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Utilization of Digital Information Resources by Undergraduates at Lead City University, Ibadan Nigeria

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Abstract

The innate need for growth and the growing popularity of digital information resources have prompted many academic libraries, including Lead City University to invest on the provision of digital information resources. However, studies have shown that provision of digital information resources does not automatically guarantee utilization. This study therefore investigates the utilization of digital information resources among undergraduate students at Lead City University, Ibadan Nigeria. The study adopted a quantitative research method with a questionnaire used as research instrument. The study sample consists of 342 undergraduate students and the data collected was analysed with aid of the Statistical Package for Social Sciences (SPSS). The findings show that there is a low level of digital resources utilization among the undergraduates. It was also found that challenges such as lack information retrieval skills, slow internet and inadequate computer system are among the challenges affecting the utilization of digital information resources by the undergraduate students.

Keywords: Digital Information Resources, Electronic Resources, Digital Libraries, Academic Libraries, User Studies.

Introduction.

Until recently, the collection of academic libraries, especially in developing countries, is mainly dominated by print information resources such as journals, textbooks, magazines, newspapers and reference materials which are needed to support class works, assignments, research/project work, term papers, and seminar presentations and other academic works of members of their parent institutions (Omosebi and Okhakhu, 2017).

However, the advent of Information and Communication Technology (ICT) has brought radical changes to the creation, organisation, storage and distribution of information resources. The ICT era has resulted in what is being referred to as 'information explosion'; a situation whereby information is being generated at a very rapid rate which in turn has made it more difficult to keep up with available information. ICT has also brought about changes in the ways and manner users access information resources. Whereas, in the traditional era before the internet, the library held the ace in information provision and the printed material was the chief source of information, the digital era has made it possible to produce and reproduce electronic information resource in multimedia formats such as texts, images, sound and video or a combination of all or some of these formats. Furthermore, these materials can also be accessed remotely through the World Wide Web making it unnecessary for information seekers to visit libraries for their information needs.

The outcome of this is that the physical library, though it houses carefully selected and highly useful information resources, began to be perceived as too complex and too slow in meeting information needs of modern information users (Obuh, 2010). The library, as a growing organism naturally evolved to incorporate digital information resources into its collections. In an attempt to effectively meet users' needs for precise and timely information and provide seamless access to relevant and reliable information resources, academic libraries are now providing electronic resources through Digital libraries, Institutional repositories and Open Archives.

Today, digital information resources are widely available in Nigerian academic libraries and they can be accessed from anywhere and by many users at the same time (Gani et al., 2016). In addition, academic libraries expend huge sums of money on hardware and software necessary to facilitate the selection, organization, storage, preservation and access of digital information resources in order to reverse the trend that has seen students and even lecturers turning to the unregulated internet as their primary source of academic information. As universities spend substantial amount of money on creating digital libraries and subscription

to scholarly databases, it is only appropriate and logical that these digital information resources are optimally utilized to contribute to the academic achievement of students and faculty and also for the institutions to get value for the money spent.

However, despite the value of digital libraries as providers of authoritative scholarly resources in a convenient and unrestricted manner, studies have shown that usage is not up to level expected or is simply underutilized (Kwadzo, 2015). Some of the most advanced for reasons why students shy away from using the digital library include lack of awareness, preference for other sources like general search engines such as Google, lack of search skill, lack of adequate ICT infrastructure, slow downloading time, and at times, sheer negative attitude of users (Dukic and Striskovic,2015). While these factors appear widespread, there are variations in how they affect each institution, categories of users or geographical locations (Ahmed, 2013). Hence, this study examines the use of digital information resources by undergraduates at Lead City University, Ibadan Nigeria.

Statement of the Problem

Lead City University is a technology driven institution which aims to produce world class experts in various aspect of human endeavour. To support this objective, the University library has focused on creating access to relevant, up-to-date and authoritative information resources in digital format. This is accompanied by the necessary infrastructure for effective access of these resources within and beyond the library walls. However, no recent study has been conducted to evaluate the use of these resources by the students, particularly the undergraduates. This may leave the library in the dark concerning whether it getting the value for money spent or whether there is a need for some adjustments. This study therefore evaluates the use of digital information resources by undergraduates at Lead City University, Ibadan Nigeria.

