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**Adopting Mobile Technologies for Social Media Based Library Services at the Wisconsin International
University College Library, Ghana**

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Abstract

Academic libraries play a critical role in supporting teaching, learning and research in higher institutions. Libraries should provide access to educational resources in varying formats. Adopting mobile technologies for social media based library services in developing countries has not yet been fully explored. This article reports on the possibility of adopting mobile technologies for social media based library services at the Wisconsin International University College, Ghana. The article provides a brief overview of the technologies that are available as well as some services that can be provided using the available technologies. Possible challenges in the course of adopting the technologies for service delivery in the library have been discussed as well as a number of recommendations based on the findings from the study.

Keywords

Academic Libraries, Social media, Mobile Technologies, Ghana

Introduction

The adoption of Information and Communication Technologies (ICT) into the services that are provided by academic libraries all over the world, is gaining much strides as these technologies facilitate readily access to information with little challenge (Akeriwe, Penzhorn, & Holmner, 2014). Service delivery using social media and mobile technologies is on the rise (Chitum, 2015, p.36; Palumbo, 2014).

Social media and mobile technologies have become important platforms through which information is exchanged (Lee et al., 2013; Kwon et al., 2011). Social media technologies enable people to communicate digitally by sharing information, exchange ideas and career oriented interests (Dewing, 2012; Kaplan & Haenlein, 2010 p. 61).

Academic librarians are faced with the challenge of being able to provide informational resources to their users using social media applications (Mabweazara & Zinn, 2016, p. 1). These applications enhance the relationship that exists between librarians and their users (Taylor and Francis, 2014, p.1).

In addition, mobile technologies are also impacting greatly on the educational system (Yee, 2012, p.12). These technologies are wireless devices and they allow people to access information and communicate using voice calls, text messages, images, videos amongst others (Coates, et al., 2009; Nalluri & Gaddam, 2016). One major role of librarians is their ability to provide efficient delivery of services to their clients. With the introduction of mobile technologies within the library setting, information professionals are expected to possess the requisite skills and competencies that would enable them meet the needs of their users (Saravani & Haddow, n.d.).

In Africa, there has been a significant surge in the mobile telephony industry. Academic libraries in Africa are faced with the option of providing services to their clients digitally (Kibugi, 2013 as cited by Mabweazara & Zinn, 2016).

In Ghana as at 2015, there were about 8 million internet users out of a population of 26 million people with a penetration rate of 19.6%. The increasing penetration rate is an indication for academic libraries to incorporate social networking for service delivery (Ezeah, Asogwa, & Edogor, 2013, p. 23; Gontshi, Mutibwa, & Ukwoma, 2015, pp. 32-33).

There has been a growth in Ghana's mobile penetration rate with about 34.57 million subscribers and a penetration rate of 119%. This growth can be attributed to the increasing interest in social media technologies and a reduction in the prices of smartphones amongst others (Myjoyonline News, 2019).

Despite all these current developments, academic libraries in Ghana are yet to take full advantage of these existing technologies for service delivery (Akeriwe, Penzhorn, & Holmner, 2014).

Social Media in an academic library context

Social media tools and applications are interactive tools that promote communication between individuals, institutions and organizations to share and disseminate information (Baruah, 2012:1; Owusu-Ansah et al, 2015:32). People adopts social media applications and tools for varying reasons. The context within which an application or tool would be used needs to be assessed critically to achieve the intended purpose (Baruah, 2012:1; Owusu-Ansah et al, 2015:32). Social media platforms are being adopted by academic libraries for effective service delivery (Dickson & Holley, 2010, p. 469). A number of socia media tools are available for academic libraries to use and these have been discussed below.

Social Networking Sites

These are web based service platforms (Boyd and Ellison 2008, p. 211), that promotes social relationships online. Examples include Facebook, LinkedIn and Google Plus+ (Ngai, Karen, Lam, Chin, & Tao, 2015, p. 785). Academic libraries use such platforms to connect with their clients, share information and communicate (Chua and Goh, 2010, p. 208; Baro, Edewor, & Sunday, 2014).

Media sharing sites

These sites allow for the uploading, organization as well as sharing of multi-media materials such as videos, audios amongst others (Ngai, Karen, Lam, Chin, & Tao, 2015, p.782). Examples of such platforms includes Instagram, Flickr and Youtube. Libraries can employ these sites to increase awareness of online scholarly support services such as LibGuides (Cho, 2013); creates image sets with metadata (Kumar, 2015, p. 104) and also communicate with their clients online (Abbott, Donaghey, Hare, & Hopkins, 2013, p.2; Hild, 2014, p. 30).

Podcasts

This application allows people to download audio content unto their personal computer or MP3 (Geoghegan and Klass, 2005). Academic libraries can employ this application for orientation, library instruction, information literacy and research assistance, archiving class lectures, music collection and audio collection (Graham, 2006; Harinarayana & Raju, 2010; Faisal, 2015, p. 10).

Screen casting

This application records actions that take place on a computer screen (Faisal, 2015, p. 10). Libraries can adopt this to reach out to distant learners or remote library users, teach information literacy and research skills.

