.5
RSS	10	11.5	21	24.1	14	16.1	10	11.5	9	10.3	23	26.4
Delicious	7	8.0	12	13.8	17	19.5	12	13.8	15	17.2	24	27.6

Source: Field data, 2015

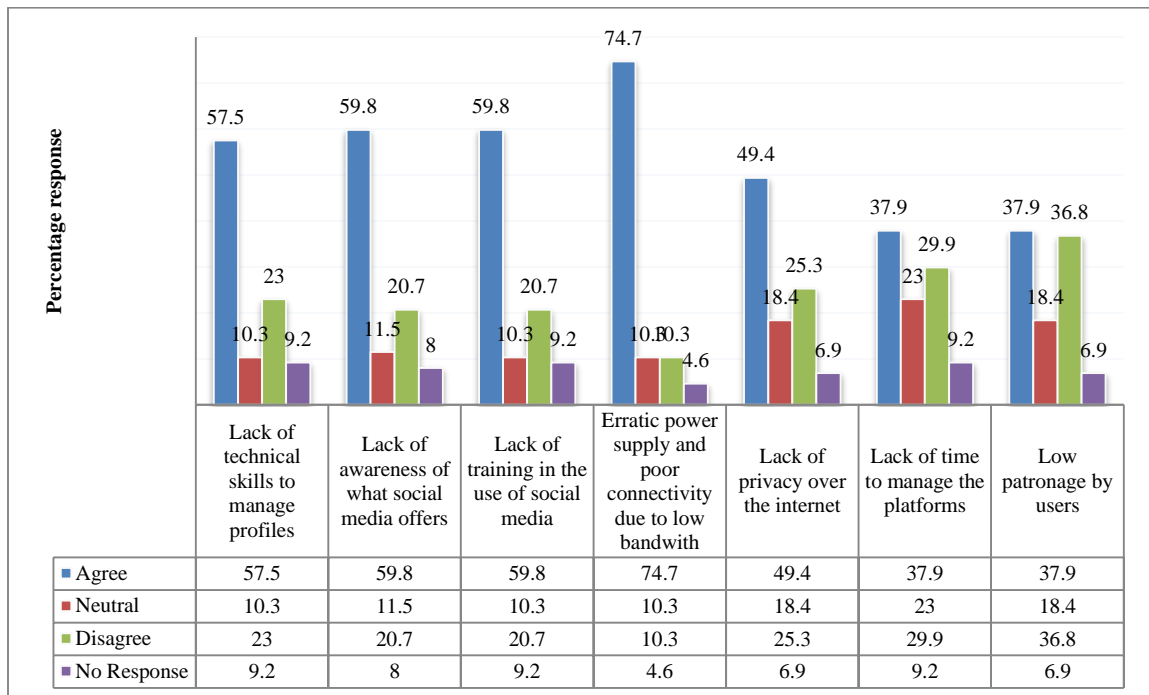
From the table, opinion of 33(37.9%) respondents indicated Facebook as very useful and another 25(28.7%) as useful. Only 5(5.7%) respondents indicated that Facebook was not useful in reference and user services. Twenty-nine (33.3%) respondents found Twitter to be useful, 20(23%) respondents found it very useful and 6(6.9%) respondents indicated that it was not useful. Though respondents could not be said to be in love with YouTube and Blogs, the usefulness of the two tools could not be taken for granted. This was revealed by the fact that only 4(4.6%) and 5(5.7%) indicated respectively that Blogs and YouTube were not useful. Twenty-one (24.1%) respondents perceived RSS feeds to be useful in reference and user services but 9(10.3%) respondents found RSS not useful. Again, only

7(8%) respondents found Delicious very useful. Majority did not see Delicious to have so much role in reference services and only perceived it to be somewhat useful.

4.2.7 Challenges Associated with Use of Social Media

The challenges of using social media could be many and varied. The study sought to find out the opinion of respondents on them. The responses are represented in Figure 4.6.

Figure 4.6: Challenges of Using Social Media



Source: Field data, 2015

As can be seen from the figure, 50(57.5%) respondents agreed that lack of technical skills to manage profiles was a challenge but 20(23%) respondents disagreed with this fact. The literature revealed that lack of awareness of the array of services that can be provided with social media is a challenge. Respondents were therefore asked to give their opinion on this

too. Again, 52(59.8%) respondents agreed with this, 10(11.5%) respondents were ambivalent while 18(20.7%) disagreed.

Training is key to the use of social media. This could be mainly because it is an emerging area. Fifty-two (59.8%) respondents agreed with the fact, 9(10.3%) respondents remained neutral on that and 18(20.7%) disagreed. Majority of respondents totaling 65(74.7%) affirmed that erratic power supply with its attendant poor internet connectivity remained a challenge. Lack of privacy over the internet was seen by 43(49.4%) respondents as a challenge. Another challenge from the review of the literature was the lack of time to practise social media in libraries. Again, 33(37.9%) respondents agreed to this fact but 26(29.9%) respondents disagreed.

Patronage also plays a key role in the success of the adoption of social media in user services. It was therefore necessary to find out the opinion of respondents on the impact of patronage on the adoption of social media. To 33(37.9%) respondents, low patronage was a challenge. Another 32(36.8%) disagreed, while 16(18.4%) respondents were non-committal.

4.2.7.1 Ranking of Challenges

By far the highly ranked challenge erratic power supply and poor connectivity due to low bandwidth. This can be seen from Table 4.15.

Table 4.15: Ranking of Challenges

Challenges	Mean	Std. Deviation	Rank
Erratic power supply and poor connectivity due to low bandwidth	1.65	1.33	1 st
Lack of training in the use of social media	2.14	1.69	2 nd
Lack of awareness of what social media offers	2.15	1.68	3 rd
Lack of technical skills to manage profiles	2.24	1.73	4 th
Lack of privacy over the internet	2.48	1.73	5 th
Lack of time to manage the platforms	2.82	1.73	6 th
Low patronage by users	2.98	1.8	7 th

Source: Field data, 2015

Erratic power supply and poor connectivity appears to be a pervasive and serious challenge in all the universities. Lack of training in the use of social media was also identified as the next highly ranked challenge. Meanwhile, low patronage by users was the least ranked challenge faced in the universities.

4.3 Qualitative Analysis and Findings

As indicated earlier, the researcher sought to conduct interviews for some segment of the sample. The interviews were intended to compliment the questionnaire to determine the perception of librarians on the integration of social media in the area of reference and user services. In order to achieve this, face-to-face interviews were conducted in addition to the use of questionnaire.

There were six interviews in all, five of them were conducted in the offices of interviewees within their libraries and one was conducted through video call by the use of skype. All interviews were audio-taped and could therefore not be anonymous. In order to keep the confidentiality of responses, the personal information on participants with regards to their names, designation, and other details were not recorded. The interviews yielded very important qualitative results. It is important to note that though some quotations are highlighted in this work, they are not linked or identified with respondents. In all cases, only the ideas and opinions were expressed and analyzed as data. The interview transcript was analysed based on the themes listed below:

- Management of social media platforms
- Policy issues on social media use
- The role of social media in reference and user services
- The readiness of libraries for integration of social media
- Infrastructural and other challenges associated with use of social media.

4.3.1 Management of Social Media Platforms

Respondents of the questionnaire were not in senior management positions and hence were not capable of providing information on the management of social media platforms. There was the need, therefore, to compliment data from the questionnaire with data from interviews with regards to oversight responsibilities and procedures of website

management. This section covers the responses of interviewees on the management of social media platforms in the public and private universities in Ghana.

All the public libraries involved in the study were on at least two social media platforms. They had Facebook pages and Twitter feeds which were active according to interviewees. They also had Blogs and LinkedIn accounts though the latter was not included in the study. Two of the three private universities were also on social media platforms. Unlike the public universities that had their own webpages, the private universities made use of the university links. This was due to the small size of the institutions as was explained by one of the participants. In such situations, the librarians had no option but to use only those platforms that the institutions were active on. One participant in a private university had this to say about their platform:

“The guy who does our PR does a lot of the publicity for the institution as a whole and he is overly active on Twitter and Facebook and so I don’t know about LinkedIn.... I’m not sure about Instagram but definitely on those two. But he basically does it for the institution because we are very small and so the library has a Twitter feed.”

