Open Access Institutional Repository in the University of Jos: Issues and Challenges

Alfred Michael Obaje
Head, Systems Unit
Federal University of Technology, Minna, Nigeria.
Phone number: +2348037034489
address: obaje012@gmail.com

A. Samuel Amkpa
Department of Library and Information Science
University of Maiduguri, Nigeria.
amkpa_arubam@yahoo.com

ABSTRACT

The focus of this study is the use of Open Access Institutional Repository (OAIR) by academic staff of the University of Jos, issues and challenges. This is of interest as OAIR is in consonant with advances in information storage, retrieval and effective service provision in academic institutions. The study is guided by four objectives and four research questions. In order to meet its objectives, questionnaire was designed and administered on a sample of 256 to collect data, out of which 192, representing 75%, were found useful. Analysis revealed that the level of familiarity of staff with the concept of OAIR is still low. It was also revealed that the sensitization had little impact on staff self-archiving as many staff had not uploaded their articles onto the OAIR. The visibility of University is likely to be enhanced with the establishment of OAIR. The major issues and challenges in the use of OAIR are the non recognition of research articles uploaded on OAIR for promotion and the copyright law. Researchers recommended among others, that, more seminar should be organised to educate staff more on the concept of OAIR and the benefits for both authors and the institution, mediating self-archiving method can be adopted pending the time staff are familiar with the use of OAIR and can confidently do self-archiving, the University of Jos should make a policy recognising research articles staff upload on OAIR for promotion exercise as well as educating staff to publish articles in journals where they could have right to make same available on OAIR, that is, where alternative publishing agreement between the author and publisher is possible.

Introduction

Open Access Institutional Repository (OAIR) in the University of Jos was launched in June, 2009. The institutional repository (dspase.unijos.edu.ng) is a digital preservation of the University’s intellectual output, which has a capacity to increase the visibility of the University’s research efforts. University of Jos Institutional Repository is an online store for collecting, preserving, and disseminating in digital form the intellectual output of the University of Jos.

The main objectives of the University of Jos OAIR are to create global visibility for the University’s scholarly research, collect content in a single location, nurture a University of high
international standard so that the quality of the institution is rated the best in Nigeria as well as provide open access to the University research output by self-archiving it, store and preserve other University digital assets, including unpublished literature (e.g. theses or technical reports).

DSpace software was chosen for the University OAIR because it is the software of choice for academic, non-profit, and commercial organizations building open digital repositories. It is free and easy to install "out of the box" and completely customizable to fit the needs of any organization. DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets, and with an ever-growing community of developers, committed to continuously expanding and improving the software, each DSpace installation benefits from the next.

In order to enable academic staff take full advantage of the repository, the library organized a sensitization and interaction sessions in the eight faculties: Arts, Education, Environmental sciences, Law, Medical sciences, Natural sciences, Pharmaceutical sciences and Social sciences between March 17th –March 23rd, 2010. The sensitization and interaction sessions focused and discussed the introduction of the University of Jos OAIR, how to use the institutional repository (IR), and acceptable metadata format for the IR, populating the institutional repository, copyrights policy and visibility of the IR.

This research is expected to evaluate the success of the sensitization and discussions which took place in March 2010. This will be done by finding out whether academic staff are familiar or understood the concept of institutional repository, populated the contents of the institutional repository by self-archival as well as discovering some of the issues and challenges surrounding the use of University of Jos OAIR.

Bozimo (2008) encouraged Nigerian universities and research libraries to organize their scholarly output into institutional repositories in order to make their research works available both nationally and internationally through open access. Similarly, Okojie (2008) endorsed open access for all journals, dissertations and conference proceedings in the library and information science sector in Nigeria. She believed that the paradigm shift would go a long way in making Nigerian researchers and librarians gain leverage, leapfrog and become part of international community of researchers. In the same vein, Enzema(2011) opined that, it was no more arguable that the traditional means of scholarly communication has been saddled with a lot of access barriers. Therefore, open access institutional repository have been found to play an important role in the preservation and dissemination of institutional research outputs which will in turn become a constituent part of a global research outputs.
Statement of the Problem

University of Jos library embraced the use of Open Access Institutional Repository to create global visibility for scholarly research, collect content in a single location, store and preserve University digital assets and provide open access to the University research output by self-archiving it; however, the academic staff are faced with problems and challenges regarding effective use.

