

Knowledge and Use of Electronic Information Resources by Academics in Colleges of Animal Production, Animal Health, and Veterinary Medicine in Nigeria

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Abstract

This study adopted survey method to investigate the knowledge and use of electronic information resources (EIR) among the academic staff in animal health, animal production, and veterinary medicine in Nigeria. These areas of knowledge are interwoven as they all deal with animal reproduction and wellbeing. Two hundred and seventy-seven (277) lecturers responded to the questionnaire from four universities, FUNAAB, UI, UNILORIN, and OOU. Analysis of data revealed that the lecturers are quite knowledgeable of electronic resources and they use them for teaching, research and professional purposes; the respondents do not know the electronic resources subscribed to by their libraries among those they know and use; and their effective use of the resources is hampered by inadequate skill and knowledge of e-resources, power fluctuation, and slow internet access among others. The study in conclusion recommended adequate publicity for the library based e-resources; periodic training and retraining of users; regular subscription and updating of e-resources; provision of alternative power sources and; improvement in bandwidth subscriptions.

Keywords: Electronic Information Resources, Academics-Nigerian, Animal Health, Animal production, Veterinary medicine.

Introduction

Information technology in the recent years has greatly influenced the mode of information management, information media, libraries and information centre, and formats of information found in them are also not left out. Due to the availability of information technology and electronic information resources, library users now have their information needs met via a number of ways. Today, they may not need to be

physically present in libraries to use information sources; they can access desired resource at home, offices and other remote locations through local networks or the internet. Also this access is possible round the clock and everyday of the week.

Electronic information resources (EIR) have become pervasive and available in all discipline. This pervasiveness is due to inherent qualities of EIR. They enable innovative teaching, increase timeliness in research, and increase discovery and creation of new field of inquiry. Furthermore, the modern users of library prefer increased access to database of online journals and to the Web. This is because they provide information that is current, up-to-date, and international in scope, and ease of accessibility. Accessibility is now a factor in the use of library resource, as such, the users want only what is easily accessible in order to decrease the time spent on search for information (Constanble, 2007).

Availability and accessibility of EIR are only as good as the information resource that could be afforded in relation to quantity of e-resources, number of work stations, and reliable network systems. It also involves the ability to work with the computer, networks and other infrastructure providing electronic services and; the ability to use EIR efficiently. Ability to use EIR efficiently depends on basic computer skills of the users, knowledge of available EIR and how to use them, and ability to define research problems.

Animal production, health, and veterinary medicine are concerned with the production of animal for human consumption and use, and health of animal.

The three disciplines deal with issues of animal health and production as such; there is a need to have access to information sources that are authoritative, reliable, accurate, and timely. EIR have these attributes in addition to availability round the clock and at remote locations. Members of the college in these disciplines, due to their nature of work, should have access to information on animal health necessary for teaching, research, and clinical practice. In the course of teaching and assignment to their students, they influence the use of the Library resources and students' view of Library.

The library provides a medium for interaction between the library resources and college members; Library provides instructional services in the use of library resources, e-resources inclusive. Consequently, in order to ensure good use of library e-resources, there must be effective and efficient user training, up-to-date e-resources, and good interpersonal relationship between the library personnel, and the users,

Going by the above discussions, the objective of this study are to find out the knowledge of electronic information resources, access to and use of e-resources, and the area of training required, by the academics to use e-resources efficiently.

Statement of the problem

Provision of e-resource, and network system and facilities to access them are among the major requirements for accrediting Animal health, Animal production, and veterinary medicine programmes in Nigeria. Consequent upon these demands by the National University Commission, Nigeria, University offering course of study in the disciplines have made significant investment in electronic information resources, network systems, and computer technology to ensure access to e-resource.

However, from observation, these resources appeared to be under utilized by the academics in the college/faculty. Hence, this study investigated the knowledge and use of electronic resources provided by the libraries of Federal University of Agriculture, and Olabisi Onabanjo University, University of Ibadan and, University Ilorin all in Nigeria. The training needs, in the use of these resources, of the academics are also investigated.

It is believe of the researchers that this study will add to the body of literature on the use of e-resources on different disciplines, and, by user groups in Nigeria. The findings would also provide panacea to the problem of under utilization of e-resource in Nigeria.

