AWARENESS OF ELECTRONIC RESOURCES AT THE NATIONAL OPEN UNIVERSITY OF NIGERIA LIBRARY: STUDENTS', LECTURERS' AND LIBRARIANS' PERCEPTIONS

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ABSTRACT: *Worldwide, electronic resources are becoming increasingly common in university libraries, which are spending a sizable amount of their budgets on increasing their electronic collections. The maximization of the usage of the sources would largely depend on the level of library users' awareness and perceptions of e-resources. Consequently, this current study adopted a quantitative research approach to investigate library users' awareness and perceptions of e-resources in the National Open University of Nigeria (NOUN) library. A survey involving 1,513 students, 140 lecturers and 27 academic librarians was conducted using online (Google form) self-administered closed-ended questionnaires to collect relevant data. The findings indicate that a variety of e-resources is available in the library; there are favourable perceptions of and attitudes to e-resources; the library has endeavoured to create awareness of e-resources among users using a variety of contemporary means, which the users rate highly; and lecturers have deeper awareness of the e-resources than students. The implications of the study as well as recommendations for further research are offered in the paper.*

KEYWORDS: *electronic resources, academic libraries, national open university of Nigeria, user studies, library services.*

INTRODUCTION AND PROBLEM STATEMENT

Over the years, librarians have exploited emerging technologies to offer new services to library patrons, as libraries continuously fulfil their important role as information dissemination entities that students, teachers and research groups use to access and explore available electronic resources Lamont (1999, 390); Vassiliou and Rowley (2008, 355); Thanuskodi (2011, 36). Society has also witnessed a tremendous change in the way tasks are accomplished; libraries are reducing in size as stocks of the volume of printed documents shrink and electronic information resources (hereafter abbreviated as e-resources) gradually replace physical monographs due to technological advancements Bhatia (2011, 408); Natarajan and Revathi (2012, 61). E-resources have therefore become part and parcel of the collections of academic libraries. E-resources assist in expediting access to information and facilitate the learning or research activities carried out by library users Bhatia (2011, 480). Several scholars have pointed out the importance that users ascribe to e-resources e.g. Egberongbe (2011); Haridasan and Khan (2009). However, Rapple and Lambert (2010, 163), among other scholars, lament that many valuable collections of academic e-resources are underutilized simply because potential users are unaware of their existence. According to Tripathi and Jeevan (2008, 616), distance learners do not take advantage of available e-resources because of they lack awareness of the e-library services offered by libraries.

Despite the importance that is attached to the new form of information resources that libraries offer to their clients, academic libraries in Africa, and more particularly in Sub-Saharan Africa, are not endowed with big budgets to meet the demands for e-resources. Many academic libraries experience budget cuts, which reduce the amounts that can be spent on their e-resource collections. In the late 1990s and early 2000s, libraries resorted to collaborative efforts by establishing consortia in different countries in Sub-Saharan Africa, including Nigeria Osai(2010), South Africa, Darch, Rapp, and Underwood (1999) and Botswana Molefe (2003), to increase their purchasing power for e-resources, which were (and still are) exceedingly expensive. However, the efforts to stock libraries with e-resources have not resulted in maximum usage. This is attested to by various authors from different countries in Sub-Saharan Africa, including Nigeria e.g. Ani (2010); Alison, Kiyingi and Baziraake (2012). The factors underlying the poor or low usage of e-resources include students' and faculties' personal characteristics, their poor searching skills, the limited number of resources available to users, users' lack of awareness of e-resources, and their lack of interest in, time for and commitment to using e-resources Alison et al. (2012). The Open University of Nigeria is no exception; therefore, the current study was undertaken to explore library users' awareness and perceptions of e-resources in the current information age.

PURPOSE OF THE STUDY

The purpose of this paper was to examine users' awareness and perceptions of e-resources at the National Open University of Nigeria (NOUN). The specific objectives were:

1. To examine the different types of e-resources available in the NOUN Library.
2. To assess the students' and staff members' perceptions of e-resources.
3. To determine the level of staff members' and students' level of awareness of e-resources available in the NOUN library.
4. To evaluate the tools used to create awareness, among library users, of e-resources in the library.

RESEARCH METHODOLOGY

The current study was quantitative in nature, with a survey being considered to design the study. The population for this study was divided into three categories, namely academic librarians, academic staff members (hereafter referred to as lecturers) and students. The NOUN Annual Report 2014/2015 (2015, 79) estimates that the university had 189,364 registered students, 275 lecturers and 54 academic librarians in 2014/2015. Using the Research Advisor's (2006, 2) table on sampling, 1,513 students, 140 lecturers and 27 academic librarians were considered to constitute a representative sample. Given that the students were scattered across six geopolitical zones in Nigeria as well as across different levels of study (i.e. undergraduate, master's and PhD levels), there was need to obtain representative samples for each zone and study level. The following steps were used:

(a) The representative percentage of students in selected study centers was determined using the formula $\frac{n}{N} \; x \; 100$, where n = student population in a selected center and N = total student population in all selected centers.

(b) To obtain the representative student sample size in selected study centers, the representative percentage of students in selected study centers was multiplied by the desired student sample size (desired student sample size derived from the sample size in the Research Advisor's table, with a confidence level = 95% and margin of error = 2.5% (Research Advisor 2006, 2).

(c) The representative percentage of students in each level was determined using the formula $\frac{n}{N} \; x \; 100$, where n = student population on a selected level and N = total student population in a selected center.

(d) To obtain the representative class level sample size in selected study centers, the representative percentage of students in the various levels was multiplied by the representative sample size of students in the selected study centers.

