

Institutional Repositories: A Strategy for Enhancing Networked Information for University Library Services

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Abstract

The study examined institutional repository: a strategy for enhancing networked Information or university library services. It introduced the concept of university libraries and institutional repositories, the requirement for setting up institutional repositories, institutional repositories and networked information, the perceptions of staff on the adoption of institutional repositories and awareness of institutional repositories. It also highlighted the factors influencing the adoption of institutional repositories and the challenges in the adoption and utilization of Institutional Repository it showed that institutional repository is a viable tool to collaborate and share resources in the (environment as well as project the university community contents. It was concluded that despite its importance most universities in Nigeria have yet to adopt Institutional repositories. It, therefore recommended the university management provide adequate funding for the setting up and management of institutional repositories.

Keywords: Institutional Repository, Networked Information, Digital Preservation, University Library

Introduction

Universities create contents like bulletins, seminar presentations, conferences and workshops, Inaugural lectures, lecture notes, past questions, Minutes of past meetings, Journal articles, books, News and events, etc., emanating from a network of Units, Institutes, Departments, Faculties and even from other institutions perhaps for the university community to have access and utilize them. Information and Communication Technologies (ICT) have offered several means through which such contents could reach to the targeted community however, Institutional repositories have been found to be adopted by libraries all over the world. According to Anenene, Alegbeleye and Oyewole (2017) Universities as institutions of higher learning, place emphasis on research as one of their core functions apart from teaching and community services. They further stated that a key criterion that is used to measure the quality of a university is the quality and quantity of research output. Research is an essential tool in expanding the frontiers of knowledge and imparting the society positively should be given adequate attention while also considering the institutions that such outputs are emanating from. The situation where there search output emanating from a particular institution or university cannot be accessed, it becomes almost impossible to evaluate the university output which could also impede the dissemination of researches that can benefit different segments of the society. The need for university libraries to establish Institutional Repositories (IRs) comes in handy here. Libraries continue to mobilize and provide access to local and global knowledge for social, political and economic development, in doing so libraries act as gateway for information and tools for bridging the information divide within countries and between countries (Okumu, 2015). With the emergence of digital libraries and collaborative tools like Web 2.0 which allows for information and knowledge sharing enhanced interactivity is being used by libraries especially university libraries to repackage its service. This is not doing away with the library's housekeeping activities rather it is described by Okumu (2015) as an old wine in a new bottle. For university libraries to sustain, remain relevant and be in charge amidst the ever-changing academic and electronic environment, they must adopt a set of tools required to do so. Such tools must be geared towards the targeted audience, taking into cognizance their information needs and seeking behaviour.

The University library which is a library attached to the institution of higher learning to support its activities, has students and staff of such institution as their primary users, and their services must be geared towards such. Carefully examining the electronic environment, it is trite to note that there is a paradigm Shift in the way and manner the society, especially the academic community how to seek information. Electronic information has taken up a large space in the university community hence University libraries must keep pace. Information and institutions and Communication Technologies have offered such tools repositories are one of them.

Institutional Repository (IR) according to Lynch, 2003 is a set of services that the university offers to the members of the community for the management and dissemination of digital materials created by the institute and its community members. Jain (2015) to his own knowledge recognizes Institutional Repository as a digital research archive consisting of

accessible collections of scholarly work that represent the intellectual capital of institution. It was further described as system for institutions to manage the digital scholarship their communities produce and maximize access to research outputs both before and after publication to increase the visibility and academic prestige of both the institution and authors. It is usually associated with university but in the real sense it is a broader concept that goes beyond the wall the university. It should be seen as digital collections capturing a preserving the intellectual output of any institutions where research outputs a generated, be it universities, polytechnics, colleges of education and research and allied institutions (Adeyemi, Appah & ribena, 2017). The development of IRs have provided academic and research institutions with a very high level Visibility on the library digital resources electronically. As such, teaching learning and research are widely enhanced in the society at large today (Ogbomo & Muokebe, 2015). This development has motivated students and faculty members to store their intellectual output in the form of person collections and to make available the results of their work within and outside the institution through the Institutional Repository. The aim of Institutional Repository is to increase visibility, preservation and storage of all types of institutional output, including unpublished literature, support for learning and teaching, standardization of institutional records, ability to keep track of an analysis research performance, breaking down of publisher's cost and permission barriers, help universities to share their knowledge and expertise (Christian, 2008). According to (Oguche, 2018). Universities are the major centres for research output and other valuable literature. However, much of the literature remains unpublished and is never utilized by the masses. There is a glaring divide between the explosive output of literature in the universities at the users of the information for education, research and manpower development. Institutional repository becomes imperative to maximize the visibility of the global impact of the institution's intellectual outputs, and also considering the weakness of the existing model of publishing which is rigorous, time-consuming, expensive, and scarcely caters for the grey materials and other local scholarship. In light of the innumerable benefits of institutional repositories, university libraries all over the world are resorting to institutional repositories as a means of coping with preservation.

