# University of Nebraska - Lincoln DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

8-9-2021

# Contents Evaluation of University Libraries Website in Nigeria

Chuks Daniel Oriogu Library Department, Achievers University Owo, Ondo State Nigeria, orioguchuksdaniel@yahoo.com

Follow this and additional works at: https://digitalcommons.unl.edu/libphilprac

Oriogu, Chuks Daniel, "Contents Evaluation of University Libraries Website in Nigeria" (2021). *Library Philosophy and Practice (e-journal)*. 6142. https://digitalcommons.unl.edu/libphilprac/6142

# Contents Evaluation of University Libraries Website in Nigeria

# **Oriogu, Chuks Daniel**

Library Department, Achievers University Owo, Ondo State Nigeria

#### oriogu.c@uat.edu.ng

#### Abstract

**Purpose**: The study focused on the contents evaluation of university library websites in Northern, Nigeria.

**Design/methodology/approach**: This study adopted analytical survey method to collect data from the fourteen private university libraries websites.

**Research limitation(s):** Public (State and Federal)Universities are not part of the study.

**Key finding(s):**The result revealed that most of the private university libraries in Northern part of Nigeria have not enriched the content of their library websites. And a good number of the libraries websites are poorly designed and outdated.

**Practical implication(s):** The findings of the study has made it possible for university libraries to understand their short coming and improve on the development and redesigning of their library website contents.

**Contribution to knowledge:** It would be a great contribution to the existing body of knowledge on website creation and development in general and content development of university library websites in particular, as there are limited research conducted so far.

Paper type: Research

## Keyword(s): Website Contents, Library Website, Private Universities, Nigeria

#### Introduction

The advent of the internet has greatly improved access to and visibility of vast information resources on the web; thereby creating an enabling and equitable access to information use. In this regard, university websites have gained significantly in recent years and have attracted the attention of many other universities worldwide (Al-Busaidi, 2012; Li and Wood, 2005). Today, many organizations and academic institutions are displaying their information products on the website, in order to increase access and marketability of its services. The

website plays a vital role of public relation for the tertiary institution and the first point of contact to the web visitor either nationally or internationally when they are searching to know more about an institution (Andalib and Danaee 2013). Library websites are often the first and only place users go for information and the only way library services are used by virtual patrons who never physically visit the library (Nasajpour, Ashrafi-rizi, Soleymani, Shahrzadi, and Hassanzadeh, 2014). It provides a virtual link to community of users to the available services and information resources provided by the university library. Therefore, designing and enriching the content of the library website will help to attract users and increase the rate of web visit. A well-developed content will enable a library to know the extent to which its services satisfies the users and increase momentous use. University libraries websites architecture should be designed to meet users' information needs and expectation. More so, as many public universities have launched a library website to help their faculty, staff and students gain access remotely via the internet to a range of information and services (Altayar and Alkraiji, 2014). And many researchers have identified the essence of improving services rendered through the websites and regular evaluation in order to satisfy the needs of different users and stakeholders (Eidaroos and Alkraiji, 2015). There is need to evaluate the contents of university library websites of private universities in Northern, Nigeria. As this study may lead to the improvement and the development of better library websites contents.

#### **Statement of the Problem**

The essence of a library website is to create a virtual link of the services and products provided by the library. And to increase wider access and visibility of information resources and services. The usability of the library website is determine by the enrichment of its content. Studies have shown that most of the university library web contents are poorly developed and outdated. Blakiston (2013) noted that there is no clear vision or purpose to the content, and numerous staff members are expected to maintain content with little guidance, because, many library websites end up with content that is poorly written, duplicative, or outdated. With this poor state of library web content among academic institutions. This is why the study tends to evaluates the contents of private university library websites.

#### **Objective of the Study**

The main objective of this study is to evaluate the contents of university library websites of Private universities in Northern, Nigeria. The specific objectives to the study are:

- 1. To find out if Private universities under study have library webpage/websites;
- **2.** To ascertain the services and facilities provided among the university library websites under study.