The sample size for the lecturers was 140, while 27 librarians were selected for the study based on the Research Advisor's (2006, 2) table on determining sample sizes at 95% confidence level. Once the sample sizes were determined, the lists of students and staff were used to identify the actual students and staff who would participate in the study, using the stratified random sampling (for students and lecturers) and purposive sampling (for librarians). The strata were zones and levels of study for students and academic units for lecturers. An online survey questionnaire was used to obtain data from all respondents who had been identified using lists obtained from the student affairs office (for students) and the human resources department (for lecturers and librarians). The researchers then sent out an email with an introductory note requesting the respondents to complete the questionnaires by a given date, which was set at three months after the request was made. One the data was collected; it was analysed using descriptive statistics in the Statistical Package for Social Sciences (SPSS) software.

RESULTS AND DISCUSSION

This section offers a description of the respondents' profiles, and then presents and discusses the findings in three sections, namely students' and lecturers' perceptions of and attitudes towards e-resources; users' levels of awareness of e-resources; and tools used to create awareness of e-resources.

Respondents' demographic profile

The distribution of respondents as presented in table 1 was based on three categories, namely the academic librarians (27; 2.4%), the lecturers (110; 9.5%) and the students (1 013; 88.1%). The study response rate for academic librarians was 100%, for lecturers 79% and for students 67%. The overall response rate was 68%.

Table 1: Distribution of respondents based on category

Category of respondents	Frequency	Percentages (%)
Academic librarians	27	2.4
Lecturers	110	9.5
Students	1,013	88.1
Total	1,150	100.0

Out of the 27 librarians that participated in the study, 18 (66.7%) were female, while nine (33.3%) were male. The majority of the academic librarians were in the age bracket 30 to 34 years (37%), followed by 35 to 39 years (25.9%), which indicated that librarians in NOUN were young academics. A total of 55.6% of the librarians had master's degrees or an equivalent, while 11.1% were holders of PhD degrees. On the part of the lecturers, 58 (52.7%) were male, while 48 (43.6%) were female. The majority was therefore male. The majority of the lecturers were in the age bracket older than 50 years (24.5%), followed by the age bracket 45 to 49 years (23.6%). These results imply that many lecturers were in the prime of their career. A higher percentage of lecturers were holders of PhD degrees (60%), which indicated the level of academic knowledge of the teaching staff at NOUN. Out of the 1,013 students who participated in the study, 656 (64.8%) were male, while 331 (32.7%) were female. The majority of the students were in the age bracket 30 to 34 years (31.2%). The distribution of the students by level of study also showed that more than 60% were postgraduate students.

Users' perceptions of and attitude towards e-resources at the NOUN library

Lecturers and students were asked to indicate their perception of e-resources available at the NOUN library. The options reflected in Table 2 represent the perceptions of users. The mean and standard deviation scores of academics in Table 2 reveal that it took too much time to find relevant e-resources ($\bar{x}$ = 2.98; s = 0.86); and that there were too many e-resources ($\bar{x}$ = 2.81; s = 1.22). The issue that e-resources were not always accessible posted a mean score of 2.72.

Table 2: Mean and standard deviation scores of lecturers' perception of e-resources available at NOUN library

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD (s)
It takes too much time to find relevant e-resources	2 1.8%	27 24.5%	60 54.5%	13 11.8%	8 7.3%	2.98	0.86
There are too many e-resources	20 18.2%	23 20.9%	35 31.8%	22 20.0%	10 9.1%	2.81	1.22
E-resources are not always accessible	5 4.5%	37 33.6%	56 50.9%	8 7.3%	4 3.6%	2.72	0.81
E-resources are not updated	5 4.5%	33 30.0%	68 61.8%	1 .9%	3 2.7%	2.67	0.71
What I find from e-resources is not what I need	11 10.0%	35 31.8%	55 50.0%	8 7.3%	1 .9%	2.57	0.81
GRAND MEAN = 2.7450							

Table 3: Mean and standard deviation scores of students' perception of e-resources available at NOUN library

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD (s)
There are too many e-resources	233 23.0%	135 13.3%	259 25.6%	288 28.4%	98 9.7%	2.88	1.31
It takes too much time to find relevant e-resources	214 21.1%	165 16.3%	376 37.1%	210 20.7%	48 4.7%	2.72	1.15
E-resources are not always accessible	250 24.7%	232 22.9%	373 36.8%	123 12.1%	35 3.5%	2.47	1.09
What I find from e-resources is not what I need	207 20.4%	292 28.8%	447 44.1%	52 5.1%	15 1.5%	2.38	.92
E-resources are not updated	313 30.9%	210 20.7%	365 36.0%	103 10.2%	22 2.2%	2.31	1.08
GRAND MEAN = 2.3283							

The results in Table 3 reveal students' perceptions of the e-resources available at NOUN library: there were too many e-resources ($\bar{x}$ = 2.88; s = 1.31); it took too much time to find relevant e-resources ($\bar{x}$ = 2.72; s = 1.15); and e-resources were not always accessible ($\bar{x}$ = 2.47; s = 1.09). Tables 2 and 3 further show that a large percentage of lecturers, unlike the students, were undecided on many fronts. For example, 55% of lecturers and 37% of the students were undecided on the issue the time it took to find an e-resource. In summary, while 46% of the students reported a positive perception of the library's e-resources, a greater number of

lecturers (i.e. 51%) were undecided and seemed not to have a clear view of e-resources in the library. There is a big awareness gap here, as it suggests that there might be limitations to the use of the library e-resources and the library might need to repackage its awareness programme to improve the perceptions of library patrons and encourage the use of library e-resources. Mawindo and Hoskins (2008), Deng (2010), Ge (2010), Dhanavandan et al. (2012), Gakibayo and Okello-Obura (2011) report respondents' poor perception of library e-resources because they were not familiar with the resources as a result of inadequate awareness.

