

### Open access journal publishing in Ahmadu Bello University, Zaria, Nigeria

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#### Abstract

Open Access has been identified as an initiative that can improve access and provide global visibility for research work conducted by researchers and scholars. This study examined scholarly publication, particularly open access journals in Ahmadu Bello University, Nigeria. Survey research method was adopted for this study and purposive sampling technique was adopted to collect data using questionnaire from twenty-one chief-editors of scholarly journals published in Ahmadu Bello University, Zaria, Nigeria. The study revealed, among others that only 2(9.5%) out of the 21(100%) of scholarly journals published in Ahmadu Bello University are open access journals. Lack of awareness of the potentials of open access journals, and concern over copyright issues are some of the challenges identified by the study hindering the adoption and transition of closed journals to open access journals by publishers of scholarly journals in Ahmadu Bello University, Zaria, Nigeria. This study also highlights some of the strategies that can be adopted to promote open access journals amongst publishers of scholarly journals in Ahmadu Bello University and Nigeria at large.

#### Introduction

Learning, teaching and research has been recognized as part of the mandate of all universities globally. Scholars and researchers in universities are required to publish to gain promotion and tenure appointment. To achieve these they must have access to current and relevant literatures. However universities and research institutions even in advanced countries are deprived of access to quality research literature due to financial and copyright barriers. In developing countries, this has not only hampered the creation of new knowledge and development but has also hindered the dissemination of indigenous research findings. The easier the access to research results the more readily they can be read and understood, used, applied, and built upon (Harnad, 2006).

The past nine years has witnessed the birth of Open Access Initiatives, which seeks to promote free access to peer reviewed scholarly publication on the Internet without any copyright or cost barriers. Open access publications provide the world of scholarly communication with the potentials of global accessibility at no financial and copyright constrain. Open Access was first properly defined at a meeting convened by Open Society Institute in Budapest in December 2001. The result of this meeting was the "Budapest Open Access Initiative" (BOAI) which defined open access as follows:

"By 'open access' to this literature [primarily peer-reviewed journal articles, as mentioned earlier in the initiative], we mean its free availability on the public internet, permitting any 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 on 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."

According to Bailey(2006), Bethesda Statement on Open Access builds upon the BOAI (2001) by specifying that copyright owners will grant users certain rights under licenses and these rights shall be free, irrevocable, worldwide, perpetual. The Bethesda Statement defined open access as one that meets the following two conditions:

- 1. 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.
- 2. 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.

In October 2003, the Berlin Declaration on Open Access widened the discussion to include the humanities.

Bailey (2006), assert that self-archiving and open access journals are the two complementary strategies that can be adopted to achieve open access to scholarly

journal literature. Self-archiving requires scholars to deposit their refereed journal articles in open electronic archive that conform to Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH). Open access journals do not charge subscription or access fees but explore other methods for covering their expenses. According to BOAI (2001) open access journals have the following characteristics:

- i. they are scholarly,
- ii. they utilize quality control mechanisms like those of conventional journals,
- iii. they are digital,
- iv. they are freely available
- v. they may allow authors to retain their copyrights and
- vi. they may use Creative Commons or similar licenses

Existing journals which are not open access can make the transition to open access journals.

### **Open Access in Nigeria**

With a population of about 140 million, Nigeria as one of the most populous countries in Africa has about 92 Universities (NUC, 2008) and many research institutes involved in various research works and scholarly publishing. Nigeria has a very low percentage of its journals available online and open access. In the Registry of Open Access Repositories, Nigeria has only one registered Institutional repositories and in the Directory of Open Access Journal (DOAJ) sixteen (16) journals published in Nigeria are indexed out of 4858 indexed journals as at March 2010. None of these indexed journals is published in Ahamdu Bello University, Zaria, Nigeria. Similarly, Bioline International which provides a free platform for bioscience open access journals published in developing countries index only ten (10) journals published in Nigeria with only two published in Ahmadu Bello University, Nigeria.