Blogs and Microblogs

Blogs and microblogs allow authors to share their views online with the intention of engaging readers (Ngai, Karen, Lam, Chin, & Tao, 2015, p.783; Xie & Stevenson, 2014, p. 50). Academic libraries can use this platform to give research tips, disseminate information to library staff, promote library news on services and resources, link recommended websites to specific websites for curriculum online resource centers and for reference desk training (Adeleke & Habila, 2012, p. 507; Pedley, 2005, p.95; Schrecker, 2008, p. 127).

Wikis

It is a collaborative website and allows people with access rights to post and edit posts (Faisal, 2015, p. 10). Academic libraries can use this facility to create subject guides, promote library's web-based services, manage physical and electronic library materials earmarked for institutions courses. Library users can also add their comments and reviews on books (Faisal, 2015, p. 10; Harinarayana & Raju, 2010, p.77).

Social Bookmarking sites

This application is used by users to store, organize and share their documents on several websites (Mu, 2008, p.10). Examples of this application include Del.icio.us, Furl, CiteULike (for academic papers), Connotea (free online reference management and sharing service for scientists, researchers, and clinicians) (Boulos & Wheeler, 2007). This application is used by librarians to build online subject guides as well as the tagging of users online public access catalogue (Barsky & Purdon, 2006, p. 66). People are directed to websites of interest using public bookmarks.

RSS (Really Simple Syndication)

This application is used for the sharing of news, information and stories (Dey & Sarkar, 2009, p.342). Academic libraries use this application to market their services, make ones library's website visible, directs more traffic to a library's website and provides content to end users of libraries.

Following the discussion on the social media applications and tools, the next section will address some of the Mobile technologies applications which can be used in a library setting.

Mobile technologies applications

Mobile access to library's resources is an evolving concept (Dresselhaus and Shrode (2012, p. 83; Lippincott,2010, p. 207). Mobile technologies are impacting positively on intitutions of higher learning. Libraries therefore need to take advantage of this application for service delivery to clients (Yee, 2012, p.

12; Saxena, & Yadav 2013, p. 11; Liu, & Briggs, 2015, p.139; Lippincott, 2010, p. 205). Examples of mobile technology devices are e-books readers, Personal Digital Assistants (PDA's), laptops, smartphones and tablets. Academic libraries have provided access to certain platforms that could promote their services (Yoon, 2016, p. 1).

The following are some library services that can be offered using mobile technologies and these have been discussed below.

SMS notification services

Libraries have adopted this service to send brief message service for loan requests, reminders on overdue library materials, information on latest additions to the library's collection, library circulars amongst other services (Negi,2014, p.16;Yee, 2012).

E-resources with Mobile Interfaces

Developments in ICT have it possible for people to have access to electronic resources such as e-journals, e-books, audio books, dissertation and music on institutional websites using their mobile devices (Saxena & Yadav, 2013, p.3). Some publishers have enabled access to the electronic content on mobile devices with smaller screens (De Montford University, 2016). Academic libraries need to harness this technology to be able to reach out to their clients.

Mobile online public access catalogs (OPACs) and databases

OPAC's are gateways to the library's resources online and therefore allow library users easy to access their collections (Mulla and Chandrashekara, 2009, p.40).OPAC's allow users to have access to the library's books, audio visual materials and access to the collection from several locations (Madhusudhan & Aggarwal, 2011, p. 416). Libraries must ensure that their users have access to their collections in a timely manner.

Library Virtual / Audio Tours

Virtual library tours usually attracts users to the library from several locations (Saxena & Yadav 2013, p. 5; Yee, 2012, p. 5). Library services using mobile technologies and social media greatly allow majority of people to visit the library without their physical presence. This kind of service is time saving and inexpensive on the part of libraries (Yee, 2012, p.9).

Mobile library instruction and mobile learning

Considerable changes have taken place in accessing information digitally to using mobile technologies (Li, 2013). Academic libraries have employed varying platforms to render services to their clients (Cisse, 2016). Students are technologically savvy and there is the need for academic libraries to incorporate mobile applications for service delivery.

Mobile Reference Services

Mobile reference service allows users to access the library's collection irrespective of the kind of devices used (Villoldo and Salom, 2012 as cited in Vassilakaki (2014, p. 176). Technological advancements have extended internet connectivity to remote parts of the world. The prices of mobile devices have fallen and with high speed data transmission, librarians should be able to acquire the requisite skills in order to serve their users efficiently (Vassilakaki, 2014, p. 180). Mobile reference service enhances the outreach programs of libraries (Vila, Gálvez & Campos, 2010, p. 323).

The Overdrive Service

One ground-breaking service by libraries is the overdrive service and there are several mobile technologies that support this kind of service (Negi, 2014, p. 15). Several institutions have developed applications that supports this kind of service. Mobie technologies have a lot of benefits and there is the

need for libraries to take advantage of this evolving technology to be able to reach out and serve their users better. Users will also be able to access the library's photo archives using this service (Sharma & Sahoo, 2014).