Scholarly communication is changing to social practices where access to information will be open to the society, especially the university community. Nigeria currently has 20 Institutional Repositories listed in the Directory of Open Access Repositories (DOAR) and tops the list of journals listed in the Africa Journals Online (AJOL) with 221 journal titles followed by South Africa with. Of the 221 Nigerian journals listed in AJOL, only 70 are open-access journals (Oguche, 2018). Adoption of IRs by higher institutions of learning is becoming a trend in Nigeria. However, Aghwotu and Ebiere (2016) expressed that just a few universities have been able to establish repositories to provide information resources for members of staff and students to use for teaching, learning and research work.

Setting-Up Institutional Repository

The key issues to be considered while developing Institutional Repositories are Institutional culture and consensus, the information content of the repository, access levels as to full text or abstract level/ access to type of users or privileges, legal aspects (i.e. copyright acts),

standards sustainability and maintenance. The appropriate software and funding have to be taken into account before going for institutional Repository projects at the institutional level. Some of the Software packages used in setting up Institutional Repositories include:

DSpace: The DSpace software package has been purpose-built in collaboration between Hewlett Packard and MIT to offer IR services. It is specifically designed to manage heterogeneous types of digital content. It offers interoperability via OA-MHP(Open Archive Initiative-Metadata Harvesting Protocol --a software standard that allows specialized search engines to gather article metadata from compliant websites) and built-in support for Dublin Core1metadata (Dublin Core is an agreed metadata standard used in library cataloguing and elsewhere, though other metadata schemes are possible), It uses persistent identifiers via the CNRI Handle system.

Eprints: EPrints was the first open-source repository software to be developed, and it now lies at the heart of research, education, and corporate digital repositories (<https://www.eprints.org/us>). It captures scholarly contents make them visible, accessible and re-usable, and preserve them for the posterity. EPrints is designed to facilitate the building of high quality, OA-Compliant repositories, which can contain research literature, scientific data. Theses, images and reports. They are optimized for Google Scholar, Work with managers, desktop applications and Web 2.0 services bibliography (<https://www.eillnct/resources/eprints-introducing-eprints-3-software>). It is commonly used by libraries in Nigeria for scholarly communication.

Fedora: The Fedora digital object repository management system is based on

Repositories: Opportunities and barriers identified the factors responsible for the adoption of Institutional Repositories to include opening up the output of an institution to a worldwide audience, boosting institution prestige, increasing the visibility and citation impacts of institution output as well as the preservation of the institution's contents. Some of the factors influencing the adoption of Institutional Repositories are outlined below:

Visibility and Public Value: One major benefit of repositories will be the visibility of African scholarship as a whole and the individual and institution's intellectual output in particular. The current closed-access publishing mode doesn't portray the quality and quantity of research done in African universities and by African scholars. The visibility and integrity of each institution are determined by the work reflected in their repositories hence a network of such causes repositories not only produce quality research work but also provide quality because the prestige of each institution will be at stake in terms of quality and numbers. Pfister and Zimmerman (2008) also identified the justifications for institutional repositories to include, an increase in visibility and impact of research output, change in the scholarly publication paradigm and improvement of internal communication within the institution. Bzema (2011) noted that, the visibility of publications is usually associated with the extent to which the said published work is read and or cited by other scholars and in broad perspective how much the paper contributes to the growth of human knowledge. The author further explained that the institutional repository stands to generate greater impact by centralizing

research outputs generated by the institution's researchers, thus serving as much better and simpler metrics for gauging the quality of the institution's academic scholarship. Productivity and prestige. Hixson and Cracknell (2007) noted that, when a research engine returns search results that lead to the faculty and institution, it can raise the profile of both the faculty authors and the institution. The faculty can thus benefit by depositing their copyright-owned material in the institutional repository, personal visibility for research projects as well as professional careers.

