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**Providing User Preferred Information Resources
for a New Faculty of Agriculture, Nnamdi Azikiwe
University, Awka, Nigeria**

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Providing User Preferred Information Resources for a New Faculty of Agriculture, Nnamdi Azikiwe University, Awka, Nigeria

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ABSTRACT: Nnamdi Azikiwe University in Awka, Nigeria was established as a federal government financed university on August 1992. Because the university was unprepared to start any agriculture program at that time, there were limited provisions for agricultural information services. However, in 2010 the University established a Faculty of Agriculture; to prepare the university library to serve this group, a survey was carried out to ascertain the faculty's library literacy status as well as their information needs. The result showed that, among other things, members of the new Faculty preferred hybrid (electronic and print) library services and were open to innovative social media-driven library services. However, they were not very knowledgeable in the use of electronic resources and social media tools, which could hinder their acceptance of electronic and social media-driven services. To assure effective services, the library must provide both traditional and newer, social media-driven library resources.

RESUME: L'université Nnamdi Azikiwe d'Awka au Nigéria a été créée en août 1992 en tant qu'université financée par le gouvernement fédéral. Parce que l'université n'était pas prête à démarrer n'importe quel programme d'agriculture à l'époque, il y avait très peu de services d'information agricole. Toutefois, en 2010, l'université a créé une faculté d'agriculture ; et pour préparer la bibliothèque de l'université à servir ce groupe, une enquête a été menée pour déterminer l'état de maîtrise de la bibliothèque pour servir la faculté, ainsi que leurs besoins en matière d'information. Le résultat a montré que, entre autres choses, les membres de la nouvelle faculté préféraient des services de bibliothèque hybrides (électroniques & imprimés) et étaient ouverts

aux services de bibliothèque innovateurs basés sur les médias sociaux. Toutefois, ils n'étaient pas très au courant de l'utilisation de ces ressources électroniques et outils de médias sociaux, ce qui pouvait les empêcher d'accepter ces services électronique basés sur les médias sociaux. Pour assurer des services efficaces, la bibliothèque doit fournir des ressources de bibliothèque à la fois traditionnelles et nouvelles, basés sur les médias sociaux.

RESUMEN: La Universidad Nnamdi Azikiwe en Awka, Nigeria, se estableció como una universidad financiada por el gobierno federal en agosto de 1992. Debido a que la universidad no estaba preparada para iniciar un programa de agricultura en ese momento, los fondos para servicios de información agrícola eran limitados. Sin embargo, en el 2010 la Universidad abrió una Facultad de Agricultura. Para preparar la biblioteca de la Universidad para atender a este grupo, se realizó una encuesta entre los miembros de la Facultad para determinar su nivel de alfabetización bibliotecaria, así como sus necesidades de información. El resultado mostró que, entre otras cosas, los miembros de la nueva Facultad preferían servicios bibliotecarios híbridos (electrónicos e impresos) y estaban abiertos a servicios bibliotecarios innovadores a través de las redes sociales. Sin embargo, no eran muy conocedores sobre cómo usar los recursos electrónicos y las herramientas de las redes sociales, lo que podría obstaculizar su aceptación de servicios promovidos por medios de comunicación electrónicos y redes sociales. Para asegurar la eficacia de los servicios, la biblioteca debe proporcionar recursos bibliotecarios tanto tradicionales como los más nuevos a través de las redes sociales.

Introduction

The university academic environment has continued to evolve and change as a result of evolving programs, introduction of new courses of study, pedagogical changes, advancement in information and communication technological, as well as other global changes. In spite of these evolutionary transformations, the focus of the university remains the same: teaching, learning, research and social/recreational responsibilities. Libraries, whose role is to source, acquire, process and disseminate information resources needed to achieve the desired state-of-the-art university responsibilities, also face challenges in taking up their pivotal position as it relates to its revolutionary operations and services. Furthermore, the transformation engendered by changes in scholarly communication and users' approaches to information sourcing and preferences has brought enormous challenges to academic libraries.

