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DISSEMINATION OF THE RESEARCH OUTPUT EMANATING FROM TETFUND FUNDED RESEARCH: A CASE STUDY OF TETFUND SCHOLARS IN FEDERAL UNIVERSITY DUTSIN-MA

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Abstract
The study sought to explore the channels mandated by TETFUND and those used by TETFUND scholars for the dissemination of their research output. Using a mono-method approach, convenience sampling technique was employed in selecting 166 TETFUND beneficiaries that filled the online questionnaire. The data collected were analysed using frequency count, percentages, and mean. The findings revealed that the submission of hard bound copy of the research output was the major dissemination channel used by TETFUND beneficiaries. The perceived benefits of using a digital repository include visibility of the researcher, his research output, and institution. Also, ensuring the integrity of the research output is a key policy statement that should be included in an open access policy framework. The study found the use of digital repositories such as TERAS repository and freely accessible open access journals to be minimal. Therefore, the development and adoption of a policy document mandating TETFUND beneficiaries to disseminate their research output via digital repositories such as TERAS repository and other open access platforms was recommended.
Keywords: Scholarly communication; Open access; Digital repositories; TERAS repository; TETFUND

Introduction

The Budapest Open Access Initiative revolutionized scholarly communication and provided alternatives that helped in eliminating the bottlenecks hitherto hindering the dissemination of scholarly research output ('Budapest Open Access Initiative', 2023). Digital repositories happen to be one of these alternatives. Crow (2002) cited in (Ammarukleart, 2017) defined digital repositories as "a digital archive of the intellectual product created by the faculty, research staff, and students of an institution and accessible to end users both within and outside of the institution." The intellectual product captured in this definition could refer to scholarly output created by individuals affiliated with an institution through a temporary contractual agreement initiated by research grants or scholarship awards. The term "institution" is not limited to universities. It includes research institutions and other scholarship granting bodies that are key players in the research ecosystem. In other words, digital repositories are digital archives created by scholarship awarding bodies and research fund granting institutions to provide access to and facilitate the long-term use of their beneficiaries' scholarly output.

Hitherto to the use of technologies for dissemination of research output, scholarly communication was traditionally done using print media (Lwoga and Questier, 2014). However, the open access approach has made it possible for researchers to disseminate their research findings using internet technology at little or no cost. The principle of open access provides for making research findings findable, accessible, interoperable, and re-usable without any technical, legal, or monetary barriers and publicly funded research granting institutions are currently championing this cause by ensuring compliance with the OA principles (Sinhababu and Chakravarty, 2022).

The United Kingdom through its Research Council has mandated the dissemination of research findings from publicly funded research, under a Creative Commons Attribution Licence 4.0 (UKRI, 2021). The United State of America according to its White House Office of Science and Technology Policy (OSTP) has released guidelines for making the output from publicly Funded research freely accessible and this is expected to trigger a global change in open access policies especially in the wake of UNESCO's Open Science Recommendation adopted in 2021 (Barbour, 2022).

In Nigeria, TETFUND happens to be the chief financier of publicly funded research. While the National Research Fund (NRF) proposed the creation of an online database that will house the research findings from TETFUND Funded research in its 2019 guidelines, its implementation only came to fruition with the

launch of TERAS repository in the last quarter of 2023 (Tertiary Education Fund, 2023). As a result, public access to these research findings even though limited will soon experience an improvement. The creation of digital repositories specifically for archiving theses and dissertations is not new in Nigerian universities (Baro and Otiode, 2014), as evident in the Registry of Open Access Repositories (*Registry of Open Access Repositories*, 2010). Ahmadu Bello University is reported to be a pioneer in this regard, starting its digitizing project in 2005; then followed other universities such as the University of Nigeria Nsukka in 2008, the University of Jos in 2009, the Federal University of Technology Akure in 2011, and Covenant University in 2012 (Musa et al., 2014). While it is not mandatory for higher educational institutions, research fund granting institutions, and scholarship awarding bodies to have digital repositories, the need to improve the findability and usability of research output especially those that are publicly funded necessitates their adoption.

Haphazard dissemination of research findings is a minus for the research community (Sinhababu and Chakravarty, 2022). This is because it hinders the growth and development of so many entities in the knowledge ecosystem. Publicly funded researches are vital entities in the research ecosystem due to their impact on policy formation. Disseminating them through channels other than open access therefore could amount to waste of resources expended in producing them and limit the many benefits that may be derived from them. This study therefore assesses the channels used by TETFUND beneficiaries for disseminating TETFUND research outputs and formulate an open access policy framework that will ensure the growth and development of the repository, starting with a pilot study in Federal University Dutsin-Ma.