#### **Literature Review**

A website is a collection of web pages, images, videos, multimedia files, etc. held on a single server or multiple servers and accessible via Internet (Mairaj, 2013). According to Kannappanavar, Jayaprakash and Bachalapur (2011) website is the collection of related web pages, images, video or other digital assets that are addressed relative to a common uniform resource locater (URL), often consisting of only the domain name, or the Internet Protocol (IP) address, and root path in an Internet protocol based networks. The web pages are written in hypertext markup language (HTML) format, and each page has its own uniform resource locator (URL) and accessible via hypertext transfer protocol (HTTP) (Gramondi, 2005). The website is now a focal point for all the university stakeholders and a viable point of contact (Astani 2013). University website is promoting the educational activities beyond its immediate environment, therefore becoming an instrument of promotion and advertisement (Olaleye et al 2018). As an organization's website is considered to be an online facility to deliver information, resources and services (Eidaroos, 2011). It is a visibility tool that helps to publicize the activities of academic institutions, such as the academic programmes available in that university, admission process, academic calendar, library resources and services, etc.

According to Poll (2008) library website may be the library's own domain, or it may be places within the institution's/community's website. Joo et.al (2011) assert that library website plays a role of an extension and augmentation of a traditional physical library and offers a variety of library services such as electronic resource access, online catalogs, and online reference services. It is pertinent for university library websites to provide essential services, such as OPAC, digital library services, e-databases, reference services, information literacy skills, essential forms (e.g. Request, Reservation, Membership Registration and Inter Library Loan), general library routine functions and other useful links. Liu (2008) also stated that the library website is no longer just information about the library and online collection services but a virtual place that may be customizable, allow for personalization and remixability, invite user engagement and interaction, and support online communities through tools such as blogs, wikis, and tagging. Hanson and Cervone (2007) revealed that wiki, blog, really simple syndication (RSS), instant messaging (IM) and podcast as the major Web 2.0 tools for academic libraries. If university library website can offers these essential services, users would be attracted and have the desire to access the website as an authentic source of

information. Jasek (2007) listed the likely things users of a library website look for while accessing their library website:

- Searching for scholarly articles and books pertaining to their research areas.
- Searching for course materials such as lecture notes, reserved books, or other materials or links related to certain classes.
- Finding user account information such as checked-out books or fines.
- Finding library information such as locations and hours of operation.
- Getting help in using a library and library website (p. 3).

In order to meet the new normal, library websites should serve as a veritable tool to access information resource, and a gateway to serve the digital natives effectively. Thus, for effective service delivery, university libraries should regularly analyse its contents. Stemler (2001) defined content analysis as a method of observation and document analysis, and a research technique for the objective, systematic and quantitative description of the manifest content of communication. Chikkamanju (2015); Singh and Gautam (2016) defined content analysis as the systematic, replicable technique for compressing many words of text into fewer content categories based on an explicit rule of coding. It is an objective and systematic method of evaluating, organizing and facilitating creation of web collection, text and graphics based on a checklist. To appreciate the relevance and usability of a university website depends on the comprehensive creation of its content.

Libraries of developed countries in North America (the United States of America, Canada) and Europe (the United Kingdom) took initiative of conducting studies using different research methods to evaluate different aspects of websites focusing on content, design, usability, etc. in every domain to improve their quality and to provide better services to users (Qutab, 2004). Several studies have been conducted on the case study analysis of the content of library websites, usability and design of library websites (Kuchi, 2006; Qutab & Mahmood, 2009; Chua & Goh, 2010; Fry & Rich, 2011; Mairaj and Mustafa El-Hadi, 2011; Mairaj, 2013). Savitha, (2016) examined "the contents available in selected university library websites in Karnataka under five criteria, namely general feature; library collection; library service; e-resources and social networking tools for examining the websites. The author found that websites should be more informative and attractive, so as to easily draw the attention of users". Li and Ranaweera (2016) evaluated the web-based library services in Sri Lanka University under eight main categories; "site description; currency; website aids and

tools; library general information; library resources; library services; links to e-resources; and value-added services. The results shows that website in Sri Lanka academic library should focus more on adding new web-based library services in order to be relevant to the needs of its community of users. Bharati and Madhusudhan (2019) evaluated the content of Jawaharlal Nehru University and Banaras Hindu University Library Websites in India under eleven check points. The authors found that the library websites are lagging behind to take full advantage of advance web 2.0 features. Rahman and Batcha (2020) examines content analysis of library websites of ten selected library websites of the colleges affiliated to the University of Delhi under the four criteria. The result of the study shows that majority of the library websites have information related to introduction, library staff, library hours and membership. The study also revealed that none of the library websites/web-pages have features of social networking tools, feedbacks, regular updates and they also lack in providing question papers, news-clippings, user manual and single window search.

