Check for updates

DATA NOTE

REVIS Dataset of the adoption of digital tools for research sharing among academics in African Varsities during the COVID-19 pandemic in 2020 [version 2; peer review: 1 approved, 1 approved with reservations]

Valentine Joseph Owan ¹, Jennifer Uzoamaka Duruamaku-Dim ²,
Francisca Nonyelum Odigwe³, Mercy Valentine Owan ³

¹Department of Educational Foundations, University of Calabar, Calabar, 540271, Nigeria

²Department of Guidance and Counselling, University of Calabar, Calabar, 540271, Nigeria

³Department of Educational Management, University of Calabar, Calabar, 540271, Nigeria

V2 First published: 24 Jan 2022, 11:82
<https://doi.org/10.12688/f1000research.54245.1>

Second version: 02 Mar 2022, 11:82
<https://doi.org/10.12688/f1000research.54245.2>

Latest published: 04 Apr 2022, 11:82
<https://doi.org/10.12688/f1000research.54245.3>

Abstract

This dataset was collected from a total of 1,977 university lecturers across 24 African countries, that were purposively targeted due to their level of exposure to scholarly publications. The dataset was collected through an online survey that was sent to respondents through email, WhatsApp, and the Association of African Universities Telegram group. The questionnaire was designed by the researchers and validated by five experts for face and content validity. The demographic information of the data was analysed and the softcopy of the data uploaded to the Mendeley database for easy retrieval after deidentification (see Data Availability statement). The associated questionnaire can be found in the extended data. In Africa, this appears to be the broadest dataset associated with academics' perception of utilizing digital platforms for research sharing. This implies that scholars can use this dataset to quantitatively analyse the extent to which different digital tools are being utilized for research communication. Considering the current restrictions on in-person social gatherings due to COVID-19, researchers working on related studies may readily utilize this set of data, saving time and cost. A comprehensive but non-exhaustive number of 20 digital tools were assessed based on academics' awareness and current engagement with them, and the challenges they have faced using them. This offers a wide range of areas for studies to be anchored. Furthermore, researchers interested in specific digital tools can also evaluate the extent to which academic staff in African universities are aware of and

Open Peer Review

Approval Status

	1	2
version 3		
(revision)		
04 Apr 2022	view	view
version 2		
(revision)		
02 Mar 2022		view
version 1		
24 Jan 2022	view	view

1. **Neha Lata** , Babasaheb Bhimrao
Ambedkar University, Lucknow, India

2. **Abdullah Noorhidawati**, Universiti Malaya,
Kuala Lumpur, Malaysia

Any reports and responses or comments on the article can be found at the end of the article.

willing to utilize them for research dissemination. This data will enable scholars and researchers in Africa and beyond to understand the extent to which academics in varsities are willing to adopt digital repositories for research sharing in the context of Africa.

Keywords

Africa, data, digital tools, higher education, research, research dissemination, staff adoption, varsities

This article is included in the [Research on Research, Policy & Culture](#) gateway.

Corresponding author: Valentine Joseph Owan (owanvalentine@gmail.com)

Author roles: **Owan VJ:** Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Project Administration, Resources, Supervision, Writing – Original Draft Preparation, Writing – Review & Editing; **Uzoamaka Duruamaku-Dim J:** Conceptualization, Investigation, Methodology, Project Administration, Resources, Supervision, Writing – Review & Editing; **Nonyelum Odigwe F:** Conceptualization, Investigation, Methodology, Resources, Writing – Review & Editing; **Owan MV:** Data Curation, Investigation, Methodology, Supervision, Visualization, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

Grant information: The author(s) declared that no grants were involved in supporting this work.