In an effort to popularize open access initiative, in 2008 the researcher organized a 2-day workshop in collaboration with Electronic Information for Libraries Network (EIFL.Net) on "Open Access Repositories: New Model for Scholarly Communication" at Ahmadu Bello University, Zaria Nigeria. Eighty-nine (89) participant comprising: policy makers from Universities and Research Institutes, scholars and researchers, editors-in-chief of peer review scientific and scholarly journals, university librarians and systems librarians as well as University and Research ICT experts from 45 different institutions participated. Discussions on the importance of Open Access Initiatives to the academia and society at large, strategies for formulating appropriate policy for implementing and sustaining Open institutional repositories, copyright issues, open content licenses and strategies for the promotion and marketing of institutional repositories were deliberated. In November, 2009 a follow-up workshop was organized by the organizer of the first open access workshop with the theme "Open Access: Maximizing Research Quality and Impact". Two years after the first workshop, participants of the first workshop attributed the slow pace of the adoption of Open Access in their institutions to lack of ICT infrastructures such as dedicated server, bandwidth, technical staff and top Management apathy has been identified as some of the reasons for the very slow pace of the adoption of open access initiatives in Nigeria.

### Ahmadu Bello University, Zaria and ICT Infrastructure for Open Access

The Ahmadu Bello University, Zaria, Nigeria, one of the largest and most extensive of all Universities in Sub-Saharan Africa was established in 1962. There are presently twelve faculties, a Postgraduate School, 84 academic departments, has five research institutes, six specialized research centers and a Division of Agricultural College. The total students' enrolment in the University's degree and sub-degree programs is about 35,000 which are drawn from every state of the Federation, Africa and the rest of the world. There are about 1,400 academic and research staff and 5,000 support staff serving the University.

The Internet is one of the basic infrastructures required for the establishment of Open Access Journal. The University established its ICT infrastructure in August 2002, with a fast set-up radio solution based on wireless local-loop technology. To meet the current challenges in the provision of Internet facility to the University Community, the university established the Information and Communication Technology Directorate (ICTD) which is a centrally organized, service oriented unit responsible for the day-to-day implementation and attainment of the university ICT objectives and policies. The primary tasks of the directorate are management and maintenance of common ICT systems and end-user support.

The University Management through the financial support of First Bank Nigeria Plc. provided the University community with a 2.4GHz Internet Wireless Distribution System (WDS) or Hotspots project. The ICT infrastructure has also in the year 2006 been paralleled by the installation of a 5GHz overlay radio network that provides Internet connectivity to every faculty and department within the university campus. However, the ICT Directorate has set-up a master plan for the provision of a University-wide Intranet Infrastructure, based around Optical Fibre Technology. This project is facilitated by a grant of \$1.4 million from McArthur Foundation. In addition to this, the Partnership for Higher Education in Africa (including the Ford, Carnegie, MacArthur, and Rockefeller Foundations) has helped a consortium of 13 African universities (Ahmadu Bello University, Zaria inclusive) to lower connectivity costs. The Partnership has donated over \$5 million to make satellite bandwidth available to the consortium at \$2,330 per Mbps/month instead of \$7,300.

The speed of Internet access is 1.6MB uplink and 6.0MB downlink, which is far below 1 Gbps or more for households in developed countries. These ICT infrastructures are currently used to host some web services for the University, which can also be used to host open access journals published in the University.

#### Scholarly Publications in Ahmadu Bello University, Zaria, Nigeria

The academic and research staff of Ahmadu Bello University, Zaria Nigeria are expected to conduct and publish their research works as part of their promotion requirements. This has given birth to the establishment of many scholarly journals which are published by professional associations, departments and faculties. These scholarly journals have editorial boards headed by an editor-in-chief appointed by the body establishing them. Currently there are twenty-one scholarly journals published in Ahmadu Bello University, Nigeria, (see table 1 below). Some of the journal published and Ahmadu Bello University, Zaria and are no longer in existence at the time of this study were not included in the list. The editors-inchief of these journals publish the journals themselves without the involvement of any commercial publisher. As part of the editorial procedure, many publishers charge a non-refundable fee for peer-review of articles submitted to them whether or not it will eventually be published. For accepted articles a publication fee would be charged to cover the cost of production.

