Awareness and Usage of Open Access among University Lecturers in Nigeria

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Abstract

The study examined the level of awareness and usage of Open Access among lecturers in the Faculties of Arts and Education, Olabisi Onabanjo University, Nigeria. A questionnaire designed by the researchers was employed to collect data for the study. The study revealed that lecturers had high level of awareness of Open Access and used them for conducting and publishing their scholarly works; however their level of awareness of Open Access content were higher than their actual use of the contents. The study further revealed that some lecturers used some open access contents, such as, e-journals, e-dictionaries and e-encyclopedias daily, weekly, monthly and whenever the need arises while some others like e-handbooks, e-guides and e-technical reports were not used at all. It further revealed that Open Access journals were the most utilised of all the Open Access contents surveyed amongst ot her findings. Many recommendations were proffered amongst which were sensitisation of faculty about benefits, challenges and policies guiding Open Access use through information literacy training provided by academic librarians and that academic staff should made themselves available for information literacy training programmes so as to make wise and effective use of Open Access to enhance their academic status.

Keywords: Awareness and Usage of Electronic Resources; Open Access Scholarly Communication, Nigerian Universities, Nigerian Lecturers' Use of Electronic Resources; Scholarly Publishing.

1.0 Introduction

Scholarly publishing and communication refers to the creation of new knowledge by researchers and its dissemination to relevant academic community (HLWIKI Canada, 2016). Scholarly publishing is now a core requirement for faculty promotion, hence, the priority and attention accorded it. Its adoption dates back to 1665, when the Royal Society of London, England produced the first journal titled, 'the journal des scavans' in France. Since then scholarly publishing has grown astronomically and advanced technologically. The emergence of information and communication technologies (ICTs) has brought new dimension to scholarly publishing and we now have what is being referred to as Open Access. This initiative has helped overcome several challenges of scholarly publishing and communication provided the Internet is available. The emergence of Open Access initiatives has majorly been attributed to unwelcoming attitudes of commercial publishers' penchant for exorbitant charges for publishing articles, high cost of accessing print journals, limited access to other researchers' scholarly work (Yiotis, 2005; Moller, 2006) and time lapse to publish research findings. The high price/cost has forced academic libraries expected to be the repositories of these print journals to reduce journals funding and subscription (Giarlo, 2006).

With the Open Access initiative in place, scholars and researchers now find new and creative ways of disseminating their research findings with stakeholders (that is, librarians, publishers, journal bodies, researchers and students) all benefitting from the approach. Open Access therefore allows free and timely accessibility to information in the desired formats. It has thus become an important process in fostering the growth and development of science and technology through effective, faster, easier and cheaper mode of dissemination of opinions, reviews, research findings and recommendations. They are laden with the benefits of providing researchers with access to relevant and up-to-date digital information, wherever they are located in a relatively easier, faster, cheaper and desired format.

Open Access is now a subject of much concern among academics, librarians, university administrators, government officials, commercial publishers and learned society publishers. This is because Open Access products have become important sources for scientific research and development. It has also been found to be beneficial to academic, researchers, librarians, publishers and students, most especially, the postgraduates. The main motivation for authors to publish in an Open Access journal is to enhance increased visibility and citation advantage (Antelman, 2004; Suber, 2008; 2012; 2013). Other reasons are to provide up-to-the-minute information, obtainable anywhere around the world and increased research output (Antelman, 2004), career development (Okoye and Ejikeme, 2011) and several others. The initiative has helped libraries globally to attract more users to libraries and especially their electronic resources and services. Further, libraries and librarians in tertiary institutions have enhanced image because of their abilities to manage digital information resources which was somehow being threatened by commercial information services providers (Swan and Chan, 2010). Despite the benefits of Open Access to individuals in the university community, lecturers are still reluctant to the use of this initiative services and products. This is because many lecturers are still unaware of the services and

opportunities that abound in the use of Open Access. Thus, this study intends to find out level of awareness and extent of use of Open Access among lecturers in the Faculties of Arts and Education, Olabisi Onabanjo University (O. O.U.), Nigeria. It also intends to identify benefits and constraints as perceived by lecturers in the use of open access publishing.

2.0 Literature Review
2.1 Concept of Open Access
Open access are regarded as digital literature online that are free from charges as well as copyright restrictions. The Global Network on Global Public Goods (GPGNet) (2005) as cited in Okoye and Ejikeme (2011) defined open access as free availability on the Internet, permitting users to read, download, copy, distribute, print, search or link to the full text of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal or technical barriers other than those inseparable from gaining access to the Internet itself. Suber (2013) described open access as online research outputs that are free of all restrictions on access (for instance, access tolls) and free of many restrictions on use (for instance, certain copyrights and licence restrictions). According to Kenneway (2011), the burden of who is responsible for the expenses incurred right from submission of articles through publishing to distribution stages has been shifted to authors rather than the readers. In other words, users can freely access, download, use and distribute research contents without any hindrance from the authors or publishers in as much as necessary citations are done. They allow the cost of publishing to be borne by author(s), sponsors or institutions and allow use and reuse of publications without restrictions. To corroborate this, Kundart (2013) described open access as immediate, online, no cost availability of scholarly articles unlocked for everybody to see and use. Dulle and Minishi-Majanja (2009) as well as Okoye and Ejikeme (2011) nevertheless stressed the need for users to acknowledge authors through proper citations of consulted/referenced work.