The sentiments expressed were not different from those of another participant from a private university who expressed that:

“The library itself doesn’t have its own website. It depends on the school’s one --- and since it’s linked to the school’s website they [the platforms] are regularly updated.”

Obviously, the type of platform used and how regularly it was updated depended on who managed it, whether a librarian or another member of university staff.

4.3.2 The Role of Social Media in Reference and User Services

Respondents had their own interests, preferences, and choices, and these had the tendency to influence their perception on the integration of social media in libraries. The library's setting, mandate, expectations, resources, and the role social media could play were perceived by the researcher to be better appreciated by heads of sections. Interviews were, therefore, used to gather data on the role of social media in reference and user services. Opinions expressed by participants on the place of social media in reference and user services were quite interesting. For participants in public universities, social media is very good because it offers them the opportunity of getting feedback from users on how best the library was performing so they could improve. A participant from a public university had this to say:

“Well I think that we have to be where the users are.... So we don't have a choice. So we have to be there as librarians, even if we might have our personal.... But I think that the users are in the social media so we have to be there.”

A similar expression by another public university participant went as follows:

“Honestly, my observation is that it [social media] is the best thing that we really have to use. When you go outside the country, a lot of universities are using social media. For example Facebook, thousands or hundreds of people like it. Once you

see users liking them, it could be that they like the content or the libraries and whatever they are doing”

Some private universities saw social media as one of the many ways of engaging users. This was mainly because a lot of users, especially students stayed on social media. A participant did not mince words as he candidly stated that:

“Well my perception is that it [social media] is a platform where you can get a lot of ideas, views, and suggestions from users. When an issue [content] is posted, a lot of ideas from all angles will come..... so my perception is that it is a good thing to use in reference service.”

4.3.3 Policy on Use of Social Media

Gallivan, Spitler and Koufaris (2005), advancing the social process approach to the social network theory, suggests support or informal help either from parent organization or colleagues for a successful adoption of innovation like social media. This implies policies must be in place to support and guide the use of social media. The researcher, therefore sought to find out whether there were policy guidelines that regulated and supported the use of social media in the libraries.

The opinions expressed by both public and private universities were mixed and sometimes varied concerning policy and support. A participant maintained that efforts at learning and implementing social media rather had been through individual efforts and believed policy

on support from library management could go a long way to help librarians. In response to whether the libraries had policy on social media, a participant intimated that:

“Not that I’m aware of. A lot is done by individuals. Those who are manning the social media……It is personal interest, reading and developing themselves”

On the same policy on social media, a similar voice said the following:

“ But even though the library could help, there should be some personal interest that the library can identify and then explore and send the interested people ……… because this is an area that if the person is not interested, no matter how much training you give the person, the person will not deliver”

For the private universities, policy for social media was not exclusively for libraries. It was general for the institutions, which the libraries were integral part.

4.3.4 Readiness of Libraries for Integration of Social Media

A question was posed to participants that sought to find out their reaction to the general statement that “Libraries are not ready for social media.” This statement received interesting responses that seemed to confirm to a large extent that the notion is true. An interviewee expressed an observation in respect of the fact that librarians were not ready for social media as:

“I think it is true. The older librarians are not. I think it is a generational thing. ……… So it is true to a certain extent. The young ones are more interested in social media than the older ones. So I think it is true to some extent.”

The sentiments expressed by another participant from a private university corroborated this when asked to react to the same statement. She said that:

“That is probably true, especially in Ghana. I don’t think they like it [social media] that much. Everybody does Facebook but they do it for themselves, not for academic stuff. It is quite difficult to find people’s Twitter accounts, even people doing blogging Maybe I am not looking at the right place..... But it is difficult.”

Others were of the view that the situation used to be so but the same could not be said of the current generation of librarians. An interviewee lamented as expressed in the following:

“When you go out of the country, this perception is not there. But when you come to Africa, especially Ghana that is where you hear this. They [librarians] may not be naive, just that majority know about it but they are not conversant with it But when you introduce them to the platforms, they begin to flow”

Participants held different opinions as to whether the use of social media was the way modern libraries were unavoidably heading towards and if they thought libraries could be better off with social media. A participant from a public university had the following to say:

“Yes, I think so. I believe so because even now you can have EBSCO on your phone On the go once you have the plug-in. So you should be able to ask a librarian everywhere. The use of library without walls is coming People shouldn’t come to the library before they access information..... wherever you

are Information on the go. The turn-around time for users in receiving information is very important so the way to go is social media”

This view was shared by one of the participants whose opinion was also expressly carried in the following:

“Definitely social media will make a lot of difference. Because the truth is that we are here for our users and if we are not where our users are, then we are not making the impact we need to make..... Yes we will be better off.”

This was not to say librarians were inclined to easily do away with the traditional methods of service delivery. There were those who had the notion that traditional service should not be sacrificed on the altar of social media. This view was candidly expressed by a participant from a private institution as follows:

“It will be better but the traditional way of doing things must not be taken off. It should run hand-in-hand with social media.”

However, some participants felt that social media was a sure way of staying interactive with users. They could not understand why platforms would be created and not used. One participant had this to say:

“If we really want to get to our users, we don’t just have to create the Facebook or Twitter and sit back. It has to be a whole department on its own.”

Another who could not hide his intentions also had this to say:

“It is very good But if you create the platforms and you don’t get someone to be using it often, then there is no need creating it. The best thing is to create and get someone to be interacting with users.”

4.3.5 Infrastructure and other challenges

The interviews revealed some challenges with infrastructure that confronted libraries and librarians with regard to integration of social media. A number of them were put together in a statement from an interviewee who said that:

“Power (dumso-dumso) and..... Some librarians are skeptical about it..... Also bandwidth but the bandwidth should not be a major problem with mobile phones.”

Some interviewees also bemoaned the lack of computers, internet access and inadequate space due to the fact that social media was not a priority of library management. This was to indicate that social media was not part of the library’s policy and that though institutionalized, it all started with individual efforts. The following was how the frustration of one participant was poured:

“One big challenge is that it [social media] is not really pushed from the top. I think social media has been successful in this library because of one individual who saw it as important and pushed it and it’s been kind of institutionalized. It doesn’t have the buying from everybody, especially the top. That is why we have challenges with infrastructure.”

Other major challenges strongly revealed by participants besides infrastructure bothered on lack of time and interest to practice social media, and the fact that some librarians were conservative and did not appreciate the value of social media in reference and user services.

4.4 Chapter Summary

The chapter covered the analysis of data gathered and presentation of findings that emerged from it. The findings were presented according to themes aimed at answering the research questions. Interviewees were not identified with their statements in order to preserve their confidentiality (Babbie, 2010). The questionnaire revealed that though some respondents displayed lack of knowledge in social media, majority of respondents were knowledgeable in social media and used it. Both questionnaire and interviews revealed that majority of participants had used social media for a period between 3-7 years, and that most of the parent libraries offered support or incentives by way of seminars, workshops, and conferences. Most of the public libraries, however, lacked policy guidelines on the use of social media in libraries.

References

- Ayiah, E. M., & Kumah, C. H. (2011). Social networking: A tool to use for effective service delivery to clients by African libraries. *Proceedings of IFLA Conference*, 13 – 18 August, San Juan, Puerto Rico. Available at: <http://conference.ifla.org/ifla77> [Accessed: 10/12/2014]
- Babbie, E. (2010). *The practice of social research*. 12th ed. Belmont, AC: Wadsworth
- Chu, M., & Nalani-Meulemans, Y. (2008). The problems and potential of MySpace and Facebook usage in academic libraries. *Internet Reference Services Quarterly*, 13(1), 69-85
- De Rosa, C., Cantrell, J., Havens, A., Hawk, J., Jenkins, L., Gauder, B., Limes, R., & Celleni, D. (2007). Sharing, privacy and trust in our network world. *OCLC Membership Report, Dublin, OH*
- Gallivan, M. J., Spittler, V. K., & Koufaris, M. (2005). Does information technology really matter? A social information processing analysis of coworkers' influence on IT usage in the work place. *Journal of Management Information Systems*, 22(1), 153-192.
- Kroski, E. (2007). The social tools of web 2.0: Opportunities for academic libraries. *Choice*, 44(12), 2011-2021
- Mohammed, H. K., Reshma, S.R. & Manu, C. (2014). Available at www.slideshare.net/ManuChembrakuzhi/use-of-RSS [Accessed 29/09/2015]
- O'Sullivan, E., Russel, G. R., & Burner, M. (2008). *Research methods for public administrators*. New York: Pearson.