In the Nigerian context, much studies have not been done on the content evaluation of university library websites. For example, the study of Mohammed and Umar (2014) evaluated the content of university library websites in Nigeria. The result shows that the general information about the library services, their physical holdings of the selected libraries, are all inadequate. The study of Gbaje and Kotso (2014) revealed that irrespective of the online presence of academic libraries in Nigeria by creating their library website, most of them do not utilize the Nigerian academic libraries have made their presence online by deploying a library website, many of them do not use their library websites to provide their users with contact and general information on the services they provide and facilitate access to their resources. Mohammed, Garba and Umar (2014) assessed the content of the university library websites in Nigeria, "to ascertain their strength and weaknesses under five criteria, namely; general information, physical collection, library services, e-resource, and links to free external e-resources. They found that the general information, services and physical holdings were inadequate and therefore recommended for improvement of web design skills for librarians and inclusion of website development programs in the curriculum of LIS education. The study of Obuezie and Osuchukwu (2017), focused on the evaluation of national library of Nigeria, Uganda and Namibia library's websites using heuristic principles. The findings shows that the library websites were adequately designed and contained all the relevant information. Abifarin and Imavah (2018), studied the design evaluation of academic library websites in Nigeria and they concluded that none of the academic library websites had

all items verified. Nevertheless, from literatures reviewed, there are no study that specifically evaluates the contents of private university libraries websites in the Northern part of Nigeria. This is the gap the study wants to fill.

#### Methodology

This study adopted analytical survey method to collect data from the fourteen private university libraries websites, in the Northern part of Nigeria. This area of the country comprises the North Central, North West, and North East. Private university library websites were considered in order to determine their presence and the richness of its contents in providing information services to its Internet generation users and the quality of the contents in meeting the standard of world class universities library websites. The data gathering tool used is the content checklist developed based on the study conducted by Brower (2004); Michalec (2006) and Qutab (2009). Some parameters were also added to cover the elevant features of the library web content. The data were collected through a direct access to the institutions library website or library webpage and the result of the checklist was based on the researchers' observations. Simple percentage were used to evaluate the content of the various websites based on eight (8) criteria; availability of the library website, general information, library contact information, departments, services, electronic resources, library forms and photo gallery. The analysis were presented in the tabular form using "Yes" for the features present in a website and "No" for the features not present in a website.

S/	Name of University	Abbr.	URL	State	Year
N		ALICT	1	DOT	Founded
1	African University of Science	AUST	https://aust.edu.ng/libr	FCT	2007
	& Technology, Abuja		ary		
2	Al-Hikmah University, Ilorin	AUI	https://www.alhikmah	Kwara	2005
			.edu.ng/library/		
3	Al-Qalam University, Katsina	AUK	http://www.auk.edu.n	Katsina	2005
			<u>g/library</u>		
4	American University of	AUN	http://Library.aun.edu.	Adamawa	2003
	Nigeria, Yola		ng		
5	Baze University, Abuja	BU	http://www.bazeunive	FCT	2011
			rsity.edu.ng		
6	Bingham University, New	BUN	http://www.binghamu	Nasarawa	2005
	Karu		ni.edu.ng/library/		
7	Crown Hill University	CHU	http://crownhilluniver	Kwara	2016
	Eiyenkorin, Kwara State		sity.edu.ng/		
8	Kwararafa University,	KUW	https://kwararafaunive	Taraba	2005

	Wukari		rsity.edu.ng/		
9	Landmark University, Omu-	LMU	http://www.lmu.edu.n	Kwara	2011
	Aran.		g		
10	Nile University of Nigeria,	NUN	https://nileuniversity.e	FCT	2009
	Abuja		du.ng/nile-library/		
11	Salem University, Lokoja	SUL	http://www.salemuniv	Kogi	2007
			ersity.org		
12	Skyline University of Nigeria	SUN	www.sun.edu.ng	Kano	2018
13	Summit Univety, Offa	SU	http://www.summituni	Kwara	2015
			versity.edu.ng/		
14	University of Mkar, Mkar	UM	http://www.unimkar.e	Benue	2005
			<u>du.ng</u>		

# Results

# Table 5.2: Presence of Library Website

Perponse V V V V V N N N V N N V N 8(571)	Library Websites	AUST	AUI	AUK	AUN	BU	BUN	CHU	KUW	LMU	NUN	SUL	SU	NUS	MMU	No (%)
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Response	Y	Y	Y	Y	Y	Y	Ν	Ν	Ν	Y	Ν	Ν	Y	Ν	8(57.1)

Y=Yes, N=No

Table 5.2 shows the presence of library websites. It reveals that 8(57.1%) have functional library websites. 6 (42.9%) of the universities do not have library website or webpage.