Table 1: List of Journals Published in Ahmadu Bello University, Zaria, Nigeria

S/N o	Name of Journal	Publisher	Year of First Publica- tion	Frequency in a Year	Number of Copies published for each vol.
1.	The Zaria Geographer	Department of Geography	1974	2	300
2.	The Nigerian Journal of Scientific Research	Faculty of Science	2000	2	400
3.	Nigerian Journal of Rural Economy and Sociology	Department of Agricultural Economic and Rural Sociology	1991	1	50
4.	Journal of Crop Research, Agronomy and Environment	Department of Agronomy	2006	1	200
5.	ANNALS of Africa Medicine	Annals of African Medicine Society (Faculty of Medicine, ABU, Zaria)	2002	4	600
6.	Nigerian Journal of Surgical Research	Faculty of Medicine	1998	4	600
7.	Nigerian Journal of Engineering	Faculty of Engineering	2006	1	400
8.	International Journal of Science Laboratory Technology	Department of Industrial Design	2001	1	100
9.	Ashakwu Journal of Ceramic	Department of Fine Arts	2003	1	200
10.	The Information Manager	Department of Library and Information Science	2000	2	100
11.	Samaru Journal of Information Studies	Department of Library and Information Science	2000	2	100
12.	*Savana Journal of Environmental and Social Science	Ahmadu Bello University, Press Ltd	1972	2	1500

13.	Journal of Islamic and	Centre for Islamic	1991	1	40
	Comparative Law	and Legal Studies			
14.	Nigerian Journal of	Department of	2003	2	200
	Accounting Research	Accounting			
15.	HARSHE Journal of	Department of	1978	2	100
	African and African	Nigerian and			
	Languages	African Languages			
16.	The Pioneer	Department of	2002	1	200
		Mass			
		Communication			
17.	Nigerian Journal of	Department of	2000	1	100
	Chemical Research	Chemistry			
18	Nigerian Journal of	Faculty of	2007	2	200
	Pharmaceutical	Pharmaceutical			
	Sciences -	Science			
19	Journal of Christian	The Nigerian	2004	1	50
	and Religion and	Association for the			
	Education	Study of Christian			
		Religious study			
20	Journal of	Faculty of	1999	4	1000
	Educational research	Education			
	and Development				
21.	Zariya Veterinarian	Department of	1990	2	150
		Vet. Medicine			

Table 1 above shows the list of scholarly journals published in Ahmadu Bello University, Zaria sampled for this study. Savana Journal of Environmental and Social Science Research and Development the oldest journal in the University, print a maximum of 1500 copies of every volume it produce.

## Statement of Problem

The Internet is the basic platform for global dissemination of scholarly publication as well as a platform for open access journals, which must have a website where full text articles is accessible free. Nigeria for the past few years has witnessed some development in its National Information Infrastructure. According to the Internet world Stats(2009) between the year 2000 and 2009, Nigeria witnessed 5,400% growth in Internet use and Adebowale (2001) reveals that Internet connectivity in Africa and most of the developing world initially took root mainly in academic institutions and among academics. However, the researcher observed that publishers of scholarly publications in Ahmadu Bello University, Zaria, Nigeria, have failed to utilize the Universities' Internet facilities as a tool for dissemination of scholarly publications. The traditional way of disseminating scholarly publications is still mostly in print format. Thus journals suffer from low circulation and low visibility restricted mainly to the University community and the immediate members of the associations responsible for publishing the journal. With low circulation and visibility, these journals are cited less frequently than would have been the case if open access publishing has been adopted.

## Statement of Objective

The general objective of the study is to examine scholarly publication particularly open access journals in Ahmadu Bello University, Zaria. In specific terms the study has the following objectives:

i. To identify the current mode of scholarly communication in Ahmadu Bello University, Zaria.

ii. To identify the number of open access scholarly journals in Ahmadu Bello University, Zaria

iii. To determine the level of awareness of open access scholarly communication by the chief-editors of scholarly journal in ABU, Zaria.

iv. To determine the willingness to the journals published in Ahmadu Bello University, Zaria to adopt open access scholarly communication.

v. To Identify the challenges in the adoption and transformation of closed journals to open access scholarly journal

## Significance of the Study

It has been observed by the researcher that there is currently no research work addressing issues on open access journals with particular focus on Ahmadu Bello University, Zaria ,Nigeria. The findings of this study will fill the gap and may provide stakeholders in scholarly publishing with insights into strategies for facilitating the adoption of open access journals publishing model and encourage the transition of closed journals to open access journals.