Powell, R. R. & Connaway, L. S. (2004). *Basic research methods for librarians*. London: Libraries Unlimited

Rogers, E. M. (2005). *Diffusion of innovations*, 5th ed., New York: Free Press

Venkatesh V., & Davis, F. D. (2000). Final version of Technology Acceptance Model (TAM). *Management Science*, 46(2), 186-204.

Xie, I., & Stevenson, J. (2014). Social media application in digital libraries. *Online Information Review*, 38(4), 502-523.

CHAPTER 5

DISCUSSION OF MAJOR FINDINGS

5.1 Introduction

This chapter covers the discussion of analysis and findings presented in Chapter Four. Just as in Chapter Four, the discussion followed the themes derived from the research objectives and questions and they included:

- Knowledge and use of social media;
- Adoption of social media in reference and user services;
- The level of support offered by parent libraries;
- The types of social media used;
- The perception of social media in reference and user services; and
- Challenges associated with the use of social media in reference services.

The triangulation involved in the mixed methods approach made it imperative to integrate and compare findings that were made available through the qualitative and quantitative data analyses. This was to facilitate simultaneous discussion of the findings. In some instances, opinions and ideas expressed by respondents and interviewees were convergent while in other instances, there were inconsistencies. All these were fully discussed under their appropriate themes.

5.2 Knowledge and Use of Social Media

Earlier in this work, social media had been defined to be “internet-based or mobile application which operates for the purpose of collaboration, where participants [not necessarily social workers, professionals with similar social life or media men] can connect, create, comment, view, share, rate, discover, profile and exchange user-generated content.” Another definition was “Internet based tools designed for collaboration and communication.” These two definitions were confirmed by large proportions of librarians. This attested to the fact that majority of librarians knew very well what social media could be used for. The revelation was reflective of the study by Chu and Du (2013) which found out that 71.1% of librarians in the UK were knowledgeable and used social media while 13.1% planned to use it later. But for many of the librarians to see social media as online platform for media activities was worrying. Just about half of the librarians could manage personal profiles, less than half of them could connect others to online conversations, expert discussions and participation and, therefore, could be described as Librarian 2.0. These librarians could bring their expertise to bear on the practice of social media in the universities.

The study also revealed that only a third of the librarians got their knowledge of social media from seminars, workshops and conferences. This does not support the result of Olajide and Oyenira’s (2014) study in which about 90% of Nigerian academic librarians had their knowledge of social media from seminars, workshops, and conferences.

5.3 Adoption of Social Media in Reference and User Services

Social media has been practised in library services since 2005 (Kroski, 2007). The adopter categories of librarians in Ghana's private and public universities presented a couple of implications. Most of the librarians belonged to either early adopters, early majority or late majority. This implies that most librarians had some level of experience with social media if not for library services, for personal engagements. This had the tendency to render training in social media less difficult. Also in a situation where only few of the librarians were laggards, majority of librarians could easily extend their experience in social media use to reference and user services with a little motivation.

5.4 Support from Parent Libraries

In expounding the application of the social network theory in organizations such as the library, Frank, Zaho and Borman (2004) indicate that social pressure and informal help from the library could influence either the adoption or rejection of an innovation. Social pressure, characterized by provision of training in the use of social media, communication of notices, and collaborating with colleague librarians has the tendency to influence librarians to adopt social media.

It emerged from the data analysis that support was massive for some librarians, especially those in the private university libraries. In libraries where social media practice was initiated through individual efforts, they lacked the needed policy, budget and even infrastructure to sustain it. This was a complete deviation from the outcome of the study by Maness (2006) which indicates that libraries in the UK provided training for librarians as well as computers and free internet for patrons to use social media tools in order to

promote library services and resources in academic libraries. Though some efforts had been made by the Consortium of Academic and Research Libraries in Ghana (CARLIGH) at training librarians in the use of social media, it lacked publicity and sensitization. Moreover CARLIGH might not be able to fully address the management and infrastructural challenges of individual libraries in private and public universities. The involvement of library management in integrating social media had the tendency to influence the level of support. This could be a good lesson for libraries that relied on personal and individual efforts. Management must necessarily be deeply involved in social media issues.

Data analysis also showed that informal help was rife among librarians in both private and public universities. This accounted for the reason why though some librarians had not attended any training by way of seminars, workshops and conferences, they were knowledgeable in social media issues. This was a positive development which needs to be exploited extensively.

5.5 Types of Social Media Used in Reference and User Services

Facebook was the toast of reference and user services librarians in Ghana. The interviews and questionnaire responses attested to the fact that Facebook was the number one platform. Most librarians who used Facebook for work-related purposes did so on daily basis or at most weekly. This corroborates a finding from the study conducted by Dickson and Holley (2010) that the most used social media platform in libraries is Facebook. The popularity of Facebook could be attributed to its ease of use. The fact that most of the librarians found Facebook easy to use, and used it daily was an indication that there was a positive correlation between the ease of use and the perceived usefulness of Facebook. This

supports the technology acceptance model which states in part that the perceived usefulness of a system is influenced by the perceived ease of use (Venkatesh & Davis, 2000).

The application of Twitter in the libraries supports the results of earlier studies which indicate that Twitter was popular with librarians and next only to Facebook in popularity (Steiner, 2009; Kim & Abass, 2010; Thomas, 2010; Fields, 2010; Bosque, Leif & Skarl, 2012). The result is, however, relatively low compared with Mahmood and Richardson's (2011) study which revealed that 85% of academic libraries of the Association of Research Libraries were using Twitter for news, announcements and other user services.

There could be varying reasons for this. In the case of the private universities, it could be attributed to the fact that they did not have their own webpages. If their universities decided not to be active on Twitter feeds, the librarians had no option but to resort to the active ones which in most cases included Facebook. On the part of librarians from public universities, it could be deduced that Twitter was relatively young compared with Facebook (Kim & Abass, 2010) and majority of librarians were not conversant with it. Librarians from public academic libraries used Facebook slightly more than those in private universities while the contrary was true for Twitter. The difference in the trends of use could be attributed to the support offered by parent libraries.

Data gathered indicate that most librarians were not doing so much of blogging. This is attributed to lack of interest on the part of librarians, non-existence of the needed social pressure from mother libraries and inadequate informal help from colleagues (Frank, Zaho & Borman, 2004; Galivan, Spitler & Koufaris, 2005). This also supports the social network theory which explains that the diffusion of innovation in an organization is influenced by

social pressure and informal help among colleagues. There was, however, no evidence for the researcher to suggest that blogging was inconsistent with reference services. Librarians who were using Blogs, RSS and Diigo to engage users were driven by individual efforts rather than library policy. Most librarians indicated they had never used RSS and Delicious. The perceived difficulty of the platforms accounted for their little use, and this calls for retraining of librarians in the use of those platforms.

About half of the librarians shared pictures through social media, a function that is usually performed with YouTube. This is also a deviation from a study by Chauhan (2013) which indicates that most academic librarians share photos with users on events such as inaugural lectures, conferences, and workshops using YouTube. The fact that about half of the librarians in public and private universities in Ghana used social media to respond to client enquires and receive feedback was refreshing. This is a core function of reference and user services and is to be encouraged. Beyond that the finding supports the study by Bell (2007) which indicates that librarians in United Kingdom use social media to accept reference queries.

Though the literature indicates that Delicious is popular with librarians (Dickson & Holley, 2010), this study revealed otherwise because librarians were not using it. This finding is the reverse of what happens in Pennsylvania State University where Delicious allows users to share information resources that have been tagged with specific keywords. A university-based social bookmarking website has been created and linked to the library's catalogue so users from the university community can tag online resources from the catalogue and also view resources tagged by librarians.