Open access applies to all forms of published research output, such as peer-reviewed and non peer-reviewed journal articles, conference papers, theses (Schopfel and Prost, 2013); book chapters (Suber, 2013) and monographs (Meredith, 2012). In essence, open access content comprises creative works and research undertaken following systematic procedure(s) in order to increase the stock of knowledge, either of human beings, nature, culture and or society and the use of the knowledge obtained thereof, to devise new applications and or further knowledge. They are used in most cases to establish and confirm facts, reaffirm the results of previous work, solve new or existing problems and to support theorems or develop new theories. They might be used as expansion on past work in the field, to test the validity of instruments, procedures or experiments and may be used to replicate elements of prior projects or the project as a whole (OECD, 2002). These seem to be digital contents of open access and the focus of this present study. Suber (2008) distinguished two degrees of open access as gratis open access which is online access free of charge and libre open access which is online access free of charge plus additional usage rights. These additional usage rights are often granted through various specific Creative Commons Licenses (Suber, 2012).

2.2 Awareness of Open Access
Awareness is considered a central determinant of user attitude and behaviour towards technology (Dinev, Hu and Goo, 2005). Awareness raises consciousness and knowledge about certain technology and its personal and social benefits (Obuh and Bozimo, 2012). One might be right to say that awareness could be acknowledged an important factor or element in determining actual use of a technology, and particularly open access literature as regards the subject of this study. In describing the level of importance of awareness of open access content to its actual use, few years back, several studies, such as those of Swan and Brown (2004), Kim (2007), Christian (2008) and Gbaje (2010) indicated that researchers were alien to the concept of open access. This was because these studies found very low level of awareness of open access in higher educational institutions. Ajuwa (2003) and Ureighe, Oroke and Ekruyota (2006 as cited in Ivwighreghweta and Onoriode, 2012) found that the use of Open Access was low due to lack of awareness and poor attitude to Open Access among researchers.

Mohammed and Garba (2013) conducted a survey on awareness of Open Access scholarly publication among postgraduates in the Faculty of Science, Ahmadu Bello University and revealed that majority of the students were not aware of Open Access scholarly publications, even though, they used them for research. Ryan and Bernal (2015) discovered lack of awareness of Open Access publications among faculties in the arts and humanities at the University of Western Australia. Gbaje (2010) in a study on open access among Editors-in-Chief of journals published in Ahmadu Bello University indicated that 76% of the population signified that they were not aware of open access initiatives.

Years later, the level of awareness increased as a result of improvement in the use of ICTs. Open Access thus become the subject of much debate and concern among academics, librarians, university administrators, government officials, commercial publishers and learned society publishers because they have become important sources for scientific research and development. Ehikhamenor (2003) and Eqbal and Khan (2007) indicated that

lecturers were more aware of Open Access content than their actual use. Further, several other research have documented the use of Open Access among local and foreign faculty, even though, digital divides existed. For instance, in the Directory of Open Access Journal (DOAJ), Nigeria has only 38 Open Access journals indexed out of 10, 547 indexed journals as of May 2015 (UNESCO, 2016). Similarly, researchers from Nigeria published only 465 articles with BioMed Central, a Science, Technology and Medicine international Open Access Publisher and also only 119 articles have been published in Public Library of Science (PLoS) Open Access journals (UNESCO, 2016). Obuh and Bozimo (2012) showed that majority of library and information science (LIS) lecturers in universities in southern part of Nigeria indicated some levels of familiarities with open access publications, even though, their level of awareness hinged mainly on the nature and types of open access rather than on open access initiatives.

In an empirical study carried out by Dulle and Minishi-Majanja (2009) on researchers' perspectives on open access scholarly communication in Tanzanian public universities, findings revealed that a higher percentage of the respondents were aware of Open Access publishing medium. Yang and Li (2015) studied awareness and attitude of faculty towards Open Access publishing and institutional repository and discovered that majority of the faculty were well disposed to open access publishing. Kennway (2011) also rated the level of awareness of Open Access by authors as being high. Utulu and Bolarinwa (2009) also discovered that science faculty were much more favourably disposed to open access as a form of publishing. Jomijose (2014) revealed that in Kerala University, scholars and academicians in the Faculty of Social and Management Sciences were the most aware and users of Open Access scholarly publications than academicians in the Faculty of Science. Abdoulaye (2014) found out that faculty at AAU had high level of awareness and a positive perception of Open Access. Okore (2014) also carried out a study on level of awareness and use of Open Access among scientists in Agricultural Research Institutes in Edo State and the result of the study indicated high level of awareness of Open Access among the researchers in these institutes. However, Togia and Korobili (2014) in a study on attitudes of faculty to open access identified self knowledge, Internet searching, reading of articles, funding agencies, professional societies and use of literature as sources of awareness of open access by faculty.