Statement of the Problem

The scholarly outputs of TETFUND scholarship recipients are of high quality, and their dissemination is expected to have a global impact. However, the channels used by beneficiaries for dissemination of these scholarly outputs remain ambiguous. While some beneficiaries, especially at the PhD level, are required by their study institutions to publish articles from their research as a criterion for graduation, there is no known TETFUND policy that ensures that articles published follow the open access FAIR (findability, accessibility, interoperability, and reusability) principle. As a result, beneficiaries can decide to publish in avenues that may narrow the visibility and reduce the impact of such research, thereby impeding stakeholders from deriving benefits from the research findings. Against this backdrop, there is a need to assess the current dissemination process

of the research output of TETFUND scholars. This will help in coming up with impactful and sustainable policies that will ensure that maximum benefit is derived from the research outcomes.

Objectives of the Study

The aim of this study is to examine the channels mandated by TETFUND and used by FUDMA-TETFUND scholars for the dissemination of their research findings in a bid to improve global visibility and impact. Specifically, the objectives are:

- to find out the channels mandated by TETFUND for the dissemination of TETFUND-Funded research output.
- to examine the channels used by TETFUND scholars in Federal University Dutsin-ma for the dissemination of their research output.
- to ascertain the perceived benefits of using a digital repository for the dissemination of TETFUND-Funded research output.
- to formulate an open access policy framework for the dissemination of TETFUND-Funded research output.

Review of Related Literature

Several authors have studied the dissemination of academic research output and the development of institutional repositories in Nigeria. Ezeani and Ezema (2011) studied the efforts made to digitize postgraduate theses and dissertations, among other research output, at the University of Nigeria, Nsukka. They commended the initiative and called for its implementation at other Nigerian universities. Ezema (2011) explored the potential of open access institutional repositories (IR) in enhancing the global visibility and impact of Nigerian scholarly publications. The greatest impediment to the global visibility of Nigerian scholarly outputs was reported to be the lack of proper dissemination channels and suggested the building of institutional repositories for improved visibility. Nkiruka and Thomas (2015) studied the availability and utilization of institutional repositories as indicators for institutional web ranking. They found out that the University of Jos enjoyed global visibility, and their ranking improved significantly both locally and internationally due to the adoption of an institutional repository. They noted that the increase or decrease in the visibility and ranking of the university is majorly dependent on the patronage the IR receives from academic staff in the institution. Several authors posited that lack of a policy instrument for IRs discourages academic staff from using them (Bozimo and Obuh, 2012; Baro and Otiode, 2014; Bashorun *et al.*, 2016; and Adam and Kaur, 2019). The formulation and enforced implementation of IR policies will eliminate

the problems encountered in their usage, increase their patronage, and eventually translate to global visibility and impact for Nigerian scholarly outputs (Ukwoma and Ngulube, 2019; Adam and Kaur, 2021).

From the foregoing, it is evident that the benefits that accompany the adoption and use of open access institutional repositories are too enormous to be ignored, and not adopting them deprives the global research community and all other stakeholders in the research ecosystem of these benefits. Sadly, there is a paucity of studies on the adoption and use of institutional repositories by scholarship-granting bodies. Lack of OA policies are found to clog the adoption and use of IRs. This study will propose an open access IR policy framework to guide the implementation and use of the repository and help in avoiding the pitfalls experienced by other institutions in the adoption and use of IRs. This will help in giving the scholarly output emanating from TETFUND, the visibility and impact it deserves. Stakeholders will have access to a plethora of empirical evidence that will help inform policies and boost reforms.

Research Methodology

A mono-method approach was adopted in the study. The population of the study comprised 166 TETFUND scholars in Federal University Dutsin-ma. Convenience sampling was used in selecting the scholarship beneficiaries that the online questionnaire was administered to. The online questionnaire was used to elicit information on the various channels FUDMA-TETFUND scholars use to disseminate their research findings, perceived benefits of using a digital repository, and policy statements they feel will encourage the adoption and use of a digital repository. The researcher sought the contact details of FUDMA-TETFUND scholars that were invited to participate in the study from the TETFUND desk officer in Federal University Dutsin-Ma. The research instrument was validated by experts in the field before being administered to the respondents. Descriptive analysis was carried out for the data collected using the online questionnaire. The result of the data analysis was presented in tabular form. The ethics guiding the conduct of research was strictly adhered to.

