Accessibility and Usage of Scholarly Information Sources by Faculty Members and Postgraduate Students of Ahmadu Bello University, Zaria

by
Ganiyu Ojo Adigun, Zakari Mohammed and Andrew Temboge

Abstract
This study was aimed at developing an understanding of the scholarly information sources and services that faculty members and postgraduate students in Ahmadu Bello University, Zaria accessed and used to support their research, teaching and learning. Three research questions and one hypothesis were formulated and tested with respect to types of Scholarly Information Sources (SIS) available, accessed and used by the Faculty Members (FM) and Postgraduate (PG) Students of Ahmadu Bello University, (A.B.U.), Zaria, Nigeria, in this study. A number of 868 samples comprising 487 FM and 381 PG students were drawn from the population and used as sample size for this study. The data collected, through questionnaire and observations, were analyzed using frequency distribution tables and percentages, while the hypothesis was tested using T-test for independent samples. The results show that academic/research libraries and the internet is the major SIS accessed by the FM and PG students in A.B.U., Zaria. In addition, printed matters as well as manuscripts were the most accessed and utilized Scholarly Information Sources in A.B.U., Zaria. Moreover, there is significant difference between the FM and PG students in their uses of Scholarly Information Sources. This study therefore concludes that internet has revolutionized the process by which information is being packaged, processed, stored arid disseminated, as well as how users seek and access information, these notwithstanding, the academic and the research library is still very relevant to faculty members and PG students' scholarly activities. Therefore, the universities, through their library systems, need to explore the advantages and opportunities offered by the application of Information and communication Technology (ICTs) in scholarly information delivery.

Introduction

Library occupies a central position in most of the institutions in the world and generically conveys its integral role in supporting higher education's core missions of teaching, research and education. However, information, particularly Scholarly Information, was distributed to consumers by a familiar and relatively stable system which is purely analogue, until the recent rise of electronic networks. Traditionally, publishers gathered, edited and marketed author's contributions, while information consumers purchased discrete bundles of information in the form of periodicals and monographs. Furthermore, libraries amassed large collections of published materials for the communities they serve and individuals circulate materials among themselves via formal and informal information-sharing networks (Womack, 2002). The roles and responsibilities of each of the parties were well understood and defined in the scholarly communication landscape.

Moreover, electronics networks such as the World Wide Web (WWW) and the Internet are rapidly altering this landscape. Publications are transformed, fast, via electronic distribution to the extent that commercial firms such as Questia, have digitized huge volume of monographs and as such offer large, yet homogenous repositories of information, to anyone willing to pay the subscription fees (Womack, 2002). In addition, individuals post information on the internet, either on personal sites or on information portals that collect materials on particular topics, with the aid of librarians and publishers. Furthermore, libraries now rent access to information collections, or produce their own information, instead of buying materials out rightly. However, print, which is the traditional method of information distribution, continues to function alongside the newer techniques. On the other hand, the challenge envisaged is; "how long will this activity continue in an information intensive environment, with its unique features and promises?"

Scholarly Information

Scholarly Information (SI), often refer to as Scholarship or Scholarly Communication (SC) has been defined as the study of how scholars in any field of study use and disseminate information through formal and informal channel (Borgman, 1990). Scholarly information includes published information and collections used by Scholars to inform their learning, teaching and research (Information Future Commission, 2008). The information and collection that the academic universities - normally through the library but not always - negotiate access to or

collect have attracted interest, particularly from a planning perspective. Such accesses and collection include book, refereed journal, maps, monographs images, DVDs and videos, database, audio recordings, the internet and other physical and non-physical materials. In this same vein, the Joint Information System Committee (JISC, 2009), defined Information Environment (IE) as a setting that is created and developed to provide resources and services which enable people to find and manage information efficiently and effectively in their learning, teaching and research. Similarly, the term 'Scholars' has included faculty members and postgraduate students, whom the IE immensely assists to find and manage information efficiently and effectively. Other benefits of the IE to the scholars include production, exchange, dissemination, management and preservation of scholarly outputs.

