

**Full Length Research**

# **Information Literacy Skills and Visibility of Librarians in National Root Crops Research Institutes Umudike**

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**This study examined. Information literacy skills and visibility of librarians in national root crops research institutes Umudike. The study was guided by three specific objectives and three research questions. The study employed descriptive survey research design, while the population of the study is 9 librarians drawn from National Root Crops research institutes library Umudike. There was no sample for the study as complete census method was employed. Only one instrument (questionnaire) was used. The questionnaire was validated by three professionals from the Department of Library and Information Science, MOUAU. Mean was used in analyzing data for the study. Identifies that librarians in NRCRI are most proficient in the use of online scholarly discussions forum, they are also proficient in the use of research gate website, linkedin, academia.edu and Google Scholar. The study identifies ability to provide up-to-date contact information on research output, ability to create a list of my published research publications and ability to upload my CV on researchers networking sites as the abilities librarians in NRCRI have to create researcher profile. The study identifies the following as librarian's visibility: My publications are harvested by Google Scholar search engine. The study therefore recommended that: librarians should be well trained on the creation of researcher profile, librarians should have a personal research website where peers keep track of their research activities, librarians should also have a citation count to their publications on several scholarly sites**

**Keywords:** Scholarly Networking Sites and Researcher Visibility and Researcher Profile and Visibility of Researchers

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## **INTRODUCTION**

Research institutes are institutions where researches are carried out (Michael, 2020). Research institutes carry out their duties through various categories of staff. One of such categories of staff in research institutes is known as librarians. Researchers in research institutes are the life wire of research institutions (Frank, 2023). They conduct experimental researchers in the area of specialization of the institute, develop inputs and provide operational guides to their host communities, country and the world at large. In fact, Resnik (2020) summarizes the job roles of a research institute researcher as a social responsibility that centre on societal guidance and progress through evidence-based research publishing.

Research publishing is a scientific term that describes the action of making a research result visible for people to read and apply the knowledge in a research report (Elis, 2015). There are several publishing platforms for researchers to publish

their research reports, ranging from scientific journals, learned conference proceedings to monographs (Maji, 2023). Till today these publishing platforms still exist, but are now globally aided on a more user friendly and easy-to discover tool called the internet. With the internet, the quest to access research reports across the globe is increasing daily, dragging along with it unavoidable call for scientific research and researchers to be visible on the internet. Hence as the internet is enabling researchers to showcase their research reports to a global audience, there has arisen among researchers technically referred to as researcher visibility. Researcher visibility is how well their work is known to the people who matter, such as other researchers and the public (Enrahama, 2013). Researchers can share their research with the public through a variety of alternative dissemination mechanisms, including Research Gate, Academia.edu and others. Researchers can boost their visibility, preserve their work and make it available for use in the future by making all of their outputs publicly accessible (Maji, 2023). Information literacy skills guarantee researcher visibility. Information literacy skill is the ability to harness information and preserve the information in order to disseminate the information either for critical decision making or for solving a particular problem (Bruce, 2003).

Information literacy skills are essential for librarians in academic and research settings, enabling them to effectively navigate, evaluate, and utilize information (American Library Association, 2016). In Federal universities and research institutes, librarians with strong information literacy skills can significantly contribute to the research process, enhancing their visibility within the academic community (Julien & Genuis, 2011).

The role of librarians has evolved beyond traditional library services, with a growing emphasis on information literacy instruction and research support (Bell & Shank, 2004). Librarians who possess advanced information literacy skills can better support researchers, thereby increasing their visibility and relevance in the academic environment (Hurst & Leonard, 2016).

In Abia State, Federal universities and research institutes like Michael Okpara University of Agriculture and the National Root Crops Research Institute rely on librarians to provide critical information services. The visibility of librarians in these institutions can be significantly influenced by their ability to demonstrate expertise in information literacy (Ojedokun, 2007).

This study aims to explore the information literacy skills and visibility of librarians in research institutes in Abia State. By understanding information literacy skills and visibility of librarians, the study will provide insights into how librarians can enhance their roles and contributions to research endeavors.

### **Statement of the Problem**

The research system of the Nigerian agricultural institutes is improving in the absorption of new literacy skills into research processes. In the same vein, the agricultural research institutes in Abia state have invested heavily in the acquisition of information literacy skills in a bid to enhancing researcher's visibility in their institutions. Information literacy skills have also become very important for the agricultural research community in accessing current agricultural information for research purposes. Information literacy skills enable researchers especially librarians in agricultural research institutes to access first hand agricultural information which is timely, current and also open the possibility of searching for information on scholarly networking sites, engaging in collaboration, knowledge sharing and dissemination of result findings. All these are accomplished more easily and visibility enhanced when librarians possess information literacy skills.

