

**Information and Communication Technology Skills as Determinants of  
Utilizations of Institutional Repositories by Lecturers in two Universities  
in Nigeria**

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## **Abstract**

The purpose of this paper is to investigate the information and communication technology (ICT) skills as determinants of utilization of Institutional Repositories (IRs) by lecturers in Covenant University (CU) and the University of Ilorin (UNILORIN), Nigeria. The research method employed stratified random sampling and the sample size was 94 lecturers from the Covenant University and 285 lecturers from University of Ilorin. The instrument used for data collection was a questionnaire. The results from the paper revealed that there is higher utilization of institutional repository provisions among lecturers in CU and this is because many of them possess ICT skills. However, there is low utilization of IR resources in UNILORIN because ICT skills among their lecturers are low. The study concludes that lecturers in universities should acquire adequate ICT skills because ICT skills can facilitate the utilization of IR provisions. The paper will encourage Academic Libraries to step up their efforts in sensitizing and enlightening university lecturers on the need to acquire ICT skills. Academic Libraries, in addition to the other services they provide, will organize regular training for lecturers through seminars, workshops, conferences, refresher courses on ICT skills' acquisition

**Keywords:** Lecturers ICT skills, Utilization, Institutional Repository, Digitization, Universities, Nigeria

## Introduction

There is rapid increase in the volume of scholarly information generated in Universities. Academic institutions are now faced with the need to organize the voluminous information they are generating and to make it accessible and searchable for users. (Babel Library, 2007). Technology has been adopted to achieve this and make it accessible and searchable for users.

In response to the increase in the volume of scholarly contents, university libraries are now fully involved in this development; as they are the heart of the university (Musa et. al., 2014). Part of the emerging role of university libraries is the implementation of IR. Institutional Repository has been described differently by various authors. Ogbomo and Muokebe, (2015) define IR as a digital library established by an institution, populated by the staff, researchers, students and other members of the institution and to be consulted by both members of the university and the outside world. The development of IRs has provided academic and research institutions with a high level of visibility into their libraries' digital electronic resources (Oguche, 2018). IR collects and preserves the intellectual output (theses, dissertations, seminar papers, conference proceedings, preprints, post prints, working papers and technical reports) of the academic institution in a digital format. The institution's Digital Library that has in digital formats, manuscripts, public archives, and graphic materials from the institution or elsewhere, can also be a component of IR. It can also contain the administrative output of the institution, such as reports, directories, and local archival documentation. Institutional Repository is the response to the vast and ever increasing information produced by higher institutions.

In order to improve service delivery, some universities in Nigeria are using the new IR technology. The IR technology facilitates teaching, learning and research (Umar et al., 2014). This initiative provides free access to different types of information (Ogbomo and Muokebe, 2015). According to Salawu (2010), the creation of IRs of local contents and their communication with the international community will enhance the globalization of Nigerian's research publications.

Over the last three years, Nigerian Universities have, more or less, competed among themselves to have a higher ranking in the Webometrics ranking of world universities. This has been a healthy competition because almost all the institutions have been devising creative methods of increasing their digital content and remain visible and to provide easy access to local digital content. According to Directory of Open Access Repositories (OpenDOAR, 2018), there are currently

twenty-one (21) online institutional repositories in Nigeria. This study focuses on lecturers. They are supposed to be heavy users of Institutional Repositories. They are involved in searching information resources, self-archiving and preserving research publications of academics. They often generate intellectual contents as well as use scholarly contents from the web, particularly from the databases of academic libraries and various web-based institutional repositories around the world. The explosion of electronic information delivery has resulted in the need for electronic user support. It is important that lecturers are involved both in archiving and in using IRs resources as this will help to ensure standards and quality of the contents archived (Ukwoma and Mole 2017). Okwilagwe and Ogbomo, (2012) posits that today, university lecturers all over the world can conduct research, teach and accomplish other academic tasks by using computers connected to the Internet to search and retrieve needed information from electronic scholarly databases, e-journals and large digitized institutional repositories. Consequent upon the change from paper to electronic format, lecturers are expected to develop Information and Communication Technology (ICT) skills required to exploit information on electronic platforms. Anderson (2010) identifies some ICT skills needed by researcher in utilizing and retrieving information from online electronic resources and the findings have been found useful for this study. Explaining these ICT skills, he mentioned the following skills: resolving minor technical hitches; good searching skills on the Internet; downloading online electronic resources; knowledge of file formats; ability to evaluate the content of online materials, good knowledge of web browser, integrating skill, creating Skill and management skill. Lecturers need skills that will enable them to function effectively and efficiently in the new digital age. Acquisition of ICT skills are crucial and could enhance the use of IRs in the universities (ETS, 2002). Acquisition of ICT skills are crucial and could enhance the use of IRs in the universities.