Copyright: © 2022 Owan VJ *et al.* This is an open access article distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

How to cite this article: Owan VJ, Uzoamaka Duruamaku-Dim J, Nonyelum Odigwe F and Owan MV. **Dataset of the adoption of digital tools for research sharing among academics in African Varsities during the COVID-19 pandemic in 2020 [version 2; peer review: 1 approved, 1 approved with reservations]** F1000Research 2022, 11:82 <https://doi.org/10.12688/f1000research.54245.2>

First published: 24 Jan 2022, 11:82 <https://doi.org/10.12688/f1000research.54245.1>

REVISED Amendments from Version 1

In this version of the article, the comments and suggestions of the reviewers are incorporated. Notable changes in this version include the consistent use of the phrase “digital tools” against the various synonyms used in version 1. These other synonyms previously used are internet platform, digital platform, online platform, internet-based platform internet platform, digital platform, online platform, internet-based platform. In this version, a statement has been made about the response rate and no missing data. A detailed procedure of the pilot study has been included in this version. The scale response options for Table 1 are now also provided including an interpretation of the average value in Table 1. The sub-section - “instrument development” has now been created in the methods section. There are other minor changes such as the inclusion of some references, clarifying a few sentences.

Any further responses from the reviewers can be found at the end of the article

Introduction

According to the most recent statistics gathered in 2021, on the COVID-19 pandemic from Johns Hopkins University and the Africa Center for Disease Control, there are 874,036 active cases of COVID-19, with 18,498 total confirmed cases, 330,981 recoveries, and 524,557 deaths in Africa (Coronavirus Resource Centre, John Hopkins University, 2021). As cases are confirmed daily across the globe, the breakdown remains variable. As of May 13, 2020, every African country had been infected, and instances of COVID-19 have been reported in 213 nations and territories throughout the world; while the whole world grieved and felt the uncertainty and continual fear of losing their loved ones (Cohut, 2020). The COVID-19 pandemic has posed a challenge to the way people and organizations go about their daily lives. As a result, there is an increasing need for individuals and organizations to make changes to their behaviour in order to eliminate the spread of the virus. Research sharing and communication occupy a central position in the world (Odigwe *et al.*, 2020), and has proliferated during the COVID-19 pandemic because of social distancing. Many academics have welcomed the use of digital platforms to share the results of intellectual property or research (Bik & Goldstein, 2013; Bougioukas *et al.*, 2020; Siedlok *et al.*, 2020; Jarreau, 2015; Yammine *et al.*, 2018; Zientek *et al.*, 2018). Currently, the importance of internet technologies for wider dissemination of research results, visibility of researchers, quick file sharing, as well as the uploading and downloading of academic publications cannot be overstated. Furthermore, multimedia technologies have a huge potential for increasing the visibility, reputation, placement, and public value of academics and universities (Anenene *et al.*, 2017).

Despite the importance of digital repositories in the academic world, they have been described as difficult to implement. For example, research has revealed that academics make little use of open-source academic resources (Kodua-Ntim, 2020). Insufficient campaigning, ICT accessibility, facilities, finances, power supplies, lack of technical capabilities, institutional repository regulation, lack of resources, organizational culture/politics, and patent issues have all been identified as major barriers to academic personnel adopting open-access university libraries (Kodua-Ntim, 2020; Owan *et al.*, 2021). This dataset was created because, during the peak of the COVID-19 outbreak, many conferences and other intellectual gatherings were moved to internet platforms to maintain social distance and prevent the virus from spreading. The readiness of academics to accept and use online technologies may be a determining factor in the utilisation of digital platforms for such academic goals. It is critical to know how ready researchers are to use online resources for research communication, particularly from the perspective of developing African countries. This is because their level of readiness to adopt digital tools may have an impact on the utilization of digital platforms for various purposes, which in turn may have an impact on their research dissemination practices.

This dataset is an excel document showing a person-by-item matrix of the responses to the various aspects of the online questionnaire (Owan, 2021). There are a total of 1977 columns (representing the number of respondents) and 32 rows (representing the number of variables) in the dataset. There is one dummy variable (gender), four ordinal variables (age, educational qualification, rank, and years of work experience), and two nominal variables (research area and country of residence). Columns H to Column AA contain data on the extent staff are willing to adopt 20 unique digital tools for research sharing (see Figure 1). Column AB contains a dichotomous response of participants regarding their perception of classical/traditional versus modern/electronic approaches to research sharing. Each cell in Column AC contains a listing of platforms that respondents indicated the extent they currently utilize them. Each cell in column AD contains the total number of publications each participant has published, while column AE contains the total number of respondents' scholarly works that are currently on the internet. The data in column AD and AE can be used to compute the ratio of scholars' work that is on the internet as a percentage of their total number of publications. Lastly, column AF contains qualitative data on the challenges scholars face in using digital tools for research sharing.