How users learnt about e-resources available in the NOUN library

Respondents were asked two questions to assess how they had learned about the e-resources that were available at the NOUN library. Firstly, we asked them to state their level of agreement with how they had learned about the e-resources and, secondly, we asked them to rate the effectiveness of the avenues or methods through which they had learned about the e-resources. In the first instance, the results in Table 4 show that the participating lecturers learned about the available e-resources in NOUN library via the library staff ($\bar{x}$ = 3.93; s = 1.16); personal discovery ($\bar{x}$ = 3.37; s=1.14); electronic mail ($\bar{x}$ = 3.16; s = 1.26); the electronic library webpage ($\bar{x}$ = 2.90; s = 1.23); and a friend ($\bar{x}$ = 2.84; s = 1.16).

Table 4: Mean and standard deviation scores of how lecturers learned about the e-resources available in NOUN library

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD(s)
Library staff	10 9.1%	3 2.7%	9 8.2%	51 46.4%	37 33.6%	3.93	1.16
Personal discovery	9 8.2%	15 13.6%	28 25.5%	42 38.2%	16 14.5%	3.37	1.14
Electronic mail	18 16.4%	11 10.0%	30 27.3%	37 33.6%	14 12.7%	3.16	1.26
Electronic library webpage	22 20.0%	15 13.6%	32 29.1%	34 30.9%	7 6.4%	2.90	1.23
A friend	21 19.1%	16 14.5%	42 38.2%	22 20.0%	9 8.2%	2.84	1.16
Other colleagues	26 23.6%	13 11.8%	41 37.3%	25 22.7%	5 4.5%	2.73	1.19
Library social media tools (e.g. Facebook, Twitter, tc..)	23 20.9%	15 13.6%	44 40.0%	25 22.7%	3 2.7%	2.73	1.12
Direct mailing to staff	28 25.5%	12 10.9%	52 47.3%	17 15.5%	1 .9%	2.55	1.06
Staff orientation	34 30.9%	20 18.2%	44 40.0%	12 10.9%	– %	2.31	1.03
GRAND MEAN = 2.77							

The items that best describe how the students learned about available e-resources in the NOUN library are shown in Table 5. The most outstanding ways were: personal discovery ($\bar{x}$ = 3.45; s = 1.43); through a friend ($\bar{x}$ = 2.89; s = 1.40); through electronic library webpage ($\bar{x}$ = 2.89; s = 1.46); through fellow students ($\bar{x}$ = 2.85; s = 1.40); and through a student orientation programme ($\bar{x}$ = 2.81; s = 1.49).

Table 5: Mean and standard deviation scores of how NOUN students learned about e-resources availability

ITEMS	SD(1)	D(2)	UD(3)	A (4)	SA (5)	Mean ($\bar{x}$)	SD (s)
Personal discovery	171 16.9%	109 10.8%	110 10.9%	341 33.7%	282 27.8%	3.45	1.43
Through a friend	256 25.3%	142 14.0%	217 21.4%	254 25.1%	144 14.2%	2.89	1.40
The electronic library webpage	287 28.3%	132 13.0%	149 14.7%	297 29.3%	148 14.6%	2.89	1.46
Fellow students	283 27.9%	128 27.9%	168 16.6%	324 32.0%	324 32.0%	2.85	1.40
Student orientation	285 28.1%	146 14.4%	145 14.3%	260 25.7%	177 17.5%	2.81	1.49
Electronic mail	301 29.7%	148 14.6%	193 19.1%	289 28.5%	82 8.1%	2.71	1.36
Direct mailing to student	308 30.4%	173 17.1%	226 22.3%	191 18.9%	115 11.4%	2.64	1.38
Library staff	267 26.4%	197 19.4%	285 28.1%	170 16.8%	94 9.3%	2.63	1.29
Social media tools (Facebook, Twitter)	327 32.3%	153 15.1%	239 23.6%	228 22.5%	66 6.5%	2.56	1.31
My lecturers	319 31.5%	236 23.3%	268 26.5%	161 15.9%	29 2.9%	2.35	1.16
GRAND MEAN = 2.64							

In terms of the effectiveness of the avenues or methods through which lecturers got to learn about the existence of e-resources in the library, Table 6 reveals that the most highly rated method or avenue was library staff ($\bar{x}$ = 4.15; s = 1.13); followed by colleagues ($\bar{x}$ = 3.37; s = 1.35); electronic mail ($\bar{x}$ = 3.09; s = 1.42); personal discovery ($\bar{x}$ = 3.02; s = 1.37); and new staff orientation programme ($\bar{x}$ = 2.95; s = 1.31).

Table 6: Mean and standard deviation scores of how lecturers rated how they got to know about the availability of e-resources in NOUN library

ITEMS	NE (1)	SE (2)	EF (3)	VE (4)	ME (5)	Mean ($\bar{x}$)	SD(s)
From library staff	4 3.6%	10 9.1%	15 13.%	18 16.4%	63 57.3%	4.15	1.18
From other colleagues	7 6.4%	29 26.4%	27 24.5%	10 9.1%	37 33.6%	3.37	1.35
Through electronic mail	18 16.4%	22 20.0%	31 28.2%	10 9.1%	29 26.4%	3.09	1.42
Personal discovery	16 14.5%	28 25.5%	30 27.3%	10 9.1%	26 23.6%	3.02	1.37
New staff orientation programme	13 11.8%	34 30.9%	32 29.1%	7 6.4%	24 21.8%	2.95	1.31
Through social media tools	19 17.3%	31 28.2%	26 23.6%	8 7.3%	26 23.6%	2.92	1.42
Direct mailing to staff	14 12.7%	37 33.6%	29 26.4%	5 4.5%	25 22.7%	2.91	1.34

From friends	12 10.9%	33 30.0%	40 36.4%	5 4.5%	20 18.2%	2.89	1.23
Through the electronic library webpage	21 19.1%	31 28.2%	29 26.4%	2 1.8%	27 24.5%	2.85	1.43
GRAND MEAN = 2.9230							

For the students, it was found that they thought that their fellow students ($\bar{x}$ = 3.12; s = 1.46) ranked highest in the list of effective avenues or methods through which they got to learn about the availability of e-resources in the library. In the second position were friends ($\bar{x}$ = 2.99; s = 1.43); followed by new student orientation programme ($\bar{x}$ = 2.99; s = 1.44); personal discovery ($\bar{x}$ = 2.85; s = 1.45); and the electronic library webpage ($\bar{x}$ = 2.74; s = 1.47).

