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Exploring the Engagement in Open Research Practices by Librarians in Kwara State, Nigeria

Florence O. Ajani, Yakub O. Ahmed & Abdulakeem S. Sulyman

Abstract:

This study explores the engagement in open research practices by librarians in Kwara State, Nigeria. It operates with three objectives and questions. It uses descriptive survey method as its design and adopts convenience sampling technique to select 63 librarians who filled the questionnaire titled "Questionnaire on Exploring the Engagement in Open Research by Librarians in Kwara State," which was sent to respondents through their WhatsApp groups. Findings revealed that respondents used open peer review, publishing research in open access platforms and depositing research in institutional repositories as channels of engaging in open research. It further shows that open research is of benefit to respondents by helping them in the creation of good research profiles, increasing connectivity among researchers and increasing findability and broadening readership of their works, while lack of training on open research, fear of plagiarism and lack of awareness of the open research process are the major factors retarding the engagement in open research by the respondents. This study concludes that open research is one of the mainstays of scientific evolution that enables researchers to increase visibility for their works and recommends amongst others that it is imperative for librarians in Kwara State to be making their research works available in open educational resources, it is one of the states with the highest library schools in Nigeria. Through this, students and other researchers can use their research works to broaden the status of teaching and learning.

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Exploring the Engagement in Open Research Practices by Librarians in Kwara State, Nigeria

Florence O. Ajani, Kwara State University, Nigeria

Yakub O. Ahmed, Department of Library and Information Science, Federal Polytechnic, Federal Polytechnic, Offa, Nigeria

Abdulakeem S. Sulyman, Institute of Professional and Continuous Education, Kwara State University, Nigeria

ABSTRACT

This study explores the engagement in open research practices by librarians in Kwara State, Nigeria. It operates with three objectives and questions. It uses descriptive survey method as its design and adopts convenience sampling technique to select 63 librarians who filled the questionnaire titled "Questionnaire on Exploring the Engagement in Open Research by Librarians in Kwara State," which was sent to respondents through their WhatsApp groups. Findings revealed that respondents used open peer review, publishing research in open access platforms and depositing research in institutional repositories as channels of engaging in open research. It further shows that open research is of benefit to respondents by helping them in the creation of good research profiles, increasing connectivity among researchers and increasing findability and broadening readership of their works, while lack of training on open research, fear of plagiarism and lack of awareness of the open research process are the major factors retarding the engagement in open research by the respondents. This study concludes that open research is one of the mainstays of scientific evolution that enables researchers to increase visibility for their works and recommends amongst others that it is imperative for librarians in Kwara State to be making their research works available in open educational resources, it is one of the states with the highest library schools in Nigeria. Through this, students and other researchers can use their research works to broaden the status of teaching and learning.

Keywords: Open Research, Librarians, Open Peer Review, Open Access Platforms, Research Profiles, Kwara State.

INTRODUCTION

Librarians are experts who are formally trained in the efficient and effective handling of information in different formats. They are specialists in the generation, organisation, preservation,

conservation, retrieval, dissemination and utilisation of information the advancement of knowledge. Inherent in the process of advancing knowledge is research. Therefore, librarians are expected to be frontrunners of research activities by ensuring that research outputs, either directly from them or others are being made available for people to use.

Kaur (2018) posits that research plays a significant role in the modern era; not only in the aspect of development, but also in introducing sound and positive changes, making the world a better place for people to live. Research is of no use if it is not providing any benefits to the existing species on earth. Any innovation is the contribution of the researcher to that field and all other human beings should have the right to access that new idea. This is to ensure that new ideas and research data are offered freely to the public to download, disseminate or use without legal, financial and technical restrictions (Rajagopal, 2018).

Involvement in the availability of research results and outputs implies that librarians are supporting the cause of encouraging open research in order to spread the gospel of latest research publications, broadens research outreach, strengthens and deepens the exploration and discovery of knowledge. The knowledge-oriented nature of Librarianship makes it imperative for librarians to prioritize the promotion of scientific knowledge in different fields by building on already existing research (Ugwuanyi, 2018). Ugwuanyi (2018) argues that where scientific knowledge is not accessible, it adds to the already overwhelming challenges of creating, synthesizing and communicating scientific knowledge.