Enhancing the Quality of Teaching and Scholarship: Nagra (2012) states that, institutional repositories allows the archiving of institutional research and scholarly activities which enables the academy to find and access the previous and current projects of the institution at one place and enhances the quality scholarship through sharing and collaboration and this fundamentally creates the basis for new ideas for teaching and research dissemination and sharing in academic institutions.

Engaging the College Community and Enhancing Scholar Collaborations: The institutional repository enables the institution to disseminate the research output to the global research community, enhances community Outreach and opens new settings for research collaboration nationally and internationally. It intends to make accessible the search output of the university to its community and the public including the global academic and research community. Institutional repositories are created to address the trend in the production, dissemination, access, and use of scholarly materials, The faculty, researchers and institutions in higher education play a significant role in the research and development of scholarly efforts in establishing flourishing repositories, Faculty, researchers and institutions keep up with the latest scholarly communication trends that increase participation and role in the research and communication process as well as visibility and value to the community (Genoni et al., 2006).

Digital Preservation: Digital preservation refers to the series of management necessary to ensure continued access to digital materials for as long as necessary (Hockx-Yu, 2006). The study indicated that the case in which digital information can be created, combined with the huge increase in computer power and network bandwidth has led to the proliferation of a vast amount of burned digital data, this data overflow has forced many to address the issue long term preservation and Curation to ensure that data generated can survive the changes of technology and can be accessed in the future today Furthermore, the broad view of institutional repositories as a means to manage and preserve effectively an institution's knowledge expands beyond e-prints to include research data, e-learning materials and other materials and other forms of institutional intellectual output, which are generally not published or preserved elsewhere. Those running the repositories therefore naturally have the responsibility to ensure this for the content they are entrusted with managing by their intuitions and researchers. The repositories provide an opportunity for institutions and faculty to collect and organize digital information for long-term preservation. The type of materials can be in any digital format but should have permission from the author for posting it to an Institutional Repository. Institutional Repositories serve as a formidable tool to preserving materials that could deteriorate, damaged or even get lost.

Challenges and Issues that Affect the Adoption and Use of Institutional Repositories

Even though the idea of IR is beginning to gain ground in Nigerian universities, Repositories Aghwotu and Ebiere (2016) expressed that few universities have been able to establish repositories to provide information resources for members of State and students, Literature has revealed a negligible adoption rate of institutional repository in Nigeria. This low adoption of Institutional repositories in Nigeria can be attributed to the various factors associated with the sustenance of institutional repositories. Prominent amongst the factors individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh, Morris, Davis & Davis 2003). According Davis (1989), people can reject or adopt technology depending on the degree with which they perceive their job will be simplified by using it. Orlikowski (2000) argues that people use technology to accomplish different goals, and if these goals cannot be achieved, they simply abandon use. Different studies have concluded that perceived usefulness directly influences end-user satisfaction (Venkatesh, Morris, Davis and Davis 2003Calisir & Calisir 2004: Abbasi et al. 2011). The main problem faced by Institutional Repository development is the perception of librarians toward Institutional Repository development and the willingness of lecturers to support the development. The negative perception of librarians that lecturers may not fully be aware of institutional Repositories and willing to submit their intellectual work to the university Institutional Repository may affect its adoption. According to Oshilalu (2012), perceptions of academic staff have lots of effect on institutional repository development and use.

Awareness of Institutional Repository

Electronic publishing, institutional repositories, open access and other new innovative technological opportunities have all led to changes in scholarly publishing One effect has increased accessibility of research output: These changes are, however, emerging without the participants fully understanding what the changes may mean for scholarly communication, and how the nature of scholarly work may be affected (Manjunatha & Than davanmoorthy.2011). Academic institutes build the Institutional Repository where all the scholarly contents and intellectual output of the host institute are captured stored, and indexed. Preserved, and redistributed. The flow of content is the preliminary requirement for development and sustenance and the faculty members are the main source of the flow of content. But low rate of participation of faculty members in Institutional Repositories phenomenon is a major issue in its success. Lack of awareness and confusion about copyright issues are the known barriers to faculty participation in it (Dutta & Paul, 2014).