## Methodology

Survey research method was adopted for this study and purposive sampling techniques was adopted to collect data using a questionnaire from twenty-one editors-in-chief of scholarly journals published in Ahmadu Bello University, Nigeria. The editors-in-chief were purposively selected because they were in a better position to provide information and influence the policy direction of their scholarly journals. The data was collected between January, 2008 and April, 2008. Responses were analysed using a frequency and percentage

## **Discussion and Analysis**

In response to the current methods of scholarly publishing adopted by the journal, the following response was provided by the respondents

S/No	Mode of Scholarly Communication	No of Response
1.	Print copies only	19 (90.5%)
2.	Electronic copies only	0 (0)
3.	Print and electronic copies	3(9.5%)
	Total	21 (100%)

## Table 2: Mode of Scholarly Communication

Response from the respondents on the current mode of scholarly communication adopted by journals published in Ahmadu Bello University, Zaria revealed that 90.5% of the scholarly journals use the traditional print methods to communicate their publications while none of the journals disseminate their publications in electronic format only. This indicates that the journal publishers in Ahmadu Bello University, Nigeria do not use the Internet facilities to improve the visibility of their scholarly publications. This finding is in agreement with Gbaje (2009) who concluded in a study "Global visibility of Scholarly journals published in Nigeria" that Nigerian journals suffer from low circulation, low visibility and low impact factor.

Table 3: Reasons for not adopting electronic publishing in Ahmadu Bello University

S/N	Reasons	Response rate(%)
1	Lack of ICT infrastructure and	10(47.6%)
	skilled personnel to host maintain	
	their presence online	
2	Lack of interest in electronic and	2(9.5%)
	web publishing	
3	Lack of fund to pay for webhosting	4(19.1%)
	and maintain a website for the	
	journal	
4	Concern about copyright and	2(9.5%)
	plagiarism	
5	None of the above	3(14.3%)
	Total	21(100%)

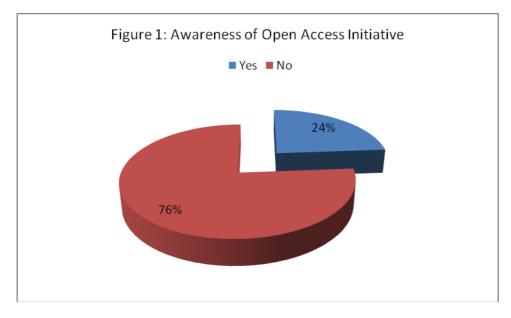
The researcher sought to identify the reasons why respondents did not adopt electronic scholarly publishing and 10 (47.6%) indicated lack of ICT infrastructure and skilled personnel to host maintain their presence online as their reasons. The lack of technical skills, ICT infrastructure and cost of hosting an open access journal can be addressed by exploring opportunities provided by many international organizations to host and maintain open access journals. In the areas of life sciences and medicine, the possibility should be considered to deposit the entire journal's content (including back issues) in PubMed Central, Bioline International and African Journal Online (AJOL) at no cost to the journal. The three respondents who indicated that none of the reasons provided by researcher was applicable to them, are most likely the journals that have already embrace electronic scholarly publications.

Table 4: Willingness to provide free access online

S/No	Options	No. of Response
1.	Only Abstract	15 (71.4%)
2.	Open Access (Full Text)	5(23.8%)
3	None	1(4.8%)
	Total	21 (100%)

Table 4 shows that 15 (71.4%) of respondents were willing to provide free online access to only the abstract of articles published in their journals, while only 1 (4.8%) indicated unwillingness to either provide full text or abstract of articles published in the journals. The researcher went further to find out the reasons for their choice and 14 respondents out of the 15 that indicated they will be willing to provide access to only the abstract of the article indicated concern for copyright and plagiarism as their reasons for this choice. This clearly revealed that the chief-editors are unaware that it is easier to detect simple plagiarism with electronic than with printed text (DRIVE, 2008).