Basurto, Martinez-Camacho and Calderon-Swain (2022) asserted that globalization has trumped research activities and has also caused the world to be constantly advancing in leaps and bounds through innovations and transformations in the economic, political and social sectors as a product of massive engagement in research. Sarker (2018) submitted that the effects of not making research work openly accessible is that it affects a country's policy makers and limits the research impacts on the wider research community.

Knowledge is a constant phenomenon whose validity and authenticity can be evaluated anytime by any researcher interested in investigating that phenomenon. Open research creates a pathway for old knowledge to be reinvented and new insights be obtained. It makes intellectual borders to be crossed at a high speed with less of the friction paying research entails. Also, scholars in metadata harvesting and interdisciplinary research are greatly benefitting from open research. Scholarly institutions practicing open research are heightening their profiles, save on internal expense and create brand awareness for themselves and their members (Rajagopal, 2018).

STATEMENT OF THE PROBLEM

Research, being the bedrock of innovations and creativity has become a mainstream in the academic and scholastic discourses. Research outputs made available to the public serve as foundations for future research activities. This will contribute to a wide and global assessment and validity of research exercise and its results and possible application of its results to solve emerging problems. However, most research have not been openly available due to some factors like astronomical increase in the prices journals charge (Ugwuanyi, 2018), apprehension of research qualities which limits most researchers from making their research openly available, training of half-baked scientists and publication of incorrect research findings, rise in scientific

piracy (Nilsson, 2018) and serial crisis. Realising that these challenges can also affect the communications of and collaborations in research activities makes this study to be designed to explore the engagement in open research practices by librarians in Kwara State.

RESEARCH OBJECTIVES

This study is conducted with the major objective of exploring the engagement in open research practices by librarians in Kwara State.

The specific objectives are to:

- 1. Identify the channels used in engaging in open research practices by librarians in Kwara State;
- 2. Examine the benefits of engaging in open research practices to librarians in Kwara State; and,
- 3. Examine the factors retarding engagement in open research practices by librarians in Kwara State.

RESEARCH QUESTIONS

This study seeks to answer the following questions:

- 1. What are the channels used in engaging in open research practices by librarians in Kwara State?
- 2. What are the benefits of engaging in open research practices to librarians in Kwara State?
- 3. What are the factors retarding engagement in open research practices by librarians in Kwara State?

REVIEW OF RELATED LITERATURE

Open research, also known as open science has been talked about since the 1990s, but progress towards it had been slow (von Hellfeld, 2018). The central aim of open research is to make the research methodology, along with the data and results, freely accessible, allowing a more collaborative approach to research. Whilst it seems prudent to understand what researchers stand to gain from open research first, it is important to show the various channels on how open research can be applicable to today's scientific community (von Hellfeld, 2018). Over the last decade, a series of academic movements have been initiated aimed at overcoming the drawbacks of traditional scientific research (Yin, 2018). The European Commission Community Research and Development Information Service (2017) reported that open research channels include open source software, open data, open access, open research methods, open peer review, and open educational resources, etc.

Open research has become unprecedented for researchers to engage in. Researchers engaging in open research do so through open data repositories, publishing their research in OA journals, making their research available on open educational resources platforms, self-archiving

of their research, depositing research works in institutional repositories, using social networks for scientists/researchers, using social media platforms and depositing research works in libraries. Since the adoption of different channels to engage in open research, it has become a glittering feather in the cap of researchers, which not only provides recognition to researchers but also reduces the chances of their works being stolen or misused. It also helps in creating good research profiles and increasing the number of citations to your work (Kaur, 2018).