In their recent article "User Satisfaction with Library Resources and Services in Nigerian Agricultural Research Institution," L.O. Ezeala and E.O. Yusuff (2011) argue that library services to institutions should not be restricted to the acquisition, processing, storage and dissemination of print resources but should also emphasize what users prefer in terms of the way and manner information is provided. Hence, the changing users' preference and behavior from print to electronic resources demands close attention be paid to new and old library services, with a view to ensuring proper guidance on the use of preferred resources (Zha, Li and Yan 2012).

Information services have been recognized to be user-dependent, which differ from one library to another (Osigwe 2004). Thus, a different user implies a different preference and hence a different approach to information provision. Consequently, a new faculty necessitates a new approach to library and information provision. This is achievable when the user's previous library experiences,

their present needs and future expectations are ascertained. This study was carried out to determine those experiences, needs and expectations.

Faculty of Agriculture, Nnamdi Azikiwe University, Awka

The Faculty of Agriculture, Nnamdi Azikiwe University, Awka was established in 2010 with a focus on the production of graduates or experts with broad-based practical and functional training in various course programs designed to mobilize resources and provide opportunities for improved performance and profit in agriculture by developing appropriate technology and manpower needs. Based on this vision of its new faculty, the university was located in a predominantly agricultural-based community — Ifite Ogarri, in the Western part of Awka, the capital city of Anambra state, Nigeria. It is envisaged that the seven departments of the faculty (Agricultural Economics and Extension, Animal Science and Technology, Crop Science and Horticulture, Fisheries and Aquaculture Technology, Food Science and Technology, Forestry and Wildlife Management and Soil Science and Land Resources Management) will serve as the corner stone for economic transformation of the local community in particular and Nigeria in general, as well as poverty alleviation, a stable civil government with good governance, and a natural and food-rich society (Azih, 2008). The Faculty is expected to achieve the latter through the production of:

- Manpower with scientific knowledge and technological skills in various disciplines of agriculture;
- Graduates with adequate theoretical and practical training in agriculture to carry out research towards improving agricultural production;
- Graduate farmers who should be relevant to themselves, the industry and society and who will be able to contribute effectively to the national development goals through agriculture.

The university library's responsibility is to provide the university faculty and students with specific library/information services. Even though information resources needed by the new faculty are readily available in the university library, the interdisciplinary nature of agriculture — which cuts across biology, medicine, chemistry, engineering, environmental sciences, and economics — requires that the specific needs of the members of the new faculty be ascertained (Lancaster and Beeche 1981). It is also vital to determine the previous library use by the new faculty, as they come from different library/information backgrounds.

This study is also measures the use of very important online databases such as TEEAL (The Essential Electronic Agricultural Library), AGORA (Access to Global Online Research in Agriculture), OARE (Online Access to Research in the Environment), ARDI (Access to Research for Development Initiative), the University's Digital Library

and various Web 2.0 services provided to the university community which the library intends to extend to the new faculty. Hence, the study serves as a stepping stone to providing the needed library and information services, especially in this era of technology-driven library operations and services.

Study Objectives

This study was carried out to determine the information resources and service preferences of the members of the new Faculty of Agriculture, Nnamdi Azikiwe University, Awka with a view to designing effective and efficient library services for them. Specifically, the study was aimed to:

- Determine the types of libraries previously used by students and faculty members;
- Ascertain the type of resources previously used;
- Identify the type of resources needed; and
- Determine the mode of services needed by the students and members of the faculty.

