AWARENESS OF OPEN ACCESS SCHOLARLY PUBLICATION AMONG LECTURERS IN UNIVERSITY OF BENIN, BENIN CITY IN EDO STATE, NIGERIA

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ABSTRACT

This study investigated the awareness of Open Access Scholarly Publication among Lecturers in the University of Benin in Edo State, Nigeria. Six research questions were raised. The descriptive research design was employed for the study. The population for the study consists of the lecturers of the University of Benin in Edo State. A sample of 70 lectures were randomly selected in the University of Benin Main Library. The structured questionnaire entitled Open Access and Scholarly Publishing Questionnaire (OASPQ) was the instrument used for data collection. Frequency count and simple percentage were used to analyze the data. The study found that the lecturers of the University of Benin were aware of open access scholarly publication and that the main channel through which they became aware was through their colleagues. Increased impact and free online access are some of the advantages of open access to the respondents. However, unstable power supply and unavailability of internet facilities were some of the constraints encountered. Provision of constant power supply and the establishment of institutional repositories were some of the strategies suggested to enhance Open Access for scholarly publications. It therefore recommends that constant power supply and establishment of institutional repositories should be provided by the University management so as to enhance open access of scholarly publishing to the development of scholarship among its lecturers.

Keywords: *Open access, scholarly communication, publishing, institutional repository.*

INTRODUCTION

Scholarly communication involves creating new knowledge, filtering quality knowledge through the peer review process and disseminating that knowledge to intended audiences (Mann et al, 2008). Open access (OA) is an alternative form of scholarly communication that has emerged from the traditional business mode of scholarly publishing. The basic concept of open access is the online accessibility to

scientific literature for readers at no charge and without any technical barriers (Mann et al, 2008). Developments in information and communication technologies (ICTs) have been cited as among the key factors that have catalyzed the emergence of open access (Adogbeji and Akporhonor, 2005; Moller, 2006).

Scholarly communication is a broader term reflecting various processes through which scholars exchange information with one another in the course of knowledge creation (Rao, 2001). Thorin (2003) divides scholarly communication into three main distinct aspects: the process of conducting research, developing ideas, and communicating these ideas informally with other scholars and scientists, the process of preparing, shaping, and communicating to a group of colleagues what will become formal research results and the published formal product that is distributed to libraries and other places in print form or electronically. From the definitions and functions of scholarly communication, it is evident that for a complete cycle of scholarly communication to take place, there are four core processes: (i) the creation of scholarly content, (ii) validation, (iii) documentation, and (iv) dissemination. Scholarly communication is achieved either through informal channels and means such as personal contacts through lectures, conferences, seminars or by means of publishing scholarly work in recognized channels such as refereed journals, books or other publications such as conference proceedings, theses and dissertations (Rao, 2001).

The system of scholarly communication has evolved overtime since it came into existence. The current system of scholarly communication is said to have originated as an exchange of letters and lectures among scattered peers until 1665 when the first print journal known as Philosophical Transactions was launched by the Royal Society of London (Thorin, 2003; Swan, 2007). Economic and technological changes are cited as the major reasons contributing to the notable evolution of the current scholarly communication system (Thorin, 2003; Moller, 2006; Swan, 2007). From the onset of the first journal, scholarly publishing was dominated by scholarly societies until after World War II when commercial publishers joined the industry as a result of scholarly societies' failure to cope with the rapid increase of research output emanating from universities (Yiotis, 2006).

Unlike the scholarly societies which had no or little interest in making profits through journal sales, the commercial publishers utilized their control of the scholarly publishing industry to raise the journal prices until they were beyond the ability of the libraries and other institutions serving the scholarly community (Thorin, 2003; Yiotis, 2006; Moller, 2006). Due to the rapid increase of scholarly output and the inflated journal prices, it has become practically difficult even for libraries in rich countries to subscribe to every journal that is required by their clients (Moller, 2006). Information and communication technologies (ICTs) developments have also contributed to the evolution of scholarly communication by affecting the documentation format of scholarly content and its dissemination (Thorin, 2003). ICTs have dramatically changed research practices in terms of scholarly