# **Table 5.3: General Information**

General Information	AUST	AUI	AUK	AUN	BU	BUN	CHU	KUW	LMU	NUN	SUL	SU	SUN	UMM	No (%)
About the Library	Ν	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Ν	Ν	Y	Ν	7 (50.0)
Mission & Objective	Y	Ν	Y	N	N	Y	Ν	N	Y	Ν	Ν	N	Y	Ν	5 (36.0)
Working Hours/Holidays	Y	N	Y	Y	Y	Y	N	N	N	Y	N	N	Y	N	7 (50.0)
Library Staff	Ν	Ν	Ν	Ν	Y	Y	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	3(21.4)
Library rules	Ν	Ν	Ν	Y	Y	Y	Ν	Ν	Y	Y	Ν	Ν	Y	Ν	6(43.0)
News/Events	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Y	Y	Ν	Ν	Ν	Ν	3(21.4)
Awards & Recognition	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	1(7.1)
Lib guides	Ν	Ν	Ν	Y	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Computer Use Policy	N	N	Y	Y	N	N	N	N	Ν	N	N	N	N	N	1(7.1)
Library Policy	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Space & Facilities	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Hits	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)

Y=Yes, N=No

Table 5.3 shows the general information on the universities library websites. The table reveals that 7(50%) of the websites have information about their libraries, 5(36%) have mission and objectives of the library, 7(50%) have information on their working hours, 3(21.4%) have information about their library staff, 6(43.0) have library rules and 3(21.4%) have news/events. The table also shows that 1((7.1%) of the items on the various university library websites provided information on awards & recognition, library guides, computer use policy, library policy and space and facilities and hits.

Contact	AUST	AUI	AUK	AUN	BU	BUN	CHU	KUW	LMU	NUN	SUL	SU	SUN	UM	No. %
Mailing Address	Y	N	Y	Y	Ν	Y	Ν	Ν	N	N	Ν	N	Y	Ν	5(35.7)
Email	Y	Ν	Y	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	5(35.7)
Phone No.	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Physical address of Library	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
Facebook	Y	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	3(21.4)
Map showing location of library	N	N	Ν	N	Ν	N	Ν	Ν	N	N	N	N	N	Ν	0.0
Twitter	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Online chat	Y	Y	N	Y	N	Y	N	Ν	Y	Ν	Ν	Ν	Ν	Ν	4(28.6)

**Table 5.4: Library Contact Information** 

Y=Yes, N=No

Table 5.4 shows that mailing address 5(35.7), email address 5(35.7), online chat 4(28.6), Facebook 3(21.4%), Phone number and Twitter has 1(7.1) respectively. The table also shows that none of the library websites have Physical address of library and Map showing location of library.

Library															No. (%)
Dept.	AUSTA	AUI	AUK	AUN	BU	BUN	CHU	KUW	LMU	NUN	SUL	SU	NUS	UMM	
Circulation	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N	Ν	Ν	N	Y	Ν	1(7.1)
Reference	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	2(14.3)

## Table 5.5: Library Departments

Serials	N	N	N	N	N	N	N	N	N	N	N	N	Y	N	1(7.1)
Technical	Ν	Ν	Ν	Y	N	Ν	Ν	Ν	N	Ν	N	Ν	Y	Ν	2(14.3)
ICT	Ν	Ν	N	Y	N	Ν	Ν	Ν	Ν	Ν	N	Ν	Y	Ν	2(14.3)

Y=Yes, N=No

Table 5.5 shows the library departments on the universities websites. The table reveals that reference 2(14.3), ICT 2(14.3), technical departments 2(14.3). And none of the university library websites have Serial department.