Observation of the use of University of Jos OAIR by academic staff shows low level of usage, and not very encouraging as majority are yet to self-achieved their publications. This low level could be attributed to the level of familiarity with the concept of OAIR, understanding the benefits of the facility, some problems and challenges academic staff might be facing in the usage. Those that are using the OAIR find it difficult to upload all their publications due to one reasons or the other. As Foster & Gibbons (2005) stated “experience at Cranfield (and elsewhere) confirms that making the IR available does not necessarily mean that authors will automatically start depositing their work for inclusion”. Will this be true of the University of Jos OAIR?

It was also observed that the number of publications by academic staff increases geometrically every year, Egwunyenga (2008) has attributed this to the fact that research is made compulsory for lecturers by job description. For lecturers and academics, the concept of ‘publish or perish’ has come to strap their subsistence and promotion within the academic environment to the volume of their research output and published works. In the light of this requirement, it is to be expected that the volume of research output originating from academic staff in the University of Jos increases yearly. However, Statistics of the materials archived in the University of Jos as at 28th June 2012 was only 1022. This is very low considering the number of academic staff in the University of Jos, engaging in academic and research activities that could populate the content of OAIR

It is not just the launching of open access institutional repository that matters, but how far have academic staff been able to put this OAIR into proper use. Some of the issues identified by existing literatures as being responsible for the slow uptake of institutional repositories in Africa include lack of knowledge or awareness of open access institutional repository, poor state of information and communication technology, inadequate advocacy for open access repositories, poor or inadequate funding, copyright and intellectual property rights. The researcher investigated level of familiarity, the extent to which academic staff self-archived their research
output, whether establishment of OAIR enhanced University of Jos visibility globally, and the major problems and challenges encountered by academic staff in the use of OAIR.

**Objectives of the Study**

The objectives are to:

1) Determine the level familiarity of academic staff with the concept OAIR
2) Determine the extent to which academic staff have self-archived their research output.
3) Identify whether the establishment of OAIR enhances University of Jos visibility globally.
4) Identify the constraints associated with the use University of Jos OAIR

**Research Questions**

This study answered the following research questions:

1) What is the level of familiarity of academic staff with the concept of OAIR?
2) What is the extent to which academic staff self-archived their research output in the University of Jos OAIR?
3) How does the establishment of OAIR enhances University of Jos visibility globally?
4) What are the constraints associated with the use of the University of Jos OAIR?

**Significance of the study**

The outcome of the findings will be of significance to the University of Jos administration in assessing the value of the investment made in the establishment of University of Jos OAIR as well as policy procedures, guidelines and formulation that will lead towards improvement in the quantity and quality of Institutional Repository (IR) contents.

The results of this research will reveal whether the awareness done in March, 2010 has made enough impact on academic staff knowledge and use of institution repository. It is expected that the research outcome will actually bring to light if academic staff understand the concept of OAIR very well.

The results of this research will benefit academic staff in the University of Jos and other researchers, nationally and internationally. It will reveal areas where academic staff have challenges and problems in archiving their publications and suggestions will be proffered which may certainly lead to improve use and population of OAIR contents in the University of Jos. Finally, the research would serve as additional literature in the field of librarianship, particularly, in area of digital information storage, archival, preservation, retrieval and dissemination.
**Scope of the study**

The scope of the study is limited to the use of OAIR of the University of Jos by the academic staff. It covered eight faculties: Arts, Education, Environmental sciences, Law, Medical sciences, Natural sciences, Pharmaceutical sciences and Social sciences and academic librarians. The variables for the study were: Level of familiarity with the concept of OAIR, extent of self-archival of research output by academic staff, enhancement of global visibility of the University, and constraints associated with the use of OAIR.

**Research methodology**

The chosen research design for the study was survey method. The population of the academic staff used for the research was 741 (MIS academic staff statistics record, 2011/2012). Using the table for determining sample size from a given population by Krejcie & Morgan (1970), the sample size (n) from the target population (N) of 741 is 256 from the table (see appendix A). Cronbach Alpha reliability coefficient was used to test the reliability of the instrument at 0.76. To ensure representativeness of samples in all faculties, sample size for each faculty was calculated based on the ratio of academic staff in the faculty to the total number of academic staff in the faculties under the study.