communication by enhancing: communication among scientists, access to information of all kinds, and by provision of a greater variety of publication and dissemination platforms (Moller, 2006). According to Willinsky (2003), 75% of journals are currently available online and among them more than 10% peer-reviewed journals are said to be available in digital format only. Publishers have used ICT developments to change the accessibility legal framework for electronic journals from copyright law for print format to contract law for digital format publications (Swan, 2007). Under the contract law, publishers sign contracts with individual libraries or consortia for accessibility to bundles of journals at an agreed cost for several years. In such an arrangement, even those journals that are not needed by a specific research community are paid for.

In the real sense, this kind of arrangement has not solved scholarly content availability to the research community. This is due to the fact that more burden has been added to libraries as a result of the publishers negotiating three or five years deals, tying libraries into long-term commitments in cash (Swan and Brown, 2005). Under these circumstances, libraries from resource poor countries may not be able to enter into these contracts. As a response to the frustrating journal prices and the enabling information and communication technologies, the scholarly community is coming up with alternative scholarly publishing systems aiming at wider distribution of scholarly content without price or other copyright restrictions to end users (Bjork, 2004; Correia and Teixeria, 2005; Yiotis, 2006; Moller, 2006).

The term open access was first properly defined at a meeting in Budapest of a variety of open access advocates, brought about by the Open Society Institute in early December 2001 (Velterop, 2005; GPGNet, 2005). In that meeting, open access was defined as: free availability on the internet, permitting users to read, download, copy distribute, print, search, or link to the full texts 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. The only constraint is reproduction and distribution and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited (GPGNet, 2005).

It is currently estimated that only 15% of the annual research output is immediately made freely available through open access (Brody et al, 2007). This means that a greater portion of the research output is still published using the conventional system. It is acknowledged that it will take some time for OA mode of scholarly communication to gain substantial adoption due to the fact that open access is disrupting the already well established system (Johnson, 2002; Fullard, 2007). This has necessitated the interventions by proponents of open access to promote its adoption. Accordingly, various initiatives, statements and declarations have been made at national and international levels to speed up the spread of OA. One of these is self-archiving of scholarly publications by institutions and individual researchers

and the creation of institutional repositories. The creation of new open access journals and the conversion of subscription-based journals into open access so that they are freely available to the scholarly community are other means to foster the development of OA (Harnad, 2005; Suber, 2006). Also important are interventions by different scholars to investigate the factors that promote open access adoption in the research community, with the ultimate goal of devising means to improve the uptake of this means of scholarly communication.

Open Access Journals: Open access journals also referred to as "Gold Road" to open access, are peer reviewed Journals made available free of charge to the public through the Internet (Harnad, 2005). Unlike the business publishing model, in open access publishing, the end user is not charged to access journal articles. Instead, various funding strategies such as direct author fees, institutional membership to sponsor all or part of author fees, funding agency payment of author fees, grants to open access publishers and institutional subsidies are used to cover the costs for publication and distribution of OA content for free access by the end user. Some of the open access journal avenues for direct access include: the Directory of Open Access Journals (DOAJs); the Directory of Free Full Text; Free Medical Journals Directory; the High Wire Press; and the Open J-Gate (Hirwade and Rajyalakshmi, 2006). It is also possible to access open access journal articles indirectly by using search engines such Google or Google scholar. The Bethesda Statement on Open Access Publishing defines an open access publication to include publications that meet the two conditions below:

i The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use.

ii A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (for the biomedical sciences, PubMed Central is such a repository).

The directory of open access journals contains a comprehensive list of open access journals from diverse disciplines. The aim of the Directory is to increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact. A growing number of studies have confirmed that an OA article is more likely to be used and cited than one behind subscription barriers. There is enough evidence that OA documents are most likely to be cited than non

OA documents. This gives OA authors an advantage over other authors who are skeptical about OA. Scholars are paid by research funders and/or their universities to do research; the published article is the report of the work they have done, rather than an item for commercial gain. The more the article is used, cited, applied and built upon, the better for research as well as for the researcher's career (Suber, 2006).