However, despite all these advantages derivable from the acquisition of information literacy skills by librarians, information literacy ability to. Proficiently utilize scholarly networking sites and ability to create researcher profile seems to be poor. After more than one-decade, available studies have not shown what the situation is as regards to librarian's information literacy skills. Hence there is literature on information literacy skills, but no study has been carried out on information literacy skills and visibility of librarians in agricultural research institutes in Abia State. It is therefore based on this gap in the literature that this study is carried out to examine the information literacy skills and visibility of librarians in research institutes in Abia State.

The general objective of the study is to examine the information literacy skills and visibility of librarians in National Root Crops Research Institute Umudike.

### **The Specific Objectives are to:**

- (1) Determine librarians' proficiency in utilizing scholarly networking sites in National Root Crops research institute Umudike
- (2) Ascertain librarians' ability to create researcher profile in National Root Crops research institute Umudike.
- (3) To identify extent of visibility of librarians in the utilization of scholarly networking sites in National Root Crops Research Institute Umudike.

## Research Questions

- (1) What is the librarians' proficiency in utilizing scholarly networking sites in National Root Crops research institute Umudike?
- (2) What is the librarians' ability to create researcher profile in National Root Crops research institute Umudike?
- (3) What is the extent of visibility of librarians in the utilization of scholarly networking sites in National Root Crops Research Institute Umudike?

## Significance of the Study

The findings of this study when published shall be beneficial to the management of agricultural research institutes, Librarians and researchers.

By understanding the need for information literacy, management of agricultural research institutes can implement recommendations of this study to improve librarian visibility, which is essential for disseminating research findings, securing funding, and attracting collaborations. This study will promote effective management of research institutes by enabling timely and evidence-based decision-making.

Further-more, information contained in this study when published, is going to equip research librarians in their different workplaces to acquire all the relevant knowledge and information required to train agricultural researchers on information literacy skills and visibility, preparing them to acquire all the necessary skills required to conduct research on agricultural crops and thereby becoming visibility. By empowering researchers with the ability to utilize digital tools to communicate their research results, researchers will achieve enhanced visibility, collaboration and networking, knowledge mobilization, and career advancement. Therefore, it is essential for agricultural research institutes to invest in training and supporting researchers in developing these essential competencies. The study will equip research librarians with relevant skills that will enable them provide resources and guidance to researchers, helping them navigate complex information landscapes and identify high-impact journals for publication. The study will also provide necessary skills for research librarians to facilitate collaboration by creating online repositories and platforms where researchers can connect and disseminate their work. With the knowledge acquired from this study, research librarians can assist researchers with data management, citation analysis, and other techniques to optimize the dissemination and impact of their work. This study can provide research librarians with skills that will enable them bridge the gap between disciplines, providing tailored services and resources to support interdisciplinary research efforts. The knowledge from this study can also enable research librarians provide training and support to researchers in translating complex scientific information into accessible and engaging formats. This can be achieved through indexing and abstracting. Librarians can also offer training and workshops on information literacy skills tailored to the specific needs of researchers. Librarians can develop search strategies, manage references, and identify potential publication outlets.

By bridging the gap between academia and society, researchers can increase the visibility and impact of their work. Researchers who possess these skills are more likely to obtain funding, secure promotions, and lead research teams effectively. Continuous development of information literacy skills throughout their career can enhance researchers' competitiveness and career trajectory.

## Scholarly Networking Sites and Researcher Visibility

Scholarly networking sites (SNSs) have emerged as indispensable tools for researchers to connect, collaborate, and showcase their work (Alzahrani, 2015). These platforms provide researchers with increased visibility, allowing them to reach a wider audience and enhance their impact (Priem & Hemminger, 2021). SNSs offer opportunities for researchers to share their research findings, engage with peers, and establish professional connections (Li et al., 2017). By creating profiles and uploading publications, researchers can make their work more discoverable to potential collaborators and readers (Guo et al., 2020). Additionally, SNSs facilitate discussions and interactions, fostering knowledge exchange and the dissemination of new ideas (Priem & Hemminger, 2021). These insights can inform researchers' strategies for dissemination and engagement, enabling them to maximize the visibility and impact of their research. Furthermore, SNSs provide researchers with analytics and metrics that help them track the reach and impact of their work (Guo et al., 2020).