Traditionally, libraries collect, organize, display, preserve and made available an array of resources needed by scholars. Long before now, scholarship has been primarily prints and artifact-based (Smith, 2008), thus libraries were bound to acquire and then maintain, in usable form, scholarly literature and primary resources in order to make them accessible. Invariably, the academic and research libraries were then very central to the Information Environment. Various empirical studies have reported that academic libraries currently exert great efforts to keep their place as the major source of inquiries in the face of emerging digital technology (Borgman, 2000; Lougee, 2000; Halliday, 2001; Friedlander, 2002; Liu, 2003; Smith, 2008; Courant, 2008). Moreover, Anunobi and Okoye (2008) observed that digital technology has revolutionized not only the process by which information is being packaged, processed, stored and disseminated, also the process of how users seek and access information.

The fundamental challenge now is the provision of information resources in the universities premises such as offices, hostels, classrooms, homes, etc., irrespective of where the information is residence. As a result, academic and research libraries are presently faced with the decision of what books and journals to acquire to satisfy faculty members and students, as well as how to remain relevant in the digital era or "Information Intensive Environment" as suggested by Liu (2003). The libraries have intensified efforts in repositioning themselves in the new landscape despite being mindful of low budgets, and resentment on the part of institutional administrators (ACRL, 2006). The application of Information and Communication Technologies (ICT) has now changed the process by which scholars access and use scholarly outputs, as well as the procedure in which the outputs are created.

Scholarly outputs, in the Scholarly Information Environment (SIE), originate from sources such as the published and unpublished information as well as collections used by scholars to inform their learning, teaching and research activities (IFC, 2008). Other sources include materials created for learning and teaching as well as information created or generated in the course of research activities such as numerical data collected from scientific experimentation and laboratory work; information from surveys among others (IFC, 2008). The sources also includes research outputs, such as papers, chapters, monographs, articles, letters, presentations, theses, dissertations, posters, models, websites, multi-media objects among others (Graham, 2000).

These experiences vary from one university to the other; however this study decides to investigate the accessibility and usage of scholarly information sources by faculty members and postgraduate students of Ahmadu Bello University, Zaria, Nigeria. The research will facilitate the development of an understanding of the information products, sources and services that the faculty members and postgraduate students, in Ahmadu Bello University, Zaria, appreciate and employ to support their researches, teachings and learning. Consequently, whatever information services and products the university and its library will be providing, will be based on the understanding of end user's need.

Scholarly Activities in Ahmadu Bello University, Zaria

The Ahmadu Bello University, Zaria was founded on October 4, 1962 as the University of the Northern Nigeria by the then Northern Region Government, but was taken over as a federal institution in 1975. As stated in Part (ii) of its Principal Law, the university was created to, among other things, produce high level manpower, secure the diffusion of knowledge, research and community service in Northern

Nigeria and Nigeria in general, and to function as a centre of excellence (ABU Portal, 2010).

The University engages in scholarly activities and functions such as conferences, seminars, workshops, journal and other media publications, which reflect the programmes, departments and faculties in the university. Although the university could be considered a scholarly community with varied and ever changing need for information sources and services, yet it remains focused in order to meet its goals and objectives as well as the needs of its faculty members and students in the ever changing information landscape. Currently, the University is embracing new technologies so as to serve its community optimally as reflected in the University's huge investment in ICTs which has included the University Library's Digitization (ULD) and Retrospective Conversions of its holding, as well as the University's partnership with MTN Foundation for the development and maintenance of the University's Reference/Net Library.

Statement of the Problem

There abound empirical evidences that there is a shift in emphasis from traditional print information environment and sources to a user-friendly and independent electronic/ online environment sources by the faculty members and postgraduate students in universities (Friedlander, 2002; Sirkemaa, 2003; Wilson, 2005; Schonfeld and Guthrie, 2007; Larsen, 2008). The shift from producing and consuming information in hard copy to multimedia digital form has shifted the center of information from research and academic libraries to the internet, in a dramatically brief period. The challenge now is to determine if this current development that is obtainable from empirical evidences is also the case in Nigeria, using a first generation university such as Ahmadu Bello University, Zaria as a case study.

Thus it is pertinent to speculate whether the Ahmadu Bello University library system, as a scholarly apparatus, still meet the expectations of its users most especially faculty members and postgraduate students. Furthermore, what types of scholarly information sources are available and accessed for scholarly activities in the university? Other factors to examine include; how the library is taking note of the ever-changing needs of their faculty members and postgraduate students. Similarly, are the online information sources and environment serving the scholarly interest of the faculty and postgraduate students better than the library and print sources?