Table 7: Mean and standard deviation scores of how students rated how they got to know about the availability of e-resources in NOUN library

ITEMS	NE (1)	SE (2)	EF (3)	VE (4)	ME (5)	Mean ($\bar{x}$)	SD(s)
From fellow students	204 20.1%	143 14.1%	257 25.4%	141 13.9%	268 26.5%	3.12	1.46
From friends	217 21.4%	155 15.3%	296 29.2%	108 10.7%	237 23.4%	2.99	1.43
New student orientation programme	237 23.4%	141 13.9%	231 22.8%	199 19.6%	205 20.2%	2.99	1.44
Personal discovery	252 24.9%	188 18.6%	240 23.7%	126 12.4%	207 20.4%	2.85	1.45
Through the electronic library webpage	295 29.1%	176 17.4%	241 23.8%	98 9.7%	203 20.0%	2.74	1.47
Through social media tools	313 30.9%	153 15.1%	255 25.2%	123 12.1%	169 16.7%	2.69	1.44
Through electronic mail	331 32.7%	142 14.0%	280 27.6%	91 9.0%	169 16.7%	2.62	1.44
Direct mailing to students	361 35.6%	144 14.2%	274 27.0%	98 9.7%	136 13.4%	2.51	1.40
From library staff	346 34.2%	247 24.4%	204 20.1%	70 6.9%	146 14.4%	2.43	1.39
From lecturers	425 42.0%	223 22.0%	184 18.2%	73 7.2%	108 10.7%	2.22	1.34
GRAND MEAN = 2.5845							

The results in this section reveal that most lecturers (i.e. 70%) became aware of the NOUN library's e-resources through library staff, while the majority (60%) of students became aware of e-resources through personal discovery. Apparently, the two groups of users learned about the availability of e-resources in the library through different means. The study further revealed that the lecturers were more aware than the students, as reflected in the overall mean. Kaur & Verma (2009) make similar observations, namely that 96% of faculty members and 19% of undergraduate students were aware of library e-resources. The level of e-resources awareness among students was found to be low and therefore there is need for the NOUN library to market the e-resources vigorously to their users. Tripathi & Jeevan (2008) note that the majority of remote learners are not aware of the e-resources in their libraries. The low level of awareness among students is a disturbing trend as it implies that usage of e-resources may be limited. Previous studies by Kumar and Singh (2011), Okiki (2012) and Dadzie and Van Walt (2015), also reveal that the majority of faculty members indicated

non-awareness of library e-resources. In contrast, Egberongbe (2011), Fasola (2013) and Gupta and Sharma (2015) report high levels of awareness among lecturers, research scholars and students.

Tools used to create awareness of e-resources in the NOUN library

This section reports on and compares responses from students, lecturers and librarians regarding the tools used to create awareness of e-resources in the NOUN library. Special emphasis is placed on contemporary means. Table 8 reflects the librarians' responses, which highlight the following as the means employed by the NOUN library to create awareness of the availability of e-resources: electronic mail ($\bar{x}$ = 3.91; s = 1.22); notice boards ($\bar{x}$ = 3.70; s = 1.23); texting (SMSs) ($\bar{x}$ = 3.63; s = 1.31); instant messaging ($\bar{x}$ = 3.59; s = 1.28); Facebook ($\bar{x}$ = 3.56; s = 1.26); and library handouts ($\bar{x}$ = 3.40; s = 1.30).

Table 8: Mean and standard deviation scores of the types of tools used to create awareness of the availability of e-resources in the NOUN library as indicated by academic librarians

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD(s)
Electronic mail	2 7.4%	2 7.4%	2 7.4%	10 37.0%	11 40.7%	3.91	1.22
Notice boards	3 11.1%	2 7.4%	1 3.7%	15 55.6%	6 22.2%	3.70	1.23
Texting (SMSs)	3 11.1%	2 7.4%	5 18.5%	9 33.3%	8 29.6%	3.63	1.31
Instant messaging	3 11.1%	2 7.4%	5 18.5%	10 37.0%	7 25.9%	3.59	1.28
Facebook	3 11.1%	2 7.4%	5 18.5%	11 40.7%	6 22.2%	3.56	1.26
Library handouts	3 11.1%	4 14.8%	5 18.5%	9 33.3%	6 22.2%	3.40	1.30
Twitter	7 25.9%	2 7.4%	4 14.8%	8 29.6%	6 22.2%	3.15	1.54
Flyers	3 11.1%	6 22.2%	6 22.2%	10 37.0%	2 7.4%	3.07	1.17
Listserv	11 40.7%	4 14.8%	6 22.2%	5 18.5%	1 3.7%	2.20	1.20
GRAND MEAN = 3.1840							

Table 9: Mean and standard deviation scores of the types of tools used to create awareness of the availability of e-resources in the NOUN library as indicated by lecturers

ITEMS	SD(1)	D(2)	UD(3)	A (4)	SA (5)	Mean ($\bar{x}$)	SD (s)
Notice boards	7 6.4%	6 5.5%	16 14.5%	63 57.3%	18 16.4%	3.72	1.01
Twitter	38 34.5%	4 3.6%	11 10.0%	51 46.4%	6 5.5%	3.72	1.01
Electronic mail	14 12.7%	4 3.6%	2 1.8%	73 66.4%	17 15.5%	3.68	1.17
Facebook	37 33.6%	6 5.5%	23 20.9%	36 32.7%	8 7.3%	3.68	1.17