2.3 Benefits of Open Access

This sub-section presents the benefits of Open Access, particularly to scholars. Studies have revealed that benefits abound from the use of Open Access medium and products. The main benefit of Open Access products is that the entire content is made readily available and accessible to users regardless of affiliation with subscribing libraries (Ivwighreghweta and Onoriode, 2012) or wherever users are located. Authors' citations of articles in hybrid open access journals proved much greater or higher than non open access articles (Antelman, 2004). With Open Access, articles can be accessed online free of charge (Suber, 2012; 2013). Open access publications usually appear more regularly thus, allowing scientists disseminate research findings more quickly, timely, widely and establishing priority of researchers investigating same problems (Albert, 2006). These benefits of open access have encouraged increased accessibility to resources and better serve users' needs (Mammo and Ngulube, 2015). This view was supported by Kenneway (2011) and Gross and Ryan (2015) when they expressed that open access journals contents have been made accessible to global audience. Similarly, Qayyum, Riaz, Rehman, Ahmed, Tahir and Kazi (2013) stressed that widespread dissemination of scientific knowledge was a major benefit derived from Open Access publishing medium.

Open Access initiatives have helped solved the challenges of inaccessibility to information bedevilling the developing countries (Canada, 2009; Nwagwu and Ahmed, 2009; Jain, 2012; Mammo and Ngulube, 2015). The initiative has ensured that publications and research contents are available, searchable and retrievable thus allowing, data or statistics, information and knowledge within an article to be recycled and re-used. It incorporates local research into all interoperable network of global knowledge; increases impact of local research providing new contacts and research partnerships for authors; removes professional isolation and strengthens economies through development of strong and independent national science base (Antelman, 2004; Canada, 2009; Willinsky, 2010; Suber, 2012; Jain, 2012; Mammo and Ngulube, 2015). It has equally allowed institutions to deposit published and unpublished materials into institutionalised subject-based repositories (Jain, 2012). Kenneway (2011) admitted that Open Access increased readership of published materials thereby increasing citations. Increased citation is an evidence of good visibility for publications because such works would be available to users worldwide and at no cost. Ivwighreghweta and Onoriode (2012) regarded restricted access as great barrier to the growth of science and the wellbeing of publishing which Open Access has solved. This was buttressed by Suber (2012; 2013) who considered restrictions as limiting research audience and harmful to research development. Utulu and Bolarinwa (2009) also considered Open Access as being more economical than print publications. According to Georgia State University (2015), Open Access have increased opportunities for collaboration and innovation, brought about better returns on investment for research sponsors, faster than the traditional publishing model and have contributed immensely to education's mission of advancing knowledge.

2.4 Usage of Open Access

Research has documented that Open Access contents have been put to various uses. OECD (2002) expressed that Open Access contents as products of research output have been put to various uses, such as to establish and confirm facts, reaffirm the results of previous work, solve new or existing problems and to support theorems or develop new theories, amongst others. As a result of these, academics used Open Access in searching for suitable and relevant information for scholarly works and dissemination of research findings. This has serious implications on its adoption by academics. Fullard (2007) indicated that researchers that were aware of Open Access used them against printed articles because of the convenience of location and regardless of whether other sources better suited their information needs. Also Dulle, Minish-Majanja and Cloete (2010) indicated that usage is highly dependent on scholars being aware of this model. Dulle and Minish-Majanja (2009) revealed that researchers used open access for sourcing scholarly articles for their research more than using it to disseminate research findings. Togia and korobili (2014) regarded the level of utilisation of Open Access among faculties as being positive.

Jose (2014) findings indicated that scholars from the Social Science were the most users of Open Access followed by scholars from the Sciences. The low use of this medium of publication was adduced to lack of knowledge about the existence of Open Access journals. Utulu and Bolarinwa (2009) revealed that Nigerian academics had access to ICT and as a result make significant use of Open Access publications. Ivwighreweta and Onoriode (2012) carried out a study which revealed low use of Open Access journals among by LIS students. Obuh and Bozimo (2012) in a study of Open Access publication usage among lecturers in the Department of Library and Information Science in Southern Nigeria revealed high and similar levels of usage among senior and junior cadre lecturers in terms of high priority in sourcing Open Access materials for research and also in rate of retrieving Open Access contents. Results also indicated that both categories of lecturers rarely self-archived their work on the Internet.

