Information gathering strategies in online social networks: a survey of librarians in selected geo-political zones in Nigeria

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Abstract

The purpose of this study was to ascertain librarians' perception of online social networks and identify their strategies for gathering information. The descriptive survey design was used for the study. The study population was made up of 317 librarians from 29 university libraries in three geo-political zones in Nigeria. Sampling was enumerative. A questionnaire was used for data collection. Data collected were analysed using frequency and percentage counts. Findings from the study revealed that majority of the respondents have positive perception of online social networks. Information gathering strategies where also found to be mostly: looking at profile information to identify whom to follow; visiting social networking sites often and joining professional discussion groups. The least used strategies for gathering information were equally identified as: searching through the posts/comments of other users and viewing members update. Based on the findings, the study concluded that librarians in Nigeria use mainly targeted asking technique for gathering information. Suggestions were also made to improve information gathering on online social networks.

Introduction

The need for information in today's society cannot be overemphasized as there is little possibility of taking wise decisions without it. The need for information is often understood as evolving from a vague awareness of something missing and as culminating in locating information that contributes to understanding and meaning (Kunhthau, 1993). In the search for information, Marchionini (1989), notes, that the execution of an individual's information-seeking process for a particular information problem is considered an Information-Seeking Strategy (ISS). A well designed strategy will examine the problem and work out the best source of information that will match the information need.

Advancement in technology has, however, greatly improved the way people search for information. While information seeking in the past would have been restricted to using a physical library, or going through print materials outside the library, today one could easily go through digital resources that appear in various formats such as CD-ROMs or search through various search engines on the Internet. While search engines remains a popular approach to online information seeking (Fallows, 2008), the recent rise in popularity of social networking sites, such as Facebook, MySpace, and LinkedIn, has introduced new options for finding information online (Morris, Teevan and Panovich, 2010). Although online social networks contribute significantly to the quantity of information available on the internet, the quality of information gathered by an individual would no doubt depend on the individuals' information gathering strategy which makes it necessary to investigate the information gathering strategy of librarians in Nigeria.

Objectives of the study

The specific objectives of this study were to:
1   determine the perception of librarians towards the use of online social networks;
2   identify strategies used by librarians to gather information from online social networks.

Scope of the Study

This study covered only librarians in university libraries in North West, South East and South West geo-political zones in Nigeria. The choice of limiting the study to university libraries was based on the fact that the university library is the most advanced type of library in Nigeria.

Review of literature

Perception of online social networks

Online social networking is a revolutionary new approach to knowledge exchange, where organisations can enjoy the benefit of having everyone's brain work on a problem (Chaney as cited by Reid, 2007). Skeels and Grudin (2009) maintain that the use of online social networks can assist employees to build rapport which can

result in stronger working relationships. In like manner, Brzozwski (2009) affirms that online social networks provide emotional support for employees, creates a network of connections that can be utilised to obtain knowledge and expertise, and provides opportunities for collaboration. Considering the importance of online social networks in information provision, Gray (2004) maintains that the online environment represents a valuable work resource even for those who do not actively contribute through posting, but who usually just lurk in the background to read what is going on.

In a study on librarians' attitude towards social media in European libraries Allen (2010) reports that librarians have positive perception of social media as indicated by 62% of the respondents who signified having very positive perception/positive perception of social media. Olasina (2010), in a similar study examined the use of online social networks by librarians and Information professionals in Nigeria. The study reports that a great number of respondents 'agree' that they like and feel pleasant with the use of online social networks. The study also revealed that 50% of the total respondents (100 out of 200) use online social networks for communication and file sharing, even though majority of the respondents (58%) indicated that it can be used for education, 54% cited communication, and 40% indicated that they can be used for collaboration, while only 20% felt that they can be used for marketing library and information services.

Information Gathering in Online Social Networks

As a common feature of most online social networks, users can communicate or seek information by posting comments on a user's profile or by sending private messages (much like email) and instant messaging. Information can also be gathered by subscribing to blogs and joining discussion groups based on one's interest (Askanase, 2009). Online social networks, such as Facebook and Twitter, enable users to write a brief *status message*, which is then visible to their connections on the network. For example, Facebook's status message can be up to 423 characters long; the prompt "What's on your mind?" encourages the user to fill in the status box. On Twitter, status updates can be up to 140 characters long and the prompt "What are you doing?" is used. Foster (2010) advices that hashtags (#) be used along with keywords. The author notes that a keyword with the # symbol in front of it is used to track conversations around a trending topic. For example, #surveys in Twitter's search box will reveal everyone who is tweeting about surveys.