Awareness is a critical factor in the utilization of any information product. In this light, Yang and Li (2015) expressed that for the adoption of an Institutional Repository to be successful and serve its full potential, its constituents must be aware of its existence Manjunatha, and then davamoorthy (2011) explored researchers' attitude towards deposit to open access Institutional Repositories as a mode of scholarly publishing. The respondents were selected through stratified random sampling from a population of 1966researchers from universities in Karnataka State with a response rate ol86.82%. Data were analyzed using the Statistical Packages for Social Sciences (SPSS). The study revealed that majority of the science,

technology and medicine scholars were aware of and had positive attitudes towards institutional repositories. However, the humanities and social science searchers were found to have a low level awareness of the institutional repository but were interested in contributing their research work to the University Institutional Repository and have a positive attitude towards providing free access to scholarly research results of their University.

The library stall forma critical mass in the adoption of IR and their awareness is of much importance as it could lead to the establishment of IR. It is after IR has been established that the awareness of users will come to play. Awareness about IR and the willingness to participate are factors that could lead to adoption and utilization. Carlson (2005) noted that where researchers who are familiar with the repository from both the input and searching sides will use it. Perhaps these inducements, combined with an institutional mandate, will encourage scholars to deposit their work.

Conclusion

The development of ICT has spurred a lot of emerging technologies for library and information services. Institutional repositories have become a viable communication tool which at this stage of economic recession has become even more necessary because it allows libraries to share resources and knowledge. Libraries are adopting institutional repositories for scholarly communication and to make their work gain global visibility. Some software packages and hardware are considered necessary when setting up institutional repositories, Dspace, Eprints, Greenstone and Fedora are common software packages used in setting up institutional repositories. However, the adoption of institutional repositories is accompanied by a lot of challenges which include copyright, computer anxiety, content recruitment and lack of awareness. The study examined institutional repository: a strategy for enhancing networked information for university Library services and has shown the need for institutional repositories, the influencing factors, the requirements for setting up institutional repositories as well as the challenges. It is recommended that university libraries adopt institutional repositories and a stall for their effective management and also create awareness. This will encourage the university community to deposit their work.

REFERENCE

- Abbasi M. S, Chandio E. H. Soomro A. F. & Shah, F. (2011) Social influence, Voluntariness, Xperience and the internet experience: An extension of technology acceptance model within a South Asian country context. *Journal of Enterprise Information Management*, 24(1), 30-52.
- Adeoye, A. & Olanrewaiu, A. O. (2019) Use of technology acceptance mode to evaluate library electronic information resources use undergraduate students of Lead City University, Ibadan, Nigeria (2019). *Library Philosophy and Practice (e-journal)*. <https://digitalcommons.unl.edu/libphilprac2471>
- Adeyemi, A. J & Bribena, E. L. (2017) The Nigerian institution repositories: Opportunities and barriers. *Academia Journal Educational Research*, 5(10), 297-305. DO: 1015413/ajer. 2017.0936
- Aghwotu, TP & Ebier. EJ (2016) Awareness and attitude of lecturers toward establishing institutional repository in Niger Delta University Bayelsa State, Nigeria. *Information and Knowledge Management*, 6(6) Retrieved February 14. 2020 from <http://www.iiste.org>
- Anenene, E.E, Alcgbeleye, G.B. & Oyewole, O. (2017). Factors contributing to the adoption of institutional repositories in universities in South-West Nigeria: Perspectives of library staff. *Library Philosophy and Practice (journal)*. Retrieved October 8, 2019 from <http://digitalcommons.unl.edu/libphilprac/1508>
- Anmaruklear, S. (2017) *Factors affecting faculty acceptance and use of institutional repositories in Thailand*. Published Dissertation.
- Barbara, B. (2018). What is hardware? Retrieved August 9, 2019 <https://www.quora.com/What-is-hardware>
- Business dictionary. Staffing. Retrieved August 9, 2019 from <http://www.businessdictionary.com/definition/staffing.html>
- Calisir E. & Calisir F. (2004). The relation of interface usability characteristics perceived usefulness, and perceived ease of use to end user satisfaction with Enterprise Resource Planning (ERP) systems. *Computer Human Behavior* 20(4), 505-515
- Carlson, J. (2010). Using an institutional repository to address local-scale needs: A case study of Purdue University. *Library Hi Tech*, 28(1), 152-173.
- Casey, A. M. (2012), Do tenure matter? Factors influencing faculty contributions to institutional repositories. *Journal of Librarianship and scholarly communication*, 5(2), 261 -282
- Chan, L. Kirsop, B. & Arunachalam, S. (2005) Open access archiving: the fast track to building research capacity in developing countries. *Science and Development Network*. 7(4). 23-39
- Christian, M. (2008) Issues and challenges to the development of open access institutional repositories in academic and research institutions Nigeria. A paper prepared for the