5.6 Perception on Social Media in Reference and User services

From Roger's (2005) point of view, perception is critical in adopting an innovation, and that an individual or a group of people would adopt an innovation only if they perceived it to be better than the existing one. Majority of academic librarians in Ghana's private and public universities held the perception that social media could be used to render better services than the traditional methods. Though this was demonstrated by most librarians, the perception was not as strong as the finding of a study by Choi (2012) which indicates that 92% academic librarians in Australia's libraries had the perception that libraries should use social media to engage users and 84.7% thought that social media should be the means of engagement among librarians. It was, therefore, not strange that others strongly felt that social media was just one of the many ways of engaging users. The latter thought social media was good but it could not completely take the place of traditional methods. So from the data analysis, it could be deduced that the perception of social media in reference services differed much among librarians. While some librarians could not imagine how social media could take the place of the traditional services, others thought that social media could take the place of the existing methods.

One of the sentiments that expressed the need for complete overhaul of the existing methods came from a librarian in a public university who advocated for "information on the go" irrespective of where users find themselves. Opposing views on the use of social media where some librarians were indifferent towards the use of social media and others hailed it could thwart every effort to institutionalize social media in reference services and must be addressed by library administration.

Generally, it could be intimated that the introduction of social media in reference and user services in Ghana's libraries had made some difference but it had not been that pervasive. This finding corroborates that of Hendrix *et al.*, (2009) and also Du and Chu (2012) which revealed that the use of social media had not been that pervasive in libraries, making it difficult to identify specific benefits that had accrued from the application of social media.

Many librarians perceived social media to be consistent with reference and user services. This finding did not support an earlier reviewed one in which some academic librarians rejected the use of social media on the basis of triviality and inconsistency (Bradley & McDonald, 2011). It was interesting to find out that the perception of social media was not arbitrary but rather linked to perceived usefulness of the platforms. Librarians in Ghana did not just adopt or use social media because it was a social norm. They want to contextualize before finally deciding to institutionalize it. This was the perception of some interviewees and it was in consonance with the beliefs of the technology acceptance model. That is, "the behavior intention to use a system is determined by the perceived usefulness or the extent to which a person believes that using the system will enhance his job performance." Librarians had the perception that social media should be experimented with before commitment to adoption was made. This perception also affirmed one of the factors that influence adoption of innovation as expounded in the diffusion of innovations theory.

Some librarians thought they should be with the users. This perception of librarians also corroborates the findings by Mack *et al.*, (2007) whose study revealed that since majority of undergraduate students were users of social media, potential benefits of social media in libraries were enormous. Others, however, saw social media as just one of the many ways

of engaging users. The latter were of the opinion that social media should not be adopted just because everyone else was using it. It is, therefore, intimated that librarians prefer social media but they might want to be sure it was better than the existing methods they were familiar with. Librarians were strong in their advocacy for social media and thought that the much anticipated “library without walls” could be achieved with the adoption of social media in academic libraries. But others were of the opinion that social media should always run hand-in-hand with traditional methods, especially in this part of the world where most users might not be technologically inclined. To such librarians, social media was just one of the many ways of engaging users.

5.7 Challenges Associated with Use of Social Media

Many librarians in Ghana’s public and private universities lacked the skill to manage profiles. As a result, they had made the traditional service their comfort zone. Though majority of librarians were knowledgeable in social media they lacked the knowledge of the array of social media platforms that were available. This finding supports Chauhan’s (2013) intimation that most academic librarians, especially those in developing countries, are not aware of the array of social networking services available to libraries, and some of those who are aware find them to be inconsistent with reference services.

Social media is an emerging field of knowledge and has evolutionary tendencies. Before a user became very conversant with one tool new ones would have emerged. Though training was believed to be key, most librarians indicated it was lacking in their universities. In a situation where social media was not “pushed from the top”, and was driven by individual

efforts, sponsorship for training through seminars, workshops and conferences could be lacking.

A major challenge that librarians grappled with was erratic power supply (locally termed dumsor). Erratic power supply as well as poor internet connectivity had the tendency to disrupt any online service. It can discourage any social media fan from participating in online platform. The findings also support the issue of privacy that had been identified to scare patrons off the use of Facebook in earlier studies (Madden *et al.*, 2005; Charnigo & Barnett-Ellis, 2007). Chad and Miller (2005), however, suggests that despite this challenge librarians had little choice but to use social media since they risked losing their patrons if they chose not to.

Lack of interest on the part of academic librarians in the use of social media was a worrying challenge. The fact was that most academic librarians were interested in only a few social media platforms that they were comfortable with. These few platforms, however, could not be used to cater for all reference and user services functions, and what is more worrying, they wanted to use them for their own personal engagements. The researcher, therefore agrees with a librarian on his suggestion that librarians with interest in social media should be identified and trained so that they could make greater impact by helping their colleagues.

The challenge of low patronage also explains why in some libraries social media had been introduced yet no tangible difference in service delivery was witnessed. Other challenges were conservative attitudes of some librarians and their reluctance to change with current trends. Such librarians might not appreciate the value of social media and the difference it could make in reference and user services.

5.8 Chapter summary

The discussion of findings was done with continuous reference to the reviewed literature. It emerged from the discussion of the findings that librarians in public and private universities had knowledge of social media but were limited in their application of the array of platforms available mainly due to lack of personal interest and skill to manage the platforms. Facts gathered from interview participants attested to the fact that the new generation of librarians were more interested and willing to use social media than their older counterparts. Though training in the use of the social media platforms was acknowledged to be key, it was not rigorously pursued by all academic libraries. Thus only a few platforms such as Facebook, Twitter and occasionally Blogs and YouTube were used to the neglect of other platforms such as Delicious and RSS. Only few of the librarians belonged to laggards and though they were not very conversant with social media platforms, they easily grabbed the tenets once they were introduced.

Librarians grappled with some challenges in using social media for reference and user services. Some of the challenges were lack of skill to manage profile, lack of training, with the commonly acknowledged challenge being erratic power supply and poor internet connectivity, which is capable of frustrating any online participation.

References

- Bell, S.J. (2007). Building better academic libraries with web 2.0 technology tools. *Library Issues*, 28(2), 1-4.
- Bosque, D.D., Leif S.A., & Skarl, S. (2012). Libraries atwitter: Trends in academic library tweeting. *Reference Services Review*, 40(2), 199-213. DOI: 10.1108/00907321211228246
- Bradley, A., & MacDonald, M. (2011). *The social organization*. Boston, Massachusetts: Harvard Business Review Press.
- Chad, K., & Miller, P. (2005). Do libraries matter? The rise of library 2.0 in Waiske, J., Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- Charnigo, L., & Barnett–Ellis, P. (2007). Checking out facebook.com: The impact of a digital trend on academic libraries. *Information Technology Library*, 26(1), 23-34.
- Chauhan, M. (2013). Use of Social media in libraries. Available at: www.alibnet.org/bookofpaper/ppts [Accessed: 10/01/2015]
- Chu S.K.W. & Du, H. (2013). Social networking tools for academic libraries. *Journal of Library & Information Science*, 15(1), 64-75
- Chung, K.S.K., & Hussain, L. (2010). Towards a social network model for understanding communication technology use for general practitioners in rural Australia. *Computers in Human Behaviour*, 26(4), 562-571
- Dickson A., & Holley, R. P. (2010). Social networking in academic libraries: the possibilities and the concerns. *New Library World*, 111(11/12), 468-479. Available at http://dx.doi.org/10.1108/03.034_801011094840. 01/10/2014 [Accessed: 10/01/2015]