Chiado (2018) contested that open research is a disruptive revolution that is paving the way for the next generation of scientists and researchers to share higher quality research works needed to solve evolving challenges. It enhances accessibility, publicity, academic rewards and professional recognition (Abuabdallah, 2014) and sharing scientific knowledge for the benefit of others, encourage interdisciplinary research and collaboration (Nilsson, 2018), advances cross-disciplinary studies (Ugwuanyi, 2018), broadens readership, increases findability and accessibility which results in higher citation scores for a certain paper and hence, increased research impact (Ticea, 2018).

Adams (2015) posited that open research is tightly linked to open data because they represent the same cultural shift towards more open research practice and both aspects are dependent on each other. Ticea (2018) argues that the need to drive continuous innovations requires robust engagements in research with focus on maintaining a consistent habit of sharing and dissemination of research data to users' communities. Open research generates feedback loops, which is the case for every open system. Harnessing the feedback loops of open research can enhance offering of useful insight, fruitful ideas and collaborations.

Open research was conceived on the notion of making intellectual works available in the public domain by promoting free-of-charge access to research results, methods, software, and also access to fellowships, state-of-the-art research facilities and equipment, open courses etc (Ticea, 2018). Sarker (2018) appraised open research by noting that greater access to global scientific studies and their results through open research can improve the effectiveness of research works, increase research efficiency, reduce costs by preventing duplicate work, enable the transfer of knowledge and the reuse of datasets to produce more research work, and increase the connectivity among researchers for national and worldwide participation in the research process.

Yin (2018) buttresses the importance of open research by asserting that open research allows scientific research to be shared, copied, displayed, and published in a fast and efficient manner. The opportunity it provides to share good scientific research results and spread and exchange knowledge in an unrestricted way can increase mutual understanding, encouragement, and promote healthy competition among researchers. Engagement in open research has accelerated the transfer of knowledge between researchers and fields, opened up new ways of cooperation and new research methods, and led to the rapid development of open knowledge dissemination.

Open research makes it easier to find incompetence in research work at a very early stage, and set an example for the scientific community to avoid any scientific misconduct and preserve scientific integrity (Sarker, 2018). It constantly expands innovative research, saves traveling cost and instant feedback (Attoye, 2018), encourages transparency, quality assurance, bridging gaps between the knowledge voids, shrinking the geographical distances, cost-effective, overcomes unethical research practices and creates a friendly work environment (Kaur, 2018).

Pondering on the practices of open research as floodgates of the future progresses and advancements have been hampered by different obstacles. Among them are lack of access to information about open research which hinders learning, stifles innovation and slows the research process (Yin, 2018), lack of awareness of the open research process, time limitations, lack of technical skills, an unstable network and electricity problems and fear of plagiarism (Mbughuni, Mtega & Malekani, 2022).

Also, intellectual property and information security, data validity and web abuse, financial support, quality and value of research data, cloud storage and data security, lack of interest in open research (Attoye, 2018; Nwokedi and Nwokedi, 2018), and lack of a good understanding of publishers' licensing policy (Singson et al., 2015) are the major challenges to open research. Mbughuni, Mtega and Malekani (2022) asserted that open research is also being challenged because some publishers do not give prompt feedback to academic staff when they send their manuscripts for publication, lack of training on open research and slow Internet speed.

METHODOLOGY

This study uses descriptive survey method to investigate the engagement of librarians in Kwara State in open research. It adopts convenience sampling to select 63 librarians in different WhatsApp groups of Library and Information Science practitioners in Kwara State, based on their willingness to fill the questionnaire sent to their groups. It uses an online questionnaire titled "Questionnaire on Exploring the Engagement in Open Research Practices by Librarians in Kwara State." The questionnaire was designed with Google Form and its link was posted to the different Library and Information Science groups. The questionnaire was allowed to be active for three weeks in order to allow enough librarians fill it at their comfort. Afterwards, data generated was downloaded to Google Spreadsheet and analyzed with the IBM Statistical Package for Social Science (SPSS) 2nd. Edition.