Results and Discussion

Demographic Characteristics of the Respondents

Table 1: Demographic Characteristics of Respondents

Gender	**Frequency**	**Percentage**
Male	104	63
Female	62	37
Total	**166**	**100**
Age	**Frequency**	**Percentage**
21 – 30 years	50	30
31 – 40 years	77	46
41 – 50 years	35	21
Above 50 years	4	3
Total	**166**	**100**
Years of Experience	**Frequency**	**Percentage**
0 – 3 years	23	14
4 – 6 years	44	27
7 – 9 years	67	40
Above 9 years	32	19
Total	**166**	**100**
Program of Sponsorship	**Frequency**	**Percentage**
PhD	73	44
MSc	93	56
Total	**166**	**100**

Results from Table 1 shows that the male respondents (104,67%) are more than the female respondents (62, 37%). Majority of the respondents were found to be between the age of 31 – 40 years (77, 46%). The years of experience of most of the respondents is between 7 – 9 years (67, 40%) and MSc (93, 56%) are reported to be the programme of sponsorship enjoyed by most of the respondents.

Channel mandated by TETFUND for the dissemination of TETFUND funded research output

Table 2: Channels Mandated by TETFUND for the Dissemination of TETFUND Funded Research Output

Items	SA	A	N	D	SD
TETFUND require me to publish a part of my research output (theses/dissertations, conference papers, reports, etc.) in freely accessible open access online journals	9 (5%)	36 (22%)	61 (37%)	53 (32%)	7 (4%)
TETFUND require me to publish a part of my research output (theses/dissertations, conference papers, reports, etc.) in subscription-based online journals	10 (6%)	19 (11%)	31 (19%)	89 (54%)	17 (10%)
TETFUND require me to deposit the soft copy of my research output (theses/dissertations, conference papers, reports, etc.) in digital repositories (TERAS repository, institutional repository, etc.)	8 (5%)	18 (11%)	41 (25%)	87 (52%)	12 (7%)
TETFUND require me to submit only the hard copy of my research output (theses/dissertations, conf erence papers, reports, etc.)	8 (5%)	129 (78%)	10 (6%)	17 (10%)	2 (1%)
There is a written policy document from TETFUND that clearly spells out what I should do with my research output	7 (4%)	12 (7%)	19 (11%)	113 (68%)	15 (9%)

Table 2 presents the responses of TETFUND beneficiaries in Federal University Dutsin-Ma with regards to the publication channels mandated for the dissemination of their research output. Deducing from the mean responses, majority of the respondents are of the opinion that TETFUND requires them to submit only the hard copy of their research output ($X = 3.7 > 3.0$). The findings further revealed that respondents have the notion that they are not required to publish their research output via freely accessible open access journals ($X = 2.9 < 3.0$), subscription-based online journals ($X=2.5 < 3.0$), and TERAS repository ($X=2.5 < 3.0$). The mean score for availability of a written policy document spelling out what the respondents should do with their research output also ranked below the decision mean ($X=2.3 < 3.0$). This is an indication that the respondents have not come across any written policy document that clearly spells out what they should do with their research output.

Channels used by TETFUND scholars in Federal University Dutsin-Ma for the dissemination of their research output

Table 3: Channels Used by TETFUND Scholars in Federal University Dutsin-Ma

Items	Frequency	Percentage
Hard cover bound copy submission to TETFUND	91	54.8
Freely accessible open access online journals	39	23.5
CD-ROM submitted to TETFUND	32	19.3
Digital repositories (TERAS repository, institutional repositories, etc.)	2	1.2
Subscription-based online journals	2	1.2
Grand Total	**166**	**100**

Respondents were allowed to select multiple options in this section. The results in Table 3 show that majority of the respondents disseminate their research findings via the hard cover bound copies submitted to TETUND (91, 54.8%); followed by freely accessible open access online journals (39, 23.5%); CD-ROM submitted to TETFUND (32,19.3%). The results further revealed that digital repositories (2, 1.2%) and subscription-based online journals (2, 1.2%) were among the least utilized.

Perceived benefits of using a digital repository

Table 4: Perceived advantages of using a TETFUND digital repository

Items	Frequency	Percentage
Using a digital repository will increase the visibility of my research output (thesis/dissertation)	90	54.2
Using a digital repository will increase the visibility of my university	45	27.1
Using a digital reposi tory will increase my visibility as a Researcher	31	18.7
Grand Total	**166**	**100.0**

The respondents selected multiple options in the segment. The results on the perceived advantages of using a digital repository presented in Table 4 shows that respondents understand the benefits of using a digital repository in disseminating their research output. Increased visibility of scholar's research output ranked top (90, 54.2%) among the perceived advantages of using a digital repository. Also, increased visibility of the university (45, 27.1%) ranked 2nd, followed by increased visibility of the researcher (31,18.7%).