Jordan, (2003) suggests that barriers to adequate ICT skills training arise from both lack of ICT literacy and the fact that many local library schools fail to integrate ICTs into their curricula. University librarians in developing countries like Nigeria with IRs in place should organize training for lecturers and other categories of users. Organizing library seminars and training on digitized information services available and its usage, is the right step towards equipping them with necessary ICT skills. Training and that will enable them to contribute and use the resources in the institutional repositories for research purposes. This is because a preliminary investigation has shown that lecturers hardly use IRs services in Nigeria even when the service is available and

this is a big challenge and very frustrating on the part of the librarians. This may be as a result of inadequate ICT skills of lecturers' which can facilitate the utilization of IRs. The focus of this study as already stated, is to investigate the ICT skills of lecturers as a determinant in the utilization of IRs.

### **Statement of the Problem**

Nigerian libraries have in recent years started computerizing their manual operations. IRs have been introduced. These provide free and easy access to the scholarly research of the institutions. The content of these Repositories include but not limited to digitized retrospective materials, rare, fragile, unique and original materials. The Repositories make these information visible on the net.

It is felt that despite the huge effort put into digitizing these materials, the service is not heavily used by lecturers. This may be due to lack of the requisite search skills. The conclusion that may be drawn is that the Institutional Repository in any University can be heavily patronized if the user community has the needed search skills. This research therefore investigated ICT skills of lecturers in utilization of IRs in two universities in Nigeria.

### **Objectives**

The main objective of this study is to investigate information and communication technology skills as determinants of utilization of institutional repositories by lecturers in two Universities in Nigeria. The specific objectives in this study are:

- determine the level of ICT skills possessed by lecturers in utilizing institutional repositories provisions.
- ascertain the level of utilization of institutional repositories by lecturers.
- determine the frequency of use of electronic resources by lecturers for academic research.

Based on this research objective, the following questions are answered in this study:

- RQ1. What is the level of ICT skills possessed by lecturers in the utilization institutional repositories?
- RQ2. What is lecturers' usage level of institutional repositories provisions?
- RQ3. What is the frequency of use of electronic resources available by lecturers?

## Literature review

Information and Communication Technology (ICT) is increasingly becoming more widespread throughout university education worldwide (Akinagbe, 2011). With the rapid deployment of information and communication technologies, libraries worldwide are providing digital collections and services, such as online databases, e-books, e-journals, institutional repositories, library websites, online public access catalogues (OPAC), the Internet and the Intranet. The increasing application of technology to library processes, especially in the current 'Information Age', has led to the emergence of institutional repositories which are facilitating cooperation and collaboration, resource sharing, bibliographic control, information access and information dissemination (Dadzie and Walt, 2015).

In view of this shift in paradigms, the ICT applications transformed the traditional libraries into electronic libraries or digital/virtual libraries. To work in continuously changing and transforming the technological environment in these libraries, it is essentially needed on the part of the library and information professionals to acquire and develop the necessary skills and competences in the different techniques of ICT skills (Kattimani and Naik, 2012). In the university, the lecturers are encouraged towards achieving the university's goals as stated in the National Policy on Education (2004) which include: teaching, research, dissemination of existing and new Information, pursuit of services to the community and being a storehouse of knowledge. To accomplish these responsibilities efficiently requires the use of computers. These therefore calls for a variety of computer skills which are useful and in some cases required as essential part of teaching and learning (Nwachukwu and Asom, 2015). Corroborating the above assertion Okwilagwe and Ogbomo (2012) noted that information and communication technologies have resulted in a need for the learning of new skills, abilities, and capabilities/competences to effectively and efficiently handle job related tasks in an electronic environment. ICT skills have become extremely important as we witness an intensive use of automated systems and tools in learning and teaching activities (Al-Daihani, 2011). As a result, the ICT component has become critical in scholarly research.

However, some university libraries in Nigeria such as Covenant University, University of Ilorin, University of Lagos, University of Jos, University of Nigeria, Nsukka etc., have embraced this laudable project and have made huge efforts in digitizing their local contents such as projects, theses, dissertations, seminar reports, conference proceedings, and inaugural lectures by making it

available for lecturers and other researchers to use via web-based IRs. Institutional Repositories have been used widely by many academic institutions to communicate and preserve this knowledge in an online platform.

For instance, a study of lecturers' use of electronic resources such as IRs found that use was influenced by such factors as computing skills of academic (Waldman, 2003). They further noted that research has indicated that there are technical factors that affect ICT use by lecturers. Information and Communication Technology (ICT) skill may be a factor that influences lecturers' utilization of scholarly electronic publications in IRs for research purpose. ICT skills have become extremely important as we witness an intensive use of automated systems and tools in learning and teaching activities (Al-Daihani, 2011). As a result, the ICT component has become critical in scholarly research.