DATA ANALYSIS

Table 1Demographic Information of Respondents

| Optio | F | % | |
|------------------------|--------------------|----|-------|
| | Male | 32 | 50.8% |
| Gender | Female | 31 | 49.2% |
| | Total | 63 | 100% |
| | 20 – 29 years | 14 | 22.2% |
| Age range | 30 - 39 years | 21 | 33.3% |
| | 40 - 49 years | 20 | 31.7% |
| | 50 - 59 years | 4 | 6.3% |
| | 60 and above years | 4 | 6.3% |
| | Total | 63 | 100% |
| | ND | 0 | 0.0% |
| | HND | 11 | 17.5% |
| Anadomia qualification | BLIS | 24 | 38.1% |
| Academic qualification | MLIS | 20 | 31.7% |
| | Ph.D | 8 | 12.7% |
| | Total | 63 | 100% |
| | 1-5 years | 23 | 36.5% |
| | 6-10 years | 16 | 25.4% |
| Work avnaviance | 11 – 15 years | 12 | 19.0% |
| Work experience | 16-20 years | 7 | 11.1% |
| | 21 and above years | 5 | 7.9% |
| | Total | 63 | 100% |

Table 1 shows that majority (50.8%) of respondents are males, while 49.2% are females. 33.3% are within the age range of 30-39 years, followed by 31.7% for 40-49 years and 22.2% for 20-29 years. 38.1% holds Bachelor in Library and Information Science (BLIS), followed by 31.7% with Masters in Library and Information Science, while a few 12.7% holds Ph.D. 36.5% have 1-5 years' work experience, 25.4% have 6-10 years, 19.0% have 11-15 years, while 11.1% have 16-20 years.

Research Question One: What Are the Channels Used in Engaging in Open Research Practices by Librarians in Kwara State?

Table 2Identify the Channels Used in Engaging in Open Research Practices by Librarians in Kwara State

| Outions | | Yes | | No | _ | |
|--|----|-------|----|-------|------|-----------|
| Options | F | % | F | % | Mean | Std. Dev. |
| Open educational resources | 44 | 69.8% | 19 | 30.2% | 1.30 | 0.46 |
| Open peer review | 53 | 84.1% | 10 | 15.9% | 1.16 | 0.37 |
| Depositing your research in institutional repositories | 52 | 82.5% | 11 | 17.5% | 1.17 | 0.38 |
| Depositing your research in libraries | 43 | 68.3% | 20 | 31.7% | 1.32 | 0.47 |
| Publishing your research in open access platforms | 53 | 84.1% | 10 | 15.9% | 1.16 | 0.37 |
| Self-archiving | 44 | 69.8% | 19 | 30.2% | 1.30 | 0.46 |
| Using social networks for scientists/researchers | 50 | 79.4% | 13 | 20.6% | 1.21 | 0.41 |
| Using social media platforms | 49 | 77.8% | 14 | 22.2% | 1.22 | 0.42 |

Table 2 reveals that majority of respondents (84.1%) uses both open peer review and publishing research in open access platforms to engage in open research, followed by 82.5% who deposit their research in institutional repositories, while 79.4% use social networks for scientists/researchers to engage in open research. However, only 68.3% deposit their research in libraries.

Research Question Two: What Are the Benefits of Engaging in Open Research Practices to Librarians in Kwara State?