Considering the various ways through which information can be gotten on online social networks, Evans, Kairam and Pirolli (2009) classify information gathering strategies into three broad categories which they term "targeted asking", "network asking" and "searching". In targeted asking, users identify specific friends or colleagues to ask for help one-on-one. This interaction could occur by identifying someone to follow, addressing issues privately to members email, and so on. Network asking, on the other hand, involves posting a question in a public venue for every member of the social network to see, while searching involves going through an existing database of content previously provided by other users, such as searching over the collection of public Twitter posts. The authors affirm that targeted individuals can be useful if those contacted are knowledgeable and available to respond. Querying a network on the other hand, they maintain, distributes the question over a wide and diverse audience which theoretically increases the likelihood of reaching an individual with the appropriate answer. In the view of Marshall (2009) however, indiscriminate selections result in a very high proportion of irrelevant information.

In a similar attempt, Wise, Alhabash and Park (2010) categorize information seeking strategies on online social networks as "extractive and passive". Extractive information gathering strategies refer to information gathering which seeks the direct interaction of other users. This could be done through sending emails directly to other users, requesting for information by posting messages on peoples' walls, sending requests for chat, and so on. Passive information gathering on the other hand does not seek direct interaction with others rather, it involves reading through messages posted to a central location such as *a wall* or status update, studying user profiles and lurking in discussion groups without participating. The authors however affirm that extractive information gathering strategies are more goal oriented than passive information gathering strategies. This was confirmed by DiMicco, Geyer, Millen, Dugan and DiMicco (2009) in a study of an internal online social network called Beehive where they found out that status messages were usually witty or amusing comments and less relevant to work. This was, however, in contrast to Skeels and Grudin's (2009) survey of 430 employees which found out that status updates on Facebook assisted some participants to keep up with changes and trends in their field. In a study of Librarians' use of online social networks for current awareness, Cook and Wiebrands (2010) concluded that information professionals filter information by choosing whom to make friends with.

Methodology

The descriptive survey design was used for the study. The study population was made up of 317 librarians from 29 university libraries in three geo-political zones in Nigeria. The university libraries were stratified according to

ownership thereby constituting federal, state and private universities. A self-constructed questionnaire was used for data collection. Data collected were analysed using frequency and percentage counts.

Table 1: list of selected geo-political zones/universities

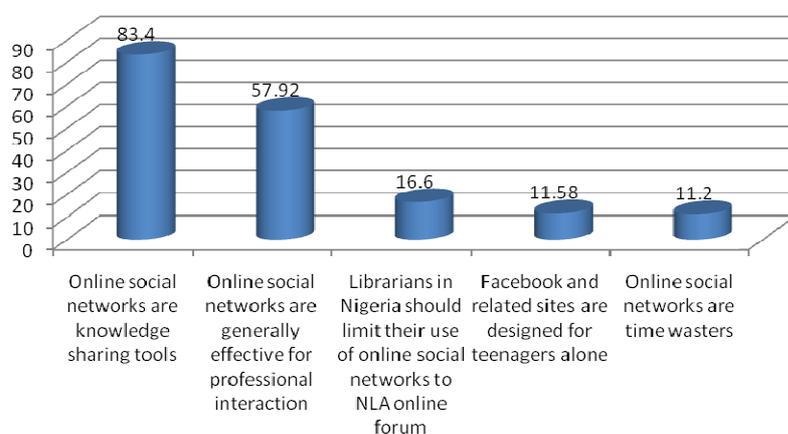| Geopolitical zone	Federal universities	State universities	Private universities	Total
North West	Ahmadu Bello university Bayero University	Kano University of Science and Technology Kaduna State University	Kastina University	5
South East	Michael Okpara University of Agriculture Federal University of Science & Technology, Owerri	Abia State University Enugu State University of Science & Technology Imo State University	Madonna University Caritas University Renaissance University	8
South West	University of Agriculture, Abeokuta University of Lagos	Adekunle Ajasin University Ekiti State University of Science & Technology Ladoke Akintola University of Technology Lagos State University	Achievers University Bells University Babcock University Caleb University Covenant University Crescent University Joseph Ayo Babalola University Lead City University Redeemer's University Wesley University of Science & Technology	16
Overall total				29

Presentation of findings

Out of the 317 copies of the questionnaire sent out for this study, 259 copies were successfully retrieved. Majority of the respondents who filled the questionnaire were female 146 (56.37%), while 113 (43.63%) were male. Most of the respondents work in the reference/readers' services department 74 (28.57%); cataloguing department 64 (24.71%); elibrary/computer department 50 (19.31%); serial department 34(13.13%); collection/acquisition department 21(8.11%) and bindery department 7 (2.70%).

Perception of online social networks

Respondents were asked to indicate their perception of online social networks. The findings are presented in Fig 1.