Figure 1. Percentage indicating the extent to which academic staff are utilizing specific digital tools for research dissemination.

Methods

An electronic survey, consisting of three main parts, was used for data collection. The survey was created by the researchers, using information from a review of related literature (Owan, 'Electronic ...', 2021). Google forms was used in designing the survey for financial reasons and because it was easy to use. The virtual snowball approach was used in targeting the respondents using the Association of African Universities' (AAU) Telegram platform. Some respondents were sent a link to the survey and asked to forward it to other colleagues who are academic staff. The AAU Telegram is composed of academic staff from different universities across Africa. This qualified all of them as participants for the study.

Ethics and consent

This study involved human subjects whose consent were sought in the cover letter of the questionnaire. The authors stated clearly to the respondents what the research involved and how the data will be handled. Respondents were made to understand that by completing the survey, they have consented to participate. Ethical approval was not required for this study according to the [National Health Research Ethics Committee of Nigeria guidelines](#) (NHREC).

Instrument development

The instrument used for data collection was designed by the researchers using information from a review of related literature. The instrument was designed in three sections. Section one included a lengthy cover letter detailing the purpose of the study, its duration, the planned delivery period, the nature of the responses/data needed and an ethical declaration stating how privacy and confidentiality would be maintained. The respondents were assured that all the information solicited was going to be used for the research and that no personal data was going to be revealed to anyone. The decision to participate was voluntary and respondents were further assured that collected data would be aggregated with all identifying information removed. At the end of the letter in section 1, respondents were informed that responding to the items in subsequent sections of the questionnaire, would indicate that they have consented to participate. Section 2 gathered demographic information from respondents, such as gender, age, qualifications, academic ranks, years of job experience, areas of research and countries of residence. The demographic information was gathered using a list of options for respondents to tick.

There was no potential bias, since the research was exploratory and the medium used for data collection was transparent, inclusive and open to all African universities. The researchers had no control of snowballing distribution to subsequent participants.

The third section was divided into six sub-sections. The first sub-section was a five-point rating system for a set of 20 online sites in which participants were supposed to indicate their willingness to use them for research sharing (See [Table 1](#)). The scale response options ranged from zero (No willingness) to five (very willing). [Table 1](#) provides information about the extent of staff willingness to utilise digital tools for research dissemination using mean and standard deviation. The grand mean of 5839 was derived from finding the average of all the mean values for the 20 specific sites. This values indicates the overall extent respondents are willing to utilise digital tools for research

Table 1. Extent of respondents' willingness to adopt digital tools for research dissemination in Africa (N = 1,977).

S/N	Digital tools	Score	$\bar{X}$	SD	S ²	Remark
1	ResearchGate	8814	4.46	.89	.79	High extent of willingness
2	Google Scholar	8901	4.50	.78	.61	High extent of willingness
3	Publons	4860	2.46	1.97	3.88	Low extent of willingness
4	ORCID	6027	3.05	2.01	4.05	High extent of willingness
5	Mendeley	6570	3.32	1.91	3.66	High extent of willingness
6	SSRN	4680	2.37	2.01	4.05	Low extent of willingness
7	Academia.edu	7290	3.69	1.54	2.38	High extent of willingness
8	Calameo	3870	1.96	1.72	2.95	Low extent of willingness
9	BePress	3960	2.00	1.76	3.09	Low extent of willingness
10	Facebook	5670	2.87	1.98	3.93	High extent of willingness
11	Twitter	4860	2.46	1.75	3.06	Low extent of willingness
12	LinkedIn	5670	2.87	1.79	3.20	High extent of willingness
13	Telegram	5940	3.00	1.53	2.35	High extent of willingness
14	Blogs	5220	2.64	1.82	3.32	High extent of willingness
15	YouTube videos	5940	3.00	1.88	3.54	High extent of willingness
16	E-mail	8091	4.09	1.16	1.36	High extent of willingness
17	PhilPapers	3960	2.00	1.73	3.00	Low extent of willingness
18	Institutional repositories	6840	3.46	1.72	2.96	High extent of willingness
19	ZOOM video conferencing	7020	3.55	1.90	3.60	High extent of willingness
20	Pre-print servers	5580	2.82	1.97	3.87	High extent of willingness
	<i>Average</i>	5839	3.03	1.69	2.98	<i>High extent of willingness</i>