Library handouts	28 25.5%	4 3.6%	40 36.4%	31 28.2%	7 6.4%	2.86	1.26
Texting (SMSs)	38 34.5%	9 8.2%	18 16.4%	36 32.7%	9 8.2%	2.72	1.43
Flyers	30 27.3%	7 6.4%	51 46.4%	16 14.5%	6 5.5%	2.65	1.19
Listserv	38 34.5%	7 6.4%	44 40.0%	17 15.5%	4 3.6%	2.47	1.22
Instant messaging	49 44.5%	5 4.5%	18 16.4%	32 29.1%	6 5.5%	2.46	1.44
GRAND MEAN = 2.9020							

On their part, the lecturers selected notice boards ($\bar{x}$ = 3.72; s = 1.01); Twitter ($\bar{x}$ = 3.72; s = 1.01); electronic mail ($\bar{x}$ = 3.68; s = 1.17); and Facebook ($\bar{x}$ = 3.68; s = 1.17) as the main ways that the library used to reach out to them in the process of creating awareness about the availability of e-resources.

Table 10: Mean and standard deviation scores of the types of tools used to create awareness of the availability of e-resources in the NOUN library as indicated by students

ITEMS	SD(1)	D(2)	UD(3)	A (4)	SA (5)	Mean ($\bar{x}$)	SD (s)
Electronic mail	246 24.3%	95 9.4%	94 9.3%	390 38.5%	188 18.6%	3.17	1.47
Notice boards	244 24.1%	95 9.4%	115 11.4%	433 42.7%	126 12.4%	3.10	1.40
Texting (SMSs)	339 33.5%	125 12.3%	155 15.3%	290 28.6%	104 10.3%	2.67	1.43
Library handouts	396 39.1%	108 10.7%	146 14.4%	260 25.7%	103 10.2%	2.57	1.47
Facebook	403 39.8%	98 9.7%	135 13.3%	256 25.3%	121 11.9%	2.51	1.50
Instant messaging	413 40.8%	119 11.7%	186 18.4%	199 19.6%	96 9.5%	2.45	1.42
Flyers	332 32.8%	208 20.5%	233 23.0%	176 17.4%	64 6.3%	2.43	1.28
Twitter	455 44.9%	115 11.4%	167 16.5%	197 19.4%	79 7.8%	2.34	1.41
Listserv	544 53.7%	133 13.1%	188 18.6%	110 10.9%	38 3.8%	1.98	1.22
GRAND MEAN = 2.4510							

The results in Table 10 indicate that the students reported that the means the library used most to create awareness of e-resources are the electronic mail ($\bar{x}$ = 3.17; s = 1.47); notice boards ($\bar{x}$ = 3.10; s = 1.40); texting (SMSs) ($\bar{x}$ = 2.67; s = 1.43); library handouts ($\bar{x}$ = 2.57; s = 1.47); and Facebook ($\bar{x}$ = 2.51; s = 1.50).

A follow-up question was posed to all respondents to determine their level of agreement about the effectiveness of using modern ways or tools to create awareness about e-resources in the library. Table 11 presents the mean and standard deviation scores of academic librarians' opinion on the effectiveness of modern tools that can be used to create awareness of the availability of e-resources in the library.

Table 11: Mean and standard deviation scores of modern tools that can be employed effectively to create awareness of the availability of e-resources in the library as indicated by academic librarians

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD (s)
Email	–	–	1 3.7%	10 37.0%	16 59.3%	4.56	0.58
Facebook	–	–	1 3.7%	9 33.3%	17 63.0%	4.51	0.57
Texting (SMSs)	–	–	2 7.4%	10 37.00%	15 55.6%	4.48	0.64
Instant messaging	–	–	2 7.4%	12 44.4%	13 48.1%	4.41	0.64
Twitter	2 7.4%	–	1 3.7%	9 33.3%	15 55.6%	4.21	1.10
Blogs	4 14.8%	–	 %	13 48.1%	10 37.0%	3.93	1.32
YouTube	6 22.2%	1 3.7%	1 3.7%	8 29.6%	11 40.7%	3.63	1.51
Flicker	8 29.6%	–	2 7.4%	6 22.2%	11 40.7%	3.44	1.72
Listserv	9 33.3%	–	1 3.7%	5 18.5%	12 44.4%	3.40	1.80
Myspace	8 29.6%	1 3.7%	3 11.1%	5 18.5%	10 37.0%	3.29	1.71
Ning	10 37.0%	3 11.1%	2 7.4%	4 14.8%	8 29.6%	2.89	1.73
GRAND MEAN = 3.7350							

The results in Table 11 above show that academic librarians were of the view that effective awareness of the availability of e-resources in the library can be created through email ($\bar{x}$ = 4.56; s = 0.58); Facebook ($\bar{x}$ = 4.51; s = 0.57); Texting (SMS) ($\bar{x}$ = 4.48; s = 0.64); instant messaging ($\bar{x}$ = 4.41; s = 0.64); Twitter ($\bar{x}$ = 4.21; s = 1.10); and blogs ($\bar{x}$ = 3.93; s = 1.32). Others specified by some academic librarians include WhatsApp; delicious; LinkedIn; and Pinterest.