Self-archiving: Self-archiving also referred to as "Green Road" to open access is making articles freely available in digital form on the Internet by authors (Budapest Open Access Initiative, 2002; Harnad, 2005). There are three most common ways of self-archiving on the Internet: authors' personal websites, disciplinary (research-specific), and institutional repositories of individual universities/institutions (Bjork, 2004; Bailey, 2006). The Registry of Open Access Repositories (ROAR) and the Directory of Open Access Repositories (DOAR) provide the list of open access compliant archives from disciplinary and institutional archives worldwide. As is the case with open access journals, articles from ROAR or DOAR may be accessed through direct search of respective repositories/directories or indirectly using search engines (Bailey, 2006). It is a model of scholarly publishing whereby researchers and academics make pre-print or post print copies of their research work or publications available in open access digital repositories or archives.

The archive could be the personal web page of the author, a subject or discipline-based repository or an institutional repository. Harnad (2005) sees Institutional repository as a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. Hence, the role of an institutional repository is basically to collect, and disseminate the host institution's research outputs. The research outputs could include electronic copies of pre-prints as well as post-print articles, conference and working papers, committee papers, teaching materials, thesis and dissertations, monographs, multimedia, student projects etc. Chan (2004) notes that institutional repositories administered by universities or research institutes for members of their community, are the fastest growing form of open access archives. Institutional repository has emerged to revolutionize the methods of preservation as well as communication of research outputs in academic and research institutions.

AWARENESS AND USE OF OPEN ACCESS SCHOLARLY PUBLISHING

Open access concept is still not widely known among academic researchers. A study by Christian (2008) reveals that while only 3% of 66 respondents at the University of Lagos were aware of the open access concept, 22.7% knew very little about it and majority (74%) of the respondents were completely unaware of open access. It should be noted even where open access awareness is reported, the level of understanding was not uniform for different open access terms. For example, a study by Swan and Brown (2005), established that subject repositories or archives were the most known

types to the respondents who claimed to be aware of open access repositories than open access journals. A similar study by Allan (2005) found that among the 24 randomly displayed terms related to open access, only the general terms were found to be well known while the specific ones were not. Likewise, a half of the respondents who claimed to know about open access, only a few of them were aware of digital repositories (Pickton, 2005). Utulu and Bolarinwa (2009) also acknowledge that among 189 respondents 65% were aware of pre-prints as compared to 60% and 48.3% who reported to know open access journals and post prints respectively.

Another recent study by Sanchez-Tarrago and Fernandez-Molina (2009) similarly reveals different knowledge of open access related initiatives among scholars from a group of health researchers in Cuba. According to the study, while 44.8% of the respondents (n = 160) were reported to be aware of open access journals, only 20.7% knew about open access repositories. The results from this study also revealed that 62.7% of the respondents were aware of Pub Med Central and 47.9% about BioMed Central. Surprisingly, only 4.3% of the respondents were aware of PLoS which is considered as the largest open access publishing house for biomedical sciences (Sanchez-Tarrago and Fernandez-Molina, 2009).

The study by Pelizzari (2003) indicates that colleagues, professional literature, and libraries have been the main sources of learning about open access to those who claimed to be aware of it. On the other hand, self-archiving by their peers, open access debate, institution or library and established subject-based archives promotions were established as being the main means through which researchers were exposed to open access (Swan and Brown, 2004). The most common ways in which open access related terms have been discovered include searching the Internet, participation in debates or via colleagues in their disciplines (Allan, 2005).

A similar study by Sanchez-Tarrago and Fernandez-Molina (2009) found that 40% of the respondents were informed about open access through colleagues and 37% for professional literature in their fields of research. In concurrence with the above findings, several other studies have acknowledged other ways through which respondents were exposed to open access. These include: university/library websites; contact from institutional repository staff member; publicity through campus newspapers; results of a web search engine/Internet; direct publicity from publishers; word of mouth from associates; and participation in an initial meeting of institutional repository (Kim, 2006; Moller, 2007). Usage of open access in both disseminating and accessing scholarly information has attracted the attention of many scholars in recent years. Varying levels of involvement of researchers in open access publishing were reported by Allan (2005), Swan and Brown (2005), Utulu and Bolarinwa (2009).