Furthermore, on ICT skills, Okwilagwe and Ogbomo (2012) and Nwachukwu and Asom (2015) in another study elaborated that, in the University, the roles of lecturers are geared towards achieving the University's goals as stated in the National Policy on Education (2004) which include: Teaching, Research, Dissemination of existing and new Information, pursuit of services to the community and is a storehouse of knowledge. To accomplish these responsibilities efficiently requires the use of computers. The effective use of computers depends on individuals' ICT skills and it has been widely recognized as a vital skill for lecturers in the universities. These, therefore, calls for a variety of ICT skills which are useful and in some cases required as essential part of teaching and learning.

Anderson (2010) identifies some of the ICT skills needed by researchers in utilizing and retrieving information from online electronic resources. The findings have been found useful for this study. Explaining these ICT skills, he made vivid the following skills: resolving minor technical hitches; good searching skills on the Internet; downloading online electronic resources; knowledge of file formats; ability to evaluate the content of online materials; good knowledge of web browser; integrating skill; creating skill; and management skill.

Based on the literature reviewed, it was observed that in spite of the multiplicity of advantages offered by the ICT technologies, the use of electronic resources such as online repositories for academic work seems to be minimal among the lecturers. The conventional method appeared to dominate research, teaching and learning activities of the selected universities in Nigeria

(Nwachukwu and Asom, 2015). This is supported by Aina (2014) who observed that previous researches on the availability and utilization of online repository resources for teaching and research by lecturers have been found to be low. This might be as a result of low ICT skills possessed by lecturers in utilizing online repository services. The challenge at this point is on how to make the research and intellectual outputs of Nigerian universities utilized and possible application. The study investigated the possession and use of technical skills such as ICT skills to facilitate the utilization of IRs.

## **Methodology**

This research was investigated the information and communication technology skills of lecturers as determinants of utilization of institutional repositories in Covenant University, Otta, Ogun State and the University of Ilorin, Ilorin, Kwara State of Nigeria. The research adopted the survey design. It was suitable for this study because it helped the researcher to gather data on the information and communication technology skills as determinants of utilization of institutional repositories by lecturers. It also enabled the researcher to provide descriptive, inferential and explanatory information on the subject of study. The survey was appropriate for this study because it also enabled the researcher to derive frequency, e.g. (the numbers registering a particular opinion (FluidSurveys Team, 2014). The responses from the survey formed the basis of the findings. The study employed stratified random sampling technique for the selections of all lecturers which involves the division of a population into smaller groups known as strata. In this case, the strata were Professor, Reader, Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer and Graduate Assistance. Of the 481 respondents in CU and 1433 respondents in UNILORIN, the researcher selected 20% of Professor, Senior Lecturer, Lecturer I, Lecturer II, Assistant Lecturer and Graduate Assistance from both universities. The justification for 20% population chosen because it reflected the limit of the budget for the research. The sample size was 94 lecturers from the Covenant University and in University of Ilorin, 285 lecturers. The total sample size of lecturers from both universities in the study was 379.

## **Results**

The total population sizes of lecturers in both universities were 481 and 1433 respectively. The researcher used 20% of the total population to select Professors, Senior Lecturers, Lecturer I, Lecturer II, Assistant Lecturers and Graduate Assistants from both universities to arrive at the total



sample size chosen of three hundred and Seventy-nine (379). The sample sizes of respondents from both universities were Ninety-four (94) lecturers from CU and two hundred and eighty-five (285) lecturers from UNILORIN. The return rate of the questionnaires retrieved was 70.2%.

**Table 1: Instruments administration and return rate for lecturers**

Covenant University			University of Ilorin		
Lecturers	Distribution	Return	Lecturers	Distribution	Return
Professors	7	6	Professors	49	46
Readers	9	9	Readers	22	17
Senior Lecturers	8	7	Senior Lecturers	44	40
Lecturer I	13	10	Lecturer I	46	46
Lecturer II	10	9	Lecturer II	46	44
Assistant Lecturers	36	30	Assistant Lecturers	62	62
Graduate Assistance	11	9	Graduate Assistance	16	16
	<b>94</b>	<b>80</b>		<b>285</b>	<b>271</b>

The table above describes the sample sizes of lecturers from both institutions which were 94 and 285 of lecturers respectively, from a sum total of three hundred and seventy-nine 379 total sample size of the study. The sample size was broken into strata: Professors, Senior Lecturers, Lecturer I, Lecturer II, Assistant Lecturers and Graduate Assistants from each university. Ninety-four (94) copies of the questionnaire were distributed among lecturers in CU and eighty (80) were returned. Two hundred and eighty-five (285) copies of the questionnaire were distributed among lecturers in UNILORIN and two hundred and seventy-one (271) were returned.