Review of Literature

Library user surveys are an age long endeavor, first used in 1948 to determine users' information seeking behavior as presented at the Royal Society Information Conference (Wilson 1981). User surveys have become common in academic libraries during the past twenty years (Hiller, 2001), which is closely tied to changes in teaching, learning, research and advances in ICT (information and communications technology) adoption for information delivery, all of which engenders changes in the "method of teaching, learning and research as well as the growing information technology and library users' active engagement and participation in the information chain." (Musoke 2008, p533)

This has all led to changes in research methods, increased ICT literacy, new study programs and methods, and updated curriculum development. A need has therefore arisen for innovative libraries to meet these changes with new initiatives, networks and collaborations. In addition to these justifications for the study of users by academic librarians, the usefulness of user surveys has been established to include the collecting data to help libraries re-assess or re-direct its collections and services, identifying effects of these changes on the use of services, determining users' perceptions of current resources and services, projecting the future needs of library users and providing opportunities for users' input and support for considered changes (Khan, 2012; Inskip, Butterworth and Macfarlane, 2008; Crist, Daub and Mac Adam 1994). Libraries utilize such results to modify operations, collections and services according to user preferences (Majid, Anwar and Eisenschitz 2000). Numerous libraries, including those engaged in agricultural services, are conducting

user surveys due to its benefits for effective library service delivery. Hiller (2001) reports that the University of Washington libraries have conducted triennial faculty and student library surveys, all aimed at determining the present and potential users, how and why they use them, what sources used, and how satisfied they feel, with a view to improving library services. And a series of user surveys have been carried out by the Association of Academic Research Library in 1981, 1984 and 1991. Van House, Wail and McClure (1990) carried out similar research.

Other general library user survey are found in studies by Hiller (2001), Zha, Li and Yan (2012), Khan (2012), Choukhande and Kuman (2004), Eager and Oppenheim (1996), Fidzani (1998), Inskip, Butterworth and MacFarlane (2008), Clougherty, et al (1998), Perley, Gentry, Fleming and Sen (2007). User survey in agricultural libraries, faculties and programs are not uncommon. Kuruppy and Gruber (2006) studied the information needs of academic scholars in agricultural and biological sciences. Palmer (1991) and Brown (1999) studied the information behavior of scientist including, agricultural scientists, using different platforms and templates. Pelzer, Wiese and Leysen (1998) updated the study carried out in 1988 on information seeking behavior of veterinary medical students. Majid, Anwar and Eisenschitz (2000) studied the information needs of agricultural scientists in Malaysia.

Studies have been carried out in Africa and Nigeria with reference to information needs of agricultural researchers and faculties. Uganneya, Ape and Ugbagir (2012) carried out a survey on information services provision and user satisfaction in agricultural libraries in Nigeria. Udekwe (2007) studied the services provided by agriculture libraries in Nigeria as well as user satisfaction. Oladele (2010) also studied information sources used by agricultural researchers in South Western Nigeria. Ezeala and Yusuff (2011) also worked on user satisfaction with library resources and services in Nigerian agricultural research institutes. In the southern part of Africa, Mokotjo and Kalusopa (2010) evaluated the agricultural information services provided to farmers in Lesotho. A majority of these studies adopted qualitative research methods with focus groups involving participatory observation as well as interviews (Inskip, Butterworth and MacFarlane 2008; Nicholas 2000, Meltzer, Maughan and Fry 1995). All studies in Nigeria employed quantitative research methods with questionnaires.

Though the present study is also focused on students as well as agricultural scientists, the objective and the environment varies from the already conducted research. The intention is to find out what has been,

what is already and what will be needed as regards library resources and services provided to staff and students of the new faculty of agriculture in Nnamdi Azikiwe University, Awka.

Method

The study adopted a quantitative research method, using questionnaires to elicit information from lecturers and students of the new Faculty of Agriculture in Nnamdi Azikiwe University, Awka. An Interview was held with the Dean of the Faculty to find out the best approach in gathering data needed for the research. Considering the frequency of the lecturers' visits for lectures and the dispersed nature of the seven departments, it was finally agreed that questionnaires would be used to collect the needed data. It was also agreed with the Dean of the Faculty that due to the various backgrounds which the lecturers come from (they were recruited from various establishments, including universities, colleges of education, research institutes, etc.), it was necessary to find out their library literacy background. The picture was also the same with the students who were coming from rural and urban areas where library services may have been absent or underdeveloped during their secondary school days. Based on the discussion with the Dean, two sets of questionnaires were designed for lecturers and students respectively. These questionnaires covered students' and staffs' library literacy, which was derived from the libraries and resources they had used, their present information needs and the modes of service delivery needed.