- Fagan, J., & Calloway, M. (2002). Creating an instant messaging reference system. *Information Technology and Libraries*, 20(4), 202-212
- Fields, E. (2010). A unique use for reference services. *Library Hi Tech News*, 27(6/7), 14-15.
- Frank, K. A., Zhao, Y. & Borman, K. (2004). Social capital and the diffusion of innovation within an organization: The case of computer technology in schools. *Sociology of Education*, 77(2), 148-171.
- Gallivan, M. J., Spitler, V. K., & Koufaris, M. (2005). Does information technology really matter? A social information processing analysis of coworkers' influence on IT usage in the work place. *Journal of Management Information Systems*, 22(1), 153-192.
- Graham, J.M., Faix, A., & Hartman, L. (2009). Crashing the Facebook party: One library's experiences in the students' domain. *Library Review*, 58(3), 226-236
- Hendrix, D., Chiarella, D., Murphy, S., & Zafron, M.L. (2009). Use of Facebook in health sciences libraries. *Journal of the Medical Library Association*, 97(1), 44-47
- Kim, Y.M., & Abass, J. (2010). Adoption of Library 2.0 functionalities by academic libraries and users: A knowledge management perspective. *The Journal of Academic Librarianship*, 36(3), 211-218
- Kroski, E. (2007). The social tools of web 2.0: Opportunities for academic libraries. *Choice*, 44(12), 2011-2021
- Mack, D., Behler, A., Roberts, B., & Rimland, E. (2007). Reaching students with Facebook data and best practices. *Electronic Journal of Academic and Special Librarianship*, 8(2) Available at: http://southernlibrarianship.icaap.org/content/v08n02/mack_d01.html. [Accessed: 29/09/2015]

- Madden, M., Fox, S. Smith, A., & Vitak, J. (2007). Digital footprints: Online identity management and search in the age of transparency, in Waiske, J., Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- Mahmood, K., & Richardson, J.V. (2011). Adoption of Web 2.0 in US academic libraries: A survey of ARL libraries. *Program: Electronic Library and Information Systems*, 45(4), 365-375.
- Maness, J. (2006). Library 2.0 theory: Web 2.0 and its implication for libraries. *Webology*, 3(2)
- Matthews, B. (2007). Moving beyond the reference desk: Being where users need us. *The Reference Librarian*, 48(2), 9-13
- Olajide, A.A., & Oyeniran, K. G. (2014). Knowledge and use of social media among Nigerian librarians. *Library Philosophy and Practice (e-journal)*, 1145.
Available at: <http://digitalcommons.uni.edu/libphilprac/1145> [Accessed: 10/12/2015]
- Rogers, E. M. (2005). *Diffusion of innovations*, 5th ed., New York: Free Press
- Steiner, H. (2009). Reference utility of social networking sites: Options and functionality. *Library Hi Tech News*, 26(5/6), 4-6.
- Thomas, L.C. (2010). Twitter at the office? *Journal of Web Librarianship*, 4(1), 79-82.
- Venkatesh V., & Davis, F. D. (2000). Final version of Technology Acceptance Model (TAM). *Management Science*, 46(2), 186-204.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The chapter gives a summary of findings based on the objectives of the study outlined in Chapter One. It also provides conclusion and recommendations made based on the findings to address the challenges associated with the use of social media by reference and user services librarians in Ghana's public and private universities.

6.2 Summary of Findings

This study investigated the knowledge and use of social media by reference and user services librarians in Ghana's public and private universities and also determined librarians' appreciation of the importance of social media in reference and user services. Some of the major findings are presented in this section of the chapter.

6.2.1 Knowledge of Social Media Tools

The first objective was to determine the level of knowledge of librarians in the use of social media. The findings of the study revealed that majority of librarians generally had knowledge of social media and knew what it could be used for. They were, however, deficient in the skills to use some of the social media tools. As a result, they were limited in their application of social media to a few platforms. Quite a number also confused the words "social" and "media". They misinterpreted social media to be the preserve of social workers and media activities. The level of knowledge from the librarians' own perspectives was generally good yet only a few claimed to have excellent knowledge of social media.

Moreover, librarians in the public universities generally had a better understanding of social media than those in the private universities.

6.2.2 Extent of Adoption and Support for Use of social media

The findings of the study revealed that only a few librarians were laggards and that majority of reference and user services librarians belonged to either late majority, early majority, or early adopters. Some of the parent libraries offered massive support or incentives by way of seminars, workshops, and conferences. Others did very little to support their librarians, in which case personal interest drove the librarians to use social media for both personal and professional engagements.

6.2.3 Major Social Media Platforms Used in Reference and User Services

The findings indicate that the major social media platforms used were Facebook and Twitter and occasionally, YouTube and Blogs. Other platforms that were occasionally used but which were not part of this study were instant messaging, LinkedIn and Diigo. The two major functions that social media was used for were responding to reference queries, client enquires and feedback.

6.2.4 Perception of Social Media in Reference and User Services

The findings revealed that though librarians perceived social media to be useful in reference and user services, they still loved the traditional reference services. The perceived usefulness of social media was influenced by perceived ease of use. For this reason,

platforms such as Delicious, RSS, YouTube and Blogs were not used frequently due to their perceived difficulty in use.

6.2.5 Challenges Associated with Use of Social Media

As part of the objectives, the study sought to find out the challenges that confronted libraries in their bid to introduce social media in reference and user services. Erratic power supply, low bandwidth and poor internet connectivity constituted major challenges. Lack of time and more importantly lack of interest on the part of academic librarians were also major challenges. Other challenges included lack of technical skill to manage profiles, lack of awareness of the array of social media platforms, lack of training in the use of social media and lack of “push” from library administration.

6.3 Conclusion

The role of social media in information provision in libraries has become critical as a result of the mobile agility of today’s users of the library. It is even more critical for reference and user services librarians because they are deeply involved in assistance, advice and instruction to users of the library. Users of academic libraries should necessarily have the luxury of “getting information on the go” without being physically present in the libraries. For this reason, it has become imperative for all staff of the library to be on board. Unfortunately, the integration of social media in libraries had been characterized with challenges such as erratic power supply, apathy, lack of interest and “push” from librarians and library management. As a result, its impact is minimal. The paradox is that most librarians highly appreciate the importance of social media in libraries yet they love the

traditional mode of service delivery. It is, therefore, incumbent on library management/administration to put in place measures that will ensure the success of social media practice in the libraries.

6.4 Recommendations

The study established some factors which affected the application of social media in reference and user services in Ghana's public and private universities. It has, therefore, made some recommendations based on the findings to address them.

Re-orientation and re-training of librarians in the use of social media will be helpful. This should be done through the collaboration of the heads of e-resources and other user services departments. Budgets should be developed by heads and incorporated into the annual budgets of libraries to ensure that training is continuous and sustainable. This is because social media is an emerging area and more platforms keep emerging. Every effort should be made to ensure that librarians are adept at using all emerging platforms that have the potential to improve reference and user services.

Formal training also has a role to play in this. Departments responsible for the training of information professionals could incorporate social media studies in their curriculum. This way, their products will not only have very good perception of social media but also be able to use it effectively. The older generation who may not necessarily have their way back in school, should be retrained through continuous professional development.

Publicity and sensitization workshops should be organized by GLA/CARLIGH to whip up interest in librarians to use social media. The Ghana Library Association in collaboration with CARLIGH can organize such seminars/workshops on the application of new social media platforms as soon as they emerge. Preliminary study should be done to find out all libraries that are not on social media so that they could be invited to participate in the seminars/workshops. Experienced resource persons should be invited and motivated to sensitize participants on the use of social media. Informal help among librarians is strongly advised to ensure that all librarians become comfortable with, and appreciate the use of social media.

Effective in-house training, specifically in the use of the lesser-used platforms such RSS, Blogs and YouTube be organized by parent libraries. The library as a matter of policy should communicate and collaborate with staff, faculty and users through social media platforms. For example, announcements, notice of meetings, notice of new arrivals, sharing of art works, comments, etc should be done through social media. This way, librarians would develop more interest in using the platforms.

Users must also be aware of the protocols associated with social communication through library user education and if possible, through existing information literacy courses. This will ensure that users concede the productive uses of social networking sites in library services. During orientation for new users of the library, awareness of the library's online presence should be highlighted by librarians in order to boost patronage of social media.

Webmasters in private universities should be advised by librarians to provide access to feeds like Twitter which may not be active on their campuses. It is also recommended that since social media takes much time, more attention should be given to it. It would not help to create social media platforms if they will not be updated or used. In the words of the interviewee, “a whole department should be responsible.....by way of monitoring the activities on social media And librarians with interest should be made to manage such departments.”