**Table 2: Level of ICT Skills of Covenant University Lecturers**

Items	Covenant University			
	VH	H	L	VL
<b>ICT skills</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>
<b>Resolving minor technical hitches</b>				
Removing malicious/viruses program from my computer by scanning it with antivirus	79 (9 8.8%)	1 (1.2%)	0 (0.0%)	0 (0.0%)
Fixing my computer when hanging without forceful shutdown	66 (82.5%)	14 (17.5%)	0 (0.0%)	0 (0.0%)
Knowledge in resolving minor browsing problem	73 (91.2%)	7 (8.8%)	0 (0.0%)	0 (0.0%)
Repairing and recovering damaged file in the computer	10 (12.5%)	25 (31.25 %)	40 (50.0%)	5 (6.25%)

<b>Searching skills on the Internet</b>				
Generate and combine search terms (keywords) to satisfy the requirements of a particular research task	71 (88.75 %)	9 (11.25 %)	0(0.0%)	0(0.0%)
Efficiently browse one or more web resources to locate pertinent information	78 (97.5%)	2 (2.5%)	0 (0.0%)	0 (0.0%)
Deciding what types of web resources might yield the most useful information for a particular need	70 (87.5%)	10 (12.5%)	0 (0.0%)	0 (0.0%)
<b>Downloading Skills</b>				
Locating downloaded file with ease	78(97.5%)	2 (2.5%)	0 (0.0%)	0 (0.0%)
Avoiding duplication of downloaded file	77 (96.2)	3 (3.8%)	0 (0.0%)	0 (0.0%)
Ease at downloading from online databases and repositories	80 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>Knowledge of file formats skills</b>				
Installing and using a file reader to read documents in PDF, JPEG and DOC formats when accessing a file	77 (96.2%)	3 (3.8%)	0 (0.0%)	0 (0.0%)
Convert file to desired format	15 (18.8%)	64 (80.0%)	1 (1.2%)	0 (0.0%)
<b>Evaluation Skills</b>				
Judging the relative usefulness of provided web pages and online database journal articles	75 (93.75 %)	5 (6.25%)	0 (0.0 %)	0 (0.0%)
Evaluate whether a database contains appropriately current and pertinent information	80 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Deciding the extent to which a collection of resources sufficiently covers a research area	77 (96.25%)	3 (3.75%)	0 (0.0%)	0 (0.0%)
<b>Skills in the use of web browser</b>				
Navigating webpages and using web browser with ease	80 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Clearing cache from web browser to speed up Internet speed	31 (38.8%)	25 (31.2%)	2 (26.2%)	3 (3.8%)
<b>Integrating Skills</b>				
Sifting all forms of information to bring out the most useful content	63 (78.8%)	16 (20.0%)	1 (1.2%)	0 (0.0%)
Summarizing and synthesize information from a variety of types of sources according to specific criteria in order in order to compare information and make a decision	48 (60.0%)	32 (40.0%)	0 (0.0%)	0 (0.0%)
<b>Creating Skills</b>				
Formatting and editing a document according to a set of editorial specifications	16 (20.0%)	55 (68.8%)	9 (11.2%)	0 (0.0%)
Creating a presentation slide to support a position on a controversial topic	72 (90.0%)	8 (10.0%)	0 (0.0%)	0 (0.0%)
<b>Management Skills</b>				
Categorizing e-mails into appropriate folders based on a critical view of the e-mails' contents	27 (33.75 %)	35 (43.75 %)	14 (17.5%)	4 (5.0%)
Knowing how to arrange personnel information into an organizational chart	31 (38.75 %)	26 (32.5%)	19 (23.75 %)	4 (5.0%)
Sorting files, emails and database returns to clarify clusters of related information	32 (40.0%)	24 (30.0%)	20 (25.0%)	4 (5.0%)