Research Questions

This study seeks to find answers to the following research questions:

1) What types of scholarly information sources are available for scholarly activities of faculty members and postgraduate students of Ahmadu Bello University, Zaria?
2) What types of scholarly information sources are accessed for scholarly activities by faculty members and postgraduate students of Ahmadu Bello University, Zaria?
3) What type of scholarly information sources are used for scholarly activities by faculty members and postgraduate students of A.B.U., Zaria?

Research Hypothesis

The study also tested the following null hypothesis:

Ho1: There is no significant difference between faculty members and postgraduate students of A.B.U., Zaria in their use of the scholarly information sources.

Significance of the study

This study will provide empirical evidence of how information users, faculty members and postgraduate students, view the scholarly information sources as part of their overall Scholarly Information Environment. Consequently, result obtained will be valuable to the Authority and Management Board of Ahmadu Bello University, Zaria, particularly the University Library Management, in planning information services to focus explicitly on the current and emerging needs of their faculty members and postgraduate students. This will enable the university and its academic library system to be responsive to the ever-changing information needs of its faculty members and students, by providing information sources and services that are end users' need-driven.

Methodology

Survey research method was adopted to conduct this study. Academic staff (faculty members) and postgraduate students from the 12 faculties of Ahmadu Bello University, Zaria formed the population of this study, while, the stratified random sampling which is a probabilistic method of determining samples was adopted in order to

arrive at the needed sample (Muranda, 2004). The choice of stratified random sampling technique was informed by the fact that the population consists of two distinct sub-groups – faculty members and postgraduate students. The researcher selected 487 from 1,980, which is 30%, as sample size for faculty members as supported by Roscoe (1969), while 381 postgraduate students were selected from 6,155 using Krejcie and Morgan table (Nworgu, 1991) which posited that for large population of 6,000 and above, a sample of 381 is representative of the population, thus in all, a total of 868 respondents comprising of 487 faculty members and 381 postgraduate students was selected. The instruments which were used to collect data for this study were questionnaire and observations. The data from research questions were analyzed using frequency tables and percentages, while the null hypothesis was tested using T-test for independent variables at 0.05 level of significance.

Results and Discussions

Out of 868 copies of questionnaire distributed to faculty members and postgraduate students, a total of 773 (89.05%) copies were returned duly completed and found useable for this study. The findings are as presented in Table1.

Scholarly Information Sources Available and Accessed for Scholarly Activities of Faculty Members and Postgraduate Students of A.B.U., Zaria

This research question was set to find out the scholarly information sources that are available and accessed for scholarly activities in A.B.U., Zaria. Table 2, shows that the scholarly information sources available and accessed in the University by most faculty members still remain largely traditional with high percentage, - i.e. printed books (78.3%), papers delivered at professional meetings (72.0%) and dissertation / theses (67.3%) were substantially higher in that category. Similarly, others such as news/ magazines (periodicals), printed abstracts and indexes, manuscripts and other primary source documents as well as printed journals are equally traditional library facilities patronized by the faculty members and students. However, other sources and services such as alert services, news group and selective dissemination of information were not widely available and accessible compared to what is obtainable in the past by faculty members (Table 2). Similarly among the postgraduate students, the result is almost the same with that of faculty members. In this case, dissertations/theses (72%), papers delivered at professional meetings (71%) and printed books (70%), respectively, are the sources widely available and accessible to them. Furthermore, postgraduate students accessed online sources such as e-journals (65%), e-books (63%), online databases (62%) as well as online abstracts and indexes (62%), more than the faculty members, whose percentages were 56%, 55%, 57.6%, and 57.6%, respectively.

Table 1: Response Rate of the Respondents According to Their Academic Status in the University (Ahmadu Bello University, Zaria)

Academic Status	No of questionnaire distributed	No of questionnaire returned	% of questionnaire returned
Faculty member	487	425	48.96
Pg students	381	348	40.09
Total	**868**	**773**	**89.05**

Table 2: Scholarly Information Sources Available and Accessed for Scholarly Activities by Faculty Members and Postgraduate Students in Ahmadu Bello University, Zaria.