2.5 Challenges of Use of Open Access

In spite of the benefits accruable from Open Access publishing, there are many challenges bedevilling it as a form of publishing. The issue of quality of publications emanating from this model constituted a vital challenge that seemed to be a discouraging factor. Dulle and Minishi-Majanja (2009) adduced low quality of open access to lack of peer review. This is usually perpetrated by unscrupulous publishers who capitalise on huge turnover to search the Internet for publishable research/articles and thus publish contents that were either poorly peer-reviewed or not peer-reviewed at all by them. The publication and dissemination of either poor or non peer-reviewed articles may results into rejection or non recognition of such articles and journals by promotions committees of universities. This situation could make research efforts of academics and researchers fruitless for attaining promotion. It could also discourage academics, researchers and others from publishing their research or creative works in such publishing outlets. This probably might be the reason why Open Access contents have not been broadly accepted by some academics and researchers (Dulle and Minishi-Majanja, 2009). Kenneway (2011) however dispelled the fear about quality when he expressed that not all publications emanating from open access are not peer-reviewed, some were, though this might have been lightly done.

Increased visibility, citation advantage and high journal impacts are some of the benefits of publishing in Open Access (Kenneway, 2011; Suber, 2008; 2012; 2013). These are highly regarded in academic circles. Majority of authors that have published in high impact journals have not been enjoying the much expected visibility and citations advantage as a result of licensing fees and other restrictions placed on subscription and access. Suber (2012; 2013) gave modest strategies and policies of overcoming these restrictions. Furthermore, lack of skills in the use of the Internet for self-archiving has been found to be a major hindrance to Open Access adoption by faculty (Okoye and Ejikeme, 2011; Musa, 2016). The fact that faculty needed this form of publishing model to make their research findings more visible to other researchers and academics as well as access timely and relevant information for research necessitated the need to investigate lecturers' level of awareness, perceived benefits and challenges encountered in the use of Open Access.

In terms of actual use of Open Access contents, challenges have been identified country-wise. These elements of challenges vary from one country to another. For instance, in India, lack of fund for building and upgrading ICT infrastructure, lack of institutional repositories and lack of awareness on benefits of Open Access have been identified by Joshi, Vatnal and Manjunath (2012). In South Africa, Smith (2007) identified insufficient bandwidth and insufficient range of Open Access journals in fields of interest as challenges to Open Access use. In Nigeria, several factors or elements have been identified as challenges to effective use of Open Access contents or publications. Christian (2008) reported inadequate funding as a result of budgetary allocation decline; poor ICT infrastructures and lack of repositories. Okoye and Ejikeme (2011) identified inadequate skills to navigate the Internet; unstable power supply; unavailability of Internet facilities; unstable financial supports and lack of knowledge of existence of Open Access journals as constraints to use of Open Access among researchers. Ivwighreghweta and Onoriode (2012) identified lack of knowledge of the existence of Open Access

journals; improper archiving; power outage; limited computer terminals; lack of Internet search skills and download delay amongst others as constraints to effective use of Open Access. Musa (2016) revealed poor ICT infrastructures; inadequate funding for building and upgrading ICT infrastructures; low level of awareness; unstable power supply; technological barriers; unavailability and slow Internet connectivity; lack of sensitisation to adopt Open Access; lack of ICT skills and inadequate advocacy for Open Access in academic and research institutes as major constraint to Open Access.

3.0 Statement of the Problem

The core value of scholarly publishing and communication has been sharing of knowledge without price and copyright restrictions. However, the joining and dominance of commercial publishers has resulted to high cost of publishing, high cost of accessing, delay in publishing research findings and unavailability of suitable and relevant materials for inclusion in scholarly works amongst others. Open Access initiative has come to stay with its abundant benefits and opportunities to many stakeholders in the university community. Yet, lecturers that are supposed to be great users of the initiative medium and products are still unaware of the many benefits and opportunities that the medium and products are capable of offering them. Little is known about the extent to which Nigerian lecturers use the medium and its products to enhance their academic status and visibility as well as web metric counts of their universities. It is against this backdrop that this study intends to examine level of awareness and extent of use of Open Access among lecturers in selected faculties in Olabisi Onabanjo University (O.O.U.), Nigeria.

4.0 Objectives

The specific objective of this study is to investigate lecturer's awareness and extent of use of open access model. In view of this, the study is set out to:

1. determine the level of awareness of Open access scholarly publishing and content among lecturers;
2. find out the extent to which faculty use open access content;
3. examine the benefits of Open Access contents as perceived by faculty; and
4. identify constraint factors to effective use of Open Access as a publishing model.

5.0 Methodology

The study used a descriptive survey research method of ex-post-facto type. The target population for the study were lecturers from the Faculties of Arts and Education, Olabisi Onabanjo University (O.O.U.), Nigeria. Information collected from the Academic Planning Unit of the University showed that there were seventy-three (73) lecturers in the Faculty of Arts and seventy (70) lecturers in the Faculty of Education. The researchers randomly sampled thirty (30) lecturers each from the two faculties, making a total population of sixty lecturers. A questionnaire designed by the researchers and validated by two (2) senior colleagues (librarians) and two (2) lecturers from the Faculty of Education, O.O.U. was used to collect data for the study. The validated instrument was corrected, printed and administered on the respondents. Sixty (60) copies of the questionnaire were administered but only fifty-four (54) were returned. All the returned copies of the questionnaire were found useful for the study and constituted the data collated for the study. The data were analysed using descriptive statistics such as, frequency and percentages.