Some parent libraries did very little to support their librarians, in which case personal interest drove the librarians to use social media for both personal and professional engagements. It is recommended that policy on social media be put in place. A committee of heads of all user services departments or their representatives should be tasked with the responsibility of developing such policies. A top-down approach is recommended because of the skill and technical knowledge that may be need in developing policies. Heads of departments should make strong cases on the importance of social media in the delivery of their services to university library administration. Library administration needs to be part of the social media campaign. There should be “a push from the top”. This should be done by incorporating social media issues in libraries’ strategic plans; issues on infrastructure such as the number of computers that will be needed, the bandwidth that should be procured in order to have stable internet service, and the level of investment in power supply. When this is done budgets could be allocated for infrastructure as well as training in the use of specific platforms with oversight responsibility of e-resources librarians.

Compulsory continuing professional education should be instituted by the Ghana Library Association for all professional librarians in the first instance, and later when successful, para-professionals should be included. Parent libraries should be made to sponsor such training to ensure that librarians are abreast of current trends in social media.

6.5 Suggestions for Future Research

The suggestion by earlier researches to use mixed methods approach in social media research remains relevant. The ambivalent responses of questionnaire respondents would have been difficult to analyze without qualitative supplementary data.

Qualitative approach of studies of this nature should not be limited to interviews. Future researchers could explore the websites of libraries involved in the studies for information on how libraries use social media. This could go a long way to produce more revealing findings. Social media research is still in its infancy in the Ghanaian situation. Further studies in this area is suggested by this study.

BIBLIOGRAPHY

Abram, S. (2005). Web 2.0-Huh?! Library 2.0, Librarian 2.0. *Information Outlook*, 9(12),

44

Anttiroiko, A., & Savolainen, R. (2011). Towards library 2.0: The adoption of web 2.0 in public libraries. *International Journal of Libraries and Information Services*, 61(2), 87-99.

Arango, T. (2009). *MySpace set to lay off 400 workers*. The New York Times, June 16. Available at: www.nytimes.com [Accessed: 10/01/2015]

Asharony, N. (2012). Facebook use in libraries: An exploratory analysis. *Aslib Proceedings*, 64(4), 358-372.

Asharony, N. (2010). Twitter use in libraries: An exploratory analysis. *Journal of Web Librarianship*, 4(4), 333-350.

Assabi, Y. (2012). *The transition of mobile in Africa and Ghana*

Available at: www.moderghana.com/news/412459/1/the-transition-of-mobile-in-africa-and-ghana.html [Accessed: 10/01/2015]

Ayiah, E. M., & Kumah, C. H. (2011). Social networking: A tool to use for effective service delivery to clients by African libraries. *Proceedings of IFLA Conference*, 13 – 18 August, San Juan, Puerto Rico. Available at: <http://conference.ifla.org/ifla77> [Accessed: 10/12/2014]

Babbie, E. (2010). *The practice of social research*. 12th ed. Belmont, AC: Wadsworth

Bates, M. E., & Can, I. (2007). Facebook that? *Online*, 31(5), 64

- Bell, S.J. (2007). Building better academic libraries with web 2.0 technology tools. *Library Issues*, 28(2), 1-4.
- Bopp, R. E., & Smith, L. C. (Eds.) (2011). *Reference and information services: An introduction*, 4th ed. Santa Barbara, CA: ABC-CLIO
- Bosque, D.D., Leif S.A., & Skarl, S. (2012). Libraries atwitter: Trends in academic library tweeting. *Reference Services Review*, 40(2), 199-213. DOI: 10.1108/00907321211228246
- Boxen, J. (2008). Library 2.0: A review of the literature. *The Reference Review* 49(1), 21-34
- Boyd, D.M., & Ellison, N.B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-mediated Communication*, 13(1). Available at: <http://jcin.indiana.edu/vol13/issue1/boydellison.html> [Accessed: 10/01/2015]
- Bradley, A., & MacDonald, M. (2011). *The social organization*. Boston, Massachusetts: Harvard Business Review Press.
- Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, 6(1), 97-113
- Cahill, K. (2009). Building a virtual branch at Vancouver Public Library using Web 2.0 tools. *Program: Electronic Library & Information Systems*, 43(2), 140-155.
- Cassidy, E.D., Britsch, J., Griffin, G., Manolovitz, T., Shen, L., & Turney, L. (2011). Higher education and emerging technologies. *Reference & User Services Quarterly*, 50(4), 280-391.
- Chad, K., & Miller, P. (2005). Do libraries matter? The rise of library 2.0 in Waiske, J., Social media ethical issues: role of a librarian. *Library Hi Tech News*, 30(1), 8-6.

- Charnigo, L., & Barnett–Ellis, P. (2007). Checking out facebook.com: The impact of a digital trend on academic libraries. *Information Technology Library*, 26(1), 23-34.
- Chauhan, M. (2013). Use of Social media in libraries. Available at: www.alibnet.org/bookofpaper/ppts [Accessed: 10/01/2015]
- Chen, D.Y., Chu, S.K., & Xu, S. (2012). How do librarians use social media to interact with users? *ASIST*, October, 28-31.
- Chu, S.K.W. & Du, H. (2013). Social networking tools for academic libraries. *Journal of Library & Information Science*, 15(1), 64-75
- Chu, M., & Nalani-Meulemans, Y. (2008). The problems and potential of MySpace and Facebook usage in academic libraries. *Internet Reference Services Quarterly*, 13(1), 69-85.
- Chung, K.S.K., & Hussain, L. (2010). Towards a social network model for understanding communication technology use for general practitioners in rural Australia. *Computers in Human Behaviour*, 26(4), 562-571
- Cook, T., & Hopkins, L. (2006). Social media: Or “how I learned worrying and love communication”: An introduction to the power of Web 2.0. Available at: <http://www.leehopkins.net/2006/10/30/social-media-for-business-101-free-white-paper/> [Accessed: 10/01/2015]
- Creswell, J.W. (2012a). *Qualitative inquiry and research design: Choosing among the five approaches*, Thousand Oaks, CA: Sage.
- Creswell, J. W. (2012b). *Research design: Qualitative, quantitative, and mixed methods*, Thousand Oaks, CA: Sage.
- Creswell, J.W., & Plano Clarke, V.L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

- Dagan, A., & Hogan, L. (2013). *Reference services and social networking – being on the cutting edge of engagement*. Available at: www.slideshare.net/Ancientties/reference-services-social-networking-25697714 [Accessed: 10/01/2015]
- Dickson A., & Holley, R. P. (2010). Social networking in academic libraries: The possibilities and the concerns. *New Library World*, 111(11/12), 468-479. http://dx.doi.org/10.1108/03.034_801011094840. 01/10/2014 [Accessed: 10/01/2015]
- De Rosa, C., Cantrell, J., Havens, A., Hawk, J., Jenkins, L., Gauder, B., Limes, R., & Celleni, D. (2007). Sharing, privacy and trust in our network world. *OCLC Membership Report, Dublin, OH*
- Driscoll, D. L., Appiah-Yeboah, A., Salib, P., & Rupert, D. J. (2007). Merging qualitative and quantitative data in mixed methods research: How to and why not. *Ecological and Environmental Anthropology*, 3(1), 19-28
- Ezeani, C.N., & Igwesi, U. (2012). Using social media for dynamic library service delivery: The Nigeria experience. *Library Philosophy & Practice (e-Journal)*. Available at: <http://digitalcommons.unl.edu/libphilprac/814> [Accessed: 10/01/2015]
- Fagan, J., & Calloway, M. (2001). Creating an instant messaging reference system. *Information Technology and Libraries*, 20(4), 202-212.
- Farkas, M. (2007). Going where patrons are. *American Libraries*, 38(1), 27.
- Fernandez, J. (2009). A SWOT analysis for social media in libraries. Available at: www.onlinemag.net [Accessed: 10/01/2015]
- Fields, E. (2010). A unique use for reference services. *Library Hi Tech News*, 27(6/7), 14-15.

- Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education*, 4th ed. Boston: McGraw – Hill, p. 4532.
- Frank, K. A., Zhao, Y. & Borman, K. (2004). Social capital and the diffusion of innovation within an organization: The case of computer technology in schools. *Sociology of Education*, 77(2), 148-171.
- Gallivan, M. J., Spitler, V. K., & Koufaris, M. (2005). Does information technology really matter? A social information processing analysis of coworkers' influence on IT usage in the work place. *Journal of Management Information Systems*, 22(1), 153-192.
- Ghana. National Accreditation Board (2014). Public universities. Available at: www.nab.gov.gh [Accessed: 10/01/2015]
- Ghana Statistical Service. (2012). *2010 population census*, Accra: Statistical Service.
- Gilmour, R., & Strickland, J. (2009). Social bookmarking for library services: Bibliographic access through Delicious. *College & Research Libraries News*, 70(4), 234-273.
- Graham, J.M., Faix, A., & Hartman, L. (2009). Crashing the Facebook party: One library's experiences in the students' domain. *Library Review*, 58(3), 226-236
- Griffey, J. (2010). Social networking and the library. *Library Technology Reports*, 46(8), 34.
- Gu, F., & Widen-Wulff, G. (2011). Scholarly communication and possible changes in the context of social media: A Finish case study. *The Electronic Library*, 29(6), 762-776

- Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of social media ecosystem. *Business Horizons*, 54(3), 265-273. Doi: 10.1016/j.bushor.2011.01.007
- Hendrix, D., Chiarella, D., Murphy, S., & Zafron, M.L. (2009). Use of Facebook in health sciences libraries. *Journal of the Medical Library Association*, 97(1), 44-47
- Huvila, I., Holmberg, K., Kronqvist-Berg, M., Nivaskoki, O., & Widen, G. (2013). What is librarian 2.0 – new competencies or interactive relations? A library professional viewpoint. *Journal of Librarianship and Information Science*, 45(3), 198-205.
- JISC (2010). Activity by topic: Web 2. 0
Available at: www.jisc.ac.uk/whatwedo/topics/web2.0.aspx [Accessed: 10/01/2015]
- Johnson, M. (2001). *Computer ethics*. Englewood Cliffs: Prentice-Hall
- Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 52(1), 59-68.
- Kim, Y.M., & Abass, J. (2010). Adoption of Library 2.0 functionalities by academic libraries and users: A knowledge management perspective. *The Journal of Academic Librarianship*, 36(3), 211-218
- Korupp, S. E. & Szydlik, M. (2005). Causes and trends of the digital divide. *European Sociological Review*, 21(4), 409-422.
- Koufogiannakis, D., Slater, L., & Crumley, E. (2004). A content analysis of librarianship research. *Journal of Information Science*, 30, 227-239.
- Kroski, E. (2007a). Folksonomies and user-based tagging, in Dickson, A., & Holley, R. P., Social networking in academic libraries: The possibilities and the concerns. *New Library World*, 111(11/12), 468-479.

- Kroski, E. (2007b). The social tools of web 2.0: Opportunities for academic libraries. *Choice*, 44(12), 2011-2021.
- Lenhart, A., & Madden, M. (2007). Social networking websites and teens: an overview. Available at: <http://www.pewinternet.org/Reports/2007/social-networking-websites-and-teens.asp> [Accessed: 10/01/2015]
- Loo, J., Chow, W. H., Chan, B., & Ten, S. (2014). "UP" Your reference quotient at the National Library of Singapore. <http://creativecommons.org/licenses/by/3.0>
- Loudon, L., & Hall, H. (2010). From triviality to business tool: The case of Twitter in library and information services delivery. *Business Information Review*, 27(4), 236-241. Doi: 10.1177/0266382110390480.
- Luo, L., Wan, Y., & Han, L. (2013). Marketing via social media: A case study. *Library High Tech*, 31(3), 455-466. Doi: 10.1108/LHT-12-0141
- Mack, D., Behler, A., Roberts, B., & Rimland, E. (2007). Reaching students with Facebook data and best practices. *Electronic Journal of Academic and Special Librarianship*, 8(2) Available at: http://southernlibrarianship.icaap.org/content/v08n02/mack_d01.html. [Accessed: 29/09/2015]
- Madden, M. (2013). Data to live by: understanding the social media technology landscape. Available at: <http://www.pewinternet.org/2013/06/12/data-to-live-by-understanding-the-social-media-technology-landscape> [Accessed: 10/01/2015]
- Madden, M., Fox, S. Smith, A., & Vitak, J. (2007). Digital footprints: Online identity management and search in the age of transparency, in Waiske, J., Social media ethical issues: role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- Mahmood, K., & Richardson, J.V. (2011). Adoption of Web 2.0 in US academic libraries: A survey of ARL libraries. *Program: Electronic Library and Information Systems*, 45(4), 365-375.

- Maness, J. (2006). Library 2.0 theory: Web 2.0 and its implication for libraries. *Webology*, 3(2)
- Matthews, B. (2007). Moving beyond the reference desk: Being where users need us. *The Reference Librarian*, 48(2), 9-13
- Mavodza, J. (2010). Knowledge management practices and role of an academic library in a changing information environment. The case of the Metropolitan College of New York. (PhD thesis), University of South Africa.
- Mohammed, H. K., Reshma, S.R. & Manu, C. (2014). Available at www.slideshare.net/ManuChembrakuzhi/use-of-RSS [Accessed 29/09/2015]
- Mouton, J. (2006). *Understanding social research*. Pretoria: Van Schaik
- Mutula, S.M. (2011). Proposal for “Funding of for the Pre-SCECSA conference Workshop, Nairobi, Kenya”, in Waiske, J., Social media ethical issues: role of a librarian. *Library Hi Tech News*, 30(1), 8-6.
- O’Dell, S. (2010). Opportunities and obligations for libraries in a social networking age: a survey of Web 2.0 and networking sites. *Journal of Web Administration*, 50(3), 237-251.
- Olajide, A. A., & Oyenira, K.G. (2014). Knowledge and use of social media among Nigerian librarians. *Library Philosophy and Practice (e-journal)*, 1145. Available at: <http://digitalcommons.uni.edu/libphilprac/1145>
- O’Reilly, T. (2005). What is Web 2.0: Design patterns and business models for the next generation of software. Available at: www.oreillynet.com/pug/a/oreilly/tim/news/2005/09/30/what-is-web-2.0.html?page=1 [Accessed: 10/01/2015]
- O’Sullivan, E., Russel, G. R., & Burner, M. (2008). *Research methods for public administrators*. New York: Pearson.

- Phillips, N. K. (2010). Academic library use of Facebook: Building relationship with students. *The Journal of Academic Librarianship*, 37(6), 512-522. Doi: 10.1016/j.acalib.2011.07.008
- Powell, R. R. & Connaway, L. S. (2004). *Basic research methods for librarians*. London: Libraries Unlimited
- Rheingold, H. (2002). *Smart mobs: The next social revolution*. Cambridge, Massachusetts: Perseus Publishing
- RIN (2010). If you build it, will they come? How researchers perceive and use Web 2.0. Available at: www.rin.ac.uk/system/files/attachments/web_2.0_screen.pdf [Accessed: 10/01/2015]
- Rogers, E. M. (2005). *Diffusion of innovations*, 5th ed., New York: Free Press
- Romero, N. L. (2011). ROI. Measuring the social media return on investment in a library. *The Bottom Line: Managing Library Finances*, 24(2), 145-151. Doi: 10.110888045111169223.
- Ruleman, A.B. (2012). Social media at the university: a demographic comparison. *New Library World*, 113(7/8), 316-332. Doi: 10.1108/03074801211244940
- RUSA Task Force. (2003). Professional competencies for Reference & User Services Librarians. Available at: www.ala.org/rusa/resources/guides/professional [Accessed: 10/01/2015]
- Siddall, B. & Liew, C.L. (2014). Seeking out collective wisdom: Cataloguers' use of social media. *The Electronic Library*, 32(5), 670-687. Doi: 10.1108/EL-10-2012-0138.