**Key: VH = Very High, H = High, L = Low and VL = Very Low**

**Table 3: Level of ICT Skills of University of Ilorin Lecturers**

ICT skills	University of Ilorin			
	VH	H	L	VL
Resolving minor technical hitches	F (%)	F (%)	F (%)	F (%)
Removing malicious/viruses program from my computer by scanning it with antivirus	79 (29.2%)	176 (64.9%)	14 (5.2%)	2 (0.7%)
Fixing my computer when is hanging without forceful shutdown	24 (8.9%)	76 (28.0%)	141 (52.0%)	30 (11.1%)
Knowledge in resolving minor browsing problem	26 (9.59 %)	140 (51.66 %)	94 (34.69 %)	11 (4.06 %)
Repairing and recovering damaged file in the computer	4 (1.48%)	34 (12.55%)	144 (53.13 %)	89 (32.84 %)
<b>Searching skills on the Internet</b>				
Generate and combine search terms (keywords) to satisfy the requirements of a particular research task	48 (17.71%)	182 (67.16 %)	40 (14.76 %)	1 (0.37 %)
Efficiently browse one or more web resources to locate pertinent information	64 (23.6%)	165 (60.9%)	37 (13.7%)	5 (1.8%)
Deciding what types of web resources might yield the most useful information for a particular need	43 (15.9%)	165 (60.9%)	61 (22.5%)	2 (0.7%)
<b>Downloading Skills</b>				
Locating downloaded file with ease	129 (47.60 %)	128 (47.24 %)	8 (2.95 %)	6 (2.21 %)
Avoiding duplication of downloaded file	64 (23.62 %)	165 (60.88 %)	34 (12.55%)	8 (2.95 %)
Ease at downloading from online databases and repositories	60 (22.14%)	142 (52.40 %)	67(24.72%)	2 (0.74%)
<b>Knowledge of file formats skills</b>				
Installing and using a file reader to read documents in PDF, JPEG and DOC formats when accessing a file	60(22.14%)	129 (47.60%)	38 (14.02%)	44 (16.24 %)
Convert file to desired format	19 (7.0%)	71 (26.2%)	95 (35.1%)	86 (31.7%)
<b>Evaluation Skills</b>				
Judging the relative usefulness of provided web pages and online database journal articles	46 (16.97 %)	199 (73.4%)	19 (7.0%)	7 (2.6%)
Evaluate whether a database contains appropriately current and pertinent information	46 (16.97 %)	181 (66.79 %)	44 (16.24%)	0 (0.00 %)
Deciding the extent to which a collection of resources sufficiently covers a research area	57 (21.0%)	158 (58.3%)	53 (19.6%)	3 (1.1%)
<b>Skills in the use of web browser</b>				
Navigating webpages and using web browser with ease	102 (37.6%)	130 (48.0%)	39 (14.4%)	0 (0.0%)
Clearing cache from web browser to speed up Internet speed	16 (5.9%)	70 (25.8%)	101 (37.3%)	84 (31.0%)
<b>Integrating Skills</b>				
Sifting all forms of information to bring out the most useful content	51 (18.82%)	128 (47.23%)	92 (33.95%)	0 (0.0%)
Summarizing and synthesize information from a variety of types of sources according to specific criteria in order in order to compare information and make a decision	29 (10.7 %)	133 (49.1 %)	95 (35.1 %)	14 (5.1%)
<b>Creating Skills</b>				

Formatting and editing a document according to a set of editorial specifications	39 (14.39 %)	126 (46.49 %)	102 (37.64%)	4 (1.48 %)
Creating a presentation slide to support a position on a controversial topic	20 (7.38 %)	156 (57.57 %)	84 (30.99 %)	11 (4.06 %)
<b>Management Skills</b>				
Categorizing e-mails into appropriate folders based on a critical view of the e-mails' contents	27 (10.0%)	154 (56.8%)	78 (28.8%)	12 (4.4%)
Knowing how to arrange personnel information into an organizational chart	20 (7.4%)	135 (49.8%)	110 (40.6%)	6 (2.2%)
Sorting files, emails and database returns to clarify clusters of related information	13 (4.8%)	95 (35.1%)	151 (55.7%)	12 (4.4%)

**Key: VH = Very High, H = High, L = Low and VL = Very Low**

In comparing the result of the analyses from the two Universities in Table 2 & 3, the study revealed that there are higher skills for lecturers in CU that enabled them to effectively and efficiently browse one or more web resources to locate pertinent information. The response rate was 78 (97.5%) This is very high.

Assessing the relative usefulness of providing web pages and online database journal articles, the response rate of 75 (93.8%) This is also very high.

Deciding what types of web resources might yield the most useful information for a particular need, the response rate of 70 (87.5%) is higher. That of UNILORIN were 64 (23.6%); 46 (17.0%) and 57 (21.0%) high. The analyses established that Covenant University Lecturers possessed more ICT skills needed to utilize IRs than UNILORIN.

**Table 4: Lecturers' usage level of institutional repositories provisions in CU (See Table 4)**

Items	Covenant University			
	VGE	GE	LE	NAA
Digitized information resources	F (%)	F (%)	F (%)	F (%)
Theses and Dissertations	34 (42.50%)	43 (53.75 %)	3 (3.75 %)	0 (0.0%)
Seminar papers	18 (22.5%)	46 (57.5%)	13 (16.2%)	3 (3.8%)
Conference papers	16 (20.0%)	45 (56.2%)	16 (20.0%)	3 (3.8%)
Preprints	10 (12.5%)	48 (60.0%)	22 (27.5%)	0 (0.0%)
Newspaper	34 (42.50%)	21 (26.25 %)	21 (26.25 %)	4 (5.00%)
Technical reports	21 (26.2%)	34 (42.5%)	22 (27.5%)	3 (3.8%)
Gray literatures	15 (18.75 %)	40 (50.0%)	22 (27.5%)	3 (3.75 %)
Public archives	10 (12.50%)	40 (50.00%)	27 (33.75 %)	3 (3.75 %)
Graphic material	18 (22.5%)	32 (40.0%)	30 (37.5%)	0 (0.0%)
Inaugural Lectures	21 (26.2%)	34 (42.5%)	22 (27.5%)	3 (3.8%)