Table 12: Mean and standard deviation scores of modern tools that can be employed to create effective awareness of the availability of e-resources in the library as indicated by lecturers

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD (s)
Email	1 0.9%	– %	– %	51 46.4%	58 52.7%	4.50	0.60
Texting (SMSs)	5 4.5%	1 .9%	4 3.6%	51 46.4%	49 44.5%	4.25	0.93
Facebook	6 5.5%	1 .9%	3 2.7%	64 58.2%	36 32.7%	4.12	0.94
Twitter	13 11.8%	– %	2 1.8%	56 50.9%	39 35.5%	3.98	1.20
YouTube	13 11.8%	2 1.8%	– %	65 59.1%	30 27.3%	3.88	1.19

Instant messaging	14 12.7%	1 .9%	10 9.1%	51 46.4%	34 30.9%	3.82	1.25
Blogs	14 12.7%	2 1.8%	6 5.5%	57 51.8%	31 28.2%	3.81	1.24
Flicker	28 25.5%	2 1.8%	6 5.5%	49 44.5%	25 22.7%	3.37	1.51
Myspace	31 28.2%	– %	8 7.3%	57 51.8%	14 12.7%	3.21	1.46
Listserv	39 35.5%	1 .9%	5 4.5%	47 42.7%	18 16.4%	3.04	1.59
Ning	45 40.9%	2 1.8%	6 5.5%	46 41.8%	11 10.0%	2.78	1.56
GRAND MEAN = 3.4825							

Table 12 presents mean and standard deviation scores of lecturers' opinions on the modern tools that can be used to create effective awareness of the availability of e-resources in the library. The results indicate that lecturers were of the view that effective awareness of the availability of e-resources in the library can be created through email ($\bar{x}$ = 4.50; s = 0.60); texting (SMS) ($\bar{x}$ = 4.25; s = 0.93); Facebook ($\bar{x}$ = 4.12; s = 0.94); Twitter ($\bar{x}$ = 3.98; s = 1.20); YouTube ($\bar{x}$ = 3.88; s = 1.19); instant messaging ($\bar{x}$ = 3.82; s = 1.25); and blogs ($\bar{x}$ = 3.81; s = 1.24).

Table 13: Mean and standard deviation scores of modern tools that can be employed to create effective awareness of the availability of e-resources in the library as indicated by students

ITEMS	SD(1)	D(2)	UD(3)	A(4)	SA(5)	Mean ($\bar{x}$)	SD (s)
Email	116 11.5%	21 2.1%	25 2.5%	351 34.6%	500 49.4%	4.08	1.12
Facebook	115 11.4%	35 3.5%	30 3.0%	389 38.4%	444 43.8%	3.91	1.28
Texting (SMSs)	190 18.8%	20 2.0%	53 5.2%	370 36.5%	380 37.5%	3.72	1.46
Twitter	215 21.2%	33 3.3%	41 4.0%	387 38.2%	337 33.3%	3.59	1.45
Instant messaging	257 25.4%	19 1.9%	59 5.8%	363 35.8%	315 31.1%	3.45	1.56
Blogs	297 29.3%	47 4.6%	49 4.8%	349 34.5%	271 26.8%	3.24	1.61
YouTube	309 30.5%	54 5.3%	76 7.5%	359 35.4%	215 21.2%	3.16	1.57
Flicker	391 38.6%	41 4.0%	93 9.2%	309 30.5%	179 17.7%	2.85	1.60
Listserv	468 46.2%	42 4.1%	79 7.8%	286 28.2%	138 13.6%	2.59	1.56
Myspace	462 45.6%	50 4.9%	96 9.5%	260 25.7%	145 14.3%	2.58	1.51
Ning	521 51.4%	60 5.9%	115 11.4%	225 22.2%	92 9.1%	2.32	1.41
GRAND MEAN = 3.0675							

Table 13 presents the mean and standard deviation scores of students' opinions on the modern tools that can be used to create effective awareness of the availability of e-resources in the library. It has been found that students were of the view that effective awareness of the availability of e-resources in the library can be created through email ($\bar{x}$ = 4.08; s = 1.12); Facebook ($\bar{x}$ = 3.91; s = 1.28); texting (SMSs) ($\bar{x}$ = 3.72; s = 1.46); Twitter ($\bar{x}$ = 3.59; s=1.45); instant messaging ($\bar{x}$ = 3.45; s = 1.56); blogs ($\bar{x}$ = 3.24; s = 1.61); and YouTube ($\bar{x}$ = 3.16; s =1.57). Others specified by some students include Instagram, WhatsApp, Google Allo, advertisements and LinkedIn.

The results concerning the tools used to create awareness among library users reveal that academic librarians and students, on the one hand, and lecturers, on the other hand, had different opinions on how the library reaches out to its users. Whereas the librarians and students selected electronic mail, notice boards and texting (SMSs), in that order, lecturers chose notice boards, Twitter and electronic mail as tools used by the library to create awareness. According to the current study's findings, the modern tools that can be employed effectively to create awareness of e-resources in the library include electronic mail, Facebook and texting (SMSs). Some of these are highlighted by Leong (2009), who observes that the strategies for creating awareness among distant learners include: making use of contacts; providing awareness programme on website; and constant delivery of information. The use of modern tools such as social media in consonant with these strategies would greatly enhance e-resource awareness among distant learners at NOUN. The integration of the various modern tools, such as electronic mail, Facebook and SMSs, and other relevant social media tools, into the library webpage and the lecturers' and students' portal platforms would also enhance their effectiveness, as more remote users would become aware of library e-resources. According to Dadzie and Van Walt (2015) and Islam & Habiba (2015), the deployment of modern tools on the library webpage leads to improved awareness, enhanced library and user collaboration, and the creation and sharing of information. In addition, it bridges the gap between the library and its remote users.