Advantages of using Mobile Technologies and Social Media in Academic Libraries

There are a number of advantages for libraries that adopt mobile technologies and social media for service delivery. These include ease of access to information (Lee, 2013, p. 270; Boulos & Wheeler, 2007); time saving (Kumbhar & Pawar, 2014; Lee, 2013, p. 270); Access to print-disabled users (Saxena & Yadav, 2013, p.8; Raja, 2016, p.7); user-friendly aid (Saxena & Yadav, 2013, p.8; Finn, 2010); personalized library service (Morgan (1999) as cited by the References and User Services Association (1996-2017), flexibility (Cook & Bachmair, 2013, p. 253; Saxena & Yadav, 2013); user participation (Lee, 2013, p.281; Boulos & Wheeler, 2007) and location awareness (Walsh, 2012; Boulos & Wheeler, 2007).

Disadvantages of Mobile technologies and Social Media in Libraries

In spite of the several advantages of mobile technologies and social media for libraries, there are a number of disadvantages that persist. These include defining content for the mobile library due to limited bandwidth and smaller screens of devices (Kumbhar & Pawar, 2014, p. 6); display format of information on small screens (Kumbhar & Pawar, 2014, p. 6); handling of PDF documents as some mobile devices like Blackberry does not support PDF (Kumbhar & Pawar, 2014, p. 6); challenges associated with handling of multimedia file types on all devices (Kumbhar & Pawar, 2014, p.7); unwillingness to adapt to change on the part of some library staff (Finlay & Finlay, 1996; Nair, 2001; Ramzan, 2010, p.10); increasing digital divide amongst persons who have access and knowledge using digital technologies and those who do not (Hargittai, 2003); Cost associated with equipment and training of staff (Shrivastav, 2015, p. 1536); privacy and security related Issues (Shrivastav, 2015, p. 1536); internet connectivity (Fasola, 2015:878; (Mole & Obidike, 2015, p.78; Ezeani, & Igwesi, 2012, p. 6; Christian, 2008, p. 14; Adetoro & Sodipe, 2013,

p. 11) and governments' interference with use of certain social media content (Bitso, Fourie, & Bothma, n.d., p. 7)

Requirements for effective use of mobile technologies for social media-based service delivery in the academic library

For academic libraries to effectively offer mobile technology services on social media, the following requirements are needed to be in place. Social media policies and management (Maisiri, Mupaika, & Ngwenya, 2015 p. 250; Fuduric & Mandelli, 2014, p.160; Mayer Brown, n.d.; Taylor and Francis, 2014, p.3); competency and staff training (Akporhonor & Olise, 2015, p.1;Negi, 2014, p.16; Silvestru & Lupescu, n.d., p. 61) and security and authentication on mobile devices used for service delivery (Hudomalj, Emil; Jauk & Avgust, 2006, p.64; Najaflou et al, 2013; Malathy & Kantha as cited in Shrivastav 2015, p.1536).

Background to the Study

Wisconsin International University College, Ghana was established in 2000. The founders set it up to render high quality tertiary education. The University is affiliated to the University of Cape Coast, University of Ghana, Legon, University for Development Studies and the Kwame Nkrumah University of Science and Technology .The Institution began with thirty-five (35) students and now has a population of over 3,500. WIUC offers undergraduate as well as post graduate programmes in Computer Science, Law, Nursing, Management amongst others (Wisconsin International University College, 2016).

The Library has over thirteen thousand stock on its two campuses. There are a number of facilities on its main campus and these include discussion rooms, seminar room, Electronic Resources Unit, Postgraduates and Faculty corners.

Academic libraries provide high quality informational resources to their clients and developments in Information and communication technologies are promoting access to these resources (Akeriwe, Penzhorn, & Holmner, 2014). In Africa, some libraries have resorted to the use of social media for service

delivery using mobile devices (Chitum, 2015, p.36; Palumbo, 2014). In Ghana however, academic libraries are yet to fully adopt mobile technologies for service delivery using mobile technologies.

Conducting the study

Target population and sampling

The target population for the study was the undergraduate students at WIUC as well as the staff of the library. The decision to choose the undergraduate students was that they formed the majority of users of the informational resources in the institution. The convenient sampling method was adopted for the study because it provides researchers with convenient sources of data (Battaglia, 2011). A total of 54 students participated in the study. In addition, the library staff are considered to be more knowledgeable when it comes to using ICT for service delivery (Mabweazara, 2014, p.5). All the 12 library staff at the time took part in the study.

Data collection

Data collection usually enables one to gather and measure information on variables of interest through the adoption of interviews and surveys. Hard copy questionnaires with both open and closed ended questions were distributed to students and the staff of the library. The online system of collecting data was not employed. This is because the institution is a non-residential one and at the time of collecting the data, school was on recess .

The first part of the questionnaire focused on the demographic information of the students. The second part was to find whether respondents owned mobile devices, the types of devices owned, purpose for using such devices. This was followed by questions on whether the library should adopt mobile technologies for service delivery and the types of services that the library could implement.

The part three of the questionnaire focused on whether users use social media. Respondents were asked to indicate the social media platforms they used as well as the frequency for using such platforms. This

was again followed by questions on whether the library should adopt social media for service delivery and the types of applications the library could consider using. The respondents were again asked to rate their confidence level with regards to the use of social media tools.