Policy statements to be included in the open access policy framework

Table 5 shows the ranking of the 19 policy statements in ascending order. More than half of the respondents indicated that 14 out of the 19 policy statements should be included in the open access policy framework for using a digital repository. Conduct of plagiarism check on all TETFUND-Funded research output before archiving in a digital repository ranked tops (136, 82%); followed by allotment of promotion points for research output deposited in the repository (132, 82%); and deposition of all theses and dissertations emanating from TETFUND funded research (128, 77%). Archiving of conferences papers and journal articles funded by TETFUND both ranked 4th (121,74%). The findings also suggest that the similarity index should not exceed 20% and certificate of commendation be issued to TETFUND scholars after archiving their research output (114, 69%). Furthermore, the respondents opposed the self-archiving of their research output and metadata creation (37,22%); inputting the bibliographic data of research output copyrighted by their institutions (38, 23%), and replacement of the pre-print version with a published version (46,28%).

Discussion

The need for TETFUND beneficiaries to disseminate their research output via open access platforms cannot be overemphasized. Majority of the respondents indicated that submission of the hard cover bound copy of their research output to TETFUND was the common channel used for the dissemination of their findings. This finding aligns with that of Ezema (2011). The absence of dissemination channels other than printed copy submission was reported in the study. This is not surprising as the respondents have already established this as a requirement to be met upon completion of their studies. Even though some of the respondents indicated that they made use of other channels such as freely accessible open access journals and CD-ROM submitted to TETFUND, the use of TERAS repository was found to be very minimal. This is expected as most of the respondents completed their studies before the launch of TERAS repository.

Findings on the perceived advantages of publishing via a digital repository revealed that respondents are conversant with the benefits open access offers in terms publication of research findings. This is because majority of the respondents indicated that their visibility and that of their research output and institution can be increased when they publish via a digital repository. This finding corroborates that of Nkiruka and Thomas (2015). They reported increased visibility as an advantage of digital repository in support of the findings of this study. However, this understanding has not being put to use as most of the respondents were found not to maximally utilize the open access platforms especially TERAS for

dissemination purposes. This is quite understandable because as noted earlier, TERAS is still at the infancy stage. Nkiruka and Thomas (2015) noted that utilization is the major determinant of increased visibility of digital repositories.

The findings on the policy statements that should be included in the proposed open access policy framework shows that the respondents understand the importance of open access policy in the growth and development of digital repositories in agreement with the findings of Ukwoma and Ngulube (2019) and Adam and Kaur (2021). Respondents' keenness on ensuring the integrity and sustainability of both their research output and the TETFUND digital repository not forgetting the extrinsic motivational factors that could be exploited was apparent in the findings. Respondents' interest in policy statements bordering on academic integrity echoed their commitment to academic rigour and honesty that characterizes research. Additionally, their alignment with policy statements that advocates for training of the university community on the use of the repository, openness, and indefinite storage of research output in the repository depicts their sentiments with regards to continuous access to research output in the repository. Furthermore, their agreement to the issuance of certificate of commendation and allotment of promotion points to scholars who deposit their research findings in the repository portray respondents' interest in being rewarded for their contributions to the open access movement. Their opposition to policy statements that encourages self-archiving and metadata creation shows their acknowledgement of the role of each stakeholder especially the librarians who are originally responsible for managing the repository including archiving of the research output and metadata creation.

Conclusion

The conduct of this study was informed by the ambiguity shrouding the scholarly communication process of TETFUND scholars. The study explored the channels mandated by TETFUND and those used by TETFUND scholars for the dissemination of their research output. The perceived benefits of using digital repositories for scholarly communication purposes were also unearthed and policy statements that will facilitate the use of open access scholarly communication platforms identified. Deducing from the findings, the study concludes that majority of the TETFUND beneficiaries that participated in this study have not come across a policy document that spells out what they should do with their research output. As such, they feel most obliged to only submit the hard copy of their research output to TETFUND. The findings also revealed that TETFUND beneficiaries are very much in the know of the advantages

accompanying the use of digital repositories and other open access platforms in the scholarly communication process. They identified their visibility and that of their research output and university among the benefits of using a digital repository. However, their use of the digital repositories and freely accessible open access journals was found to be very minimal. The findings also found TETFUND beneficiaries to be in agreement with most of the policy statements that supports the use of digital repositories and other open access platforms. This study therefore recommends as follows:

- A policy document mandating TETFUND beneficiaries to disseminate their research output via digital repository such as TERAS repository and other open access platforms should be developed by TETFUND and adopted by all institutions benefitting from the Fund.
- User education, awareness, and advocacy programmes should be organized to educate the general public on the potential TERAS repository holds for national and global development.
- The proposed open access policy document should be reviewed from time to time to be in tandem with future developments in scholarly communication.