Objectives of the Study

The study aims to achieve the following objectives;

- To evaluate the frequency of digital information resources use among the undergraduates at Lead City University, Ibadan Nigeria
- To determine the reasons for using digital information resources by the undergraduates at Lead City University, Ibadan Nigeria
- To examine the challenges affecting the use of digital information resources use among the undergraduates at Lead City University, Ibadan Nigeria

Literature Review

Digital Library Resources in Nigerian Academic Libraries

The adoption of information technology and the demand of the 21st century information age have led to the rise of digital library resources to complement the print resources in traditional libraries. Alegbeleye, Madukoma and Sahabi (2019) believe that digital information resources are essential in academic libraries because they provide faster access to information in a way which may not be possible with printed media. They also facilitate wider access, increase usability and efficiency, and create new ways for library users to access information beyond what is available in the university library. In addition, the use of digital resources helps students to be well-informed and up-to-date in their respective courses of studies. Fabunmi, Paris and Fabunmi (2018) also added that digital resources are of great importance to the academic and research needs of undergraduate students in university libraries since they are available remotely and students can access them anytime.

Use of Digital Resources by Undergraduate Students

Despite these benefits of digital resources, Akussah, Asante, and Adu-Sarkodee (2015) and other researchers such as Lavanya, and Santharooban (2018) reported low patronage of digital resources by library users despite a high level of awareness of digital resources. This trend was also observed by Amankwah (2016) and Kwafoa et al.(2014) who also found that the use of digital resources has been low in some Ghanaian universities. According to Yamson, Appiah and Tsegah (2018), despite the huge investment and subscription cost on the university's budget and the effort made by the digital resource librarian for students to use the resources, records from Emerald Usage Statistics alone for 2016 academic year gives a hint that students do not utilize journal publications for their research work and mostly resort to either Google or other printed resources.

Low frequency of digital resources was also observed among Nigerian academic library users as reported by Ebijuwa and Mabawonku (2019) who asserted that, despite the potentials they hold for effective learning and research, the use of digital resources, especially among undergraduates, is not as high as expected. Similarly, Bamidele, Omeluzor and Amadi (2013) reported that Nigerian universities are not getting adequate return on their investments on digital library resources due to low level of utilization by students. This is confirmed by Oyedapo and Ojo (2013) who also reported that the frequency of utilization of digital resources by undergraduates at Obafemi Awolowo University, Nigeria is not up to the expected level. Jonathan and Udo (2015) also studied the awareness and use of electronic

information resources by undergraduate students of three Universities in South-Eastern Nigeria and found that scholarly electronic journal databases were under-utilized.

Available literature indicates that low frequency of digital resources utilisation is not only observed among African students. For instance, Anaraki, and Babalhavaeji (2013) examined the use of digital library resources by students from three universities in Iran revealed that the utilization level of students were lower than the average and those who are not aware of the existence of the Integrated Digital Library (IDL) portal used general search engines to meet their information needs. According to their findings, students of Tehran University of Medical Science (TUMS) used EndNote, Elsevier, Thomson, Scopus and ProQuest databases most. Also, a Pakistani study by Sivathaasan and Velnampy (2013) found that an overwhelming majority (91%) of the participating students were either 'mostly' or 'always' using web search engines for acquiring the needed information. This implies that the use of the internet is high, but students may be using unevaluated resources or may be using the internet for other purposes other than academic purposes.

Purpose of using digital library resources

Biranvand and Khasseh (2014) examined the access to and awareness of ICT resources and services in the Medical College Libraries in Puducherry, Iran and discovered that (87.33%) of the respondents used electronic databases for the purpose of their research, while (61.33%) of the respondents use it for communication purpose, (54.66%) of the respondents used electronic databases for finding relevant information, (34.66%) of them used electronic resources for career development while (20.66%) of the respondents use electronic resources for other activities.

In a study by Lavanya and Santharooban (2018) on the use of digital library resources by Sri Lankan students, findings shows that more than 90% of the respondents used digital resources for preparing presentations and assignments. This kind of pattern of digital library use was also reported among Nigerian undergraduates by Daramola (2016) who also agreed that students use digital resources mostly to prepare their assignments.

As revealed by Peris and Olike (2016), few of the undergraduates use the library for research, while others use the library for leisure and recreation as well as for reading newspapers/magazines.