The structure of the questionnaire for the library staff was almost like that of the students. However, the library staffs were further asked to indicate some benefits that the library could derive when social media tools and applications were adopted for service delivery. Also the staff were to indicate some possible challenges the library could encounter when employing mobile technologies in the library and whether the library had a social media policy.

Data Analysis and Interpretation

In any research, data analysis is considered as one focal point. The analysis helps one to bring order into the research work by making meaning of the data that has been gathered (Flick, 2013).

As indicated in the previous section the questionnaire consisted of both open and closed ended questions. Therefore, for effective analysis of the data collected, there was the need reduce the large data into simple terms and also code the data that has been gathered (Flick, 2013).

The data gathered from the open ended questions was more qualitative in nature and was carefully checked to ensure that all the key and relevant thematic areas had been well grouped. The Statistical Package for the Social Sciences was employed for the organization of the coded data for the analysis as well as the interpretation.

Findings from the research

The following are the outcomes of the research data from the students as well as the staff of the library on the use of social media applications and mobile technologies:

Students

Mobile Technology Applications

- The majority of the students (98.1%) owned mobile devices with 1.9% not owing a device due to lack of funds
- All those who owned the devices had internet connectivity
- 47.70% owned smartphones; 35.80% owned laptops; 10.10% owned tablets; 5.50% owned iPads and the least owned device was e-book reader with 0.90%
- There were varying purposes for using the devices. Instant messaging and making/receiving calls were rated high with 15.5% respectively. This was followed by social networking 14.6%. Photo taking was rated 12.8%; search for information was 10.4%; 11% watched videos online with the least been 1.8% who watched television (see Figure 1)
- 96.3% recommended the use of mobile technologies by the library for service delivery, whereas 3.7% did not recommend them.
- A number of suggestions were made on services to be offered using mobile technologies. Self-help had 17.7%. This was followed by discussion room reservation with 17.3%; Library reminders and current awareness service with 14.5% respectively, borrowing 10.8%; orientation service with 9.6%; SMS on overdue materials 8.4% and 7.2% on SDI (see Figure 2).