Since it is a new faculty, there were only 193 students and 37 lecturers in the six departments that are fully engaged. The respondents were purposively sampled based on the ability to reach them. The populations and samples are presented in Table 1.

Results

The results were categorized in order to portray the respondents' library literacy with reference to library

TABLE 1 – Population and sample of lecturers and students of the new faculty of Agriculture

Department	Lecturers		Students	
	Population	Sample	Population	Sample
Agriculture Economics Extension	9	4	14	8
Animal Science & Technology	3	3	48	44
Crop Science & Technology	4	4	31	11
Fisheries & Aquaculture	2	2	36	30
Food Science & Technology	5	5	55	32
Wild Life & Forestry	2	2	9	5
Soil Science	– Yet to Start Academic Activities –			
Total	25	20	193	130

services and resources used before, the type of resources needed and the mode of services needed.

Library and Resources Previously Used by Staff and Students of the Faculty – The survey revealed that 93.07% (121) of the students had used a library before. The question on staff use of library was considered unnecessary since having undertaken university education; they must have been exposed to at least a well developed university library. Table 2 shows that 69% of the students had used an academic library, while only 15% and 31% had ever used the public and special libraries, respectively. Furthermore, 70% of lecturers were familiar with traditional library services through the library desk. None of the lecturers had used OPAC services before, while 50% of them had used databases, with particular reference to TEEAL.

Students were also asked about the type of resources used and the reason for using the libraries. The results as presented in Table 3 shows that above 50% of the students had used almost all the traditional resources of the library except maps, photographs, directories, calendars and almanacs which had low response rates of 42.30%, 26.92%, 25.38%, 20% and 24.61%, respectively. Incidentally, 53.84% had used electronic journals, in contrast to low use of other ICT-based resources. This shows that the students are familiar with all the basic traditional library resources. The Table also shows that the students' previous use of the library was necessitated by their need to read either for an assignment, examination or leisure. Only 43% and 34% of the students were interested in borrowing library resources or reading magazines and newspapers. This question was not necessary for lecturers who may have used these resources in the course of their university education.

Preferred Resources – To ensure that the initial resources provided at the new faculty library would satisfy the needs of the staff, students and the faculty, users were required to indicate the resource format and services they would want to be served with. The result, in Figure 1, shows that both staff and students preferred journals, encyclopedia, books and dictionaries, all of

TABLE 2 – Type of library and services used previously by students and staff of the faculty of Agriculture

Respondents	Category of Response	Items	Frequency	%
Students n=129	Library Used	Academic	90	69
		Public	20	15
		Special/Research	5	3
Staff n=20	Services Used	Traditional services through library desk	14	70
		OPAC services	0	0
		Internet services	5	25
		Offline database (TEEAL)	10	50