**Key: VGE = Very Great Extent, GE = Great Extent, LE = Less Extent and NAA = Not At All**

**Table 5: Lecturers' usage level of institutional repositories provisions in UNILORIN**

Items	University of Ilorin			
	VGE	GE	LE	NAA
<b>Digitized information resources</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>
Theses and Dissertations	14 (5.17 %)	13 (4.79 %)	53 (19.56 %)	191 (70.48 %)
Seminar papers	8 (3.0%)	41 (15.1%)	52 (19.2%)	170 (62.7%)
Conference papers	0 (0.0%)	25 (9.23%)	57 (21.03%)	189 (69.74%)
Preprints	0 (0.0%)	12 (4.4%)	61 (22.5%)	198 (73.1%)
Newspaper	2 (0.7%)	11 (4.1%)	58 (21.4%)	200 (73.8%)
Technical reports	3 (1.11%)	14 (5.17 %)	66 (24.35 %)	188 (69.37 %)
Gray literatures	2 (0.74%)	13 (4.79 %)	70 (25.83%)	186 (68.64 %)
Past Questions	3 (1.1%)	19 (7.0%)	54 (19.9%)	195 (72.0%)
Public archives	1 (0.4%)	13 (4.8%)	65 (24.0%)	192 (70.8%)
Graphic material	0 (0.0%)	9 (3.32%)	63 (23.25%)	199 (73.43%)
Inaugural Lectures	0 (0.00%)	24 (8.86 %)	49 (18.08 %)	198 (73.06 %)

**Key: VGE = Very Great Extent, GE = Great Extent, LE = Less Extent and Not At All**

From the observation of Table 4 & 5, it can be deduced from the results of the analysis that there is a higher utilization of IR resources at CU and low usage by lecturers in UNILORIN.

**Table 6: Frequency of usage of electronic resources by lecturers at Covenant University**

Items	Covenant University						
	Daily	Weekly	Monthly	Quarterly	Yearly	Occasionally	Never
<b>Electronic information resources</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>	<b>F (%)</b>
<b>e-books</b>	37 (46.25%)	37 (46.25%)	6 (7.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>e-journals</b>	20 (25.0%)	46 (57.5 %)	10 (12.5%)	0 (0.0%)	0 (0.0%)	4(5.0%)	0 (0.0%)
<b>e-magazines</b>	11 (13.75 %)	26 (32.5%)	10 (12.5%)	11 (13.75 %)	0 (0.0%)	19 (23.75 %)	3 (3.75 %)
<b>Online Databases</b>	19 (23.8%)	28 (35.0%)	33 (41.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
<b>CD-ROMs Databases</b>	0 (0.0%)	21 (26.25%)	12 (15.00%)	10 (12.50%)	0 (0.0%)	24 (30.0%)	13 (16.25%)
<b>Online institutional repository</b>	6 (7.5%)	18 (22.5%)	30 (37.5%)	10(12.5%)	10(12.5%)	6(7.5 %)	0 (0.0%)
<b>Internet</b>	70 (87.50%)	1 (1.25%)	7 (8.75 %)	1 (1.25%)	0 (0.0%)	1 (1.25%)	0 (0.0%)
<b>Electronic mails</b>	68 (85.0%)	7 (8.8%)	1.2%)	3 (3.8%)	0 (0.0%)	1 (1.2%)	0 (0.0%)
<b>e-newspapers</b>	47 (58.75 %)	6 (7.50%)	15 (18.75 %)	2 (2.50%)	0 (0.0%)	10 (12.50%)	0 (0.0%)

<b>Research Reports</b>	24 (30.00%)	15 (18.75 %)	25 (31.25%)	8 (10.00%)	0 (0.00%)	8 (10.00%)	0 (0.0%)
<b>Conference papers</b>	17 (21.2%)	16 (20.0%)	28 (35.0%)	11 (13.8%)	0 (0.0%)	8 (10.0%)	0 (0.0%)
<b>Theses and Dissertations</b>	11 (13.75 %)	22 (27.50%)	26 (32.50%)	4 (5.00%)	2 (2.50%)	15 (18.75 %)	0 (0.0%)