CONCLUSION AND RECOMMENDATIONS

The NOUN library has made a variety of e-resources available to its clients, who are mainly undergraduate and postgraduate (including masters and PhD) students and lecturers. The resources include but are not limited to e-journals, e-books, CD-ROM databases, e-magazines and e-newspapers. The high ranking of CD-ROM databases in this era in which even CD-DOM readers are slowly phasing out is symptomatic of the digital divide that exists between developed and developing countries. Nigeria, like all African countries except perhaps South Africa, is lagging behind in terms of information technology advancements. This has resulted in low levels of adoption of ICTs in institutions of higher learning, among others. We believe that this might also be a factor that is hindering the maximization of the benefits associated with e-resources. However, the study has revealed that the users' perceptions of and s towards e-resources are favourable. Although the level of awareness of e-resources among the users is low, it is nevertheless commendable. The fact that lecturers are more knowledgeable about the e-resources that are available in the library than students is encouraging, as students often rely on lecturers to direct them to relevant resources for their studies and research. Librarians can take advantage of this observation and use the lecturers to direct students to e-resources. The users' high rating of modern means of creating awareness of the availability of e-resources at the NOUN library is equally encouraging as not only are they faster, they are also relatively cheaper than traditional means. The email and social media platforms have a wider reach than traditional means, such as snail mail and physical or public meetings. To maximize the potential benefits of social media, however, the library is encouraged to introduce push services as students should not be expected to pull information from the library's tools and services used to create awareness.

AREAS FOR FURTHER RESEARCH

We are cognizant of the fact that awareness of e-resources is not an end in itself. Utilization of the resources is equally important. A study to investigate whether users' awareness of e-resources has led to the utilisation of

the said resources is strongly recommended. Further research is also recommended to explore the extent of accessibility of the resources to remote users, particularly in view of the fact that NOUN is an open university.

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MAKING OKAVANGO RESEARCH INSTITUTE LIBRARY'S SPECIAL COLLECTIONS ACCESSIBLE: FROM 2006 TO DATE

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ABSTRACT: *This paper describes efforts to preserve long-term priceless archival resources by making them accessible while ensuring that they are preserved in their original format, using Okavango Research Institute (ORI) Library's special collections as a case study. The depth of these collections, their acquisition and appraisal processes to determine their significance to the library are described, as well as steps that were followed in integrating them in the library's collections. Special collections are often produced informally and stored in environments determined by the personal resources of the collectors. In ORI library, the collections were sourced mainly from researchers or enthusiasts who worked in different capacities in Ngamiland region and had interest in Okavango Delta and the people who live in the region. The special collections provide unique information of historic value that has the potential to support biodiversity conservation in this protected area. The materials form an essential part of the library's resources. The longevity of these materials is often threatened because they are prone to damage due to their fragility and their previous varying physical environments. Caretakers normally restrict access to such collections to preserve them, which is counterproductive to the intent of the collectors and the mandate of the library. It is therefore the responsibility of libraries to ensure that beyond identification, processing and preservation, such collections are made accessible to users. There are, however, numerous challenges that are encountered in the process of integrating personal collections into the library's resources.*

KEYWORDS: *preservation, special collections, collection access, electronic documents, digitisation.*

INTRODUCTION AND BACKGROUND

Special collection is a term that is used to define any research material that falls outside the main library collections of current publications, serials and monographs Prochaska (2003). The Okavango Research Institute (ORI) Library is a branch of the University of Botswana (UB) Library Services, which serves a broad community of researchers and stakeholders involved in studying and planning for the Okavango Delta region. Its collection of information resources cover a wide range of subject areas of interest to the Okavango research community.

The Institute's research themes include ecosystem dynamics and services, water resources management, sustainable tourism and climate change. The library supports ORI in its vision of being a leading wetland research institute in Africa and the world by preserving and ensuring continued access to the Okavango region's legacy of biodiversity data and information. In its effort of preserving these legacy materials, the library has over the years collected information materials from scholars who worked in the different capacities in the Okavango Delta.

Other than materials acquired through the normal acquisition process, ORI Library has received donations that have proven to be rich sources of information about the Okavango Delta region. The materials enhance our understanding of the history of Ngamiland, and their contents are of interest to researchers and writers, both as background information and data that leads to the development of further knowledge. According to Morrison (2007), the library relied on the insights and observations of researchers to identify information sources for inclusion in the special collections. The Library had to find ways of preserving and making the materials, which are mostly in a fragile condition, accessible. This was made possible through digitising the collections and sharing them using several different platforms.

THE COLLECTIONS

Digitising collections is vital as digitised materials provide broader and intensified access to a larger community and collections of different types (Yan Quan Liu 2004). Moreover, they can be copied to diverse formats and from one storage medium to the other through "refreshing" as Lazinger (2001) calls it, to prevent the destruction of original materials.

The ORI Library has received donations of private collections of more than 4000 books, journals, aerial photographs and maps, professional correspondence, interviews, and other materials accumulated over a 30-year period by a former government officer, Mr Peter Alexander Smith. Many of the materials donated by Smith were rare, unique and out of print. Smith worked in various positions for the Bechuanaland Protectorate Government and subsequently, the Botswana Government, mainly in the areas of tsetse fly and invasive aquatic plant control. Through working in these positions, in and around the Okavango Delta, he became recognised for his knowledge of the ecology and botany of the area. Peter Smith's trips into the Okavango Delta, a major wetland in north-west Botswana, with a very rich flora and fauna, involved scribbling his observations and notes on 1:50000 topographic maps. His donated works now form part of the University of Botswana, Okavango Research Institute Library's natural collections. The maps have approximately 4500 handwritten annotations of observed flora, fauna, places and water channels within the Delta. However, due to their fragility, access and retrieval of information on the maps by library clients is restricted, and decoding the handwriting requires expert knowledge about the features on the maps.

To ensure preservation, access and usage of the information on the maps, a story map was created. This was made accessible through a story map platform. At the scanning stage, the contextual documents were subjected to Optical Character Recognition (OCR) technology to make their contents machine readable and searchable. Each annotation was then transcribed by the library staff.