Sanchez-Tarrago and Fernandez (2009) reveal that among 60 respondents only 35% acknowledged to have published in open access journals. Swan and Brown (2004), Kim (2006) and Utulu and Bolarinwa (2009) conducted studies that reveal more involvement of researchers in open access publishing. Kim (2006) has reports more than half of the respondents claimed to have made their research or teaching

materials publicly accessible through websites. Similarly, Swan and Brown (2005) found out that close to half of the respondents had published at least one open access article during the last three years from the time of their study. The study by Utulu and Bolarinwa (2009) establishes that the respondents had acknowledged of having disseminated their scholarly content using either preprints (30%) or post-prints (23.3%) and 35% in open access journals. Okoye and Ejikeme (2010) identified inadequate skills to navigate the Internet, unstable power supply, unavailability of internet facilities, permanence of open access movement due to unstable financial support, lack of knowledge of the existence of open access journals in the Internet and the unpredictable nature of open access journals as constraints to the use of open access journals by researchers. The aim of this study is evaluate the awaereness of open access of scholarly publications among lecturers in University of Benin. To acieve the purpose for which this study designed for, the following questions were formulated to guide the study.

1. To what extents are the lecturers aware of open access scholarly publications and open access institutional repositories?
2. What are different channels through wish the lecturers became aware of open access scholarly publications?
3. What are the advantages derived from open access scholarly publications?
4. What are the constraints to the use of open access in scholarly publishing?
5. What are the strategies used to enhance open access scholarly publication?

METHOD

The study employed a descriptive survey design. The population for the study consists of the lecturers of the University of Benin in Edo State. A sample of 70 lectures were randomly selected in the University of Benin Main Library. Structure questionnaire entitled "Open Access and Scholarly Publishing Questionnaire (OASPQ)" was the instrument used for data collection. Frequency count and simple percentage were used to analyze the data. The questionnaire was designed using four Likert scale measurement of strongly agreed, agreed, strongly disagreed and disagreed.

RESULTS AND DISCUSSION

Table 1: Awareness of Open Access Scholarly Publications

Awareness of Open Access Publications	Frequency	Percentage
Open access journals	60	86
Institutional repositories	70	100

Source: Survey, 2011

Table 2: Channels through which the lecturers became aware of Open Access Scholarly Communication

Channels	Stronly Agreed		Agreed		Disagreed		Strongly Disagreed	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Colleagues	45	64	20	29	-	-	5	7
Professional literature	32	46	11	16	25	36	2	2
University/library websites	15	21	10	14	30	43	15	21
Institutional repositories	28	40	5	7	I7	24	20	28
Searching the internets	15	21	15	21	20	29	20	29
Conferences/workshops	40	57	20	28	-	-	10	14

Source: Survey, 2011

Table 3: Advantages of Open Access Scholarly Publication

Consrtaints	Stronly Agreed		Agreed		Disagreed		Strongly Disagreed	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Articles can be accessed online free of charge	40	57	5	7	25	36	-	-
Open Access provides larger potential evidence	20	28	25	37	20	28	57	
It increases impact of researcher's work	52	74	15	21	-	-	3	4
It reduces publication delays	12	17	30	43	20	29	8	11
It makes for easy accessibility of the research work	35	50	21	30	9	13	5	7
It provides free online access to the literature necessary for one's research	48	67	10	14	5	7	7	10
Publications are made free for authors	30	43	7	10	15	21	18	26

Source: Survey, 2011

Table 4: Constraints to the Use of Open Access in Scholarly Publishing

Consrtaints	Stronly Agreed		Agreed		Disagreed		Strongly Disagreed	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Inadequate skills to navigate the internet	25	36	15	21	18	26	12	17
Lack of knowledge of the awareness of open access journals in the internet	20	29	31	44	10	14	9	13
Unstable power supply	57	81	6	9	-		7	10
Unavailability of internet facilities	49	70	8	11	7	10	6	9
Full texts of some open access journals are not down- loadable	15	21	-	-	20	29	35	50