dissemination. The respective mean values for the 20 digital tools indicates on average, the extent to which specific platforms are desired for utilisation. The second sub-section consisted of a closed-ended inquiry designed to ascertain academic personnel perceptions of conventional and contemporary approaches to research sharing. The third sub-section was a checklist of 20 websites on which respondents could check the ones they currently use for research sharing. We visualised the resources scholars are interested in using and identified the resources that are more likely to be utilised in the future (Figure 1). Table 2 provides information on the current state of academic staff utilisation of myriad digital tools in the dissemination of research.

The fourth sub-section was structured to assess respondents' total number of scholarly publications (including journal articles, theses/dissertations, conference papers, book chapters, and books). Textboxes were provided for the respondents to write the total number of their published works. The fifth sub-section focused on the overall number of respondents' academic publications available online (including those on the websites of publishers and those that are manually submitted to internet sites). The sixth sub-section was created to allow respondents to share their thoughts on the difficulties they experience while attempting to use online channels for research distribution. The bar chart in Figure 2 highlights the challenges limiting African scholars' use of online for research dissemination. The various tools were chosen for each sub-section because of their effectiveness in collecting the required information.

For face and content validity, the survey was reviewed by three instructional technology specialists and two psychometrists from the University of Calabar's Faculty of Education. The face and content validity were carried out to ensure that the contents and arrangements of the questions/items were reasonably clear, eliminating extraneous information and ambiguity.

A pretesting pilot study (Baker, 1994) was implemented in the study to try-out the instrument for data collection. In the pilot test a total of 60 academic staff from six countries in Africa were selected purposively from the AAU Telegram group to take part in the trial test. These 60 respondents were excluded from participating in the main study. The 60 participants took the survey once. Thereafter, 10 respondents of the 60 who participated in the pilot study were further selected to participate in a focus group discussion (FGD). The FGD, which took place on ZOOM videoconferencing, gave participants the opportunity to qualitatively discuss their experiences with the survey in terms of the length of the survey, time taken to complete it, how well they thought items measured their targeted variables and if there was an

Table 2. Digital tools utilized by academic staff for research dissemination and the rate of utilization (N = 1,977).

S/N	Digital tools	Frequency (f)	Rate (%)
1	ResearchGate	1608	81.34
2	Google Scholar	1441	72.89
3	Academia.edu	900	45.52
4	ZOOM video conferencing	660	33.38
5	Telegram	540	27.31
6	ORCID	468	23.67
7	Facebook	450	22.76
8	LinkedIn	423	21.40
9	Mendeley	407	20.59
10	E-mail	403	20.38
11	YouTube videos	293	14.82
12	Institutional repositories	274	13.86
13	BePress	270	13.66
14	Twitter	270	13.66
15	Publons	219	11.08
16	SSRN	136	6.88
17	Pre-print servers	125	6.32
18	Blogs	77	3.89
19	Calameo	60	3.03
20	PhilPapers	14	0.71

Figure 2. Bar chart showing the challenges faced by academics in the utilization of digital tools for research dissemination in African Universities.

omission of anything important. Using the feedback from the focus group discussion, some online repositories were replaced. For instance, the ERIC and ProQuest databases were initially listed, but they were replaced with SSRN and Philpapers respectively, because the participants felt they cannot post documents to the previous two easily. The databases used for the replacements were suggested by the participants.