Library Services															No (%)
	AUST	AUI	AUK	AUN	BU	BUN	CHU	KUW	LMU	NUN	SUL	SU	SUN	ΝM	
Circulation	N	N	Ν	Ν	Ν	Y	Ν	Ν	Y	Ν	Ν	N	Ν	Ν	2(14.3)
Research guide	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	1(7.1)
Information Literacy Skills	N	N	Y	Y	N	Y	N	N	Y	N	N	N	N	N	4(28.6)
Online Reference Services/ Ask a Librarian	N	N	N	Y	N	N	N	N	Y	N	N	N	N	N	1(7.1)
OPAC	N	N	N	Y	N	Y	N	N	N	Y	N	N	N	N	3(21.4)
Online Tutorials	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0
ILL	N	N	Ν	Y	Ν	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N	0

## Table 5.6: Library Services

Y=Yes, N=No

Table 5.6 presents data on library services. It show that Information Literacy Skills 4(28.6), OPAC 3(21.4), Circulation services 2(14.3), Research guide and Online Reference Services/ Ask a Librarian 1(7.1). none of the university library websites have Online Tutorials and ILL services.

**Table 5.7: Electronic Resources** 

E- <b>Resources</b>	AUST	AUI	AUK	AUN	BU	BUN	CHU	KUM	TMU	NUN	SUL	SU	SUN	UMM	No%
E-Journals	Y	Y	N	Y	Y	N	N	N	Y	N	N	N	Y	N	6(42.8)
E-Books	Ν	Y	Ν	Y	N	Y	Ν	Ν	Y	Y	N	N	Ν	Ν	5(35.7)
E-Databases	Y	Y	Ν	Y	N	Y	Ν	Ν	Y	Y	N	N	Y	Ν	6(42.8)
Institutional Repository	Y	Y	N	Y	Y	N	N	N	Y	N	N	N	Y	N	6(42.8)
Courseware	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	2(14.3)

Y=Yes, N=No

Table 5.7 shows the electronic resources available on the library websites. The table reveals that e-database 6(42.8), e-book 5(35.7), e-journals 6(42.8), institutional repository 6(42.8) and courseware 2(14.3).

FORMS	А	А	А	А	В	В	С	K	L	Ν	S	S	S	U	No.%
	U	U	U	U	U	U	Н	U	М	U	U	U	U	М	
	S	Ι	Κ	Ν		Ν	U	W	U	Ν	L		Ν		
	Т														
	А														
Book Request	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	0(0.0)
Form															
Library	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	0(0.0)
membership															
Form															
ILL Request	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	1(7.1)
Form															
Reservation form	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	1(7.1)

# Table 5.8: Library Forms

Y=Yes, N=No

Table 5.8 shows the forms present on the library websites. The table shows that AUN 1(7.1%) has ILL Request Form and Reservation form. The table revealed that most of the university library website do not provide library forms.

**Table 5.9: Library Photo Gallery** 

Photo	Α	А	А	А	В	В	С	Κ	L	Ν	S	S	S	U	No.%
Gallery	U	U	U	U	U	U	Н	U	М	U	U	U	U	Μ	
	S	Ι	Κ	Ν		Ν	U	W	U	Ν	L		Ν		
	Т														
Photos	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	0(0.0)

Y=Yes, N=No

Table 5.9 shows the library photo gallery. The table revealed that none of the university libraries have photo gallery on their library websites.

## Discussion

The study evaluated 14 private university library websites in the Northern part of Nigeria. The study revealed that 57.1% of university library websites have functional library websites or web page in their institutional websites. While (42.9%) of the universities do not have library website or web page. Which shows that there no information about the library on the institutional website. Based on the general information of the library websites, the study revealed that most of the university library websites do not have information like awards & recognition, library staff information, news/events, library guide, computer use policy, library policy, facilities and hits. The study shows that majority of the university library websites do not have content on different contact information, library departments and services. This is in line with the finding of Gbaje and Kotso (2014), on the assessment of the contents of Nigeria academic library website, that even though Nigerian academic libraries have made their presence online by deploying a library website, many of them do not use their library websites to provide their patrons with contact and general information on the services they provide and facilitate access to their resources.