6.0 Presentation and Discussion of Results

This sub section presented the result of the data analysis in line with the objective of this study.

Table 1: Gender Distribution of Respondents

Sex	Frequency	Percentage
Male	42	77.8
Female	12	22.2
Total	**54**	**100.0**

Field Survey, 2017

Table 1 presented the distribution of respondents by gender. According to the result, 42(77.8%) of the respondents were male while 12(22.2%) were female. This showed that majority of the respondents that constituted the target population were male.

Table 2: Age Distribution of Respondents

Age	Frequency	%
Below 36 years	4	7.4
36-40 years	10	18.5
41-45 years	6	11.1
46-50 years	18	33.3
51-55 years	10	18.5
Above 55 years	6	11.1
Total	**54**	**100.0**

Field Survey, 2017

Table 2 presented the distribution of respondents by age group. According to the analysis, 4(7.4%) of the lecturers sampled were below 36 years of age, 10(18.5%) were between 36-40 years of age, 6(11.1%) were between 41-45 years of age, 18(33.3%) were between 46-50 years of age and 10(18.5%) were between 51-55 years of age while 6(11.1%) were above 55 years of age. This indicated that majority of the lecturers were between 46-50 years of age

Table 3: Distribution of Respondents by Qualification

Qualification	Frequency	%
Master	16	29.63
PhD	38	70.37
Total	**54**	**100.00**

Field Survey, 2017

Table 3 presented the distribution of respondents by qualification. The data indicated that 16(29.63%) of the lecturers had Master degrees while 38(70.37%) had Ph.D. This showed that majority of the respondents were Ph.D holders.

Table 4: Distribution of Respondents by Status

Status	Frequency	%
Assistant Lecturer	4	7.4
Lecturer II	8	14.8
Lecturer I	4	7.4
Senior Lecturer	13	24.1
Reader	13	24.1
Professor	12	22.2
Total	**54**	**100.0**

Field Survey, 2017

Table 4 presented the distribution of respondents by status. According to the result of the analysis, 4(7.4%) were Assistant Lecturer and Lecturer 1 each, 8(14.8%) were Lecturer 11 13(24.1%) were Senior Lecturer and Reader each while the remaining 12(22.2%) of the lecturers were Professors. This showed that majority of the respondents were Senior Lecturer and Reader followed by Professor.

Table 5: Distribution of Respondents by Years of Working Experience

Work Experience (Years)	Frequency	%
Less than 10 years	10	18.5
10-15 years	8	14.8
16-20 years	22	40.7
Above 20 years	14	25.9
Total	**54**	**100.0**

Field Survey, 2017

Table 5 presented respondents by years of working experience. The result indicated that 10(18.5%) had below 10 years of working experience as lecturers in Olabisi Onabanjo University, 8(14.8%) had between 10-15 years of work experience and 22(40.7%) had between 16-20 years of work experience while 14(25.9%) of the lecturers had above 20 years of work experience. This showed that majority of the respondents 36(66.7%) had above 15 years of work experience. It can be inferred that majority of the lecturers are matured and experienced lecturers.

Research Objective 1: Determine the level of awareness of open access scholarly publishing and content among lecturers in O.O.U.

Table 6.1: Lecturers level of awareness of open access scholarly publishing

Level of Awareness	Frequency	%
Highly Aware	18	33.3
Moderately Aware	20	37.0
Fairly Aware	14	25.9
Not Aware	2	3.7
Total	**54**	**100.0**

Field Survey, 2017

Table 6.1 presented the distribution of lecturers based on their level of awareness of open access scholarly publishing. According to the result of the analysis, 18(33.3%) were highly aware, 20(37.0%) were moderately aware, 14(25.9%) were fairly aware while only 2(3.7%) of the lecturers were not aware at all. This indicated that lecturers' level of awareness of open access scholarly publishing and content was very high. This finding agreed with the study of Okore (2014) and Yang and Li (2015) that academics had high level of awareness of Open Access.

Table 6.2: Lecturers' sources of awareness of open access scholarly publishing

Sources of Awareness	Frequency	Percentages
Self-exploration on the Internet	42	77.8
Professional Bulletins and Magazines	2	3.7
University Library	4	7.4
Workshops/Seminars	2	3.7
Colleagues	2	3.7
Journals	2	3.7
Books	-	-
Total	**54**	**100.0**

Table 6.2 presented the distribution of lecturers based on their sources of awareness of Open Access scholarly publishing. According to the result of the analysis, 42(77.8%) got aware through self-exploration on Internet, 4(7.4%) got aware through the University Library while the remaining were aware through Workshops/Seminars, colleagues and textbooks with all being 2 (3.7%) each. The data indicated that lecturers' major sources of awareness of Open Access scholarly publishing and content were through their self-exploration of the Internet. This finding was in agreement to the finding of Tobia and Korobili (2014) that self knowledge and Internet searching were the major sources of awareness about Open Access among faculty.