 Table 3

 Benefits of Engaging in Open Research Practices to Librarians in Kwara State

| | | SA | | A | | U | | D | | SD | _ | |
|---|----|--------|----|--------|----|--------|----|--------|----|--------|------|--------------|
| Options | F | % | F | % | F | % | F | % | F | % | Mean | Std. Dev. |
| Provides recognition for your research works | 11 | 17.50% | 21 | 33.30% | 15 | 23.80% | 8 | 12.70% | 8 | 12.70% | 3.3 | 1.27 |
| Reduces the chances of your works being stolen or misused | 19 | 30.20% | 22 | 34.90% | 8 | 12.70% | 7 | 11.10% | 7 | 11.10% | 3.62 | 1.33 |
| Helps in creating good research profiles | 19 | 30.20% | 29 | 46.00% | 6 | 9.50% | 5 | 7.90% | 4 | 6.30% | 3.86 | 1.13 |
| Increases the number of citations | 10 | 15.90% | 20 | 31.70% | 13 | 20.60% | 7 | 11.10% | 13 | 20.60% | 3.11 | 1.38 |
| Helps in sharing higher quality research works needed to solve evolving challenges | 14 | 22.20% | 21 | 33.30% | 16 | 25.40% | 6 | 9.50% | 6 | 9.50% | 3.49 | 1.22 |
| Enhances accessibility, publicity and academic rewards | 16 | 25.40% | 22 | 34.90% | 10 | 15.90% | 11 | 17.50% | 4 | 6.30% | 3.56 | 1.23 |
| Encourages interdisciplinary research and collaboration | 9 | 14.30% | 21 | 33.30% | 18 | 28.60% | 9 | 14.30% | 6 | 9.50% | 3.29 | 1.17 |
| Increases findability | | | | | | | | | | | | |
| and broadens readership | 10 | 15.90% | 23 | 36.50% | 16 | 25.40% | 8 | 12.70% | 6 | 9.50% | 3.75 | 1.18 |
| Helps to generate feedback | 12 | 19.00% | 23 | 36.50% | 11 | 17.50% | 8 | 12.70% | 9 | 14.30% | 3.33 | 1.32 |
| Makes your works available in the public domain | 12 | 19.00% | 30 | 47.60% | 13 | 20.60% | 4 | 6.30% | 4 | 6.30% | 3.67 | 1.06 |
| Promotes free-of- charge access to research results | 13 | 20.60% | 25 | 39.70% | 15 | 23.80% | 6 | 9.50% | 4 | 6.30% | 3.59 | 1.12 |
| Reduces costs by preventing duplication | 15 | 23.80% | 29 | 46.00% | 10 | 15.90% | 6 | 9.50% | 3 | 4.80% | 3.33 | 1.08 |

| of works | | | | | | | | |
|--|----------------|-----------|----------|----------|---|-------|------|------|
| Increases connectivity among researchers | 17 27.00% 30 4 | 47.60% 6 | 9.50% 5 | 5 7.90% | 5 | 7.90% | 3.78 | 1.18 |
| Preserves scientific integrity | 12 19.00% 29 | 46.00% 11 | 17.50% 8 | 3 12.70% | 3 | 4.80% | 3.62 | 1.08 |
| Overcome unethical research practices | 9 14.30% 30 4 | 47.60% 14 | 22.20% 6 | 9.50% | 4 | 6.30% | 3.54 | 1.06 |

Table 3 makes us understand that open research helps in creating good research profiles is ranked highest with (3.86 ± 1.13) , followed by increases connectivity among researchers (3.78 ± 1.18) , while increases findability and broadens readership has (3.75 ± 1.18) . However, increases the number of citations is ranked lowest with (3.11 ± 1.38) . This implies that librarians in Kwara State considered creation of good research profiles, increases connectivity among researchers and increases findability and broadens readership as the major benefits they derive from engaging in open research.

Research Question Three: What Are the Factors Retarding Engagement in Open Research Practices by Librarians in Kwara State?

Table 4Factors Retarding Engagement in Open Research Practices by Librarians in Kwara State