- International Development Research Centi0DRC). Retrieved April 9, 2019 from <http://idlbne.idrecaldspace/handle/123456789/36986/127792.pdf>
- Curtis L. C. Edwards, K. L. Fraser, S. Gudelsky, J., Holmauist. K. Thornton. K. D. Sweetser (2010) Adoption of social media for public relations by nonprofit organizations. *Public Relations Review*, 36(1), 90-92
- Davis, F, Bagozzi, R & Warshaw. R. (1989), User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35, 982-1003
- Dillon, A., & Morris, M. G. (1996), User acceptance of information technology: Theories and models manual. *Review of Information Science and Technology*, 3(1), 3-32
- Dubinsky, E. (2014), A current snapshot of institutional repositories: growth rate, disciplinary content and faculty contributions. *Journal of Librarianship and Scholarly Communication*, 2(3), 1167<http://dx.doi.org/10.7710/2162-3309.1167>
- Dutta, G. & Paul, D. (2014) Awareness of institutional repositories-related issues by faculty of University of Calcutta. *Journal of Library Information Technology*, 34(4) 293-297 DOI: 10.14429/djlit34.5138
- Ezema, I.J. (2011). Building Open Access Institutional Repositories for global Visibility of Nigerian Scholarly Publication; *Library Review*: 60(6), 473-483n
- Foster, N. F& Gibbons, S. (2005). Understanding faculty to improve content recruitment for institutional repositories. D-Lib Magazine, 11(0): doi: 10.1045/january2005-foster
- Gatara, T. H. (2010). *Introduction to research methodology (1sted)*. The olive Marketing and publishing company.
- Genoni, P. (2006). Scholarly communities, c-research literacy and the academic library. *The Electronic Library* 24(6), 734-746.
- Hauser, J. R. & Shugan S.M. (1980). Intensity measures of consumer preference. *Operation Research*. 28(2), 278-320.
- Hockx-Yu, H. (2006). Digital preservation in the context of institutional repositories program *Electronic Library and Information Systems*, 40(3), 232-243.
- Ivwhighrehweta, O. O. (2012) an investigation of the challenges of institutional repositories development in six academic institutions in Nigeria. *International Journal of Digital Library Services*. 2(4). Retrieved August 8, 2019 from www.ijodis.in.
- Jain, P. (2007). An empirical study of knowledge management in academic libraries in East and Southern Africa. *Library Review*, 56(5), 377-39
- Larcker, D. E, & Lessig, V. P. (1980) Perceived usefulness of information: A *Psychometric Examination*, *Decision Sciences*, 11(2), 12-78
- Lee, J., Burnett, G. Vandegrift, M., Baeg, J.H. & Morris, R. (2015). Availability and accessibility in an open access institutional repository: A case study. *Information Research*, 20(1), 661. Retrieved from <http://informationr.net/20-1/paper61.html>