Scholarly networking sites have transformed the way researchers collaborate, share, and disseminate their work. These platforms have become essential tools for academics to increase their research visibility, citations, and impact (Shahzad et al., 2017). This literature review explores the role of scholarly networking sites in enhancing research visibility. Scholarly networking sites, such as Research Gate and (link unavailable), have experienced rapid growth in recent years. These platforms provide academics with a space to showcase their work, connect with colleagues, and share their

research with a broader audience (Hammarfelt, 2017). A study by Ortega (2016) found that researchers who used scholarly networking sites had higher citation rates and greater research visibility compared to those who did not use these platforms.

Scholarly networking sites offer various features that can enhance research visibility. For example, researchers can share their publications, upload their datasets, and participate in discussions related to their field of study (Meishar-Tal & Pieterse, 2017). A study by Thelwall and Kousha (2017) found that researchers who shared their publications on scholarly networking sites had higher citation rates and greater research visibility compared to those who did not share their work on these platforms. Social networking sites, including scholarly networking sites, have been shown to have a positive impact on academic engagement and performance. A study by Boulian (2015) found that students who used social networking sites had higher levels of academic engagement and motivation compared to those who did not use these platforms.

A study by Veletsianos (2016) found that researchers who used social media had higher levels of research visibility and citations compared to those who did not use social media. Scholarly networking sites have become essential tools for academics to increase their research visibility, citations, and impact. These platforms provide researchers with a space to showcase their work, connect with colleagues, and share their research with a broader audience.

### **Researcher Profile and Visibility of Researchers**

The concept of a research profile encapsulates the reputation and impact of researchers within the academic community (Gläser, 2018). Research visibility, in turn, refers to the extent to which researchers' work is accessible and discoverable (Zitt, 2022). Several studies have highlighted the importance of a strong research profile and high visibility for researchers seeking career advancement and funding opportunities (Alberts & van Raan, 2015).

Social media platforms have emerged as valuable tools for researchers to enhance their visibility and engage with wider audiences (Moran & Seaman, 2016). By sharing research findings and participating in online discussions, researchers can increase the reach and impact of their work (Bornmann, 2024). However, concerns have also been raised regarding the potential for social media to amplify bias and misinformation (Fraser et al., 2021).

A researcher's profile and visibility are crucial in today's academic landscape. A strong online presence can increase a researcher's credibility, collaboration opportunities, and citation rates (Shahzad et al., 2017). This literature review explores the concept of research profile and visibility, and its significance in modern academia. Having an online presence is essential for researchers to showcase their work, share their expertise, and connect with colleagues (Hammarfelt, 2017). A study by Van Noorden (2014) found that researchers with a strong online presence were more likely to receive citations and collaboration opportunities. Academic networking sites, such as Research Gate and (link unavailable), provide researchers with a platform to create a profile, share their research, and connect with colleagues (Meishar-Tal & Pieterse, 2017). A study by Ortega (2016) found that researchers who maintained a profile on these sites were more likely to receive citations and collaboration opportunities. Social media platforms, such as Twitter and LinkedIn, can play a significant role in increasing research visibility (Veletsianos, 2016). A study by Bowman (2015) found that researchers who used social media to share their research were more likely to receive citations and collaboration opportunities. Citation metrics, such as h-index and citation counts, are widely used to measure a researcher's productivity and impact (Wouters et al., 2015). A study by Bornmann et al. (2018) found that citation metrics can be used to identify top-performing researchers in a particular field.

A study by Demeranville (2015) found that researcher identifiers can improve the accuracy of citation metrics. Collaboration can increase research visibility by providing researchers with access to new networks and audiences (Katz & Martin, 2018). A study by Lee et al. (2018) found that collaboration can increase research citations and impact. Altmetrics, such as social media mentions and downloads, can provide a more comprehensive picture of research impact and visibility.

### **METHODOLOGY**

The population of the study is 11 librarians drawn from National Root Crops research institutes library Umudike (Appendix II, Population Distribution of the Study). The sample for the study is eleven (11) librarians. The sampling technique adopted is the complete census method, and the reason for this method is because the population is manageable. The instrument that was used in collecting data is the questionnaire. The instrument is titled: Information Literacy Skills and Librarians Visibility Questionnaire (ILSLVQ). The instrument was administered by the researcher himself since he forms part of the population for the study. The descriptive survey design was used in conducting the study. The data collected were analyzed using descriptive statistics (mean and standard deviation) For answering the

research questions, any item with the mean value of 2.50 and above was regarded as accepted, otherwise, they were regarded as rejected. Mean and standard deviation were used for all the research questions, where 2.50 were used as benchmark. Hence, any item with mean value of 2.50 and above was interpreted as agreed and strongly agreed, while any item with mean value of less than 2.50 was interpreted as disagreed and strongly disagreed. The ratings of the questionnaire were assigned as follows: 0.50-1.49 – Strongly Disagree, Very Low Extent, 50-2.49 – Disagree, Low Extent, 2.50-3.49 – Agree, High Extent. 3.50- 4.00 – Strongly Agree, Very High Extent.