Objectives of the Study

The specific objectives of this study are to:

1. Find out the demographic information, such as academic status, and department of the respondents;
2. Find out the computer literacy level of the respondents and where they have access to electronic information resources (EIR);
3. Find out the knowledge and use of electronic information resources by the respondents and to;
4. Find out the training needs of the respondents on the use of EIR.

Research Questions

Consequent upon the objectives listed above, the following research question are set for the study?

1. What are the academic statuses of the respondents?
2. What are the working experiences of the respondents?
3. What are the departments of the respondent?
4. Where is the location of electronic resources in the respondents' institution?
5. What are the e-resources available to the respondents?
6. How comfortable are the respondent in the use of e-resources?
7. What are the training needs of the respondents?

8. What are the preferred modes of training by the respondents?

Literature Review

Olson (1999) identified the advantages of electronic information resources. These are possibility of searching by combinations of keywords that can enable a query to march a very individual and specific, information retrieved can be downloaded, manipulated, and used in other documents; and resources can be updated daily or weekly, with no delays for printing and postal delivery.

The advent of technology has brought about rapid change in education and other spheres of humanity. Shuling(2007) averred that electronic information has gradually become a major resource in every university library. The growth of and diversity of electronic resources especially e-journals, in the past few years has led many to predict the extinction of printed journal.

Liew, Foo and Chennupati (2000) argued that while reading an e-journal is not the same as reading a printed one, many are beginning to acknowledge the possibility that electronic document (e-document) offer users advanced features and novel forms of functionality beyond what is possible in printed firm. This argument is based on Brophy (1993) notions on the advantages of electronic resources over print. These include speed; ease-of-use; ability to search multiple files at the same time; ability to save print and repeat searches; more frequent updating and the ability to access from outside the library. Dadzie (2005) also considered electronic information sources as invaluable research tools that complement prin-based resources in any traditional library. He stated their advantages as including access to information that might be restricted to the users because of geographical location or finances access to current information, and provision of extensive links to additional resources or related content.

Swain and Panda (2009) observed that the rapid advancement of information and communication technology has brought a revolutionary change in the information scenario giving rise to a number of options to the users' community to handle varied information sources conveniently and effortlessly. Consequently, e-resources have become the lively substance to the modern library research in satisfying varied needs of students, teachers, researchers, with minimum risk and time.

Okello-Obura and Ikoja-Odonfo (2010) argued that attitudes towards e-resources could be attributed to problems faced when accessing e-resources. For instances, in a situation where there is inadequate computer technologies to access e-resource or poor Internet connections, student positive attitudes could be affected. That is why the problems that affect e-resources access are addressed in higher learning institutions libraries. The duo then concluded that "an adequate knowledge of computers and

retrieval techniques are desirable to search e-resources effectively. It is necessary to establish what computer skills that users need to access electronic information resources in libraries”

Swain and Panda (2009) observed that the library users’ attitude to information is gradually shifting from the printed documents to electronic resources. Thus, it is necessary for them to know the details of the availability and organization of e-resources like online journals and databases, electronic these and dissertations (ETDs), government publication, online newspapers, etc in the libraries.

Furthermore on attitude, Price (2009) reported that the introduction of open access journal and other resources are creating another attitudinal tendency towards e-resources. This is because open access is one of the cheapest routes to electronic resources and over the last few years open access resource have grown and provided an affordable way to provide access to some journal contents.

Bassi and Camble (2011) conducted a study on Gender Differences in use of Electronic Resource in University library of Adamawa State, Nigeria. Their study sought to find out type of electronic information resources available in the university libraries; their use by gender; the reasons for using the resources based on gender and; how students acquire their search skills on the use of electronic information resources by gender.

A study on electronic information resources use in healthcare services, Adesoye and Amusa (2011) concluded that electronic information resources are known to the healthcare professionals in tertiary health institutions in Ogun State, Nigeria and they are preferred to other formats of information sources due to their ease of use, fast access to desired information, and their availability round the clock.