Challenges of using digital library resources

A review of literature concerning the challenges hindering the effective use of digital library resources by undergraduate students can be grouped into themes such as funding, user awareness, infrastructure, ICT skills of students, library anxiety, and many other minor

challenges. This was summed up by Daramola (2016) who posited that a number of challenges militating against the utilization of library digital resources by undergraduate students at Africa Universities include slow or unreliable network, lack of adequate information retrieval skills, irrelevant information in databases and insufficient workstations in the library.

Awareness of the availability of digital resources is another challenge that has been identified by several authors as militating against effective utilization of digital library resources. Peris and Otike, (2016) asserted that university libraries today are faced with the challenges of infrequent or non-use of digital library resources largely because of inadequate awareness, negative perception about the library and other shortcomings on the part of the library.

Research Methodology

Survey research method was adopted for this study. The population of this study consists of students from four faculties in Lead City University namely; Arts and Education, Law, Environmental, Management and Social Science, Applied, Basic and Medical Sciences. The undergraduate population of these faculties is 3,423. The proportionate stratified random sampling technique was adopted to select 10 per cent of the respondents from the various faculties under study. As a result, the study sample consists of three hundred and fifty (342) undergraduate students. The data collected in the course of the research was analysed with the Statistical Package for Social Sciences (SPSS). Descriptive statistics tools such as frequency count, mean, and standard deviation presented in tables are used to describe the demographic characteristics and answer the research questions. The decision rule is that any items with a mean score greater than 2.49 is accepted as significant.

Out of the 347 questionnaire administered were found useful for analysis. This constitutes a return rate of 72% which is considered adequate for generalization.

Data Analysis and Discussion

Table 1: Frequency distribution of gender, level of study and faculty of respondents

| Demographics | Frequency | Percent |
|---------------------------------------|-----------|---------|
| Sex | | |
| Female | 60 | 24 |
| Male | 187 | 76 |
| Level: | | |
| 100 | 19 | 7.7 |
| 200 | 49 | 19.9 |
| 300 | 69 | 28.0 |
| 400 | 101 | 40.7 |
| 500 | 9 | 3.5 |
| FACULTY | | |
| | Frequency | Percent |
| Environmental and Management Sciences | 87 | 35.2 |
| Arts and Education | 43 | 17.4 |
| Basic and Applied Sciences | 82 | 33.2 |
| Law | 35 | 14.2 |

Table 1 presents the demographic distribution of the respondents. Out of the 247 respondents, 60 (24%) were female while 186 (76%) were male. Meanwhile, distribution according to level of study shows that 100 level students were 19 (7.7%), 200 level students were 49 (19.9%), 300 level students were 69 (28%), 400 level students were 101 (40.7%) and 500 level students were 9 (3.5%). this shows that 400 level students were in the majority while 500 level students constitute the least percentage of the total respondents. Furthermore, 87 (35.2%) of the respondents were from the faculty of Environmental, Management and Social Sciences, 43 (17.4%) were from Arts and Education, 82 (33.2%) were from faculty of Basic and Applied Sciences while the faculty of Law has 35 respondents which constitutes 14.2% of the total respondents.

RQ 1: What is the frequency of digital library resources utilization among undergraduates in Lead City University, Ibadan

