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Sustenance of Institutional Repositories in Nigerian University Libraries: Issues, Prospects and Challenges

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Abstract

Institutional repository (IR) is an online locus for collecting, preserving, and disseminating in digital form, the intellectual output of an institution, partially, a research institution. This concept has become a reality in so many Nigerian institutions as a result of advances in information and communication Technologies (ICTs) with libraries as their base. The benefits of institutional repositories in any university system include: opening up research output of the institution to a worldwide audience, showcasing the institution to interested constituencies (prospective staff, prospective students and other stake holders), collecting and creating digital output, managing and measuring research and teaching activities of an institution etc. These benefits notwithstanding, institutional repositories in Nigerian universities' libraries pose several challenges such as the need of thorough implementation of IR policies, copyright issues, intellectual property right, inadequate ICT facilities, insufficient finance, lack of skilled personnel, and no quality control systems. This paper discusses prospects, challenges and other issues associated with the sustenance of institutional repositories in Nigerian university libraries.

Keywords: *Institutional Repository, IR Benefits, IR Challenges, University libraries, Nigeria*

1.1 Introduction

Academics take their pride in their primary activities such as teaching, research and services with other peripheral functions in every university environment. This is applicable to other academic communities around the world, as the performance metrics used in the appraisal and rating of both academics and their institutions are basically around the parameters of their scholarly outputs. Information and communication technologies have come to stand as an enabler

in the dissemination of these scholarly outputs as well. Academics derives joy in the broader dissemination and availability of their research outputs in traditional journal, book chapters, or perhaps even monographs through the use of the network, working in parallel with the traditional scholarly publishing system. Traditionally, they face several time consuming problems. For instance, they must exercise stewardship over the actual content and its metadata: migrating the content to new formats as they evolve over

time, creating metadata describing the content, ensuring that the metadata is available in the appropriate schemas and formats and through appropriate protocol interfaces such as open archives metadata harvesting.

Faculties are typically best at creating new knowledge, not maintaining the record of this process of creation. Worst still, they not only manage content but must manage a dissemination system such as personal web site, playing the role of system administrators. Over the past few years, this has ceased to be a reasonable activity for most armatures researchers; software complexity, security risks, backup requirements, and other problems have generally relegated effective operations of web sites to professional who can exploit economies of scale and who begin each day with a review, of recently issued security patches. This problem, places researchers and their institutions at risk: because faculty are not generally not capable of responding to the endless series of security exposures and patches, their networks are riddled with vulnerable faculty machines intended to serve as points of distribution for scholarly works. They create content at risk because they typically do not back it up appropriately, ensure its integrity and curate it properly. This problem, results to a waste of time, because system administration is ineffective.

More so, Scholarship and scholarly communication are now proliferating from institutions of higher learning creating more competition in the knowledge world with ICT as its enabler. More attention and value is now being accord to scholarly outputs. Now a majority of universities and their scholars are making considerable efforts to attain the status of world class university and scholars. These efforts are made to attract global audience, to gain global visibility, for their citations to be well utilized and abrasively, to ensure institutional Webometric ranking in

order to gain scholarly prestige among their counterparts.

However, most institutions of higher learning in Nigeria have overlooked an opportunity to support most innovative and creative faculty members and the institutions themselves. Universities in Nigeria, have poorly served this broader group of scholars as well, though this may be less critical because faculty are well motivated to rise above institutional failures to help them disseminate their works. Institutional repositories in universities in Nigeria have actually come to bridge these gaps.

2.1 Literature Review

2.2 Conceptualizing Institutional Repository

Etymologically, the word “repository” is derived from the verb "repose" (Spain repose, and Latin repansare) meaning a state of rest, sleep, or feeling calm (Hornby 2010). It also means a receptacle were a large volume of information is stored. It represents a place of location where potentially rich resources of information, data, images and other valuable research results are collected to access and use. There are many definitions of IRS. Wikipedia (2012) defines it as an online archive for collecting, preserving, and disseminating in digital form, the intellectual output of an institution, particularly, a research institution. Crow (2002) on his own, defines it as a digital archives of the intellectual product created by faculty, research staff, and students of an institution, with few if any barriers of access.

Ware (2004) described it as a web-based database (repository) of scholarly materials which is institutionally defined (as opposed to subject based repository), cumulative and perpetual (a collective of record); open and interoperable (e.g. using OAJ-complaint software); and thus, collects, stores, and disseminates (is part of the process of scholarly communications). Also Lynch

(2003) gave an all embracing definition of 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. He further explained that it is essentially an organizational commitment to the stewardship of these digital materials including long-term preservation where appropriate as well as organization and access or distribution”

What is obvious from these definitions is that institutional repository is a perfect media for disseminating researches or scholarly outputs that ordinarily would have been buried in institutions without a wider audience usage. The essential characteristics of IR is that it is defined, scholarly in scope, cumulative and perpetual, open and interoperable (Crow, 2002).

Major objectives of having an IR in academics institutions are:

- To maximize the visibility, use and impact of the scientific and academic output in the international community
- To generate feedback on research
- To produce or provide storage for electronic publication for an academic institution.
- To facilitate access to the academic and scientific information.