- Lynch, C. A. (2003) Institutional repositories: essential infrastructure scholarship in digital age. Bimonthly Report. No. 226
- Malweta, N. & Emmanuel, E (2019) Institutional repositories adoption selected Tanzanian higher learning institutions Israel. Retrieve June 10, 2019 from <https://iles.ericcd.gov/fulltext/EJ1214269.pdf>Use
- Manjunatha, K., & Thandavamoorthy, K. (2011) institutional repository. *International Journal of Library and information Science*, 3(6). 10 Retrieved Aug ust820 19 froAugust115<http://www.academicjournals.org/ilis>
- Morris, M.G., Venkatesh, V. & Ackerman, P. L. (2005) Gender and age differences in employee decisions about new technology: an extension the theory of planned behaviour. *EEE Transactions on Engineering Management* 52(1), 69-84
- Mosweu O., Joseph, K. & Mutsheba, A. (2017) A probe into the factors for adoption and usage of electronic document and records management systems in the Botswana context Vol. 33(1) 97-11Sagepub.co.uk/journals Permissions. DOI10.1177/0266666916640593 journals.sagepub.com/homme/idv
- Narayan, B. & Luca, E. (2017). Issues and challenges in researchers' adoption of open access and institutional repositories a contextual study of a university repository In Proceedings o/ RAILS-Research Applications. Information and Library Studies, 2016. School of Information Management, Victoria University of Wellington, New Zealand, 6-8 December 2016Information Research. 22(4), paper rails l608. Retrieved from http://InformationR.net/ir/22-4/rails/rails_l608.html (Archived by WetCitedat<http://www.webcitation.org/6vOEwbxli>
- Norris, M., Oppenheim, C. & Rowland. I (2008). The citation advantage of open-access articles. *Journal of the American Society or Information Science and Technology*, 59(12), 1963-1972.
- Ogbomo, E. & Muokebe, B. (2015), "Institutional repositories as an emerging initiative in Nigerian university Libraries", *Information and Knowledge Management*, 5 1, available alWww.iiste.org/Journals/index.php/IKM/article/view/9418/19409
- Oguche, D. (2018). The state of institutional repositories and scholarly Communication in Nigeria. Global/ Knowledge, Memory and Communication<https://doi.org/10.1108/GKMC-04-2017-0033>
- Okoroma, F. N. & Abioye, A. A. (2017). Institutional Repositories in University Libraries in Nigeria and the Challenge of Copyright Advances in Social Sciences Research. 4(75) 62-72
- Okumu, O. D. (2015) Adoption of institutional repositories in dissemination of scholarly information in universities in Kenya with reference to United States international university- Africa: Nairobi Kenya: University of Nairobi
- Open-Doar (2017). Directory of Open Access Repositories, Retrieved August 24, 2019 from <http://www.opendoar.org>
- Orikowski, W.J. (2000) Using technology and constituting structures. *Organization Science* 11 (4), 404-428.

- Oshilalu, A. H. 2012) Academic staff perception of developing and use of institutional repository in two Nigerian universities. Project
- Pelizzari, E. (2005), Harvesting for disseminating: open archives and the role of academic libraries. *The Acquisitions Librarian*, 33/34, 35-51
- Pinfield, S. (2015) Making open access work: the "state-of-the-art in providing open access to scholarly literature. *Online Information Review*, 39(5), 604-636.
- Pister, J. (2008). Towards the introduction of an institutional Repository: Basic principles and concepts. *Serials Librarian*. 52(1/2), 37-54
- Rogers E. M. (2003) *Diffusion of Innovation*. Free Press
- Scherer. R. Siddig, E, & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modelling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13-35. Retrieved April1, 2019 from <https://doi.org/10.1016/J.COMPEDU.2018.09.009>
- Stanton, K.V. & Liew, C.L. (2012). Open access theses in institutional repositories: Information Research. 17(2), 2-9: paper 507. <http://information.Rr.netir/17-1/paper507.html> (Archived by WebCite® at <http://www.webcitation.org/6vIDIoEwO>)
- Venkatesh, V. & Morris; D. (2003). User acceptance of information technology: toward a unified view", *MIS Quarterly*, 27(3), 425-478
- Westell, M. (2006). Institutional repositories: *Proposed indicators of Library Hi-Tech*. 24(2), 211. <http://dx.doi.org/10.1108/07378830610669583> success.
- Yang, ZY. & Li, Y. (2015) University faculty awareness and attitudes towards open access publishing and the institutional repository: a case study. *Journal of Librarianship and Scholarly Communication*, 3(1) <http://www.jlscpub.Org>