**Table 1 : Number of Sample Size for each faculty**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Faculty</th>
<th>No of academic staff</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arts</td>
<td>107</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td>101</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Environmental sciences</td>
<td>71</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Law</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Medical sciences</td>
<td>125</td>
<td>43</td>
</tr>
<tr>
<td>6</td>
<td>Natural sciences</td>
<td>145</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>Pharmaceutical sciences</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>Social sciences</td>
<td>103</td>
<td>36</td>
</tr>
<tr>
<td>9</td>
<td>Librarians</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>741</strong></td>
<td><strong>256</strong></td>
</tr>
</tbody>
</table>

A proportionate random sampling technique was used to determine the number of sample size for each faculty as shown above. Closed ended questionnaire was used for respondents to select appropriate options and some open ended questions for respondents to give reasons or explain why certain actions were taken or not taken. Three research assistants were used to ensure that the questionnaire got to all the faculties in the University of Jos between July 15, 2012 and August 15, 2012 and ensured that the percentage return rate was adequate for the
study. The data from the questionnaire were analysed using the Statistical Package for the Social Sciences (SPSS).

**Data analysis**

This section specifically deals with the analysis of data collected, interpretation, summary of findings and discussions.

**Response rate.**

A total of two hundred and fifty six (256) copies of the questionnaire, were distributed. Out of this, one hundred and ninety two (192) representing 75% were properly filled, returned as response rate and used for the purpose of analysis, while sixty four (64) representing (25%) were not returned as non-response rate.

**Research question 1.** What is the level of familiarity of academic staff with the concept of OAIR?

The analysis of questionnaire to determine the level of familiarity of academic staff with the concept of open access institutional repository is presented below:

**Table 2: Familiar of Academic Staff with the Concept of OAIR with Reference to Scholarly Research.**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Never heard of the concept</td>
<td>16</td>
<td>8.3</td>
</tr>
<tr>
<td>2</td>
<td>I have come across this concept but know nothing about the OAIR concept</td>
<td>21</td>
<td>10.9</td>
</tr>
<tr>
<td>3</td>
<td>I have come across this concept and know a little about the OAIR concept</td>
<td>42</td>
<td>21.9</td>
</tr>
<tr>
<td>4</td>
<td>I have come across this concept and know quite a bit about the OAIR concept</td>
<td>51</td>
<td>26.6</td>
</tr>
<tr>
<td>5</td>
<td>I am very knowledgeable about the concept of OAIR archive</td>
<td>62</td>
<td>32.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>192</td>
<td>100</td>
</tr>
</tbody>
</table>

From the responses in table 2 on familiar of academic staff with the concept of OAIR, 16(8.3%) never heard of the concept, 21(10.9%) have come across OAIR but knew nothing about the concept, 42 (21.9%) knew a little about the concept, 51(26.6%) knew quite a bit about the concept while 62 (32.3%) were knowledgeable of the concept. This shows that the level of familiarity of academic staff with concept of OAIR was still a little low, hence there is a need for
additional seminar on open access institutional repository concept if they are to fully utilize the opportunities it offers.

**Research Question 2:** To what extent do the academic staff archived their publications output in the University of Jos OAIR?

**Table 3:** Have you Self-archived any of your Research Work or Published Articles onto University of Jos Institutional Repository?

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47</td>
<td>24.5</td>
</tr>
<tr>
<td>No</td>
<td>152</td>
<td>75.5</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>100</td>
</tr>
</tbody>
</table>

This question is sought to determine the extent to which academic staff have self-archived their publications in the University of Jos open access institutional repository. The responses show that majority 152 (75.5%) of academic staff have not yet uploaded their published articles in journals onto the University institutional repository. Only 47 (24.5%) of the respondents have uploaded their articles. This shows a low percentage value of the extent of self-archived publications available in the University of Jos OAIR. The implication of this is, researchers who visit the site may think that academic staff of the University were not doing much in researches as required.

**Research Question 3:** How does the establishment of OAIR enhances University of Jos visibility globally?

**Table 4:** Do you think that the establishment of OAIR by University of Jos is likely to enhance its global visibility?