After a brief explanation of the concepts of open access initiatives the research sought to know if the editors -in-chief were aware of open access scholarly communication. Sixteen representing 76% of the respondents indicated they were not aware of Open access initiatives (see figure 1 below). This clearly suggests why only very few of the journals published in Ahmadu Bello University, Zaria are open access as shown in table 5 bellow



S/No	Name of Journal	Website Address (URL)
1.	ANNALS of Africa	http://www.annalsafrmed.org/
	Medicine	
2.	Nigerian Journal of	http://www.bioline.org.br/info?id=sr&doc=a
	Surgical Research -	bout
3.	Nigerian Journal of	http://www.abu.edu.ng/journals/njps/index
	Pharmaceutical Sciences	.php

From table 5, the data collected revealed that only three journals published in Ahmadu Bello University, Zaria, are open access journals which are from the field of Medicine. These suggest that 19 of the sampled journals in Ahmadu Bello University, Zaria, have poor visibility and scholarly publications in these journals are hardly noticed and acknowledged beyond Ahmadu Bello University Community and local professional associations. This is also reflected in the recent webmetric analysis in which universities around the world were ranked based on the number of electronic scholarly publications. The January 2010 webometric analysis of world universities did not feature Ahmadu Bello University, Zaria among the top 100 African universities. The webmetrics ranking is based on the volume and quality of electronic publications emanating from a university. NUC (2006) posits that publishing in low impact local and print only journals without Internet links as some of the reasons for the low rating of Nigerian Universities.

S/No	Sources of funding	No of Response (%)
1.	Department/Faculty	3 (12.5%)
2.	University Management	2(8.3%)
3.	Acceptance fees from Authors only	2(8.3%)
4.	Revenue from Sales only	3(12.5%)
6.	Advertising Revenue only	1(4.2%)
7.	International Grant	2(8.3%)
8.	Acceptance fees from Authors and Sales	11(45.8%)
	revenue	
	Total	24(100%)*

Table 6: Source of funding for Scholarly journals

\*Some respondents selected more than one option

The sources of funding to some extend determine the sustainability of the journal. Hence the researcher sought to find out from the respondents the sources of funding for the publications of scholarly journals. Eleven of the respondents presenting 45.8% of the respondents indicated that acceptance fees from authors and Sales revenue has been identified as the main sources of funds for journal publishing, revenue from advertising in the journal publications is the least source of funds for journal publisher. For the sampled journals the cost of print copies of the journals is relatively very small compared to the acceptance fees which is very high, which suggests that even when journal publishers make their journals open access they will be able to sustain the publication of journals.

The editors-in-chief also revealed that no royalty accrue from the sales of the journals or subscription was given to any author. They also revealed that all the authors published for the purpose of gaining promotion and fulfilling their job requirements

Table 7: Copyright owners of Articles Published in the ABU Journals

S/No	Copyright owner	No of Response
1.	Journal	18 (85.7%)
2.	Authors	3 (14.29%)
3.	Journal and Authors	0
	Total	21(100%)

In order to know if the editors of the journals can transform to open access journals, the respondents were asked who owns the copyright of the articles they published, 18 (85.7%) indicated that the journals own the copyright. This implies

that for most journals published in Ahmadu Bello University, Nigeria, the editors have the discretion to make their journals open access.

# Conclusion

A large number of scholarly works and research findings emanate from scholars and researchers in Ahmadu Bello University, Zaria, unfortunately not much of this work is visible to the scholarly and research communities because they are visible beyond their local community. The ICT infrastructure build by the University through the help of international and national donors has enable it provider some of its services online. The study identified challenges such as lack of awareness of the concepts of Open Access and its adoption as a model for scholarly communication particularly by the editors-in-chief as some of the factors hindering the transformation of closed journals to open access journals. Lack of ICT infrastructure, technical expertise, and funds are also listed as some of the challenges hindering the online presence of scholarly journals published in Ahmadu Bello University, Zaria.

## Recommendations

Based on the findings obtained in this study, it is recommended that:

- 1. More sensitization workshop should be organized for editors-in-chief to highlight the advantages of transforming their closed journals to open access journals. The workshop should also expose editors-chief to initiative like the Bioline International, African Journal Online (AJOL) which provide the necessary technical and human infrastructure for the hosting of websites for open access journals.
- 2. More open access initiative awareness and advocacy workshop should be organized for the scholarly community in Ahmadu Bello University, Zaria and Nigeria at large.
- 3. Ahmadu Bello University, Zaria should exploit fully the potentials of its ICT infrastructure, by extending its services to hosting scholarly journals published within the university.

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