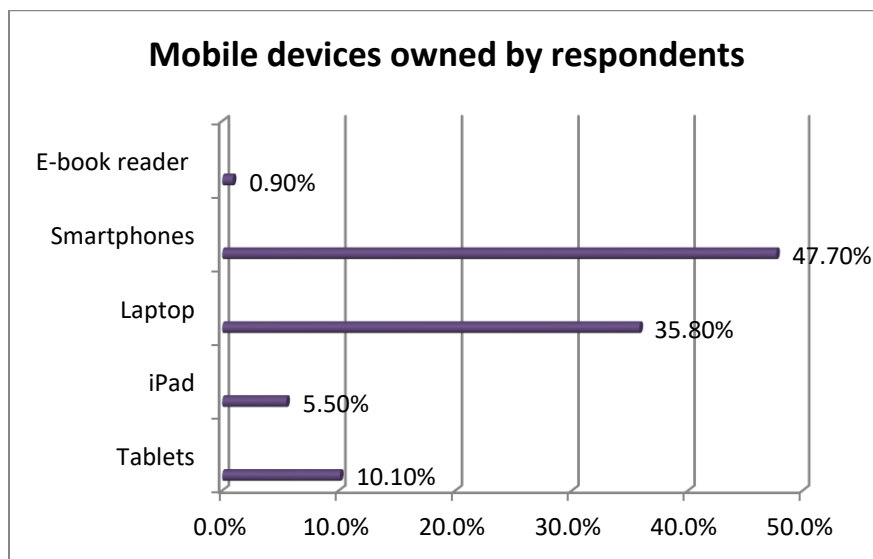


Figure 1: Mobile Devices owned by respondents

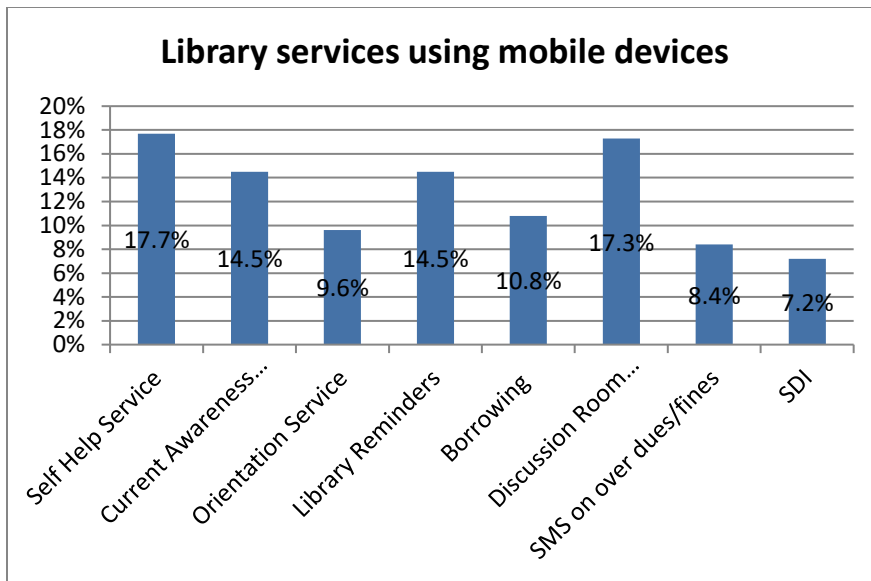


Figure 2: Suggestions for Library services using mobile technology

Social media tools and application

- On the personal use of social media applications, the majority of the respondents 98.1% used social media, with 1.9% who did not.
- The majority of the students 19.5% used Facebook applications. Instant messaging 16.2%; video sharing 13.9%; photo sharing 11.3%. the rest of the applications micro blogging, blogs, Wikis, LinkedIn, RSS, Social Bookmarking and others recorded less than 10%.
- On the frequency on usage of social media, instant messaging recorded the highest with 94.4% daily; followed by Facebook 72.2%; photo sharing 25.9%. The least had 11% for video sharing and blogs respectively (see Figure 3)
- The majority of the respondents 90.7% recommended the use of social media applications in the library.
- The following platforms were recommended for the library to consider using them: Facebook 22.8%; Instant Messaging 21.4%; 17% for blogs/wikis; 7.8% photo sharing; 16% video sharing. The least recommended service was RSS Feeds with 3.9%.
- The confidence level of the majority of the respondents (75.9%) using social media tools was excellent. (see Figure 4).

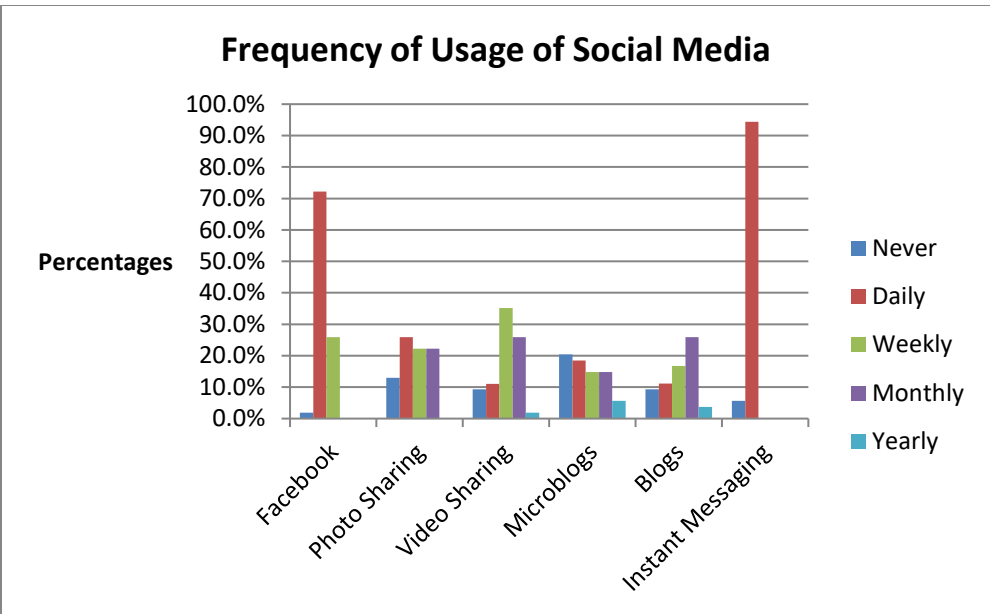


Figure 3: Frequency of Usage of Social Media

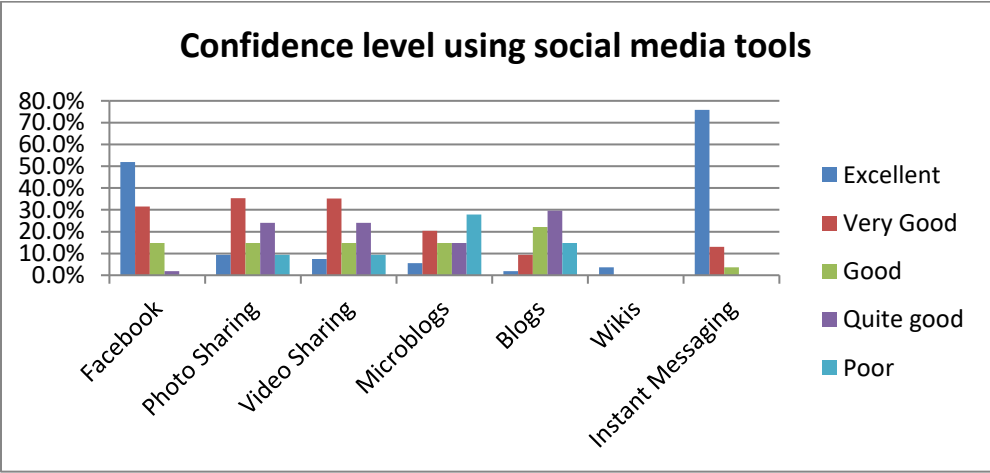


Figure 4: Confidence level using Social Media Tools

Library Staff

Mobile technologies

- The majority of the respondents 46.2% owned smartphones. This was followed by 15.4% owning tablets; 26.9% owned laptops. The least of the devices that staff owned was an e-reader with 3.8%.