Research Objective 2: Find out the extent to which faculty use open access publications.

Table 7.1: Preferred mode of scholarly publishing among the lecturers

Preferred Mode of Publishing	Frequency	Percentage
Traditional Mode	14	25.9
Open Access Mode	26	48.1
Pay per View Mode	10	18.5
Undecided	4	7.4
Total	**54**	**100.0**

Table 7.1 presented the distribution of lecturers based on preferred mode of publishing their research articles and other works. According to the result of the analysis, 26 (48.1%) preferred to publish their research papers and others in the Open Access model, 14 (25.9%) preferred the traditional means, 10 (18.5%) preferred Pay per View mode and while 4 (7.4%) remained undecided. The data however indicated that lecturers preferred the Open Access mode as sources of publishing their scholarly works.

Table 7.2: Faculty's purpose of use of open access publications or contents

Purpose of Use of Open Access	Yes Freq	%	No Freq	%	Undecided Freq	%
Forming lecture notes	18	33.3	28	51.9	8	14.8
Research conduct	40	74.1	14	25.9	-	-
Research publication	15	27.8	35	64.8	4	7.4
General knowledge update	22	40.7	28	51.9	4	7.4
Theses and Dissertations writing	10	18.5	40	74.1	4	7.4
Improve my visibility on the web	12	22.2	22	40.7	20	37.0
Improve web metric ranking of my university	10	18.5	40	74.1	4	7.4
To become a reviewer	15	27.8	24	44.4	15	27.8
To become an editor	5	9.3	43	88.9	6	11.1
To become an author	15	27.8	35	64.8	4	7.4
To update my knowledge in my discipline	20	37.0	26	48.2	8	14.8

Table 7.2 presented the distribution of lecturers based on their purpose(s) of use of Open Access publications. The data indicated that lecturers' main purpose of using Open Access was for research conduct (40) (74.1%); general knowledge update (22) (40.7%); updating knowledge in my discipline (20) (37.0%) and forming lecture notes for students (18) (33.3%). One would have expected the lecturers responses to items, such as, research publication, improve my visibility on the web; improve web metric ranking of my university; becoming a reviewer; an editor and or an author to be high but to once surprise, these responses were too low when compared to other responses in the Table and also their signified level of awareness of Open Access. These are parts of functions or expectations from academics and their responses to these were expected to be high. One may conclude that lecturers' level of awareness was not commensurate to the purpose of use of Open Access. Thus, we may infer that this results agreed with the findings of Ehikhamenor (2003), Eqbal and Khan (2007) and UNESCO (2016) which indicated that lecturers were more aware of Open Access content than their actual use.

Table 7.3: Extent to which faculty use open access publication

Extent of Use	Daily	Weekly	Monthly	As the need arise	Never
E-journals	10(18.5%)	16(29.6%)	28(51.9%)	-	-
E-books	8(14.8%)	16(29.6%)	12(22.2%)	18(33.3%)	-
E-conference proceedings	4(7.4%)	14(25.9%	16(29.6%)	18(33.3%)	2(3.7%)
E-technical reports	4(7.4%)	12(22.2%)	8(14.8%)	8(14.8%)	32(59.3%)
E-patents	8(14.8%)	10(18.5%)	6(11.1%)	8(14.8%)	22(40.7)
E-databases	6(11.1%)	2(3.7%)	6(11.1%)	4(7.4%)	36(66.7%)
E-chapters-in-books	10(18.5%)	10(18.5%)	4(7.4%)	2(3.7%)	28(51.8%)
E-directories	4(7.4%)	8(14.8%)	8(14.8%)	8(14.8%)	26(48.1%)
E-dictionaries	16(29.6%)	4(7.4%	8(14.8%)	26(48.1%)	-
E-encyclopedias	16(29.6%)	4(7.4%	8(14.8%)	26(48.1%)	-
E-handbooks	10(18.5%)	12(22.2%)	2(3.7%)	30(55.5%)	-
E-guides	8(14.8%)	4(7.4%)	4(7.4%)	4(7.4%)	34(63.0%)
E-manuals	8(14.8%)	6(11.1%)	2(3.7%)	28(51.8)	10(18.5%)

Field Survey, 2017

Table 7 presented the distribution of respondents based on extent to which they used open access publications. According to the result of the analysis, some lecturers used some open access publications daily, weekly, monthly and some used as the need arises while some lecturers never used some open access publications at all. For example, e-dictionaries and e-encyclopedias (16) (29.6%), e-journals, e-chapters-in-books and e-handbooks (10) (18.5%) each were used on a daily basis; e-journals and e-books (16) (29.6%) as well as e-conference proceedings (14) (25.9%) were used weekly. On monthly basis, e-journals (28) (51.9%), e-conference proceedings (16) (29.6%) and e-books (12) (22.2%) were greatly utilised. Electronic handbooks (30) (55.5%), e-manuals (28) (51.8%), e-dictionaries and e-encyclopedias (26) (48.1%) were used if necessary while e-databases (36) (66.7%), e-guides (34) (63.0%), e-chapter-in-books (28) (51.8%), e-directories (26) (48.1%) and some others were never used at all by some lecturers. One may infer however that open access journals were the most utilised of the open access contents by the lecturers followed by open access books, open access dictionaries and open access encyclopedias as well as open access handbooks as these contents were utilised by all the lecturers as indicated by data collated.