| | | SA | \mathbf{A} | | \mathbf{U} | | | D | | SD | | |
|--|----|--------|--------------|--------|--------------|--------|----|--------|----|--------|------|--------------|
| Options | F | % | F | % | F | % | F | % | F | % | Mean | Std. Dev. |
| Lack of access to information about open research | 10 | 15.90% | 25 | 39.70% | 8 | 12.70% | 11 | 17.50% | 9 | 14.30% | 3.25 | 1.32 |
| Lack of awareness of the open research process | 14 | 22.20% | 32 | 50.80% | 7 | 11.10% | 4 | 6.30% | 6 | 9.50% | 3.7 | 1.17 |
| Time limitations | 18 | 28.60% | 15 | 23.80% | 14 | 22.20% | 5 | 7.90% | 11 | 17.50% | 3.38 | 1.43 |
| Lack of technical skills | 10 | 15.90% | 24 | 38.10% | 9 | 14.30% | 9 | 14.30% | 11 | 17.50% | 3.21 | 1.36 |
| Unstable networks | 11 | 17.50% | 25 | 39.70% | 14 | 22.20% | 7 | 11.10% | 6 | 9.50% | 3.44 | 1.19 |
| Electricity problems | 10 | 15.90% | 20 | 31.70% | 9 | 14.30% | 15 | 23.80% | 9 | 14.30% | 3.11 | 1.33 |
| Fear of plagiarism | 16 | 25.40% | 32 | 50.80% | 6 | 9.50% | 3 | 4.80% | 6 | 9.50% | 3.78 | 1.17 |
| Problem of data validity | 7 | 11.10% | 18 | 28.60% | 10 | 15.90% | 12 | 19.00% | 16 | 25.40% | 2.81 | 1.39 |
| Poor financial support | 12 | 19.00% | 26 | 41.30% | 16 | 25.40% | 3 | 4.80% | 6 | 9.50% | 3.56 | 1.15 |

| Lack of understanding of publishers' licensing policy | 14 22.20% | 25 | 39.70% | 11 | 17.50% | 6 | 9.50% | 7 | 11.10% | 3.52 | 1.26 |
|---|-----------|----|--------|----|--------|---|--------|----|--------|------|------|
| Lack of interest in open research | 15 23.80% | 18 | 28.60% | 15 | 23.80% | 6 | 9.50% | 9 | 14.30% | 3.38 | 1.34 |
| Some publishers do not give prompt feedback | 13 20.60% | 17 | 27.00% | 13 | 20.60% | 7 | 11.10% | 13 | 20.60% | 3.16 | 1.43 |
| Lack of training on open research | 15 23.80% | 34 | 54.00% | 6 | 9.50% | 2 | 3.20% | 6 | 9.50% | 3.79 | 1.14 |

Table 4 points out that lack of training on open research is ranked highest with (3.79 ± 1.14) , followed by fear of plagiarism (3.78 ± 1.17) , while lack of awareness of the open research process has (3.70 ± 1.17) . However, electricity problems is ranked lowest with (3.11 ± 1.33) . Findings of this table implies that lack of training on open research, fear of plagiarism and lack of awareness of the open research process are the major factors retarding the engagement of librarians in Kwara State in open research.

Discussion and Interpretations of Findings

This study has revealed that librarians in Kwara State are professionals with most of them possessing BLIS as the least qualification for practicing Librarianship. Also, it is interesting to discover that the librarians have sufficient work experience to provide reliable opinions on their engagement in open research. This level of work experience has empowered the respondents with adequate knowledge of various channels they can use to engage in open research.

Study reveals that the respondents used open peer review, publishing research in open access platforms, deposit their research in institutional repositories and use social networks for scientists/researchers to engage in open research. This means that the evolution of open research has paved the way for librarians to be engaging in open peer review process where they are assigned as reviewers of publications submitted to standardize publishing houses. Librarians also claimed that publishing their research in open access platforms is another way they engaged in open research. By publishing research in open access platforms, research works of librarians will be made available and accessible to the public.

Furthermore, respondents also used institutional repositories as a means of engaging in open research. This is consistent with Kaur's (2018) assertion that institutional repositories are veritable platforms for researchers to make their works available and accessible to users. This also helps the institution in tracking and evaluating researchers' contributions to their filed of interest. Using social networks for scientists/researchers adds jewels to the crown of the respondents' engagement in open research. Social networking platforms for scientists/researchers: ResearchGates, Zotero, Obsidian Google Scholar and their likes have proven to be robust platforms for scientists/researchers to make their research works available and accessible to other researchers.