After transcription, error checking and interpretation by relevant content experts the institute, each annotation was stored as a point in a GIS database. The images and annotations were then transformed for internet access using a GIS internet map server. Finally, a story web map was created from the now 'web friendly' collection by applying web page templates found on ArcGIS Online to create a rich, user friendly and interactive home for the Pete Smith Annotated Map Collection. A basemap from the National Geographic was selected and overlaid with the annotations web map layer. Annotations of the shape files were then loaded onto the basemap. To configure the storytelling application, the compare template was chosen, which enables comparison of past and current features.

Finally, more information was added to the map using botany and hydrology domain expertise, and other users who could shed more light on the annotation data. Landis (2007), supports this and interprets it as a philosophy and procedure that promotes user participation and has roots in diverse fields. The product was then shared through a publicly accessible web-based platform called story map (https:www.odis.ub.bw/portal/apps/StoryMapBasic/index.html?appid=aa5669abd14e9ddb6ab1fb20be2047).

Another digitisation project provides access to a collection of slides documenting the culture and indigenous knowledge of the San in the Okavango Delta and Bere/Takatshwane region by Dr Hans Joachim Heinz, a parasitologist who lived amongst the Ko! San for many years. He studied their social organisation and documented their botanical, entomological, and anatomical knowledge Heinz (1979).

The slides provide insights to the San communities' collective knowledge of all aspects of their way of life. The slides are accompanied by descriptions obtained by library staff from the San themselves. While the collection had formerly been held in the custody of the ORI library, without a formal agreement in place, copyright was transferred to the University of Botswana in December 2006. The Library intends to publish the photographic collection of the San through SuAVE (Survey Analysis via Visual Exploration), an online platform for visual exploratory analysis of surveys and image collections. It integrates visual, statistical and cartographic analysis and allows users to annotate and share images and distribution patterns Ilia State University (2014).

A collection of books, research reports, photographs and notebooks from the late wildlife biologist, Dr Richard Bell, was obtained as a gift in 2007. Bell was prominent for his knowledge of wildlife monitoring techniques and community wildlife management schemes. Dr Bell worked as a wildlife biologist throughout southern Africa for 30 years. He moved to Maun from Zambia in 1993, worked on a project with the Botswana Department of Wildlife and National Parks, and then set up his own consulting firm in Maun until 2003, when he passed on. His collection come from all stages of his work in Malawi, Kenya, Zimbabwe, Zambia, Botswana, Tanzania, and Mozambique. Bell was a voracious reader and collector of research materials. He was deeply interested in the philosophy of conservation and had worked extensively with development of community wildlife management schemes. He was known for his detailed note taking - the collection contains approximately 20 hard covered notebooks filled with minutes of meetings and observations, for which an index has been prepared.

In 2015, the library added hunting records collected by Mrs Debbie Peake, a Maun-based taxidermy supplier and secretary of the Botswana Wildlife Management Association (BWMA). The materials are a potentially rich source of biodiversity information. Information collected by the Botswana Wildlife Management Association between 1996 and 2014 about hunting quotas, concession location, and trophy measurements, as well as biological specimens, forms an important piece of the knowledge legacy of legal hunting in Botswana. Following the 2014 suspension of hunting in Botswana, recognizing the valuable insights to wildlife research that these materials can provide, the Association worked with the University of Botswana's Okavango Research Institute to catalogue, transfer and preserve the materials in the ORI's library and archival collections, and to capture the data in a widely accessible online resource, the Global Biodiversity Information Facility (GBIF) (https://www.gbif.org/project/82758/data-rescue-for-the-records-of-the-botswana-wildlife-management-association#datasets).

CHALLENGES ENCOUNTERED

Research libraries are often required to acquire materials supporting the institution's areas of research, and to anticipate the needs of future scholars. Issues of inheritance and legal transfer sometimes hamper the legitimacy of the acquired collection as it takes time to allocate copyright when the inheritance is contested. In some cases, the proper process of transfer is not implemented, resulting in some collections not having deeds of transfer. Moreover, several issues are allied with the usage of digital information as it can be easily distributed across the world through various digital medium, making it prone to modification and difficult for one to detect the rightful owner Shettar (2014). Technological obsolescence can be a challenging issue, as technological infrastructure needs upgrading from time to time. Infrastructure used as storage for the digitized collections can be problematic as systems at times crash Hughes (2004).

Incorporating personal collections into a library's resources often faces challenges such as lack of storage facilities for the original materials, which is the case with the current unique collections at the ORI. The collections' specialised storage facilities require the right temperature and humidity to ensure their longevity. The library does not have adequate storage facilities. This inadequate storage space hinders exposure and access to these valuable collections. For example, the ORI Library's special collection houses some historic images that need to be displayed. Had there been enough space for these collections, these photographs could be exhibited on the walls for them to become a vital part of research materials, library tours, and to be shown to students during orientations. Such displays could also be used to market the library to potential users.

There is also a dire need for capacity building to enable staff to acquire the technical skills needed to work with these fragile collections. Training of staff is not readily implemented by institutions due to financial constraints Sunil (2009). Preservation standards to be followed are a necessity, and access to appropriate materials for packaging is also needed. These can be expensive to acquire. Dappert (2010, 5-13), states that: "Digital media are brittle and short lived. Hardware and software technology continue to evolve rapidly. Changes in organizations and their cultural and financial priorities add risk to continued accessibility and long-term preservation of digital assets". Thus, Conservation of library materials through digitisation should be a priority as it is an emerging area and library professionals should draw attention to proper preservation measures Sunil (2009).

CONCLUSION AND RECOMMENDATIONS

Despite these challenges, the ORI Library intends to ensure that the data contained in these collections are preserved and made accessible as they can provide insights to environmental research in the region. They also encompass rich context for scientific and economic studies of natural resources management in the region that can as well be substantial in informing decisions. In addition, the ORI Library's experience with these special collections, and their embedded data, should be of interest to other memory institutions and to researchers seeking content for their work.

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