TABLE 3 – Resources used by the students and their reasons for use

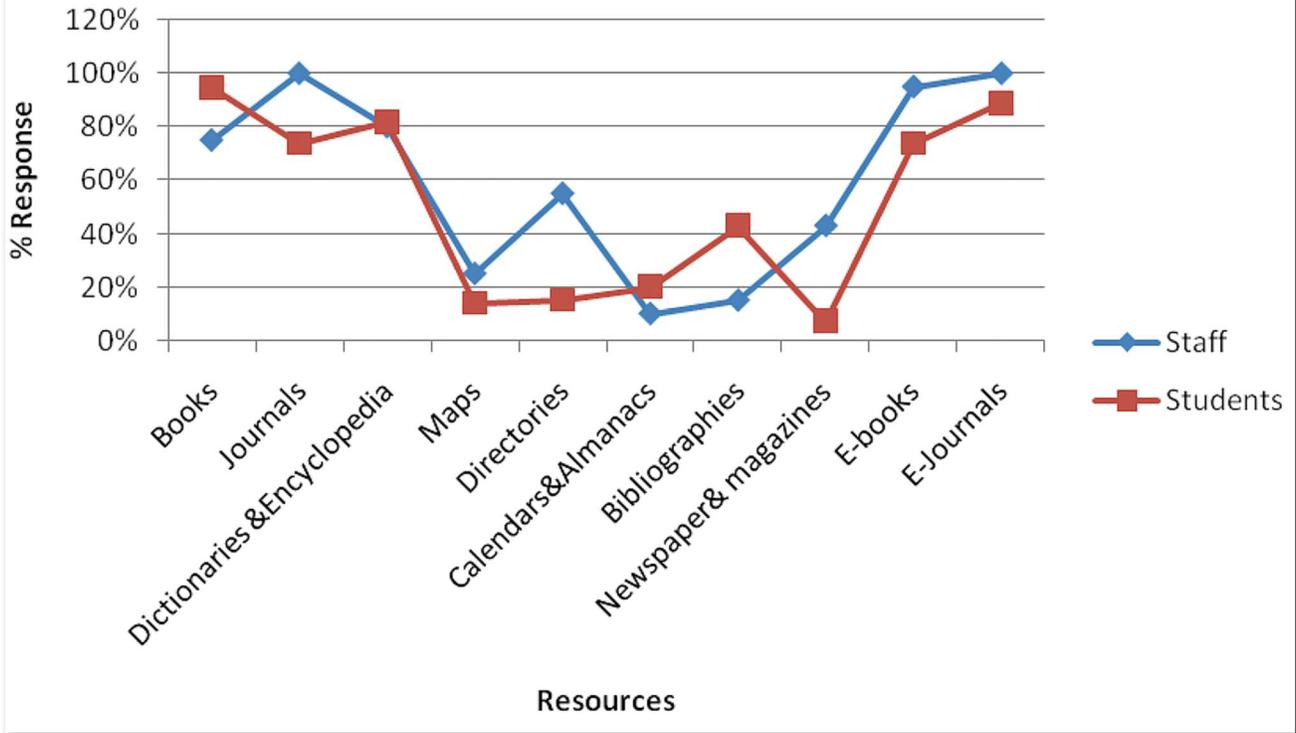
Category	Items	Frequency n=129	%
Resources Used	Books	122	94
	Journals	88	68
	Magazines	74	5
	Newspapers	77	59
	Dictionaries/Encyclopedia	97	75
	Maps	55	42
	Photographs	35	27
	Slides	19	15
	CD-Rom	26	20
	Directories	33	25
	Calendars/Almanac	32	24
	E-books	47	36
E-Journals	70	54	
Reason for Use	Carry out assignment	90	69
	Exam revision	73	56
	Borrow resources	56	43
	Read magazines and newspapers	45	35
	Leisure reading	75	58

which had responses above 60%. However, while the staff need newspapers among their top three preferred resources, only 34.61% of the students considered newspaper a prime resource. Other resources are not of primary importance to the majority of the students.

The staff and students also preferred hybrid resources (a mixture of print and electronic) to electronic only or print only, as shown in Figure 2.

Preferred Library Services – Since the library has introduced both print and electronic services through the local area network as well as the internet using social

FIGURE 1 – Preferred resources for staff and students’ academic work



media platforms, there was a need to find out which services they preferred to use at the present and in the future. Hence, they were required to indicate their preferences for services and access mode. Figure 3 reveals that staff and students are still interested in the traditional access mode (card catalogue), use of Online Public Access Catalogue and use of search engines. Though the University Library is providing services using social media platform, the students and lecturers have yet to embrace such services.