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>176</td>
<td>91.7</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Don’t know</td>
<td>16</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>100</td>
</tr>
</tbody>
</table>

The analysis of questionnaire to determine whether the establishment of open access institutional repository does enhance University of Jos reputation globally clearly revealed that majority 176(91.7%) thought the establishment of open access institutional repository does enhance University of Jos visibility globally, 16 (8.3%) responded “don’t know”. This is evidence that the establishment of OAIR enhances University of Jos visibility globally.
**Research Question 4:** What are the constraints associated with the use of the University of Jos OAIR?

This question sought to determine the constraints associated with the use of open access institutional repository of the University of Jos.

**Table 5: Constraints Associated with the use of University of Jos Open Access Institutional Repository**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academic staff attitude to change</td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>Copyright law</td>
<td>42</td>
<td>21.9</td>
</tr>
<tr>
<td>3</td>
<td>Digitizing the already published articles in subscription based journals (Typesetting)</td>
<td>56</td>
<td>29.2</td>
</tr>
<tr>
<td>4</td>
<td>Creating awareness and teaching all the academic staff to self-archive their materials</td>
<td>24</td>
<td>12.5</td>
</tr>
<tr>
<td>5</td>
<td>Lack of motivation, academic staff not promoted by the number of articles uploaded on the institutional repository</td>
<td>62</td>
<td>32.3</td>
</tr>
<tr>
<td>6</td>
<td>Network problems</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

| Total | 192        | 100       |

Table 5 indicates that the major constraints as can be seen from the responses is lack of motivation recognising articles uploaded on institutional repository for academic staff promotion, that is, 62 (32.3%), this is followed by digitizing the already published articles in subscription based journals 56 (29.2%). The next problem is the issue of copyright law 42 (21.9%). Creating awareness and teaching academic staff to self-archive their materials 24 (12.5%), academic staff attitude to change 5 (2.6%) and network problems 3 (1.5%). This results show that the success of the use of OAIR will largely depend on the motivation of staff in recognising research their output uploaded for career progression.

**Summary of the findings**

The following are the major findings of this research:

1. The level of familiarity of academic staff of University of Jos with the concept of OAIR was still very low.
2. The extent to which academic staff had self-archived their published articles onto the University of Jos OAIR was very low.

3. Establishment of OAIR did enhance University of Jos visibility globally

4. The constraints associated with use of OAIR are: lack of policy to recognize articles staff upload onto OAIR for promotion, difficulty in digitizing already published articles in Journals and copyright law in that order

Conclusion /implications

From the major findings of the study, the following conclusions are drawn:

It was discovered from this study that majority of academic staff were not very familiar with the concept of OAIR. The implication of was that, staff use of the OAIR to upload their research works was low. Many staff had not actually known the benefits derived from making their research outputs available in an open access.

It was also clear from the study that the extent to which staff self-archived their research works was very low. It is very important to note that, converting existing published works to digital archive and making them available in an open access can be done properly by experienced user. This could be tackled by adopting mediating self-archival. That is, library staff will assist in the uploading of materials submitted by staff for archiving onto the OAIR.

It was revealed that the establishment of OAIR has enhanced University of Jos visibility globally. Researchers worldwide can read, copy, and download researches conducted by staff of the University of Jos without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Despite the low contents of the OAIR, the University is visible. Academic libraries need to organize their scholarly output into institutional repositories in order to make their research works available both nationally and internationally through open access.

Finally, the study revealed that copyright law, lack of internal policy to recognize and allocate points to the articles uploaded for staff promotion as well as digitizing already published works have contributed to problems associated with the use of OAIR of the University of Jos.

Recommendations

Based on the findings of this study, the following recommendations are provided:

1. The University of Jos library staff should organise seminar to educate staff more on the concept of OAIR and the benefits for both authors and the institution.
2. Mediating self-archiving method can be adopted for now to increase the contents, pending the time staff are familiar with the use of OAIR and can confidently do self-archiving.

3. To improve the use of OAIR and populating the contents by academic staff, internal policy to recognize and allocate points to the articles uploaded unto the University of Jos OAIR for promotion is essential. This will encourage staff to upload more research outputs onto the OAIR, hence more impact on the accessibility to institution’s intellectual output and visibility.

4. The need for researchers to retain the copyright to their research works in order to have the capability to make such works available in open access repositories is necessary. This is possible through the use alternative publishing agreement. By means of an alternative publishing agreement, researchers are able to grant a limited right (license) to publishers to publish their work while the copyright in the work remains with the researcher or author of the work. Hence author will legally have the right to make such work available in an open access environment.

References


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