- Steiner, H. (2009). Reference utility of social networking sites: Options and functionality. *Library Hi Tech News*, 26(5/6), 4-6.
- Stuart, D. (2010). What are librarians doing with Twitter? *Online*, 34(1), 45-47
- Teijlingen, E. R. V., & Hundley, V. (2011). The importance of pilot studies. *Social Research Update*, 35 [www.sru.soc.surrey.ac.uk/SRU35.html]
- Tenopir, C., Volentine, R., & King, D.W. (2013). Social media and scholarly reading. *Online Information Review*, 37(2), Doi: 10.1108/OIR-04-2012-0062
- Thomas, L.C. (2010). Twitter at the office? *Journal of Web Librarianship*, 4(1), 79-82.
- Tyckoson, D. A. (2011). *History and functions of reference service*, in Bopp and Smith (Eds.), Reference and information services: An introduction, 4th ed. Santa Barbara, CA: ABC-CLIO, p3.
- Vanywnsberghe, H., Bouldry, E., Vanderlinde, R., & Verdegem, P. (2014). Experts as facilitators for the implementation of social media in library? A social network approach. *Library Hi Tech*, 32(3), 529-545.
- Vanywnsberghe, H., Verdegem, P. (2013). Integrating social media in education. *Clcweb –Comparative Literature and Culture*, 15(3).
- Venkatesh V., & Davis, F. D. (2000). Final version of Technology Acceptance Model (TAM). *Management Science*, 46(2), 186-204.
- Waiske, J. (2013). Social media ethical issues: Role of a librarian. *Library Hi Tech News*, 30(1), 8-16.

- Williams, A., Guise, N., Koonce, T., Kou, Q., & Guise, D. (2004). Using knowledge management practices to develop a statute-of-the-art digital library. *Medical Information, 11*(1), 99-103.
- Xia, Z. D. (2009). Marketing library services through Facebook groups. *Library Management, 30*(67), 469-478. Doi: 10.110801435120910982159
- Xie, I., & Stevenson, J. (2014). Social media application in digital libraries. *Online Information Review, 38*(4), 502-523.
- Xu, C., Ouyang, F., & Chu, H. (2009). The academic library meets web 2.0: Applications and implications. *Journal of Academic Librarianship, 35*(4), 324-331.
- Yin, R.K. (2008). *Case study research: Design and methods*. Thousand Oaks, California: Sage
- Yin, R.K. (2003). *Case study research: Design and methods*. Thousand Oaks, California: Sage
- Zabel, D. (Ed.) (2011). *Reference reborn: Breathing new life into public services librarianship*. Santa Barbara, CA: Libraries Unlimited.

APPENDIX 1**KNOWLEDGE AND USE OF SOCIAL MEDIA BY REFERENCE AND USER SERVICES LIBRARIANS IN PUBLIC AND PRIVATE UNIVERSITIES IN GHANA**

Dear participant:

This questionnaire has been designed by an MPhil student of the Department of Information Studies, University of Ghana. You have been purposely selected to participate in this study because by virtue of your institution's high ranking among universities/ colleges in Ghana, your library fits into the methodological approach of the study. It will, therefore, be appreciated if you could give your candid responses to the questions. This is an academic exercise and the data collected will be kept strictly confidential.

Thank you. I can be reached by email at mahenko@yahoo.com or by phone on 0266846782.

Please tick as applicable unless otherwise stated.

BACKGROUND INFORMATION

1. The name of my institution is

UG	KNUST	UCC	AUC	VVU	GTUC
----	-------	-----	-----	-----	------

2. Please indicate your department

Reference	E-resources	Circulation	Serials	Other Special Collection
-----------	-------------	-------------	---------	--------------------------

3. Age (years)

Less than 30	31-40	41-50	51-60	More than 60
--------------	-------	-------	-------	--------------

4. What professional membership category do you belong to?

Professional	Para-professional
--------------	-------------------

KNOWLEDGE OF SOCIAL MEDIA

5. Which of the following best describes the social media concept?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Group of professionals with similar social life					
Online platform for social workers					
Online platform for collaboration and communication					
Internet-based tools for sharing and discussing information					
Online platform for media activities					

6. How will you describe your knowledge of social media?

Excellent	Very good	Good	Fairly good	Average
-----------	-----------	------	-------------	---------

7. Where did you acquire your knowledge of social media?

Colleagues	Friends	Conference/Workshop/ Seminars	Electronic resources	Print resources	Other, Please specify...
------------	---------	-------------------------------	----------------------	-----------------	--------------------------

8. How often do you read, view or participate in the following social media platforms for personal engagements?

	Daily	Weekly	Monthly	Occasionally	Never
Facebook					
Twitter					
Blogs					
YouTube					
RSS					
Delicious					

9. To what extent do you use social media?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I use social media for only personal engagements					
I use social media for both personal work and library services					
I use social media for only library services					
I have a personal profile which I manage myself					
I connect users to online conversations, expert discussions and participation					
I am not a fan of social media					

ADOPTION OF SOCIAL MEDIA IN LIBRARIES

10. For how long have you used social media in library services?

Less than 1year	Up to 3years	Up to 5years	Up to 7years
-----------------	--------------	--------------	--------------

11. Does your library offer any support to motivate the use of social media?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The library offers in-house training on the use of social media					
There exists informal help among librarians on the use of social media					
The library has guidelines for responding to queries through social media					
There are different guidelines for specific social media tools					
The library does nothing to motivate the use of social media					

12. I am not enthused about social media in library services for the following reasons

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Social media is perceived to be difficult to use					
I am more comfortable with traditional face-to-face service					
Lack of skill to use social media					
My library does not recognize the role of social media in reference and user services					
The library intends to adopt social media later					

TYPES OF SOCIAL MEDIA PLATFORMS USED IN USER SERVICES

13. How often do you read, view or participate in the following social media platforms for work related purposes?

	Daily	Weekly	Monthly	Occasionally	Never
Facebook					
Twitter					
Blogs					
YouTube					
RSS					
Delicious					

14. How easy do you find the use of these social media tools for work related purposes?

	Very easy	Easy	Appreciably easy	Not easy
Facebook				
Twitter				
Blogs				
YouTube				
RSS feeds				

15. The following functions are performed in my department with social media tools?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Responding to reference queries					
Commenting on users' post					
Sharing pictures					
Notification on new arrivals					
Client enquiries and feedback					
Social bookmarking					

PERCEPTION OF SOCIAL MEDIA USE IN USER SERVICES

16. What is your perception of social media use in reference and user services?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Social media is preferred to traditional face-to face service delivery					
Social media cannot be a better alternative to face-to-face service					
Social media has been introduced but has not brought any tangible difference					
Social media is not consistent with library services					
Social media is too trivial to reference and user services					

17. What is the level of usefulness of the following in reference and user services?

	Very useful	Useful	Somewhat useful	Little useful	Not useful
Facebook					
Twitter					
Blogs					
YouTube					
RSS					
Delicious					

18. Do you see social media as appropriate substitute for the traditional face-to-face reference and user services?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Social media is a preferred substitute but difficult to use					
I will use social media instead of face-to-face because it is collaborative					
Social media is the way modern libraries are unavoidably heading towards					
Library users are still in love with face-to-face services					
My library is not yet ready for social media services					

CHALLENGES INVOLVED IN USING SOCIAL MEDIA

19. The following constitute challenge(s) in using social media platforms in my department

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lack of technical skill to manage profiles					
Lack of awareness of what social media offers					
Lack of training in the use of social media					
Erratic power supply and poor connectivity due to low bandwidth					
Lack of privacy over the internet					
Lack of time to manage the platforms					
Low patronage by users					

20. Kindly provide any additional information or comments about the application of social media in your library.....

.....

Thank you for completing the questionnaire. Your contribution to this study is highly appreciated.

APPENDIX 2

INTERVIEW SYNOPSIS

Time of interview:

Date:

Place:

Interviewee's position:

Research topic: Knowledge and use of social media by reference and user services librarians in public and private universities in Ghana

Questions:

1. For how long has the library used social media in its services?
2. Which social media platforms have you been using and how often are they updated?
3. Who is in charge of managing the library's social media profiles?
4. Does the e-resource department give technical support to librarians on management of social media profile?
5. How prepared is the library for the integration of social media in reference and user services?
6. Will you intimate that academic libraries would be better off with the use of social media?
7. Does your department have documented statistics/data on social media usage?
8. What infrastructural challenges are you faced with when using social media in reference and user services?
9. What suggestions would you make to overcome these challenges?
10. Does the library have policy on the use of social media in reference and user services?