**Table 7: Frequency of usage of electronic resources by lecturers at University of Ilorin**

Items	University of Ilorin						
	Daily	Weekly	Monthly	Quarterly	Yearly	Occasionally	Never
	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)
Electronic information resources							
e-books	101 (37.27 %)	149 (54.98 %)	11 (4.06 %)	0 (0.0%)	0 (0.0%)	10 (3.69 %)	0 (0.0%)
e-journals	55 (20.29 %)	180 (66.42%)	22 (8.12%)	0 (0.0%)	5 (1.85%)	9 (3.32 %)	0 (0.0%)
e-magazines	9 (3.3%)	120 (44.3%)	49 (18.1%)	34 (12.5%)	8 (3.0%)	45 (16.6%)	6 (2.2%)
Online Databases	25 (9.23%)	159 (58.67 %)	42 (15.50 %)	7 (2.58%)	7 (2.58 %)	30 (11.07 %)	1 (0.37 %)
CD-ROMs Databases	0 (0.0%)	22 (8.1%)	18 (6.6%)	43 (15.9%)	1 (0.4%)	118 (43.5%)	69 (25.5%)
Online institutional repository	8 (2.95 %)	11 (4.06 %)	16 (5.90%)	15 (5.54%)	0 (0.0%)	62 (22.88 %)	159 (58.67%)
Internet	173 (63.8%)	73 (26.9%)	7 (2.6%)	11 (4.1%)	0 (0.0%)	7 (2.6%)	0 (0.0%)
Electronic mails	133 (49.08 %)	114 (42.07 %)	8 (2.95 %)	10 (3.69 %)	0 (0.00%)	6 (2.21%)	0 (0.0%)
e-newspapers	99 (36.5%)	80 (29.5%)	29 (10.7%)	3 (1.1%)	8 (3.0%)	52 (19.2%)	0 (0.0%)
Research Reports	27 (10.0%)	68 (25.1%)	91 (33.6%)	9 (3.3%)	0 (0.0%)	76 (28.0%)	0 (0.0%)
Conference papers	14 (5.2%)	62 (22.9%)	102 (37.6%)	13 (4.8%)	0 (0.0%)	75 (27.7%)	5 (1.8%)
Theses and Dissertations	0 (0.00%)	71 (26.20 %)	96 (35.42%)	19 (7.01%)	0 (0.00%)	80 (29.52%)	5 (1.85 %)

**Key: Daily, Weekly, Monthly, Quarterly, Yearly, Occasionally and Never**

Table 6 and 7 compare the frequency of usage of electronic resources in both universities. The study revealed a high frequency of usage of IR provision in CU. This is relatively higher when compared to UNILORIN respondents.

## **Conclusion**

The institutional repositories provide a strong basis for open access to the intellectual contents and enrichment of scholarship in the universities. The benefits of institutional repositories in a university are the provision of open access to research outputs, preservation of contents, scholarly communication, institutional visibility and prestige, electronic publishing and self-archiving. Lecturers in universities must therefore acquire adequate ICT skills needed for utilization of IRs provisions. The result of the analysis has shown that ICT skills can facilitate the utilization of institutional repositories for research. This is the conclusion drawn from the result of the analyses in which IR provision was utilized more by CU lecturers than lecturers in UNILORIN. Lecturers in CU have higher ICT skills than UNILORIN lecturers. It is therefore imperative that lecturers place high priority in acquiring ICT skills. Lecturers must play a key role in populating IRs.

## **Recommendations**

From the findings of this study, the following recommendations can be made:

1. The library should mount intensive and extensive sensitization and enlightening ICT programmes for lecturers in their institutions. The importance of IR should be stressed. The training must be regular and should be done through seminars, workshops, conferences, refresher courses on ICT skills acquisition.
2. The study recommends that ICT skills training should be frequently organized to enhance better usage of IR provision by lecturers as this can stimulate the interest to use the IR facility. The usage analysis illustrated this. Where IR usage was high as in CU, acquired ICT skills were also high. ICT skills of lecturers in UNILORIN was low and so usage of IR was low.
3. In-service training on the acquisition of ICT skill literacy for lecturers should be institutionalized as part of the development plan to enhance IR utilization. Covenant University has adopted this approach and this has impacted positively on the use of IR. This should be replicated in other institutions.
4. The lecturers should put in more effort towards acquiring adequate ICT skills on their own as this will enhance their access to wider information materials stored on various electronic platforms. This recommendation is necessary because low interest in ICT skills will hamper the use and the creation of electronic resource provisions.