		Faculty members		PG Students	
S/N	Type of Scholarly Information Sources and Services	N (Freq.)	Percentage (%)	N(Freq.)	Percentage (%)
1.	Printed books	332.8	78.3	243.6	70.0
2.	Papers delivered at professional meetings	306.0	72.0	247.1	71.0
3.	Dissertations/theses	286.0	67.3	250.6	72.0
4.	News/ magazines(periodicals)	283.9	66.8	226.2	65.0
5.	Printed abstracts and indexes	269.5	63.4	208.8	60.0
6.	Manuscript and other primary source document	68.2	63.1	205.3	59.0
7.	Printed journals	263.5	62.0	208.8	60.0
8.	Online abstract and indexes	244.8	57.6	215.8	62.0
9.	Online databases	244.8	57.6	215.8	62.0
10.	E-journals	238.0	56.0	226.2	65.0
11.	E-books	233.8	55.0	219.2	63.0
12.	Technical/scientific reports	237.2	55.8	174.0	50.0
13.	Discussion Group	221.4	52.1	174.0	50.0
14.	Photographs, prints and other visual sources	221.4	52.1	181.0	52.0
15.	Current awareness services	177.2	41.7	104.4	30.0
16.	Selective dissemination of information	100.3	23.6	87.0	25.0
17.	Newsgroup	97.8	23.0	69.6	20.0
18.	Alert services	37.0	8.7	87.0	25.0

Selective Dissemination of Information (SDI) used to be an important information service in the university system. It was observed that the university through its academic library still provides SDI as before, but the users make less use of the service. This development holds for other services such as Current Awareness Services and News Group. It was also observed that, the respondents recognized the availability of scholarly information sources such as online abstract and indexes, online databases, e-journals and e-books, therefore they access these sources. It is therefore evident from Table 2, that printed books and other print-based scholarly materials were still the most readily available and accessible sources for scholarly activities in the University.

Table 3: Types of Scholarly Information Sources Used for Scholarly Activities by the Faculty and Postgraduate students of A.B.U., Zaria

		Faculty Members		PG Students	
S/N	Types of Scholarly Info Sources	N (Freq.)	Percentage (%)	N (Freq.)	Percentage (%)
1.	Printed books	343.8	80.9	264.5	76.0
2.	Printed journals	332.8	78.3	262.4	75.4
3.	Papers delivered at Professional meetings	331.5	78.0	257.5	74.0
4.	Manuscripts & other primary sources	287.7	67.7	218.2	62.7
5.	Dissertations/theses	275.0	64.7	225.2	64.7
6.	Technical/scientific reports	268.2	63.1	215.8	62.0
7.	Printed abstracts and indexes	242.7	57.1	194.9	56.0
8.	News/magazines (periodicals)	233.8	55.0	187.9	54.0
9.	E-journals	228.2	53.7	187.9	54.0
10.	Online databases	227.8	53.6	226.2	65.0
11.	E-books	221.4	52.1	215.8	62.0
12.	Online abstracts and indexes	218.9	51.5	208.8	60.0
13.	Photographs, prints & other visual sources.	198.1	46.6	157.6	45.3
14.	Discussion group	196.0	46.1	153.1	44.0
15.	Current awareness services	176.0	41.4	132.9	38.2
16.	Newsgroup	101.6	23.9	69.6	20.0
17.	Selective dissemination of information	97.8	23.0	69.6	20.0
18.	Alert services	46.8	11.0	52.2	15.0

Scholarly Information Sources Used for Scholarly Activities by Faculty Members and Postgraduate Students of A.B.U., Zaria

The respondents were requested to indicate the scholarly information sources used in the course of their scholarly pursuits. Their responses were captured in Table 3 above. The result shows that most faculty members in A.B.U., Zaria are still using printed books, printed journals, papers delivered at professional meetings, as well as manuscripts and other primary source documents with 80.9%, 78.3%, 78% and 67.7% scores respectively for their scholarly pursuits. Dissertations/theses, technical/scientific reports and printed abstracts/indexes were also being used mostly for scholarly activities in Ahmadu Bello University, Zaria by most faculty members (Table 3). There is close similarity in the trends observed for postgraduate students and faculty members, with only difference in their use of online sources. Postgraduate students used online databases (65.0%), e-books (62.0%) as well as online abstracts and indexes (60.0%) than faculty members, with 53.6%, 52.1% and 51.5% respectively.