Research Objective 3: Determine the faculty perceived benefit of open access publishing and publication

Table 8: Examine lecturers perceived benefits of open access publishing and content

Perceived Benefits	SD (%)	D (%)	N (%)	A (%)	SA (%)	Scoring
Timely access to information and data needed	14.8	14.8	3.7	51.9	14.8	6th
Increase authors visibility on the web	7.4	11.1	11.1	55.8	14.8	3rd
High journal impact	-	22.2	11.1	59.3	7.4	6th
Discourage pay per view mode of publishing	11.1	7.4	14.8	55.8	11.1	5th
Timely publication of research/project	3.7	7.4	18.5	55.6	14.8	4th
Wider availability and accessibility to information	7.4	3.7	3.7	70.4	14.8	1st
Timely completion of research study	7.4	11.1	11.1	51.9	18.5	4th
Prevent duplication of research efforts	7.4	14.8	3.7	55.6	18.5	2nd
Increase web ranking of universities	7.4	18.5	7.4	55.6	11.1	6th

Field Survey, 2017

Table 8 presented the distribution of lecturers based on their perceived benefits of open access publishing and publications. The findings above indicated that lecturers perceived open access publishing and publication as being beneficial in each of the above indices and so used them to satisfy their various needs for information. However, wider availability and accessibility to information (85.2%) took prominence followed by prevent duplication of research efforts (74.4%), increase authors visibility on the web (70.6%), timely publication of research/project and timely completion of research/projects both (70.4%). Other benefits were that open access discourages pay per view mode of publishing (66.9%) and lastly enables timely access to information and data needed, allow high journal impact as well as increases web ranking of universities all 66.7%. This finding agreed with the findings of earlier researchers, such as, Antelman (2004), Albert (2006), Suber (2009), Kenneway (2011), Ivwighreghweta and Onoriode (2012) and Musa (2016) on benefits of open access as highlighted in the above measures or indices.

Few (33.3%) of the lecturers were of the perception that open access publishing and publications had no benefits. This probably might be as a result of low level of awareness of open access among this population of the lecturers as indicated in Table 6.

Research Objective 4: Identify the challenges of open access as publishing medium

Table 9: Challenges of open access as publishing medium

Challenges	SD (%)	D (%)	U (%)	A (%)	SA (%)
Research articles are of low quality	7.4	14.8	3.7	3.7	70.4
Research contents could easily be plagiarized	18.5	48.1	7.4	7.4	18.5
Research articles are not well peer reviews	7.4	29.6	14.8	29.8	18.5
Not fully aware of the benefit of publishing my research in open access medium	7.4	44.4	22.2	7.4	18.5
Poor disposition towards open access by Appointments and Promotion Committees of universities	18.5	33.3	11.1	11.1	25.9
Lack the skill to use Internet and ICT tools for publishing my work on open access medium	11.1	29.6	11.1	18.5	29.6
The existing scholarly publication culture do not encourage journal publication	25.9	37.0	3.7	14.8	18.5
Poor perception of Open Access publishing from colleagues	11.1	33.30	14.8	18.5	22.2
Poor availability of Internet technologies	14.8	37.0	3.7	18.5	25.9
High cost of publishing in open access	7.4	40.7	11.1	18.5	22.2
Lack of hard/print copies of open access journals	22.2	33.3	7.4	14.8	22.2
Lack of financial rewards to authors	18.5	37.0	18.5	7.4	18.5
Increasing number of unscrupulous publishers	22.2	33.3	14.8	7.4	22.2
Poor awareness of existence of journals and other databases in open access medium	11.1	25.9	11.1	33.3	18.5

Field Survey, 2017

Table 9 above presented the challenges of open access as publishing medium as perceived by lecturers. The result indicated that in all the assumed stated problems, low quality of research articles and poor awareness of existence of journals and other databases in open access medium have been identified as major challenges of open access as publishing medium. Poor peer-review process (48.3%), lack of skills to use Internet and other ICT tools for publishing in open access medium (48.1%), poor availability of Internet facilities (44.4%); high cost of publishing in Open Access (40.7%) and poor perception of Open Access from colleagues and the

Appointment and Promotions Committees of the University (40.7%) were regarded as least challenges. The issue of poor awareness of existence of journals and other databases in open access medium and poor perception from colleagues agreed with the findings of Okoye and Ejikeme (2011), Joshi et al (2012) and Musa (2016). The findings on factors, such as, lack of skills to use Internet and other ICT tools for publishing in open access medium and poor availability of Internet facilities agreed with those of Christian (2008); Ivwighreghweta and Onoriode (2012) and Musa (2016).