For reliability, the Cronbach alpha method was used to ascertain the degree of internal consistency of the instrument. The responses of the 60 participants in the pilot study was used. Reliability analysis was only performed for one variable (staff willingness to adopt digital tools) because it was the only variable that received continuous data. As a proof that the instrument was highly reliable, an alpha coefficient ($\alpha = 0.894$) was obtained. This value was considered high as per the recommendations of other researchers (e.g., [Cho & Kim, 2015](#); [Hoekstra *et al.*, 2019](#); [Spiliotopoulou, 2009](#); [Taber, 2018](#)).

The link to the e-survey was shared on the Telegram forum of the Association of African Universities, which has 1,622 participants from various African countries and regions. Members of the group, who were university academic employees, were invited to complete the survey and post it on their institutions' internet-based forums. The researchers warned the participants intending to share the link to the questionnaire, to distribute it to only academics who meet the selection criteria. To be qualified as a respondent for the study, an academic staff must have obtained a doctorate degree and must have published an article in a peer reviewed journal. Through further dissemination of the questionnaire by the initially targeted participants, the researchers were able to get information from 1,977 respondents. All the respondents provided complete information to the questionnaire items; thus, there was no missing data.

The survey was open from July 2020 to January 2021, reflecting a seven-month data collection period. The accompanying data was imported, translated to an Excel file (.xlsx), reviewed, cleaned, and re-coded after the survey was closed (where necessary). The data obtained was deidentified in line with the privacy statement given to participants following the Safe Harbour method. All information pertaining to dates such as age and years of experience, were grouped into a range (e.g., 20 – 29 years). The data was cleaned in sections where respondents were given the freedom to provide short answers. Cleaning was done through fixing spelling errors, matching cases for responses and grouping responses. The survey received feedback from 1,977 academics in African universities. The survey was stopped not because of saturation but because no further response was obtained two months after the last response was obtained. At this point it became clear that responses were no longer forthcoming.

Data availability

Underlying data

Mendeley: Electronic Cross-Sectional Data of Academic Staff Preparedness to Adopt Digital Tools for Research Sharing in African Varsities. <http://dx.doi.org/10.17632/69k939yr4n.1> (Owan, 'Electronic ...', 2021).

The project contains the following underlying data:

- Utilisation of online platforms for research dissemination further analysis 2.xlsx
- Utilisation of online platforms for research dissemination further analysis.xlsx
- Utilisation of online platforms for research disseminato=.sav
- Utilization of Online Platforms for Research Dissemination Questionnaire (UOPRDQ) (Responses).xlsx

Extended data

This project contains the following extended data:

- Utilization of Online Platforms for Research Dissemination Questionnaire (UOPRDQ)

Data are available under the terms of the [Creative Commons Attribution 4.0 International license](#) (CC-BY 4.0).

Acknowledgements

The researchers are very grateful to the participants of this research who after receiving the survey link, worked actively to network with their colleagues. We are also grateful to the Association of African Universities (AAU) resource persons for offering us the platform to disseminate the instrument and engage respondents across different countries in Africa.