References

Adam, U., & Kaur, K. (2019). Empirical Evidence of the Practice of Institutional Repository in Nigeria. *Proceedings of the 7th International Conference on Libraries, Information and Society 2019 (ICoLIS 2019)*, 92–115. http://commonrepo.um.edu.my/12623/7/ICOLIS%202019.pdf#page=102

Adam, U., & Kaur, K. (2021). Driving forces behind the management of Institutional Repositories: Qualitative evidences. *Malaysian Journal of Library and Information Science*, *26*, 33–56. https://doi.org/10.22452/mjlis.vol26no3.2

Ammarukleart, S. (2017, May). *Factors Affecting Faculty Acceptance and Use of Institutional Repositories in Thailand* (Thailand) [Thesis or Dissertation]. UNT Digital Library; University of North Texas. https://digital.library.unt.edu/ark:/67531/metadc984189/

Baro, E., & Otiode, P. (2014). Electronic Theses and Dissertations and Institutional Repositories: Roadmap to Research Visibility in Africa. *Preservation, Digital Technology & Culture (PDT&C)*, *43*, 114–126. https://doi.org/10.1515/pdtc-2014-0002.

Bashorun, M. T., Jain, P., Sebina, P. M., & Kalusopa, T. (2016). Determinants of Adoption and Use of Open Access Publishing by Academic Staff in Nigeria Universities. *Journal of Information Science Theory and Practice*, *4*(4), 49–63. https://doi.org/10.1633/JISTAP.2016.4.4.4

Bozimo, D., & Obuh, A. (2012). Awareness and Use of Open Access Scholarly Publications by LIS Lecturers in Southern Nigeria. *International Journal of Library Science*.https:// www.academia.edu /30770589 /Awareness _and_ Use_of_Open_Access_Scholarly_Publications_by_LIS_Lecturers_in_South ern_Nigeria.

Budapest Open Access Initiative. (2023). In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=Budapest_Open_Access_Ini tiative&oldid=11381 05557

Ezeani, C., & Ezema, I. (2011). Digitizing Institutional Research Output of University of Nigeria, Nsukka. *Library Philosophy and Practice (e-Journal)*, *565*. https://digitalcommons.unl.edu/libphilprac/565/

Ezema, I. (2011). Building open access institutional repositories for global visibility of Nigerian scholarly publication. *Library Review*, *60*, 2-2 ST. https://doi.org/10.1108/00242531111147198

Lwoga, E. and Questier, F. (2014) Faculty Adoption and Usage Behaviour of Open Access Scholarly Communication in Health Science Universities. *New Library World*, 115 April, pp. 1–22.

Musa, A., Umar, S., Musa, A., & Abdulkadir, A. (2014). Institutional Digital Repositories in Nigerian: Issues and Challenges. *IOSR Journal of Humanities and Social Science*, *19*, 2279– 2837. https://doi.org/10.9790/0837-191111621

Nkiruka, V., & Thomas, E. (2015). Availability and Utilization of Institutional Repositories as Indicators to Institutional Web Ranking. *European Journal of Computer Science and Information Technology*, *3*(2), 29–40.

Registry of Open Access Repositories (2010). [Academic]. Retrieved 12 February 2023, from roar.eprints.org

Sinhababu, A. H. & Chakravarty, R. (2022). Building Digital Repositories with the Open- Source Software Invenio: Use of SaaS Model Zenodo. *International Journal of Information Studies & Libraries*, *7*, 23–34.

Tertiary Education Fund. (2023). *TETFUND TERAS :: Services*. Retrieved March 7, 2024, from https://development.teras-network.net/services

UKRI open access policy. (2021, August 6). https://www.ukri.org/publications/ ukri-open-accesspolicy/

Ukwoma, S. C., & Ngulube, P. (2019). Obstacles to the Utilization of Institutional Repositories by Academics in Higher Education in Nigeria. *Webology*, *16*(1), 138–150. https://doi.org/10.14704/WEB/V16I1/a183

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