Further inquiry was made on the social media they have been using, as the use of social networking sites and blog is very common in the university, especially with students. The library has also identified social media as an acceptable platform which they can explore as a service provision. Hence, students were required to indicate the use made of social media tools to help the library decide to either consolidate already provided social media services or to review it. Eighty-eight percent (88%) of the students were aware of social media while 90% of the staff were aware of

FIGURE 2 – Resource format preference of staff and students

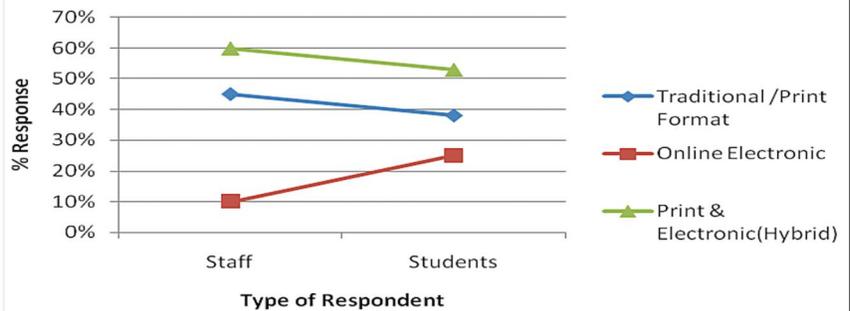


FIGURE 3 – Preferred access mode for library resources

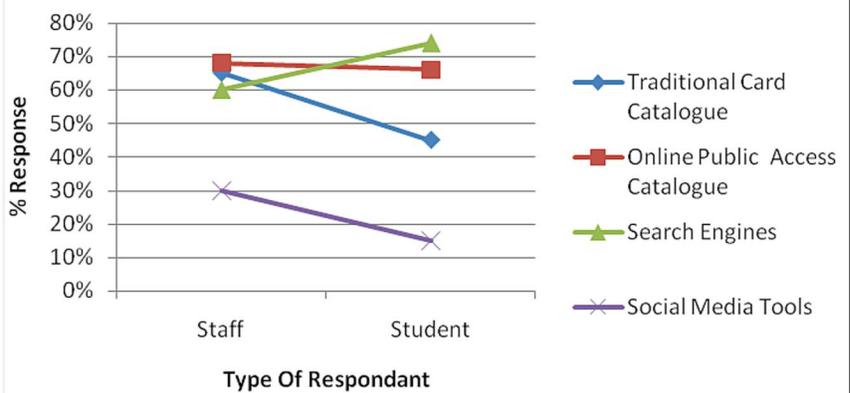
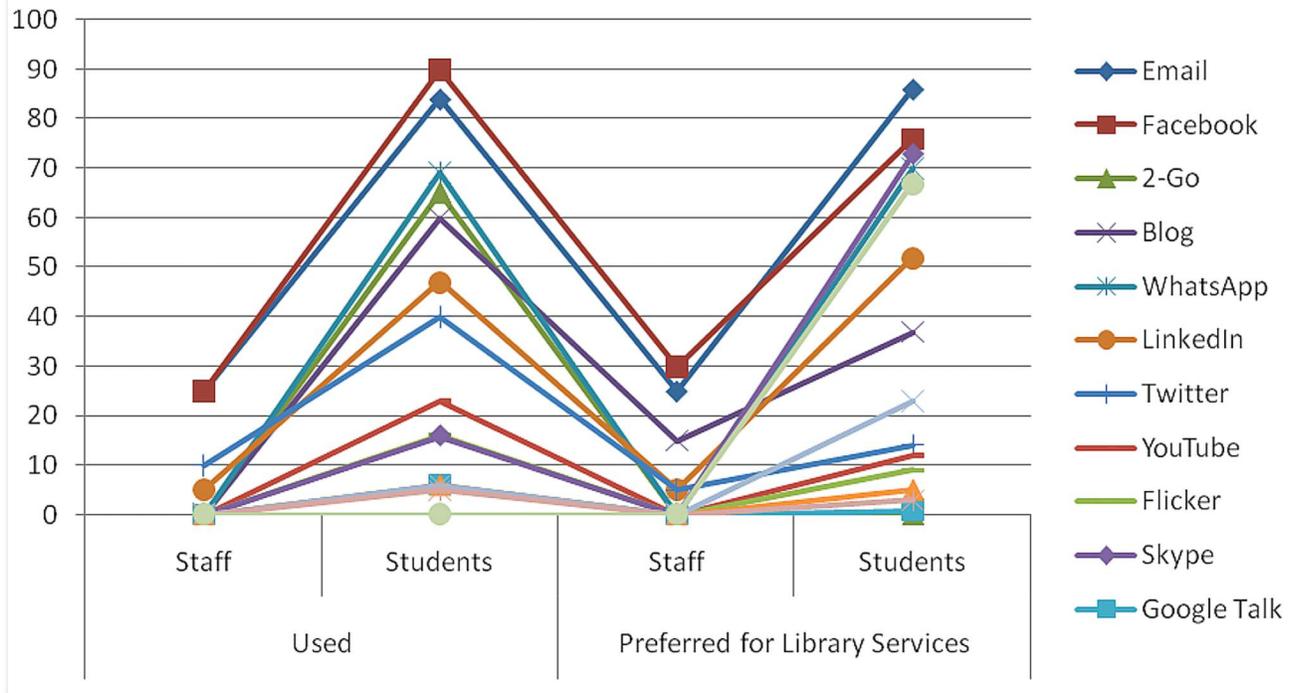