- The mobile devices of staff all had internet connectivity
- The devices were used for a number of purposes. 14.3% used them to Facebook; 13.1% used the devices for instant messaging, making and receiving of calls, taking photographs and searching for information respectively. Others also used the devices to watch videos and games online; listened to the radio and accessed the schools website. (see Figure 5)
- There was a 100% response from the staff on the need to incorporate mobile technologies for service delivery.
- There were a number of services that staff suggested the library could consider implementing. 14.5% for orientation service; 12.9% for awareness and over dues / fines services respectively; 9.7% for self-help and library reminders services; 8.1% for discussion room reservation and borrowing services respectively and 6.5% for Selective Dissemination of Information.
- The study sought to find out whether the library was offering any service using mobile technologies. 25% were of the view that some form of service was being provided. The majority of the respondents 66.7% indicated there was no such service. There was no response from a respondent representing 8.3%.
- Respondents were to indicate some reasons for the non-provision of services using mobile technologies. 25% stated budget scarcity; 17.9% for poor internet connectivity and lack of awareness; 14.3% for complexity of web design and 10.7% for lack of skills. Lack of innovation on the part of staff recorded 7.1%.
- The study again sought to find out whether staff used social media. 100% indicated they accessed social media on their mobile devices.
- As to whether staff used social media to carry out their routine tasks, 50% responded in the negative whereas 25% responded yes. There was a no response rate of 25%.
- The study again sought to find out if staff would recommend the use of social media in the library. There was an 83.3% affirmative response and a no response rate of 16.7%.
- Staff again recommended the following tools that the library could employ for service delivery. The highest of the services were Facebook and Instant messaging. This was followed by blogs, video sharing, micro blogging amongst others
- Respondents rated their confidence level using social media tools. Majority of them 66.7% were excellent. A few indicated poor when it comes to the use of wikis and blogs (see figure 6)
- Staff indicated a number of benefits the library stood to benefit if social media was incorporated for service delivery. These included ability to connect with stakeholders and users, easy accessibility of the library's resources and enhanced service delivery.

- Respondents were to indicate some challenges associated with implementing mobile and social media technologies. These included limited time and inadequate staff strength, poor internet connectivity, lack of technical know-how on the part of some staff and power outages.
- As to whether there was a social media policy in place at the time of the study 66.7% responded in the negative whereas 33.3% were not sure.