References

- Anenene EE, Alegbeleye GB, Oyewole O: **Factors contributing to the adoption of institutional repositories in Universities in South-West Nigeria: Perspectives of Library Staff.** *Library Philosophy and Practice (e-journal)*. 2017.
[Reference Source](#)
- Baker TL: *Doing social research*. 2nd ed. McGraw-Hill; 1994.
- Bik HM, Goldstein MC: **An introduction to social media for scientists.** *PLoS Biol.* 2013; **11**(4): e1001535.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Bougioukas KI, Bouras EC, Avgerinos KI, *et al.*: **How to keep up to date with medical information using web-based resources: A systematised review and narrative synthesis.** *Health Inf. Libr. J.* 2020; **37**: 254–292.
[PubMed Abstract](#) | [Publisher Full Text](#)
- Cho E, Kim S: **Cronbach's coefficient alpha: Well known but poorly understood.** *Organizational Research Methods.* 2015; **18**: 207–230.
[Publisher Full Text](#)
- Cohut M: **Covid-19 global impact: How the coronavirus is affecting the world.** 2020.
[Reference Source](#)
- Hoekstra R, Vugteveen J, Warrens MJ, *et al.*: **An empirical analysis of alleged misunderstandings of coefficient alpha.** *International Journal of Social Research Methodology.* 2019; **22**(4): 351–364.
[Publisher Full Text](#)
- Jarreau PB: *All the science that is fit to blog: An analysis of science blogging practices.* 2015. Unpublished Doctor of Philosophy, (Louisiana State University), Baton Rouge, LA.
[Reference Source](#)
- Kodua-Ntim K: *Sage of open access institutional repositories in University Libraries in Ghana.* 2020. Unpublished PhD. Dissertation, (University of South Africa).
[Reference Source](#)
- Odigwe FN, Bassey BA, Owan VJ: **Data management practices and educational research effectiveness of university lecturers in South-South Nigeria.** *J. Educ. Soc. Res.* 2020; **10**(3): 24–34.
[Publisher Full Text](#)
- Owan VJ: **Electronic Cross-Sectional Data of Academic Staff Preparedness to Adopt Digital Tools for Research Sharing in African Varsities.** *Mendeley Data.* 2021; V1.
[Publisher Full Text](#)
- Owan VJ, Asuquo ME, Makuku V, *et al.*: **The Extent of Online Platforms Utilization for Scholarly Research Work Dissemination: A Survey of Academic Staff in African Universities.** *SocArXiv Preprint.* 2021.
[Publisher Full Text](#)
- Siedlok F, Hibbert P, Whitehurst F: **Social network influences employee responses to organizational withdrawals.** *Org. Manage. J.* 2020; **17**(1): 15–35.
[Publisher Full Text](#)
- Spiliotopoulou G: **Reliability reconsidered: Cronbach's alpha and paediatric assessment in occupational therapy.** *Australian Occupational Therapy Journal.* 2009; **56**(3): 150–155.
[Publisher Full Text](#)
- Taber KS: **The use of Cronbach's alpha when developing and reporting research instruments in science education.** *Research in Science Education.* 2018; **48**(6): 1273–1296.
[Publisher Full Text](#)
- Yammine SZ, Liu C, Jarreau PB, *et al.*: **Social media for social change in science.** *Science.* 2018; **360**(6385): 162–163.
[PubMed Abstract](#) | [Publisher Full Text](#)
- Zientek LR, Werner JM, Campuzano MV, *et al.*: **The use of Google Scholar for Research and Research Dissemination.** *New Horizons in Adult Education and Human Resource Development.* 2018; **30**: 39–46.
[Publisher Full Text](#)

Open Peer Review

Current Peer Review Status:

Version 2

Reviewer Report 28 March 2022

<https://doi.org/10.5256/f1000research.121855.r126003>

© 2022 Noorhidawati A. This is an open access peer review report distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abdullah Noorhidawati

Department of Library and Information Science, Faculty of Arts and Social Sciences, Universiti Malaya, Kuala Lumpur, Malaysia

I am satisfied with most of the authors' revisions, but there are still a few things that could be improved upon/clarified:

Firstly, I would still maintain that there are 1977 **rows** (representing the number of respondents) and 32 **columns** (representing the number of variables) in the dataset - (note to author - based off of the excel form provided).

Secondly, I would recommend changing the term to the **digital tool** at these occurrences to make it consistent throughout the article (recommendations in bold)

- - Utilisation of **online platforms** for research dissemination further analysis 2.xlsx
- - Utilisation of **online platforms** for research dissemination further analysis.xlsx
- - Utilisation of **online platforms** for research disseminato=.sav
- - Utilization of **Online Platforms** for Research Dissemination Questionnaire (UOPRDQ) (Responses).xlsx
- - Utilization of **Online Platforms** for Research Dissemination Questionnaire (UOPRDQ)

Competing Interests: No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 28 Mar 2022

Valentine Owan

Thank you reviewer for these two suggestions. We totally agree with you this time regarding the 1977 rows and 32 columns. Secondly, we have renamed the files in the project for consistency. We think the article will benefit from one last minor revision.