The wide availability, accessibility and utilization of print and other primary sources documents for scholarly activities in Ahmadu Bello University is apparently not unexpected compared to previous studies. This position is in agreement with the view of Wilson (2005), who acknowledged that, while the information environment is changing rapidly and will continue to evolve, reports of 'death of libraries and prints' as means of scholarly communication are greatly exaggerated. Unfortunately, other scholarly information sources and services such as alert services, selective dissemination of information, newsgroup, current awareness services and discussion group are not well used for scholarly activities in Ahmadu Bello University, Zaria as could be observed from Table 3. This may be due to the non-availability of the sources and services or/and their inadequacy for scholarly communication. Consequently, the university has to make available, as widely as possible, those services that are not in existence for accessibility and create awareness about those that are available but being under-accessed or underutilized. There is also the need to integrate these services with alert services and short messaging services offer by mobile phone services operators.

Table 4: Test of Significant Difference between Faculty Members and Postgraduate Students of Ahmadu Bello University, Zaria on Their Use of the Scholarly Information Sources

Academic Status	N	Print Sources	Online Sources	Mean	Std. dev.	Variance	T Value	T critical	Prob.
Faculty Members	425	221	204	2.92	0.94	0.88	3.113	1.96	0.002
PG Students	348	166	182	3.24	1.08	1.17			
Total	**773**	**387**	**386**						

Null Hypothesis

The null hypothesis of this study investigates the existence of differences in the use of the Scholarly Information Sources between faculty members and postgraduate students of A.B.U., Zaria, using analysis of variance (ANOVA). The result is presented in table 4.

Generally, there is no significant difference between faculty members and postgraduate students of the university in their uses of the Scholarly Information Sources (SIS). On the other hand, the result shows that there is significant difference in the use of the Scholarly Information Sources between the faculty members and postgraduate students of Ahmadu Bello University, Zaria, as indicated in the calculated 't-value' (3.113), which is greater than the tabulated value (1.96) at 5% level of significant, therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. In addition, the mean scores of the faculty members and postgraduate students show that there is significant difference in their respective use of the scholarly information sources. The findings indicated that print sources are more preferred for SIS by most of the scholars. Obviously, faculty members used the print sources more than postgraduate students, while postgraduate students used the online sources the more, which is in consonance with the findings of Anunobi and Okoye (2008) and Courant (2008). This is not unexpected as most faculty members still believe that print and traditional sources are more reliable for scholarly activities than online sources while most of the postgraduate students are becoming technology savvy and feel the online sources are user friendly, convenient and interactive.

Conclusions

Based on the findings of this study, it could be concluded that though digital technology and the Internet have revolutionized not only the way information is packaged, processed, stored and disseminated, but also how users seek and access information, traditional means of scholarly enquires still remain the most accessible and used. Consequently, the academic and research libraries alongside its traditional print environment still supports the higher education's core missions of teaching, research and learning as against the exaggerated report of 'death of library and prints' as means of scholarly communication. The most important advantage offered by the application of ICTs to scholarly communication is the ability to reduce significantly the time researchers spend while searching for relevant sources and at the same time have access to a wider range of sources. There is no doubt that if the University as a scholarly institution can embrace the advantages of incorporating ICTs and its accompanying benefits to information provision, the users' perception of the print and academic library's role in the new scholarship environment will change positively. Hence, print and library-based resources will remain relevant and keep its place as a major source of scholarly enquiries, and traditional print methods of information distribution will continue to function alongside newer methods.

Furthermore, it is recommended to the university that its academic library should revitalize their traditional scholarly information services such as selective dissemination of information and current awareness services. This should be made readily available to scholars by incorporating other services such as newsgroup, discussion groups as well as alert and short messaging services. Similarly, since online search is becoming an acceptable means of accessing scholarly information sources most especially among postgraduate students, the university should intensify its effort to build up its Open Access and Institutional Repositories. More funds should be provided to the academic library to increase the e-content subscriptions since e-resources is becoming acceptable among scholars most especially graduate students for scholarly activities. The academic library, as one

of the most important components of a university system, should evolve creative and useful services such as providing quality learning spaces, creating metadata and offering virtual reference services, teaching information literacy, choosing resources and managing resource licenses and maintaining digital repositories.

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