FIGURE 4 – Social media tools used and preferred for library services by staff and students of the faculty



the social media tools. Their responses on their uses of various social media are presented in Figure 4. Students used all the social media listed, and the percentage that has used them ranged from 90% and 84% for Facebook and E-mail through 69%, 65%, and 60% for WhatsApp, 2-Go and blog to 47% and 40% for LinkedIn and Twitter respectively. Less than 40% of the students have used other social media tools. Contrary to the responses by the students, only 25% of the staff has used E-mail and Facebook. The use of LinkedIn and Twitter was made by 5% and 10% of the staff, respectively. Other social media tools have not been used by the staff.

Responses on preferred social media tools for library services (Figure 4) continued to emphasize the low use of these tools by the staff. Many of the staff could not claim preference for what they have not used before, hence only Facebook, email, blogs, Twitter and LinkedIn elicited 30%, 25%, 15%, and 5% positive responses, respectively.

Though the students have used a majority of the social media tools, their preference for Facebook, E-mail, Skype, LinkedIn, Moodle and WhatsApp was revealed by the positive responses of above 50% for each of them. The major reasons why some staff and students have not used social media include lack of knowledge on how to use them (100% of staff and 94% of students) as well as not being aware of what these social media are used for (98% of staff and 94% of students).

Reason for Preferred Social Media Services – The staff and students’ responses on why they use social media show that 88%, 25% and 50% used them for ease of access, 25% and 50% of them indicated that social media are highly interactive. Other reasons included ease of use,

and social media brought from elicited responses were below 50% from both staff and students.

Summary of Findings

- Majority of the students have used a library before, of which academic libraries are the most used and special libraries least used.
- Apart from the use of offline databases like TEEAL, the majority of the staff were familiar with only the traditional print services through the library help desk.
- The students demonstrated their greater familiarity with traditional print resources than electronic resources, though 50% of them have used e-journals in addition to the print resources.
- The resources needed by both staff and students of the faculty still remain the traditional library resources which include journals, books and other reference materials as well as newspapers of which format should be hybrid (print and electronic).
- On the access and mode of services delivery, both staff and students are willing to have the resources delivered through the online catalogue and the internet. A majority of the staff are still interested in the traditional access mode using the card catalogue.
- Despite the low acceptance of social media mode of service delivery by the staff and students, a majority are aware of social media tools. However, only a few of the staff have put e-mail, Facebook, LinkedIn and twitter to use while majority of the students have used e-mail, Facebook, LinkedIn, blogs, WhatsApp and 2-Go.

- The reason for non-use of the social media tools was attributed to lack of knowledge and skill on how to use them by staff and students.
- Students are open to Facebook, e-mail, Skype, LinkedIn, Moodle and WhatsApp for library services. Not many of the staff could indicate their interest since they have limited use of the social media tools.
- A majority of staff and students who know and use social media prefer it for library services because they are easily accessible and highly interactive.