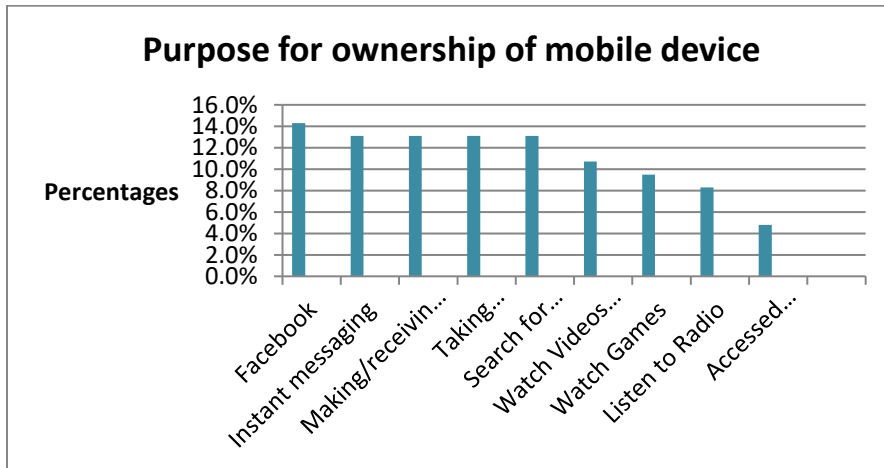


Figure 5: Purpose for Using Mobile Devices

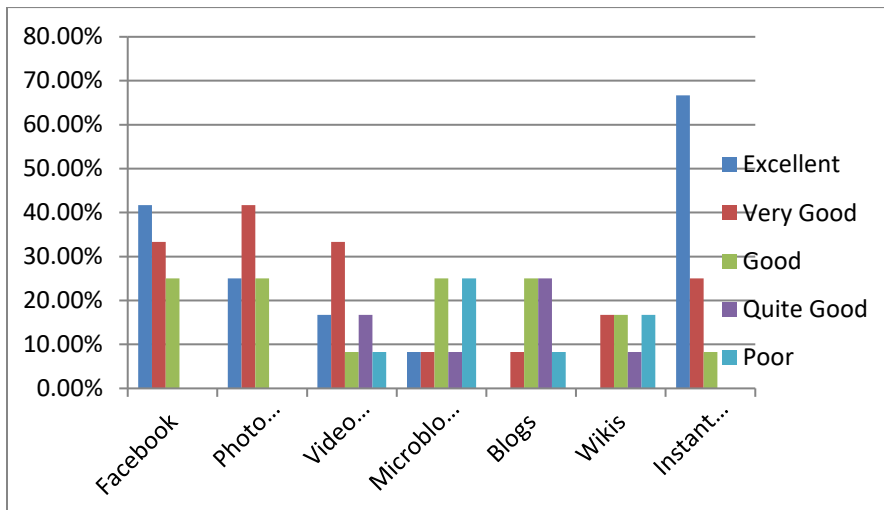


Figure 6: Confidence level using social media tools

Discussion of the findings

Students

General use of mobile devices by students

Mobile technologies enable persons to readily have access to information Lippincott (2010, p.209). It is against this background that respondents were asked to indicate whether they owned any of such devices, types of devices owned, whether the devices had internet connectivity as well as purpose for owning such devices.

From the findings, majority of the students owned mobile devices. Devices owned include smartphones, tablets, iPads, laptops and an e-reader. Respondents who did not own mobile devices attributed it to the lack of funds of acquire one. There was internet connectivity on all devices for those who owned them. The findings attest to the fact that university students at Wisconsin International University College have embraced mobile technologies and there is the urgent need for the library to offer services using mobile technologies (Nowlan, 2013, p.142).

The students used their devices for both social and academic purposes. This finding is similar to the responses from the library staff. It is evident that more devices are employed by students as study materials as supported by Jacobs (2009, p. 288). It is therefore important for the library to adopt mobile services to library users.

Recommendation for using mobile devices in the library

One major innovation that libraries have adopted is the use of mobile devices (Suthar, 2013, p.1) and globally, these devices have become very interactive (UNESCO, 2013). The researcher sought to find out whether respondents would recommend the use of mobile technologies in the library. Majority of the students recommended the use of mobile technologies in the library for service delivery.

Library services that can be accessed through mobile devices

Emerging technologies are greatly impacting upon the operations of libraries and it was against this background that respondents indicated a number of services that the library should offer. This include

orientation and current awareness service, discussion room reservation, SMS on overdue materials and selective dissemination of information.

Use of social media

The section sought to find out more on the applications respondents used, the frequency of usage of such platforms, purpose for using the platforms, recommendation for use in the library as well as their technical expertise when using such platforms.

Majority of the respondents used social media applications. Social media application and tools that were used include Facebook. This was followed by instant messaging, video sharing, photo sharing, micro blogging, blogs, wikis and LinkedIn. Bookmarking was the least of the platforms used by the respondents. On the frequency of usage of such platforms, instant messaging was rated very high, followed by Facebook, photo sharing, micro blogging. Video sharing and blogs were not frequently used by the respondents

Recommendation for use of social media by the library

Social media applications are greatly impacting upon the services that are provided by libraries globally. It was against this background that respondents were asked to indicate whether they would recommend for the library to employ social media platforms in its activities. Majority of the respondents recommended Facebook, followed by instant messaging, blogs/wikis, video sharing, and photo sharing, micro blogging. RSS Feeds received less recommendation for use in the library.

The above findings are a clear indication that, respondents appreciate the role that social media application and tools play in libraries and wish to see the Wisconsin International University College Library implement such tools.

Confidence Level Using Social media tools

Persons who use social media applications and tools need to possess some technical expertise for easy navigation of such platforms. It was against this background that respondents were asked to rate their confidence level when using such social media tools. Majority of the respondents were excellent with instant messaging. This was followed by Facebook, photo sharing, video sharing and micro blogs. The least rated tools were wikis and blogs. The above ratings are a clear indication that respondents are excellent when it comes to the use of social media tools and the library needed to consider using such tools for service delivery.

Findings from Staff

Use of mobile devices by library staff

In order to determine the familiarity of the staff with the use of mobile devices, respondents were to indicate their ownership of mobile devices, whether the devices had internet connectivity, the purpose for owning the devices, services that the library could render using such devices and some of the possible challenges that could be associated with using such means to offer service to clients.

With the view to adopting mobile devices for social media based services, it was encouraging to know that all the library staff owned mobile devices which had internet connectivity. This suggests that, the library staff are well informed about current technological trends knew how to navigate online. This was an indication that the library could experience less challenges in its drive to introduce such a service.

In addition, the findings from the study revealed that the library staff used their devices for both social networking and academic purposes. This finding was similar to that of the students and adopting the devices for service delivery in the library was feasible.

Use of mobile technologies by the library

Mobile technologies greatly impacts on people's daily interaction in an online setting (Negi, 2014, p.14). Information and communication technologies possess varying advantages for libraries. It is in this background that the library staff suggested a number of services that the library could render. These

include orientation service; awareness and over dues / fines services, self-help and library reminders services; discussion room reservation, borrowing services and Selective Dissemination of Information. The findings from the study highlight the massive roles that mobile technologies play in libraries. Both the staff and students recommended the adoption of mobile technologies in the library. It is therefore prudent for the library to consider offering some services using mobile technologies.