Majid and Abazova (1999) investigated the relationship between computer literacy of academic staff and their use of electronic information sources. The study also looked into the impact of other factors such as age, gender and education background on the use of electronic information source. The study found significant relationship between computer literacy and the use of electronic information sources and service by the academics. The study reveals that computer literate academics use electronic information sources more frequently. Also, a significant relationship is found between the age of academics and their use of electronic information sources.

Ray and Day (1998) stated that in order to utilize the growing range of electronic resource, there is need to acquire and practice the skills necessary to exploit them. These skills according to Dutton (1990) include a knowledge of the structure of the database, and the instructions which must be input into the computer by the searcher, as well as an understanding of the ways in which the instructions are linked with one another.

Specific studies related to this study are that of Kalbande,D.T, Shinde, P.A, and Ingle R.N(2013); Elavazhagan,K and Udayakumar M. S(2013); Alwarammal R. and Chinnadurai, D (2013) and; Tyagi Sunil(2011).These studies were conducted among faculty members in Agricultural sciences, Engineering, Pharmaceutical Sciences and others.

Methodology and Questionnaire Administration.

Survey method was employed for the study. Data for the study were obtained through a structured questionnaire adopted from Constable, F.T (2007). The questionnaire is divided into four sections to obtain the following information. Demographic information; Location and access to electronic information resource; Knowledge and of electronic information resources and; training needs and mode.The questions are mainly close-ended in order to ensure quantification and total analysis of data.

Four University providing course on Animal Health, Animal Production and Veterinary medicine were selected. These institutions are Olabisi Onabanjo University, Ago-Iwoye (OOU) Federal University of Agriculture (FUNAAB), University of Ibadan, Ibadan (UI), University of Ilorin, Ilorin University. Three of the Universities FUNAAB, UI, and UNILORIN offer veterinary medicine; OOU, FUNAAB and Unilorin offer Animal Health and production, while UI does not offer. FUNAAB and UNILORIN offer the two courses while others offer only one.

All lecturers in these faculties/colleges constituted the respondents. Their population is estimated to be three hundred (300). Based upon this estimation, 300 hundred copies of the questionnaire were produced and administered randomly. The rate of return of the questionnaire was good as 277 copies were duly completed and returned. This represents 92% response rate.

Data Analysis and Discussions

Two hundred and seventy-seven (277) academic staff from the college responded to the questionnaire administered for the study. Demographic data obtained revealed that two hundred and six (206) respondents, seventy-four (74%) are male; and seventy-one (71) respondents (26%) are female.

They are spread across the three major disciplines focused in this study. Specifically, 101 respondents (37%) are from the faculty of Animal Health; 89 respondents (32%) are from the faculty of Animal Production; and eighty-seven (87) respondents (31%) are from Veterinary Medicine.

Furthermore on demographic data, the respondents cut across all the departments in the colleges/faculties focused. 26 respondents (09%) are in Animal Breeding and Genetic; 27 respondents (10%) are in Animal Nutrition; Animal Production has 53 respondents (19%); Animal Health has 36

respondents (13%), Animal Physiology, 27 respondents (10%) and Pasture and Range Management has 21 (06%) respondents. From the college of Veterinary Medicine, there are 09 respondents (03%) from Veterinary Anatomy, 13 respondents (05%) from Veterinary Pathology; 16 respondents (06%) from Veterinary Medicine; Veterinary Microbiology and Parasitology has 12 respondents (04%) Veterinary Surgery and Theriogenology has 16 respondents (06%). The remaining 10 respondents (04%) are from the Veterinary Hospital. Lastly, these respondents are academic staff; they are engaged in teaching, research and extension services in the areas of Animal health, Animal production and Veterinary medicine.

Their job statuses are: professors, 15 respondents (05%); Reader/Associate professors, 36 respondent (13%); Lecturer II, 37 respondent and Assistant Lecturer, 29 respondents (11%). From these analyses, we could see that the respondents cut across gender, the faculties/college, functional departments, and the entire academic cadre. (See tables 1-4 in the appendix)

Adequate and efficient uses of e-resources require knowledge of computer and other ICT equipment. Analysis of the computer literacy level of the respondent is fair as 57 respondents (21%) rated their computer skills high; 137 respondents (49%) perceived their computer skills as low; and 83 respondents considered their skills poor. However, the rate at which the respondents use computer for their academic activities is high. 269 respondents (97%) use computer regularly, while only 08 respondents (03%) use the equipment rarely. Also, the respondents considered the knowledge of skills in using computer as crucial to effective use of e-resources. This finding is in consonance with Jirojwig and Walin (2002) finding. They concluded that those who were more computer literate tend to use the internet and the electronic information sources the more. (See tables 5, 6 and 7).