Table 2: Frequency of Using These Digital Resources in the Library

| | Often | Sometimes | Rarely | Never | Mean | Std. Dev |
|--------------------------------|----------------|------------------|----------------|----------------|-------------|-----------------|
| Electronic Journals | 120 (48.7%) | 71 (28.7%) | 29 (11.7%) | 27 (10.9%) | 3.34 | 1.211 |
| Google Scholar | 36 (14.6%) | 29 (11.7%) | 86 (34.8%) | 96 (38.9%) | 2.99 | 1.027 |
| Electronic Books | 70 (15.1%) | 71 (30.1%) | 68 (29.0%) | 38 (25.8%) | 2.66 | 1.027 |
| Online Public access catalogue | 50 (20.4%) | 40 (16.1%) | 109 (44.1%) | 48 (19.4%) | 2.62 | 1.021 |
| African Journals Online | 37 (14.8%) | 58 (23.4%) | 90 (36.7%) | 62 (25%) | 2.28 | 1.015 |
| Reasearch4life | 55 (14.0%) | 52 (16.1%) | 55 (24.7%) | 85 (45.2%) | 1.99 | 1.088 |
| Agora | 20 (7.5%) | 46 (17.2%) | 79 (35.5%) | 102 (39.8%) | 1.92 | .935 |
| Bioone | 8 (3.2%) | 50 (20.4%) | 82 (33.3%) | 107 (43.0%) | 1.84 | .863 |
| Hein online | 23 (7.5%) | 39 (12.9%) | 82 (34.4%) | 103 (45.2%) | 1.83 | .928 |
| MedlinePlus | 23 (6.5%) | 57 (10.8%) | 80 (41.9%) | 87 (40.9%) | 1.83 | .868 |
| Jstor | 25 (7.5%) | 32 (10.8%) | 86 (37.6%) | 104 (44.1%) | 1.82 | .908 |
| Law Pavilion | 18 (6.5%) | 57 (8.6%) | 83 (41.9%) | 89 (41.9%) | 1.82 | .884 |
| African Law Library | 20 (6.5 %) | 43 (14.0%) | 85 (33.3%) | 99 (46.2%) | 1.81 | .912 |
| Law Archives | 16 (6.5%) | 50 (9.7 %) | 82 (39.8%) | 99 (44.1%) | 1.78 | .870 |
| Ebscohost | 8 (3.2%) | 27 (10.8%) | 98 (39.8%) | 114 (46.2%) | 1.71 | .788 |
| Legalpedia | 17 (3.2%) | 47 (8.6%) | 90 (43.0%) | 93 (45.2%) | 1.70 | .763 |

Table 2 shows the frequency of use library digital resources by the respondents. The data presented showed that Electronic journals were the most frequently used with a mean score of 3.34. Out of all the respondents, 120 (48.7%) reported that they use electronic journals often, 71 (28.7%) used them sometimes, 29 (11.7%) rarely used them while 27 (10.9%)

reported that they never use electronic journals in the library. The next resource in term of frequency of use is Google scholar with a mean score of 2.99. For Google scholar, 36 (14.6%) of the respondents used it often, 29 (11.7%) uses it sometimes, 86 (34.8%) rarely use it while 96 (38.9%) of the respondents reported that they never use Google scholar. For Online Public access catalogue (OPAC), it has a mean score of 2.62 with 50 (20.4%) of the respondents saying they often use it, 40 (16.1%) reporting that they sometimes use it while 109 (44.1%) of them rarely use and 48 (19.4%) never use the OPAC. Electronic Books are also significantly used (Mean = 2.66). 70 (15.1%) reported that they often use them, 71(30.1%) reported that they sometimes used them. however, 68 (29%) reported that they rarely use e-books and 38 (25.8%) reported that they never use them. Scholarly databases such as Agora, Bioone, Ebscohost, Jstor, African Law Library, Hein online, Law Archives, Law Pavilion, Legalpedia, MedlinePlus and Reasearch4life are not significantly utilized as they all have mean scores below 2.49.

RQ 2: what are the reasons for using digital information resources by the undergraduates at Lead City University, Ibadan Nigeria

Table 3: Reasons For Using Digital Information Resources

| | SA | A | D | SD | M | S.D |
|--|----------------|----------------|---------------|--------------|------|------|
| I use digital resources to find more information about new subjects and concepts | 147 (59.5%) | 88 (35.6%) | 12 (4.9%) | - | 3.55 | .589 |
| I use digital resources to source materials for research/ writing project | 146 (59.1%) | 91 (36.8%) | 10 (4.0%) | - | 3.55 | .574 |
| To gain new knowledge | 130 (52.6%) | 96 (38.9%) | 14 (5.7%) | 7 (2.8%) | 3.40 | .758 |
| To prepare for examination | 119 (48.2%) | 98 (39.7%) | 24 (9.7%) | 6 (2.4%) | 3.33 | .767 |
| I use digital resources for current awareness | 118 (47.8%) | 98 (39.7%) | 27 (10.9%) | 4 (1.6%) | 3.33 | .766 |
| I use digital resources to complete class assignments | 124 (50.2%) | 96 (38.9%) | 14 (5.6%) | 13 (5.3%) | 3.32 | .856 |
| I use to search for scholarship opportunities | 107 (43.3%) | 108 (43.7%) | 29 (11.7%) | 3 (1.2%) | 3.29 | .719 |
| I use digital resources to retrieve current literature for studies | 107 (43.3%) | 98 (39.7%) | 24 (9.7%) | 18 (7.3%) | 3.18 | .924 |