#### Cluster A: librarians' Proficiency in Utilizing Scholarly Networking Sites

**Table 1.** Mean Response of Librarians Proficiency in Utilizing Scholarly Networking Sites = 9

S/N	Item Statement	SA	A	D	SD	$\bar{x}$	SD	RMK
1	Online Scholarly Discussions	6	2	1	-	4.44	1.23	SD
	Forum							
2	Research Gate Website	3	1	4	1	3.11	0.05	A
3	LinkedIn	1	2	4	2	2.56	0.59	A
4	Academia.edu	3	1	3	2	3.00	0.11	A
5	Google Scholar	3	3	2	1	3.56	0.05	SA
Cluster Mean						3.33	2.03	

Keys: (SA) – Strongly Agree, (A) – Agree, (D) – Disagree, (SD) – Strongly Disagree

The data presented in Table 1 above shows that the cluster mean of the responses of librarians in NRCRI library of all the 5 items is 3.33 (cluster mean), which is greater than the criterion mean of 2.50 on 4-point rating scale. This indicated high proficiency in the use of scholarly networking sites by librarians in NRCRI library. The standard deviation values of the 5 items ranged from 0.05 – 1.23 which indicated that the responses of the respondents were close to one another and to the mean.

#### Cluster B: librarians' Ability to Create Researcher Profile Mean Response of librarian

**Table 2. Ability to Create Researcher Profile = 9**

S/N	Item Statement	SA	A	D	SD	$\bar{x}$	SD	RMK
7	Ability to provide up-to-date contact information on my research output.	4	3	2	1	2.5	1.12	SD
8	Ability to create a list of my published research publications.	4	3	1	2	2.5	1.12	SD
9	Ability to upload my CV on researchers networking sites.	5	3	1	-	2.25	1.92	SD
10	Ability to provide a list of my research-related skills and tools.	4	2	2	1	1.17	1.48	SD
11	Ability to upload a video/audio introduction of my research. output.	3	4	1		2.00	1.58	SD
Grad Mean						2.08	7.22	

Keys: (SA) – Strongly Agree, (A) – Agree, (D) – Disagree, (SD) – Strongly Disagree

The data presented in Table 2 above shows that the cluster mean of the responses of librarians in NRCRI library of all the 5 items is 2.08 (cluster mean), which is lesser than the criterion mean of 2.50 on 4-point rating scale. This indicated that librarians in NRCRI library do not possess the ability to create researcher profile. The standard deviation values of the 5 items ranged from 1.12 - 1.92 which indicated that the responses of the respondents were not close to one another and to the mean.

**Table 3. Mean Response on Extent of Visibility of Librarians = 9**

S/N	Item Statement	SA	A	D	SD	$\bar{x}$	SD	RMK
12	I have a personal research website where peers keep track of my research activities	1	1	4	3	2.00	0.94	LE
13	I have a personal research website where peers keep track of my research activities	2	1	3	4	2.10	1.14	LE
14	I have an academic data that shows the download records of my publications	-	1	5	3	1.78	0.63	VLE
15	My publications are harvested by Google Scholar search engine	3	2	2	2	2.67	1.15	HE
16	I have a citation count to my publications on several scholarly sites	1	1	4	3	2.00	0.94	LE
Cluster Mean						2.11	4.8	

**Keys: SA – Strongly Agree, A – Agree, D – Disagree, SD – Strongly Disagree**

The data presented in Table 3 above shows that the cluster mean of the responses of librarians in NRCRI library of all the 5 items is 2.11 (cluster mean), which is lesser than the cluster mean of 2.50 on 4-point rating scale. This indicated that librarians in NRCRI library do not possess the ability to create researcher profile. The standard deviation values of the 5 items ranged from 0.63 – 1.15 which indicated that the responses of the respondents were not close to one another and to the mean.

### Summary of Findings of the Study

Specifically, based on the data analyzed, the study:

- (1) Identifies that librarians in NRCRI are most proficient in the use of online scholarly discussions forum, they are also proficient in the use of research gate website, linkedin, academia.edu and google scholar
- (2) The study identifies ability to provide up-to-date contact information on my research output, ability to create a list of my published research publications and ability to upload my CV on researchers networking sites as the ability's librarians in NRCRI have to create researcher profile.
- (3) The study identifies the following as librarian's visibility: My publications are harvested by Google Scholar search engine.

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