From a more conceptual point of view, IR forms an authentic management system of contents, given that, apart from the documents themselves, the repository offers to the academic community a set of services for the management of that output. Output such as articles, thesis, communications, teaching materials, administrative document as well as those documents, generated by the institutions, all in various formats like texts, presentations, audio-visual records and e-learning objects.

2.3 Rationales for Institutional Repositories in Nigerian University Libraries

The Scholarly Publishing and Academic Resources Coalition (SPARC) is an international alliance of academic and research libraries developed by the Association of Research Libraries in 1998 which promotes open access to scholarship. According to Crow (2002), SPARC's position papers, there are two (2) rationales why institutional repository should be:

- To reform scholarly communication
- To enable the institution enhance the prestige of making visible the fruits of this faculty's academic and research labours. These two rationales are preminent in capturing preserving and disseminating a university's intellectual capital; it is also a channel of indicating the institution's academic quality.

2.4 Benefits of Institutional Repositories in Nigerian University Libraries

Advances in information and communication technologies and the emergence of institutional repositories are the best that could happen to universities world over. According to Crow (2002), IR provides compelling response to two strategic issues facing academic institutions. First, it expands access to research reasserts control over scholarship by the academy, increases competition and reduces the monopoly power of journals, and brings economic and heightened relevance to the institutions and libraries that supports them. Secondly, it serves as a tangible indicator of a university's quality and to demonstrate the scientific, societal, and economic relevance of its research activities, thus, increasing the institution's visibility, status and public value.

Sivan (2013), in her briefing paper on open access repositories, lists the following as

the benefits institutional repositories bring to institutions.

- Opening up outputs of the institution to a worldwide audience
- Maximizing the visibility and impact of these outputs
- Showcasing the institution to interested constituencies – prospective staff, prospective students and other stakeholders.
- Collecting and curating digital output,
- Managing and measuring research and teaching activities
- Providing a workplace for work-in-progress, and for collaborative of large-scale interdisciplinary approaches to research
- Facilitating the development and sharing of digital teaching materials and aids, and
- Supporting students endeavours, providing access to these and dissertations and a location for the development of e-portfolios.

Also, Pickton & Barwick (2006) distinctively categorized the benefits of repositories to institutions and individuals specific to the University, an IR offers:

Increasing visibility and prestige. A high profile IR may be used to support marketing activities to attract high quality staff, students and funding.

Centralization and storage of all types of institutional output, including unpublished literature.

Support for learning and teaching. Links may be made with the virtual teaching environment and library catalogues.

Standardization of institutional records. The compilation of an 'Institutional CV' and individual online dossiers linked to the full text

of articles becomes possible.

Ability to keep track of and analyze research performance.

Breaking down of publishers' costs and permissions barriers.

Alleviation of requirement to trust publishers to maintain information in the long term, without any commercial benefit for the authors.

Promotion of a philosophy of wider communication

2.5 IR enhances Dissemination and Impact of Scholarship

An IR that is actively embraced by the members of an institution and used to its full capacity is an incomparable advertisement to the quality and diversity of the research being done in such an institution. Institutional repository is also a major selling point for an institution who choose to implement these large scale projects. It is an avenue for measuring the competitive strength of such an institution in terms of research performance. Thus IR raises the profile of all scholars who contributed to it. While this is often reason enough for a university to implement an IR project, the most powerful function of IRs is the interoperability protocols that will and discovering and visibility.

Four major benefits of IR in universities are:

- Enhancement of and achievement of scholarly communication
- Preservation of the intellectual output and memory of the institution
- Increment in the global visibility of the university and the profile of researchers
- It is a way of that institution can be ranked webometrically in research and scholarship

It is pertinent to mention at this juncture that institutional repository does not only portray the visibility of an institution but also have a way of showcasing scholars in

their various institutions. For instance, it is believed that knowledge by a researcher that his research will be openly accessible by a global audience will have an impact on his focus and standard. Although, institutional repository has the above mentioned numerous benefit both to institutions and scholars, it is bored with so many challenges that stands against its sustainability in Nigerian university libraries.

3.0 Challenges of Sustaining Institutional Repositories in Nigerian University libraries

3.1 Lack of Policy Frame works in most institutions in Nigeria

Naturally, before an institutional repository is establish in any institution, general principles, rules, and guidelines must be formulated and or adopted by such institution. This is to enable its IR to reach its long term goals. Therefore, for IR in any institution to be effectively established, the university needs to create a policy advisory group administratively. This group might be made up of libraries, university administrators, faculty, legal counsel or copyright experts, archive staff, computer engineers, computer analysts, programmers and database operators. According to Musa, Shittu, and Abdulkadir (2014) their responsibilities should include: to formulate a policy and rule for copyright ownership and licenses both in depository and accessing the content of the IR. To prioritize issues such as how scholarly articles by academics, student project works, thesis and dissertations, newsletters, inaugural lectures from the university are to be uploaded into the system. To decide on the types of materials that need to be included in the IR's, categories of content, structure, colleagues, departments or individuals, guidelines for submission of content, rights of academics, rights of libraries who collates its contingency plans

etc. Unfortunately, in most cases in Nigeria, most universities do not regard this initial huddle of IR, rather policies are hurriedly initiated without policy frame work in Nigeria university libraries.