Electronic information services are located in the libraries of the four institutions focused. These facilities are tagged e-library, subscription based e-resources in these libraries can be accessed by the academic staff in their individual offices through wireless network in FUNAAB, U.I and UNILORIN. Respondents in OOU have to visit their library to access the resources. This access is however erratic due to power and network instability.

The respondents are aware of numerous electronic resources in their disciplines. These resources as listed are: TEAL, ESSCO HOST, CAB Abstract, Image Database, ISI Wed Knowledge, NORINA, Bubl Link, CONSULTANT, Health pet, Karolinska institute, Martindale livestock centre, Net vet, Vetscape, Veterinary information Network. However, upon enquiry, not all these e-resources are subscribed to and promoted by the respondents' libraries. Those subscribed to in these libraries are TEAL, HINARI, PUBMEB, CAB Abstract, EBSCHO HOST, and NUC Virtual library.

With regards to the respondents' reasons for using electronic resources; 79% of the respondents(218) use them for professional activities, 77% (213) for personal research; 74% (204) use them to support teaching activities; 41% (113) use them for administrative matters, and 13% (36) deploy them for communication purposes. The use of e-resources by the respondents is being constrained by some problems. These problems in order of priority, based on the responses received are:

Inadequate knowledge of training on the use of e-resources;

Slow speed of the internet connectivity;

Information overload during search and;

Power problem. (See tables 7and 8).

Training needs of the respondents were sought. Majority of the respondents 172 (62%) want training on computer appreciation and how to use computer effectively; 56 respondents(20%) want training on how to effectively find information on the internet, 38 respondents (14%) want training on online database and 11 respondents (04%) want information on evaluation of electronic information. The mode of training preferred by the respondent in the order of frequency of responses are workshop with hands-on experience, 86 respondents (31%); self-help/handout on use of e-resources, 46 respondents (17%); One-on-one demonstration, 43 respondents (16%); support when needed, 39 respondents (14%). Online tutorial, 38 respondents, 13% and; list of resources, 25 respondents (09%)

Summary and Discussion of findings

The respondents in this study who are academic staff in the colleges/faculties of animal health, animal production, and veterinary medicine in the university of Ilorin, University of Ibadan, Federal University of Agriculture, and Olabisi Onabanjo University, all in Nigeria. They cut across gender, academic status and functional departments and engage in teaching, research, practice, and extension services. Their computer use skills are considered fair enough to ensure adequate and efficient use of electronic information resources. This finding is in line with Jirojwong and Walin (2002) conclusion.

The respondents are aware of and use electronic information resources provided by their institutions and others available on the internet. Electronic information services or E-libraries are available to the respondents in their institution libraries. These services are also available to them in their offices and other location within the campuses. E-resources are used for professional activities (teaching and practice); personal research, and administrative purposes among others. However, these uses are constrained by inadequate training, IT skills, slow internet speed, information overload, and power fluctuations.

In order to proffer solutions to the issue of inadequate skills and training in the use of e-resources, the training needs of the respondents were sought. These are training on computer appreciation and operation; training on how to use databases; and evaluation of information obtained from electronic sources. The mode of training most preferred in achieving the above needs is workshop with hands-on-experience.

Conclusion and Recommendations

Electronic information resources are popular among the academic personnel in the colleges/faculties of animal production, animal health and veterinary medicine. These three disciplines focus on animal production and well-being. Electronic resources are being used for academic, professional and teaching purposes among others. Furthermore, effective use of the resources in the library is dependent on publicity, training, and re-training of the users. The training could take form of workshop, online tutorial, on-the-spot assistance, provision of self-help hand out etc.

Consequent upon the above conclusions the following recommendations are proffered for effective exploitation of e-resource subscribed to by the libraries.