Table 3 presents an analysis of the reasons why the respondents make use of digital information resources in the library. From the mean scores, it is obvious that the respondents make use of digital information resources for all the common reasons that have been identified in the literature. However, the most significant reasons are to find more information about new subjects and concepts and to find resources for project writing (Mean = 3.55). Other stated reasons include; to gain new knowledge (Mean = 3.40), to prepare for examinations and for current awareness (Mean = 3.33). They also use digital resources in the library to complete class assignments (Mean = 3.32), search for scholarship opportunities (Mean = 3.29) and to retrieve current literature for studies (Mean = 3.18). This is consistent with finding of other studies which have shown that digital information resources are essential for serious academic work (Bamidele, Omeluzor and Amadi, 2013; Biranvand and Khasseh, 2014; Daramola, 2016). All these studies have shown that those users who aware of and can access digital resources usually make use of them in productive ways.

RQ 3: What are Challenges affecting the use of digital information resources by the undergraduates at Lead City University, Ibadan Nigeria

Table 4: Challenges affecting the use of digital information resources by the undergraduates at Lead City University, Ibadan Nigeria

| | SA | A | D | SD | Mean | Std. Dev |
|--|-----------------|----------------|---------------|---------------|------|----------|
| Inadequate training on the use of electronic resources | 139 (56.3%) | 87 (35.2%) | 12 (4.9 %) | 9 (3.6%) | 3.44 | .751 |
| Poor Internet connectivity | 130 (52.6%) | 94 (38.1%) | 19 (7.7%) | 4 (1.6 %) | 3.42 | .704 |
| Library interface too complex to navigate | 118 (47.8%) | 99 (40.1%) | 26 (10.5%) | 4 (1.6%) | 3.34 | .731 |
| Non availability of relevant e-resources in field of study | 122 (49.4%) | 93 (37.7%) | 19 (7.7%) | 13 (5.3 %) | 3.31 | .829 |
| Inadequate computer systems in the library | 115 (46.6 %) | 97 (39.3 %) | 30 (12.1%) | 5 (2.0 %) | 3.30 | .760 |
| Not allow to use flash drive to copy | 102 (41.3%) | 108 (43.7%) | 32 (13%) | 5 (2.0%) | 3.24 | .753 |
| Frequent power outages | 106 (42.9%) | 94 (38.1%) | 32 (13.0%) | 15 (6.1%) | 3.18 | .879 |
| Poor relationship with Library staff | 100 (40.5%) | 69 (27.9%) | 46 (18.6%) | 32 (13%) | 2.96 | 1.055 |

Table 4 presents the challenges affecting the use of digital information resource by the undergraduates. It can be seen that all the listed challenges are significant to the respondents. The respondents are challenged by inadequate training on the use of electronic resources (Mean = 3.44), poor Internet connectivity (Mean = 3.42), complex library interface (Mean = 3.30), irrelevant resources (Mean = 3.31), inadequate computer systems (Mean = 3.42), strict rules (Mean = 3.24), Frequent power outages (Mean = 3.18) and, poor relationship with Library staff (Mean = 2.96). All these challenges have been identified in related studies such as Daramola (2016) as well as Peris and Olike (2016). It would seem that the use of digital library resources is being hampered by the same challenges among libraries in developing countries although in varying degrees.

Conclusion

The findings have shown that Lead City University is not immune from the challenges of other libraries when it comes to low utilization of digital information resources. However, it is encouraging to find that those who make use of the digital resources are using them for enlightening and productive purposes which can only improve the standard of scholarly works in the institution. While the findings of this study are not totally unique, it is an indicator that there is a need for real paradigm shift in digital library services provision, especially among academic libraries in developing countries. All the challenges facing the users are regular challenges that have been identified by others in the past. With the amount of researches that have been published on digital library resources utilization and issues associated with it, every library should be able to develop a workable strategy to ensure maximum utilization of the available digital resources. It is therefore recommended that libraries should approach the provision of digital library resources with a corporate mindset fully mindful that information users now have alternatives, inferior or otherwise. It is no longer enough simply to provide digital information resources, there must be a

comprehensively designed information literacy program to reorient the users about the relevance of digital library resources and equip them with the necessary skills for easy access and retrieval of information from library databases as opposed to crude and basic searches on Google.

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