Competing Interests: No competing interest.

Version 1

Reviewer Report 25 February 2022

<https://doi.org/10.5256/f1000research.57710.r121430>

© 2022 Noorhidawati A. This is an open access peer review report distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abdullah Noorhidawati

¹ Department of Library and Information Science, Faculty of Arts and Social Sciences, Universiti Malaya, Kuala Lumpur, Malaysia

² Department of Library and Information Science, Faculty of Arts and Social Sciences, Universiti Malaya, Kuala Lumpur, Malaysia

The abstract provides clear information.

The introduction is good and cited recent references. But please check again the following statement: *"There are a total of 32 rows and 1,977 columns, with the first row indicating the variables."* It should be 1,977 rows (indicating number of respondents) and 32 columns (the variables).

Figure 1 should include label for the data on the bar chart, either percentage or frequency. Table 1 and Table 2 should include the N (number of responses).

Method

In the abstract it was mentioned - *"This dataset was collected from a total of 1,977 university lecturers across 24 African countries"*. But in the Introduction it was reported - *"The link to the e-survey was shared on the Telegram forum of the Association of African Universities, which has 1,622 participants from various African countries and regions."* Please check again the figure, as the responses gathered (1,977) were more than the total Telegram participants (1,622).

The method section is quite clear, but I have some comments for improvement:

- It would be good to have a separate sub-section on instrument development, where information on each section of the survey instrument is discussed, currently it is all under Ethics and Consent sub-section.
- It is a good practice to include Ethics and Consent sub-section.

- Include information on the scale used to measure “willingness” as shown in Table 1.
- Provide explanation on the Average Score = 5839 as indicated in Table 1.
- Report on the pilot study and the changes made after it was conducted.
- A total of 1,977 responses were gathered, all of them are usable data/completed responses? It is good to report the incomplete survey (that was excluded from the analysis) if that is the case. If none please inform so.

The title used the term “digital tools” but throughout the article various term were used such as internet platform, digital platform, online platform, internet-based platform – one consistent term should be used throughout the article and survey instrument to avoid confusion.

Is the rationale for creating the dataset(s) clearly described?

Yes

Are the protocols appropriate and is the work technically sound?

Yes

Are sufficient details of methods and materials provided to allow replication by others?

Partly

Are the datasets clearly presented in a useable and accessible format?

Yes

Competing Interests: No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 25 Feb 2022

Valentine Owan

Response to reviewer

Comment #1: The abstract provides clear information.

Response#1: Thanks

Comment #2: The introduction is good and cited recent references. But please check again the following statement: “There are a total of 32 rows and 1,977 columns, with the first row indicating the variables.” It should be 1,977 rows (indicating number of respondents) and 32 columns (the variables).

Response #2: The researchers are grateful to the reviewer for the inputs. However, we tend to disagree with the reviewer regarding the statement made about rows and columns. There are 1,977 columns (representing the number of respondents) and 32 rows

(representing the number of variables). Columns are vertically arranged, while rows flow horizontally. The reviewer should kindly recheck that. However, we have modified the statement to make it clearer.

Comment #3: Figure 1 should include a label for the data on the bar chart, either percentage or frequency. Table 1 and Table 2 should include the N (number of responses).

Response #3: We are grateful to the reviewer for this insightful observation. We have indicated the percentage for Figure 1 for clarity. We have also provided the number of responses (N) to the titles of Tables 1 and 2.

Method

Comment #4: In the abstract, it was mentioned - "This dataset was collected from a total of 1,977 university lecturers across 24 African countries". But in the Introduction, it was reported - "The link to the e-survey was shared on the Telegram forum of the Association of African Universities, which has 1,622 participants from various African countries and regions." Please check again the figure, as the responses gathered (1,977) were more than the total Telegram participants (1,622).