The burden of responsibility for informing users of the available e-resources is on the library. Hence, the libraries should regularly inform users of the e-resources being subscribed to and instruct them on how to use the resources. In a nutshell, there should be adequate publicity on available e-resources and their use.

Periodic training and re-training sessions should be organized by the library for the users taken into consideration their training needs and modes identified in their study.

Libraries in these institutions should continue to acquire up-to-date e-resources (databases) or regularly subscribe to the online version. Also, there should be improvement on their networks to facilitate smooth access to available e-resources.

The libraries could acquire offline databases and load them into their dedicated servers that will provide access to the databases. This could be used to reduce the problem of network fluctuations.

Access to the libraries' electronic information networks from the lecturers' offices and other remote locations should be improved upon. This will further maximize the use of e-resources by the lecturers who may not have time to visit libraries.

Problems retarding the use of e-resources such as power fluctuation, slow internet connectivity should be addressed. These could be by provision of alternative power supply (generating set, inverter, or solar energy); and increment in the Internet bandwidth subscribed to.

Information technology experts should be employed in the libraries to attend to problems of networking and hardware components.

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APPENDIX I

List of Tables

Table 1: Distribution of Respondent by Gender

Gender	Frequency	%
Male	206	74
Female	71	26
Total	277	100

Table 2: Distribution of Respondent by College/Faculty

College/Faculty	Frequency	%
Animal Health	101	37
Animal production	89	32
Veterinary machine	87	31
Total	277	100

Table 3: Distribution of Respondent by Department

Department	Frequency	%
Animal Breeding and Genetics	26	09
Animal Nutrition	27	10
Animal production	53	19
Animal Health	36	13
Animal physiology	27	10
Pasture and range management	21	06
Veterinary anatomy	09	03
Veterinary pathology	13	05
Veterinary medicine	16	06
Veterinary microbiology and parasitology	12	04
Veterinary physiology and pharmacology	11	04
Veterinary surgery and Theriogeriology	16	06
Veterinary hospital	10	04
Total	277	100

Table 4: Distribution of Respondent by Job status /rank

Status/Rank	Frequency	%
Professor (Prof)	15	05
Reader/associate prof	36	13
Senior lecturer	99	36

Lecturer I	61	22
Lecturer II	37	13
Assistant Lecturer	29	11
Graduate assistant	00	00
Total	277	100

Table 5: Computer literacy level

Computer literacy level	Frequency	%
Very high	00	00
High	57	21
Low	137	49
Poor	83	30
Not literate	00	-
Total	277	100

Table 6: Frequency of computer use

Frequency	Frequency	%
Rarely/occasionally	08	03
Not at all	00	00
Total	277	100

Table 7: Influence of computer knowledge and skill on use of e-resources

Responses	Frequency	%
Very significant	71	26
Significant	206	74
Less significant	00	00
Not significant	00	00
Total	277	100

Table 8: Reasons for using e-resources by the respondents (multiple responses allowed)

Responses	Frequency	%
For professional activities	213	79
For personal research	213	77
For teaching activities	204	74
For administrative issues	113	41
For communication	36	13
Total	277	100

Table9: Constraint to use of e-resources by the respondents

Responses	Frequency	%
Inadequate knowledge of e-resources	101	36
Inadequate training on the use of e-resource	64	23
Slow speed of the internet connectivity	59	21
Information overload during search	21	06
Ponder problem	32	12
Total	277	100

Table 9: Training needs of the respondents

Responses	Frequency	%
Computer appreciation and use	172	62
Use of CD-ROM databases	-	-
Finding information on the internet	56	20
Use of online database	38	14
Evaluation of electronic information	11	04
Total	277	100

Table10: Training mode preference

Training mode	Frequency	%
Workshop with hands-on experience	86	31
Online tutorial	38	13
Self-help guide/handout	46	17
One-on-one demonstrations	43	16
Provision of list of resources and how to use each	25	09
Support when needed	39	14
No preference	00	00
Total	277	100

Appendix II

List of common electronic information resources in animal health, animal production and veterinary medicine

TEEAL	Health pet
EBSCO Host	Karolinska institute
CAB Abstract	Matindale's livestock centre
Image database	Net vet
ISI Web knowledge	Vet scape
NORINA	Veterinary information Network
Babl Link	
Consultant	

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