7.0 Summary of Findings
The major findings of this study were that:
- Majority of the lecturers surveyed were matured.
- Majority of the lecturers had Ph.D qualification.
- Majority of the lecturers surveyed were experienced measured in terms of job status and years of work experience.
- Lecturers' level of awareness of open access scholarly publishing and content was very high.
- Lecturers' major sources of awareness of Open Access scholarly publishing and content were through their self-exploration of the Internet.
- Lecturers preferred the Open Access mode as sources of getting information to conduct research when compared to the traditional and Pay per View mode of publishing but probably not publish their scholarly works in Open Access.
- Lecturers' main purpose of using Open Access was for research conduct, seeking and updating general knowledge, updating knowledge in their disciplines and forming lecture notes for students.
- Lecturers were more aware of Open Access content than their actual use.
- Some lecturers used some open access publications daily, weekly, monthly and some used as the need arises while some lecturers never used some open access publications at all. One may infer however that open access journals were the most utilised of the open access contents by the lecturers followed by open access books, open access dictionaries and encyclopedias as well as open access handbooks as these contents were utilised by all the lecturers as indicated by data collated.
- Lecturers perceived open access publishing and publication as being beneficial in each of the above indices and so used them to satisfy their various needs for information. However, wider availability and accessibility to information followed by prevention of duplication of research efforts (74.4%) took prominence over the other indices of benefits.
- Few (33.3%) of the lecturers were of the view that open access publishing and publications had no benefits. This probably might be as a result of low level of awareness of open access generally among this little population of the lecturers.
- In all the assumed stated problems, low quality of Open Access research articles and poor awareness of existence of journals and other databases in open access medium have been identified as major challenges to use of open access as publishing medium. Other factors of lesser challenges as perceived by the lecturers were poor peer-review process (48.3%); lack of skills to use Internet and other ICT tools for publishing in open access medium (48.1%); poor availability of Internet facilities (44.4); high cost of publishing in Open Access (40.7%) and poor perception of Open Access from colleagues (40.7%).

8.0 Conclusion and Recommendations
This study indicated that lecturer's awareness about Open Access as a means of conducting research, updating general knowledge, updating/seeking knowledge in respective disciplines and forming lectures notes for students was high but low as a means of communicating research findings. It was further found that lecturers' awareness about Open Access impacted on usage of the information content. Majorly, out of all the e-contents surveyed, e-journals was the most utilised and majority of the lecturers viewed Open Access as possessing some salient benefits to them as researchers, academics and as postgraduates. In spite of the uses and benefits of Open Access contents, factors such as, low quality of Open Access research articles and poor awareness of existence of journals and other databases in open access medium have been identified as major challenges to use of the initiative as publishing medium among the lecturers. The study however revealed that benefits outweighed the challenges of the initiative, indicating that, Open Access as a means of publishing has come to stay and lecturers should see the initiative as one of the viable means of solution to challenges of inaccessibility to information for research and development in developing countries. Be that as it may, academic librarians who are the repositories of information sources (electronic and non electronic) should see themselves as strong advocate to information services and resources within the university community. Lecturers should equally avail themselves with the opportunities that abound in the use of library resources, most especially, the Open Access for research

and academic endeavours and lend themselves to information literacy training programmes offered at libraries. In view of the foregoing, the researchers hereby recommend that:

- Academic libraries and librarians should through information literacy trainings sensitise academics on benefits, opportunities, challenges and policies guiding the use of Open Access. They should also encourage academics use Open Access as sources of publishing research articles/findings. It is also important to encourage them use Open Access content as sources of information for literature review and data for inclusion in research studies.
- Lecturers should equally avail themselves with the opportunities that abound in the use of Open Access for research and academic endeavours and lend themselves to information literacy training programmes offered by librarians.
- Academic librarians should also be strong advocacy of Open Access within the university community. They should take a lead in communicating the importance of Open Access-related developments to academics and most especially, the administrators who will release funds allocated for such purposes.
- Academic libraries should ensure that information on Open Access policies and schemes is more easily accessible to anyone wishing to find it. They can also encourage the user community by making them aware of funders' policies for users' sake.
- Nigerian academic libraries and librarians should come together to establish repositories, may be, at institutional or regional level. They should come up with policies that will support Open Access implementation and sustainability for long term use such that the country has access to information for research and development.
- Academic librarians need to collaborate and share resources, especially, Open Access and other online resources and databases that will satisfy the information needs of academic for research and teaching amongst others. Academic libraries should encourage joint provision of services on a large scale. This will give way to wise spending of university budgetary allocations.
- Government should inject more funds to support conduct and publication of research. This will make research findings more freely available and accessible to anyone needing information for research and development.

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