Fig. 1: Respondents' perception of online social networks

*N = 259

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Indications from Figure 1 reveal that most of the respondents have positive perception of online social networks. This was affirmed by 216 (83.40%) of the total respondents who saw online social networks as a knowledge sharing tool. More than half of the respondents 150 (57.92%) also perceived online social networks as effective tools for professional interaction. Only few of the respondents expressed negative feelings towards online social networks as 43 (16.60%) believe that librarians in Nigeria should limit their use of online social networks to NLA online forum. Others who expressed negative feelings 30 (11.58%) and 29 (11.20%) respectively, felt that the use of Facebook and related sites should be for teenagers alone. From the findings, it is obvious that respondents have position perception of online social networks. They do not see them as time wasters; neither do they believe that librarians in Nigerian university libraries should restrict themselves to their own professional social network (NLA online forum).

Strategies for gathering information from online social networks

Respondents were asked to indicate their strategies for gathering information from online social networks. The findings are presented in Table 2.

Table 2: Information gathering strategies

Information gathering strategies	SA		A		U		D		SD		NR	
	F	%	F	%	F	%	F	%	F	%	F	%
Looking at profile information to identify whom to follow	46	29.87	38	24.68	5	3.25	28	18.18	16	10.39	21	13.64
Visiting social networking websites often	40	25.97	44	28.57	12	7.79	20	12.99	11	7.14	27	17.53
Joining professional discussion groups	40	25.97	41	26.62	4	2.60	23	14.94	21	13.64	25	16.23
Collecting members profile information and making physical contact	33	21.43	53	34.42	9	5.84	18	11.69	8	5.19	33	21.43
Asking questions using status updates (e.g. Twitter prompt, "what are you doing?, Facebook "what's on your mind?" or LinkedIn "what are you working on now?")	23	14.94	34	22.08	14	9.09	27	17.53	13	8.44	43	27.92
Addressing questions (issues) privately to members email	23	14.94	32	20.78	10	6.49	34	22.08	13	8.44	42	27.27
Sending request for chat	21	13.64	41	26.62	13	8.44	33	21.43	9	5.84	37	24.03
Requesting for information by posting messages on contacts' walls	20	12.99	38	24.68	13	8.44	27	17.53	16	10.39	40	25.97
Creating professional discussion groups	17	11.04	36	23.38	10	6.49	34	22.08	18	11.69	39	25.32
Searching through collections of post/comments of other users	10	6.49	7	4.55	17	11.04	60	38.96	37	24.03	23	14.94
Viewing members updates	5	3.25	18	11.69	10	6.49	29	18.83	32	20.78	60	38.96

*Key: SA=Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree, NR = No Response. N=154

Table 2 reveals the extent to which respondents, agree or disagree to using each information gathering strategy. However, only 154 out of the 259 respondents filled this section of the questionnaire. The findings affirmed that 84 (54.55%) of the total respondents looked at profiles in order to identify whom to follow as a strategy for gathering professional information as attested to by those who strongly agreed or agreed. Among the other respondents, 44 (28.57%) disagreed or strongly disagreed to using this as a strategy, while 5 (3.25%) were

undecided, 21 (13.64%) did not respond. The findings in this case suggest that librarians in university libraries in Nigeria deem it necessary to identify those who can make valuable contributions to their work life by browsing the profile information on online social networks.

Part of the strategy for gathering professional information from online social networking sites was to visit the websites often. As seen in Table 2, 84 (54.54%) agreed/strongly agreed to using this strategy, while 31 (20.39%) either disagreed or disagreed strongly. 12 (7.79%) were undecided while 27 (17.53%) did not respond. The findings here affirm that librarians see value in online social networking as a result of which they visit them often when seeking information. 81(52.59%) of the study respondents joined professional discussion groups on online social networks as an avenue for gathering professional information as against 73 (47.41) who were undecided, or did not use it. This suggests that librarians find already existing groups on online social networks that meet their information needs.

A good number of respondents (more than half) gathered professional information by collecting members' profile information and making physical contact. This was affirmed by respondents 86 (55.85%) who strongly agreed/agreed to the item as against the remaining 68 (44.15%) of the respondents. This implies that collecting members' profile information and making physical contact is one of the major ways that librarians in university libraries gather professional information from online social networks. The finding in this case is not surprising because most members of online social networks may not be familiar with one another offline. By making physical contact, however, chances are that they become more acquainted with each other, making it easier to share information.

Less than half of the respondents 57 (37.02%) used status updates when gathering professional information as affirmed by those who either agreed or strongly agreed. While 14 (9.09%) were undecided, 40 (25.97%) either disagreed or disagreed strongly. 43 (27.92%) did not respond. This implies that while status updates may be a viable way of prompting conversations on online social networks, librarians do not rely on it for gathering professional information. Less than half of the respondents 55 (35.72%) addressed questions (issues) privately to members' email, while 47 (35.71) affirmed that they disagree/strongly disagree, 10 (6.49%) were undecided. This can be attributed to the fact that email may not attract prompt response especially in a situation where the sender is unfamiliar with the recipient.