3.2 Lack of Mechanism for Managing Copyright

In view of fast developing technology in the modern world, the value of information has increased in many folds. So many literally works are being used by unscrupulous elements exceeding their limitations in terms of fair use and fair sales without regard that authors works are being protected by law. According to John-Okeke (2008), understanding copyright issues is a key to building a successful institutional repository in terms of collecting content and distributing content. Bates and Maack (2009) define copyright as a right given by law to creators of literary, musical and artistic works and producers of cinematographic films and sound recordings. In fact, it is a bundle of rights including: inter alia, rights of reproduction, communication to the public, adaptation and translation of the work.

The word "copyright" and the phrase "Intellectual Property" appear to be used interchangeably, but in the actual sense copyright law is one arm of the intellectual property triumvirate. Copyright is the exclusive right that protects an author, composer or artist from having his work recorded, performed, display, translated, distributed or reproduced by way of copies, photocards, or other versions(derivative works)except with his permission, subject to specified limitations (Srivastava, 2008). Copyright has been the most vexing challenge in the establishment of institutional repository in most of the Nigerian universities. University libraries are simply caretakers of these scholarly outputs they do not really owe the copyright of the scholarly items they hold. So in order to populate the repositories, they

collect content usually from faculty members, researchers as well as students. In doing so, they encounter copy right issues. Such as getting consent from the copyright owners before the contents are added to repositories to avoid infringing on copyright. According to Pickton and Barwick (2006), sometimes researchers are apprehensive about infringing publishers' copyright. Unfortunately, most Nigerian libraries, lack a mechanism of managing copyright; a mechanism that allow them to upload scholarly outputs of their institutions without violating copyright. Due to this problem, faculty members are reluctant releasing their works to be uploaded in the university repository for global visibility an issue that retards its sustainability.

3.3 Lack of Budget for IR by the Parent Institution

Right from time, funding has been a major issue in the management of universities in Nigeria much more its repositories. As a matter of fact, IR does not yield physical cost to institutions where they exist rather, they incur costs. These costs include cost of planning, implementation cost, training cost, hardware cost, software cost, server cost, operational cost, programming cost, Backup cost, preservation cost and maintenance cost. These costs make it difficult to set a cost target for institutional repository. For this reason, most institutional repositories in Nigerian university libraries operates a local repositories due to financial implication of IR this vital resource have remained off-line and would never be accessible to scholars in Nigeria let alone the global community.

Meanwhile, it should be recognized that IR has a long lasting commitment to institutions of higher learning in Nigeria. So in establishing IR, institutions are both accepting risks and making promises; they are creating new expectation. In a budget crunch, the institutional repositories may be one of the last things that can be cut, given the way that

digital preservation demands steady and consistent funding. Faculty who choose to rely on IR to disseminate their and preserve their work are placing a great deal of trust in their institution and in the integrity, wisdom and competence of the people who manage it. We need to ensure that our institutional repository are worthy of this trust (Verma, 2005).

3.4 Poor Maintenance of IR

According to Research Libraries Group of OCLC (RLG-OCLC) (2002), beyond the desirable of availability and access to a robust IR, a major concern among repository stakeholders is ensuring both the long-term maintenance and continual accessibility of the contents. The issue of preservation therefore revolves around the technology, metadata structure, deposit interface file formats, security, reformatting disaster, external specialized service providers undertake the platform (Nikoko, 2000). Most of these external service providers capitalize on this and inflate unbearable cost on the maintenance and sustenance of IR in Nigerian university libraries.

3.5 Lack of technological Infrastructure to handle IR in Libraries

Poor ICT infrastructure facilities in Nigerian University libraries constitute a major challenge that resists the sustenance of IR. The non availability of computers, computer networks, computer software, satellite resources, printers, scanners, telecommunication facilities, electronic photocopiers, laptops, inadequate bandwidth size and Internet connectivity and erratic state of power generation characterized most libraries in Nigeria. Although, it varies from one library to another, it stands as a strong challenge in the sustenance of IR in Nigerian university libraries (Akintunde 2010).

Conclusion and Recommendation

Institutional repository has become a hallmark of world-class universities as it confers institutional prestige and global visibility to institutions of higher learning where they exist. As it can facilitate greatly and enhance access to traditional scholarly content by empowering faculty to effectively use new dissemination capabilities offered by networks.

Based on the above discourse of this paper, the following recommendations are made:

- i. that in the sustenance of IR in Nigerian Universities, University management in Nigeria need to kin attention to policy issues to avoid a hastily produced policy framework before establishing IR;
- ii. that copyright issues be extensively discoursed and established to reduce the fear of scholars in terms of copyright infringement before the establishment of IR;
- iii. that it is vital for institutions in Nigeria to recognize the fact that IR does not yield direct financial returns to universities. IR is a long-term digital preservation of scholarly works which at the long run yields academic returns to institutions involved.
- iv. that feasibility studies and ICT facilities be provided in libraries before IR is established to enable it have a work in progress face.

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