Response #4: We thank the reviewer for bringing this point out. However, we are clarifying that the virtual snowball was used. Although there were 1,622 members in the Telegram group, the respondents further distributed the link to the questionnaire to other institution-specific online groups. Thus, the responses gotten was beyond the number of participants in the group. It was not an error.

Comment #5: The method section is quite clear, but I have some comments for improvement: It would be good to have a separate sub-section on instrument development, where information on each section of the survey instrument is discussed, currently it is all under Ethics and Consent sub-section. It is a good practice to include Ethics and Consent sub-section.

Response #5: The authors are very impressed with this comment. The original draft of the article had this section, but it was recommended for removal during the initial editorial check. Nevertheless, we have added the section "instrument development" to the revised article because we agree with the reviewer that it will make it clearer to readers. We are grateful.

Comment #6: Include information on the scale used to measure "willingness" as shown in Table 1. Provide an explanation on the Average Score = 5839 as indicated in Table 1.

Response #6: The researchers wish to draw the attention of the reviewer to the description of the third section of the survey, where it was stated that a five-point rating scale was used. However, in the revision, we have stated that a scale with response options ranging from 0 (no willingness) to 5 (very willing) was used. The average score of 5839 in Table 1 has also been explained in the revised version.

Comment #7: Report on the pilot study and the changes made after it was conducted.

Response #7: Thanks to the reviewer. Although we felt it was not necessary to document the pilot study procedure in a Data Note. However, following your suggestion, we can confirm that details of the pilot study including reliability are now provided.

Comment #8: A total of 1,977 responses were gathered, all of them are usable data/completed responses? It is good to report the incomplete survey (that was excluded from the analysis) if that is the case. If none please inform so.

Response #8: We are grateful to the reviewer for raising it. It is important information that should be added. As you will see in the revised version of the article, a statement has been made that complete data were collected from the 1,977 respondents without any missing data.

Comment #9: The title used the term "digital tools" but throughout the article, various terms were used such as internet platform, digital platform, online platform, internet-based platform – one consistent term should be used throughout the article and survey instrument to avoid confusion.

Response #9: The authors can confirm that the term "digital tools" is now consistently used in the revised version of the article.

Competing Interests: No competing interests were disclosed.

Reviewer Report 18 February 2022

<https://doi.org/10.5256/f1000research.57710.r120882>

© 2022 Lata N. This is an open access peer review report distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Neha Lata

¹ Department of Library and Information Science, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India

² Department of Library and Information Science, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India

The article presents a broad dataset from 24 African countries about their intention to utilise internet-based outlets for research dissemination during the COVID-19 pandemic. The paper's general quality is good: it is well-written, and some important considerations are highlighted. The research study is well-structured, with clear ideas and concise, persuasive language. The introduction is relevant and theoretically sound. The literature evaluation is thorough, and authors successfully discussed the significance of the research from both a theoretical and practical standpoint.

The methodology of the paper is rich and commendable because it was stated in a manner that allows for replication, and the methodologies and data analysis have no flaws in my opinion. Secondly, the authors addressed the issue of potential bias by ensuring that the link to the survey was posted only on platforms hosting academics from African universities, who in turn shared it with their colleagues.

There was also a clear statement of ethical consideration, with evidence of a national guideline exempting the need for ethical clearance because of no associated risk of participation.

Generally, the authors were detailed in their methodology with the safe harbour methods followed for data privacy. As a data article, the information provided is sufficient for re-use.

Is the rationale for creating the dataset(s) clearly described?

Yes

Are the protocols appropriate and is the work technically sound?

Yes

Are sufficient details of methods and materials provided to allow replication by others?

Yes

Are the datasets clearly presented in a useable and accessible format?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: ICT applications to Library and Information Services, Digital Library and Information Retrieval System, Library Automation and Networking, Cloud Computing.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

The benefits of publishing with F1000Research:

- Your article is published within days, with no editorial bias
- You can publish traditional articles, null/negative results, case reports, data notes and more
- The peer review process is transparent and collaborative
- Your article is indexed in PubMed after passing peer review
- Dedicated customer support at every stage

For pre-submission enquiries, contact research@f1000.com

F1000Research