From table 2, it is also evident that 62 (40.46%) of the respondents send requests for chat as an information gathering strategy on online social networks as seen in the number of respondents who indicated that they agree/strongly agree to that item on the questionnaire. However, majority of the respondents were either undecided or do not do so as seen in the number, 92 (59.74%) indicating disagreed or strongly disagreed or did not respond to the survey item. This also implies that few librarians actually utilise chat services when gathering information from online social networks. This may be associated with the fact that successful use of chat services demands the virtual presence of both parties at the same time which may not always be practicable.

Findings also indicate that 58 (37.67%) of the respondents write on contacts *walls* as a means of gathering information. Apart from those who do not use it or are undecided about it, the no response rate was equally high- 40 (25.9%). This gives a clear indication that though it is used by some librarians, it is not well accepted by majority of them. The reason for this may, however, be connected to the fact that messages posted on *walls* can be seen by others visiting the same *wall,* thereby making it an undesirable means for librarians when gathering professional information.

In the area of creating profession discussion groups, 36 (23.38) agreed to creating professional discussion groups while 52 (33.77%) either disagreed or disagreed strongly, and 10 (6.49%) were undecided. This suggests that even though librarians have their presence on online social networks, they may not be initiating the creation of groups on those online social networks. Majority of the respondents 97 (62.99) disagreed or strongly disagreed to gathering professional information by searching through collections of posts/comments of other users. Only 17 (11.04) agreed to using that strategy as seen in the number of respondents who agreed strongly or simply agreed. This may be connected to the fact that searching through old posts/comments can be time consuming. Going through current posts/comments may also not address the specific information need of the user at that particular time.

There is clear indication that respondents do not view members' updates as a popular strategy for gathering information from online social networks. Although this was used by 23 (14.94%), the rate of non-response was exceedingly high (60, 38.96%). In addition to that, 61 (39.61%) also disagreed to using it as a strategy for gathering professional information. This finding suggests that although librarians view members' profiles to identify whom to follow, they do not necessarily go back to reviewing updates when gathering professional information. Another strategy which was not part of the study instrument for gathering professional information

from online social networks was identified by one of the respondents as sending links which direct colleagues to individual blogs.

Discussion of findings

From the findings, it is obvious that librarians in university libraries in Nigeria have positive perception of online social networks. This is affirmed by 216 (83.40%) of the total respondents who see online social networks as knowledge sharing tools. More than half of the respondents 150 (57.92%) also perceive online social networks as effective tools for professional interaction. The finding is in agreement with Olasina (2010) whose study on use of online social networks by librarians and information professionals in Nigeria found out that a great number of respondents feel positive about the use of online social networks as majority of the study respondents agreed that that they like and feel pleasant with use of the online social networks. It is also in agreement with the findings of a study on librarians' attitude towards social media in European libraries as reported by Allen (2010) which found out that librarians have positive perception of social media as indicated by 62% of the respondents who said they have very positive perception/ positive perception of social media.

In the aspect of information gathering, librarians in Nigerian university libraries were found to use mostly "targeted asking" technique. This was affirmed by majority of the respondents (84, 54.55%), who look at members' profile in order to identify whom to follow, 84 (54.54%) who visit social networking sites often as a strategy for gathering information and 81 (52.59%) who join groups on social networking sites as part of their information gathering strategy. The use of targeted asking technique agrees with Cook and Wiebrands (2010) who opine that information professionals filter information by choosing whom to make friends with. The findings in this case may be associated with the fact that professional information seeking would most likely be targeted at finding solutions to specific work related problems hence, the need to identify those considered knowledgeable enough to give reasonable advice.

Conclusion

The findings of this study lead to two basic conclusions. i) Librarians in Nigeria have positive perception of online social networks as they see them mainly as knowledge sharing tools. ii) As a means of gathering information from online social networks, librarians in Nigeria use mainly targeted asking technique. The fact that only 154 out of 259 respondents were able to affirm their information search strategies using online social networks was, however, a strong indication that though all the respondents do have their views about online social networks, not all of the respondents actively use them.

Recommendations

Based on the findings of this study, the author recommends the following:

1   Librarians who do not use online social networks should do so in order to reap associated benefits connected to the use of online social networks.

2   Librarians should increase their use of email and chat services to get better acquainted with other members on online social networks as this could create familiarity and improve the quality of information gotten from them.

3   Instead of just joining groups created by others in online social networks, librarians in Nigeria should endeavour to create groups of their own, as this would give room for the discussion of topical issues peculiar to the Nigerian environment.

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