Engaging in open research through those channels helps respondents in creation of good research profiles, increases connectivity among researchers and increases findability and broadens readership. This is corroborated by Sarker (2018) and Ticea (2018) that greater access to global scientific studies and their results through open research can increase the connectivity among researchers for national and worldwide participation in the research process, increases findability and accessibility to readers in various locations. This implies that open research helps in boosting the respondents' research profiles and has minimized the problems of low connectivity among researchers and inaccessibility to works of researchers.

Discovering that increasing the number of citations of researchers is ranked lowest in Table 3 is worthy to be discussed. The opinions of the respondents contradict the assertion of Kaur (2018) that open research increases researchers' number of citations. Since open research encourages findability, accessibility to research works and national and worldwide participation in the research process, it is therefore possible for research works to be used and cited by other researchers, which will result in creating good profiles for researchers.

However, it is disturbing that lack of training on open research, fear of plagiarism and lack of awareness of the open research process are hindering the respondents from engaging in open research. These validate the position of Mbughuni, Mtega and Malekani (2022) that many researchers avoid engaging in open research because of lack of training on open research, fear of plagiarism and lack of awareness of the open research process. Apparently, some researchers are found of plagiarising other people's works because it is available in public domain. But this shouldn't affect other researchers from engaging in open research since one of the benefits of open research is to reduce unethical research practices (Kaur, 2018).

The open research process is not a complex adventure that researchers can engage in and exploit. It is a collective activity involving open data, findability, reusability, interoperability and accessibility to research information and open peer review to promote open science across various disciplines. Therefore, it is a process that evolves based on the technologies available to researchers and their ability to learn the methods and strategies required to practice open research for the researchers' vantages.

CONCLUSION AND RECOMMENDATIONS

Open research is one of the mainstays of scientific evolution by enabling researchers to create good profiles, increases connectivity among researchers and increases findability and broadens readerships of works shared in different platforms designed for promoting research endeavours. It is therefore incumbent on researchers to be committed to engaging in open research by making their research works available and accessible to other researchers who can help them add values to their works by using them as bases for future research or expanding the frontiers of scientific discoveries.

Based on the findings, this study hereby recommends the following:

1. Librarians in Kwara State should be trained on open research processes and practices. This will expose them to different channels they can use for open research and strategies and methods they can deploy to proficiently engage in open research.

- 2. Kwara State is one of the states with the highest library schools in Nigeria. This therefore makes it imperative for librarians to be making their research works available in open educational resources that students and colleagues can use to broaden the status of teaching and learning.
- 3. Librarians in Kwara State should not let the fear of plagiarism stop them from engaging in open research. This is because their engagement in open research will help in increasing the citations of their works.

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About the authors

Florence O. Ajani, Ph.D. is the Deputy University Librarian of Kwara State University, Malete, Nigeria. She is a registered librarian with a profound and avid interest in Knowledge Organisation, Globalisation in Libraries, Reference Services and Academic Librarianship. She is a member of Nigerian Library Association (NLA) and Nigerian School Library Association (NSLA). She holds a B.Sc. degree in Computer Science from University of Ilorin (1997), Master of Library, Archival and Information Studies (2005) and Ph.D. degree in School Media from the University of Ibadan (2018). For more than a decade, Dr. Ajani has been expanding the frontiers of Librarianship through teaching and research which have culminated in different publications in conference proceedings, seminar papers and journal articles at both local and international fronts.

Ahmed Yakub Olayinka (PhD in view) currently lectures at the Department of Library and Information Science, Federal Polytechnic, Offa, Kwara State, Nigeria. He had attended various conferences, seminars, workshops and fora, where he could ntributed his quota to the development of LIS profession. For more than a decade, he has been an active contributor of articles in journals and chapters in books at both national and international levels.

Abdulakeem Sodeeq Sulyman is a budding Library and Information Science scholar and public intellectual with deep interest in advancing the coast of scholarship and intellectual emancipation. He currently studies Library and Information Science at the Institute of Professional and Continuous Education, Kwara State University, Malete, Nigeria. He is a prolific writer with three books to his credit, serves as Ad-hoc Reviewer of reputable journals and has published more than ten journal articles on Librarianship.