Provision of Library services using mobile devices

The library staffs are the key agents for the provision of information services. The study sought to find out whether there was the provision of any service using mobile devices by the staff. Globally libraries are employing mobile web to reach their clients irrespective of their location (Kroski, n.d., p.42). The findings from the study showed that the library was not offering any service using mobile technologies. The library can play a significant role online once it incorporates mobile technologies for the delivery of service to clients. The developed countries have adopted mobile technologies for service delivery. It is therefore important for the African continent to give a consideration to such a laudable adventure.

Challenges for the non-provision of services using mobile technologies

Libraries that intends implementing mobile technologies services are likely to be faced with some challenges. It is within this context that thee library staff were asked to indicate some of the possible challenges. Among those listed was the lack of awareness to use such a service, poor connectivity, and complexity of web design, budget scarcity / inadequate staff strength as well as the lack of innovation on the part of the staff. One major challenge that libraries could face in their attempt to implement a mobile technology service is poor connectivity and this view is supported by Fasola (2015, p. 878). One challenge that most libraries face is limited bandwidth available to promote their services.

Use of social media for service delivery

Marketing of library services are greatly enhanced with the use of social media platforms (Collins, & Quand-Hesse, 2012). The study therefore sought to find out whether staff accessed social media using their mobile devices. It was revealed that all the library staff used platforms such as Facebook, LinkedIn, instant messaging on their devices. This was an indication that the staffs were familiar with social media platforms and could support the library in its attempt to implement such a service.

Use of social media in work schedule

Academic libraries are in a transition stage where emerging technologies are impacting greatly on the services that are offered (Mabweazara & Zinn, 2016, p. 1). It is against this background that the study sought to find out whether the staff employed social media in their work environment as part of their schedule. Majority of the respondents indicated that they did not use social media applications to execute their duties. For the library to remain relevant, it is important that these tools are incorporated into the library's setting.

Recommended social media tools for service delivery

A closer relationship is fostered between libraries and their users when social media applications are employed (Taylor and Francis, 2014, p. 1). It was within this context that the respondents were asked to indicate some social media tools that they would recommended the library to adopt. Among those recommended were Facebook, video sharing, micro blogging and instant messaging. Social media applications perform varying tasks and it is important for libraries to adopt one that will suit their purposes.

Confidence level using social media tools

The effective implementation of any library service using social media applications, requires for persons to have the requisite technical expertise. It was within this context that respondents were asked to rate their confidence level with the use of social media tools. Majority of the respondents were excellent with instant messaging, Facebook, photo and video sharing amongst others. Competency is key for libraries to effectively implement any new technology and take advantage of new opportunities (Saravani, & Haddow, 2011, p.184). The confidence level of staff will go a long way in ensuring the successful implementation of social media service delivery.

Benefits of incorporating Social media in service delivery by the Library

Social media application and tools when adopted for service delivery presents libraries with a lot of opportunities. It is against this background that the respondents were asked to indicate some of the benefits. The question was directed towards the staff of the library only. Among the benefits stated includes the fact that stakeholders will be able to effectively connect with their users, convenient access to informational resources, improved service delivery by the library and efficient dissemination of informational resources. This view is supported by Chitumb (2015, p. 34), that the relevance of libraries will become more visible if social media is employed by libraries.

Challenges associated with implementing mobile and social media technologies in the library

In Africa, attempts to adopt mobile and social media technologies for service delivery by libraries are associated with some challenges. It is against this background that respondents were asked to indicate some possible challenges that they envisaged at the Wisconsin International University College. Amongst the responses were poor network, limited staff to support such a service and lack of technical know-how. The challenges indicate above may not be unique to WIUC, but to any library that attempts to offer

services using mobile technologies and social media for service delivery. It is the mandate of management of libraries to ensure that the challenges are minimized.

Existence of Social Media Policy for the Library

The university library interacts with different stakeholders. There is therefore the need to have in existence a social media policy that will guide the conduct of employees as well as the content that is published online (Aras, 2014:21). Respondents were to indicate whether there was the availability of a social media policy that could guide the library in its attempt to offer services using mobile technologies and social media applications and tools. The findings from the majority of the respondents revealed that there was no such policy in place, whereas others were uncertain. For the library to establish itself digitally, there is the need to have such a policy in place.

Future Prospects for Implementation

The findings from the research have shown that mobile technologies and social media have several benefits for academic libraries. The students in the institution have embraced emerging technologies as well as the library staff. In order to effectively implement any service using mobile technologies, there is the need to ensure that the following are in place:

- There is the need for the Management to ensure that there are dedicated staff to handle the library's presence online using mobile technologies and social media
- Continuous professional development must be provided for staff assigned to handle the library's social media activities using mobile technologies
- The library bandwidth needs to be improved upon to sustain any service using mobile technologies and social media
- Power outages on campus must be worked on with the availability of a stand-by generator

- There is also the need for the library to have a social media policy in place to regulate its presence online.

Conclusion

From the above, it can be concluded that students of higher institutions form the majority users of mobile technology and social media applications and tools. The library was not offering any service using mobile technologies and social media tools. There was therefore the need for the Management of the Library to ensure that measures are put in place to offer services using mobile technologies and social media.

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