## References

- Anderson, J. (2010), "ICT Transforming Education – A Regional Guide, Published by *UNESCO Bangkok* 10110, Thailand".
- Aina, R. F. (2014), "Awareness, accessibility and use of electronic databases among academic staff of Babcock University Business School", *Kuwait Chapter of Arabian Journal of Business and Management Review*. Vol 3 No. 2, pp. 40-48.
- Al-Daihani, S.M. 2011. ICT education in library and information science programs An analysis of the perceptions of undergraduate students. *Library Review Vol. 60 No. 9, 2011 pp. 773-788 Emerald Group Publishing Limited 0024-2535 DOI 10.1108/00242531111176790*.
- Akinnagbe, O. M. and Baiyeri, K. P. (2011), "Training needs analysis of lecturers for information and communication technology (ICT) skills enhancement in Faculty of Agriculture, University of Nigeria, Nsukka", *African Journal of Agricultural Research* Vol. 6(32), pp. 6635-6646, 26 December, 2011, available online at: <http://www.academicjournals.org/AJAR> DOI: 10.5897/AJAR11.1233. ISSN 1991-637X ©2011 Academic Journals.
- Babel Library, (2007), "Guidelines for the creation of institutional repositories at universities and higher education organizations / *Alfa Network Babel Library. Valparaiso: Columbus: Europe Aid Co-Operation Office. Babel Library.* 30 p.
- Dadzie, P.S. and Walt, T. (2015), "Digitizing university libraries in ghana: how technology is facilitating access to digital content and services", *Unisa University of South Africa*. Vol. 33 No. 3, pp. 95–114.
- FluidSurveys Team, (2014), "Descriptive Research: Definition Your Respondents and Drawing Conclusions", available at: [fluidsurveys.com/university/descriptive-research-definition-respondents-drawing-conclusions](http://fluidsurveys.com/university/descriptive-research-definition-respondents-drawing-conclusions).
- Global Knowledge, Memory and Communication, Vol. 67 Issue: 1/2, pp.19-33, available at: <https://doi.org/10.1108/GKMC-04-2017-0033>.



- Jordan, E. 2003. Cybrary skills in the tertiary environment: in-service education for librarians from developing countries. *Australian Library Journal*, 52 (1). Available online at: <http://www.alia.org.au/publishing/alj/52.1/full.text/cybrary.skills.html>.
- Kattimani, S.F. and Naik, R.R. (2012), "Evaluation of librarianship and ICT skills of library and information professionals working in the engineering college libraries in Karnataka, India: a survey", *Program*, Vol. 47 Iss 4 pp. 345 – 369, available at: <http://dx.doi.org/10.1108/PROG-07-2012-0041>.
- Musa, A.U., Shittu, M. and Abdulkadir, A. (2014), "Institutional Digital Repositories in Nigerian: Issues and Challenges", *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* Volume 19, Issue 1, Ver. XI (Feb. 2014), PP 16-21 e-ISSN: 2279-0837, p-ISSN: 2279-0845. Available at: [www.iosrjournals.org](http://www.iosrjournals.org).
- NetLiteracy, (2016), "Basic Internet Skills", available at: <http://www.netliteracy.org/wp-content/uploads/2012/07/Basic-Internet-Skills.pdf>.
- Nwachukwu, V.N. and Asom, F. (2015), "Utilization of Computer Technology for Academic Work by Lecturers of University of Jos – Nigeria", *International Journal of Library and Information Science Studies* Vol.1, No.2, pp.14-22, December 2015. Published by *European Centre for Research Training and Development UK*, available at: [www.eajournals.org](http://www.eajournals.org).
- Ogbomo, E.F. and Muokebe, B. (2015), "Institutional Repositories, as Emerging Initiative in Nigerian University Libraries", *Information and Knowledge Management*, available at: [www.iiste.org](http://www.iiste.org).
- Oguche, D. (2018), "The state of institutional repositories and scholarly communication in Nigeria", *Global Knowledge, Memory and Communication*, Vol. 67 Issue: 1/2, pp.19-33, available at: <https://doi.org/10.1108/GKMC-04-2017-0033>.
- Okwilagwe, A.O. and Ogbomo, M.O. (2012), "Computer Skills as Predictors of Lecturers' Use of Scholarly Electronic Publications for Research in Federal University Libraries in Nigeria", *PNLA Quarterly* vol. 76 No. 3, available at: [www.pnla.org](http://www.pnla.org).

Salawu, B.A. (2010), “Issues and challenges in the creation of institutional repositories with local content: critical reflections”, *Information, Society and Justice*, Vol. 3 No. 1, pp. 59-68, available at: [www.londonmet.ac.uk/is.j](http://www.londonmet.ac.uk/is.j).

Ukwoma, S.C. and Mole, A.J.C. (2017), “Utilisation of Institutional Repositories for Searching Information Sources, Self-Archiving and Preservation of Research Publications in Selected Nigerian Universities”, *Aft. J. Lib. Arch. & Inf. Sc.* Vol. 27, No. 2, pp. 117-130.

Umar, A., Musa, S. and Aliyu, A. (2014), “Institutional Digital Repositories in Nigerian: Issues and Challenges”, *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* Volume 19, Issue 1, ver. xi, pp. 16-21, available at: [www.iosrjournals.org](http://www.iosrjournals.org).

Waldman, M. 2003. Freshmen's use of library electronic resources and self-efficiency *Information Research* 8 (2), paper no. 150. Available at <http://informationr.net/ir/8-2/paper150.html>

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