Discussion of Findings

The survey to determine the information resources and service preferences of staff and students of the new Faculty of Agriculture revealed that a majority of the students and staff have used academic libraries before, an indication that a new library that will be established will not elicit apprehension on the stakeholders. It is a suggestion that they are not ignorant of what and how of a typical academic library works and which services will be extended to them. Their familiarity with mainly traditional print services and only offline databases like the TEEAL is contrary to majority of the twentieth century findings in studies by Choukhande and Kuman (2004), Meltzer, Manghan and Fry (1995); Oladele (2010), Martell (2008) and the situation in IITA(2013) where library users enjoy offline and online electronic services more than the traditional print services. This also suggests the nature of library services prevalent in many academic libraries in Nigeria, as found by Ugannaya, Ape and Ugbajir (2012). It is not surprising that the university library in Nnamdi Azikiwe University is still offering primarily traditional print services and only TEEAL as the available electronic database with some innovative electronic services which the respondents may not have been aware of.

The low use of electronic resources against the use of print resources which include books, journals and reference resources has continued to suggest low adoption of ICT for library services in Nigerian academic libraries. This also confirms the findings of Anunobi, Nwakwuo, Oga and Bernard (2011) that use of ICT for library services is low in South East Nigerian academic libraries. Hence, it is expected that the respondents will prefer print journals, books and reference materials which they are familiar with. Furthermore, the desire to have a hybrid collection, including print and electronic resources, confirms the findings of Zha, Li and Yan (2012). It also suggests that the respondents derive some value from the offline databases (TEEAL) which they have been exposed to and also provides a window for the establishment of hybrid library services to be in conformity with global trends as Martell (2008) noted, where an increase in electronic network resources is dwindling the physical/print libraries. Another indication of the acceptance of electronic services is their preference for resources delivered through the OPAC, which supports the find-

ings of Hiller (2001) and Tomney and Buton (1998) that users prefer remote access to resources through the OPAC. Hence the new library will be maximally used if the catalogue should become electronic.

It is not amazing that the staff and students of the University are aware of these electronic resources but not using social media tools effectively. These tools are discussed in every nook and cranny of the University and they are also available in some of the mobile phones used by these respondents thus, confirming the assertion of Musoke (2008) that these tools have affected the way and manner of life of information users. That the low use stems primarily from a lack of knowledge and skills may not serve as a hindrance to their adoption for library services; rather, it suggests that training should be provided to these stakeholders as recommended by Zha, Li and Yan (2012) that librarians should pay more attention to the new patrons and should guide them on how to use electronic resources.

Low use of social media tools also suggests why a majority of the innovative library services provided to the university community are not effectively utilized. This should not serve as a deterrent, as Musoke (2008) still insists that innovative library services which mesh collaboration and networks are essential to drive users' information need in the present day competitive information environment. Preference to a particular social media tool could be a function of use; hence students who have used a majority of the social networking tools indicated their preference for them. This however must not limit library social media-tool-driven library services to those preferred by the students; rather, effort should be made to provide innovative services accompanied by training in their use. Furthermore, the respondents' indication that the social media library services are easily accessible and highly interactive implies that those are the major factors to be considered when decisions should be made on the social media services to be provided to them.

Conclusion and Implication

Academic library services can be effective and efficient when the users' needs are identified and services provided in the way and manner required. Despite the basic services expected of an academic library, the changing academic environment and library user approach to desirable information, as well as the overwhelming global electronic world, suggest a need to bridge the gap between the library and its users. Considering the former, it is evident that members of the new Faculty of Agriculture in Nnamdi Azikiwe University can conveniently use print library resources, will prefer hybrid-(electronic and print) library services, need traditional and electronic library resources relating to agricultural programs, and are open to innovative social media driven library services. However, they are not very knowledgeable in the use of electronic resources and social media tools which is likely to hinder

their acceptance of electronic and social media driven services. Assurance of effective and acceptable library and information services will be attained if traditional library resources are provided with automated remote access services/operations. Social media-driven services should be provided for ease of accessibility and interactivity and there is the need to use information literacy classes to train users on the use of the hybrid services.

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