Source: Survey, 2011

Table 5: Strategies to Enhance Open Access For Scholarly Publication

Strategies	Stronly Agreed		Agreed		Disagreed		Strongly Disagreed	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Internet connectivity needs to be improved	30	43	24	34	6	9	10	14
Organizations should float more open access journals	25	36	10	14	20	28	15	21
Provision of constant power supply	47	67	20	28	3	5	-	
Establishment of institutional repositories	30	43	25	36	12	17	3	4
Provision of funds for open access movement by Government	15	21	23	33	30	43	2	3
Acquisition of knowledgeable skill in information technology usage by researchers.	28	40	25	36	10	14	7	10

Source: Survey, 2011

Table 6: Familiar with Open Access Institutional Repository/Archive with reference to Scholarly Research

Institutional Repository	Strongly Agreed		Agreed		Disgreed		Strongly Disgreed	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
I have never heard of this before	20	28	10	14	30	43	10	14
I have come across this concept but know nothing about it	10	14	17	24	20	28	23	33
I have come across this concept and know littlet about it	15	21	23	33	28	40	4	6
I have come across this concept and know quite a bit about it	44	63	15	21	6	9	5	7
I am very knowledgeable about open access institutional repository or archive	51	73	10	14	9	13	-	-

Source: Survey, 2011

Table 1 shows that the entire respondents were aware of open access scholarly publication. The high awareness may be explained as a result of Internet revolution in Nigerian universities and for the fact that the lecturers browse the Internet for literature to accomplish their academic work. Table 2 shows the different channels

through which the respondents became aware of open access scholarly communication. Majority of the respondents agreed that they became aware of OA through colleagues. This is followed by through Conferences and workshops. This study is in conformity with Pelizzari (2003) who indicate that colleagues, professional literature, and libraries have been the main sources of learning about open access to those who claimed to be aware of it. Table 3 shows the advantages of Open Access Scholarly Publication to researchers where the majority of the respondents agreed that it increases the impact of researchers work. This is followed by the respondents who agreed that agreed that it provide free online access to the literature necessary for one's research. This is in agreement with that of Suber (2004) who observed that open access articles are more likely to be used and cited than the one behind subscription barriers. Table 4 shows the constraints to the use of open access scholarly publishing by researchers. Majority of the respondents agreed that unstable power supply is a major constraint to the use of open access scholarly publication.

This is in conformity to that Okoye and Ejikeme (2010) that identified unstable power supply and unavailability of internet facilities as constraints to the use of open access to researchers. Table 5 shows the strategies for enhancing open access for scholarly publication. Almost all the respondents agreed that provision of constant power supply is a major strategy for enhancing open access publications. Table 6 shows the level of familiarity with open access institutional repository/archive with reference to scholarly research. Majority of the respondents 73% strongly agreed and 14% agreed that they are very knowledgeable about open access institutional repository. This is a confirmation of Swan and Brown (2004) who established that subject repositories or archives were the most known types to the respondents who claimed to be aware of open access repositories than open access journals. These point to the fact that researchers in the University of Benin are very much aware of open access to the development of scholarship. This finding corroborates the study of Sanchez-Tarrago and Fernandez-Molina (2009) who stated that among scholars from a group of health researchers in Cuba, 44.8% of the respondents were reported to be aware of open access journals, only 20.7% know open access repositories.

CONCLUSION

Open access and institutional repository are new concepts and efforts should be made to give the lecturers the exposure they need in order for them to play their expected roles. The University Library should intensify more efforts in the creation of awareness of existing open access journals and institutional repository. Internet facilities are crucial factor in access to knowledge, therefore the university management should provide adequate Internet facilities to enhance access to open access publications. Electricity should be restored to places where ICTs are available to enable lecturers make maximum use of the facilities. There is the need for the University to acquire high powered generator which will serve as backup in case of power outage.

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