On the library services provided, the study shows that the services displayed by most of the university library websites are mainly the provision of electronic information resources and information literacy skills. It's quite unfortunate that majority of the university libraries do not provide the links to OPAC, Circulation services, Research guide, Online reference services/ Ask a librarian, Online tutorials and Inter library loan (ILL) on their university library websites. This supports the findings of Mohammed, Garba and Umar (2014), that the general information about the selected libraries, about library services, about their physical holdings are all inadequate. Also based on the electronic resources provided by the university

library websites. The study reveals that 48.2% have e-database and a few number of them have e-book, e-journals and institutional repository. Therein, none of the university library websites have library forms on their websites, except American university of Nigeria Yola that provides ILL Request Form and reservation form. The lack of library forms have limited students and staff to make various recommendations, request and complaints via electronic means. Finally, the data on the library photo gallery reveals that, none of the university libraries have photo gallery on their library websites. Abifarin and Imavah (2018), studied the design evaluation of academic library websites in Nigeria and they concluded that none of the academic library websites had all items verified.

#### **Conclusion and Recommendations**

Library websites serve as the hub and marketing tools for university libraries resources and services visibility. It projects the richness of library resources and add value to service provision to wider academic communities. Hence, there is need for university libraries to redesign and update their website contents in order to make their resources and services accessible. The study revealed that most of the private university library in the Northern part of Nigeria have poor library websites with little or no tangible information displayed. They are poorly organized and some have no library website/webpage. And also lacks the necessary features that make up a complete university library website. However, it's time for private university libraries in Nigeria to work on their website contents in order to benefit its usefulness in disseminating information services. The study therefore, recommends that:

- a. Private university libraries should developed a well functional library websites and redesign its contents for better interaction and utilization by users community.
- b. They should endeavor to always update their library websites to provide more current and latest services they provide.
- **c.** There is need to introduce website creation and development to the curriculum of LIS education, in order to equip LIS students with the knowledge and skill to create, design and manage library content.

#### References

- Abifarin, F.P. and Imavah, S.A. (2018). Design evaluation of academic library websites in Nigeria. *African Journal of Computing & ICT Reference Format*, 11(3), 12 32.
- Al-Busaidi, K. (2012). The payoff of corporate portal usage in an academic institution. *Campus Wide Information Systems*, 26(5), 368–379
- Altayar, M.S., Alkraiji, A.I. (2014). The motivations for campus portals adoption in Saudi Government Universities. In: Rocha, Á., Correia, A.M., Tan, F., Stroetmann, K., et al. (eds.) New perspectives in information systems and technologies. Heidelberg: Springer, pp. 431–442.
- Andalib, Z., & Danaee, H. (2013). A study on measuring the quality of university website. *Management Science Letters*, 3(7), 1955-1960.
- Astani, M. (2013). A decade of changes in university website design. *Issues in Information Systems*, 14(1), 189-196.
- Bharati, S. K. and Margam, M. (2019). "Content evaluation of Jawaharlal Nehru University and Banaras Hindu University library websites in India. *Library Philosophy and Practice (e- journal)*. 2290. https://digitalcommons.unl.edu/libphilprac/2290
- Blakiston, R. (2013). Developing a Content Strategy for an Academic Library Website. Journal of Electronic Resources Librarianship, 25 (3), 175–91. Retrieved from doi:10.1080/1941126X.2013.813295.
- Chikkamanju (2015). "Content analysis of the Autonomous Engineering College library websites affiliated to Visveswaraya Technological University (VTU), Belgaum, Karnataka: A study." *International Journal of Academic Library and Information Science*, 3 (9), 258–68, doi:10.14662/IJALIS2015.047.
- Chua, A. Y. K., & Goh, D. H. (2010). A study of Web 2.0 applications in library websites. *Library & Information Science Research*, 32(3), 203-211.
- Eidaroos, A. and Alkraiji, A. (2015). Evaluating the usability of library websites using an heuristic analysis approach on smart mobile phones: Preliminary findings of a study in Saudi Universities. *Advances in Intelligent Systems and Computing*. [Online] doi: 10.1007/978-3-319-16486-1\_113 [Online]
- Eidaroos, A. (2011). Multidimensional evaluation approach for an e-government website: A case study of e-government in Saudi Arabia. PhD Thesis, Loughborough University/

- Fry, A., & Rich, L. (2011). Usability testing for e-resource discovery: How students find and choose e-resources using library web sites. *The Journal of Academic Librarianship*, 37(5), 386-401.
- Gbaje, E.S. and Kotso, J.A. (2014). Assessing the contents of Nigeria academic library website. *Information and Knowledge Management*, 4(7), 1-11
- Gbaje E.S. (2007). Provision of online information services in Nigerian academic libraries. Nigerian Libraries: *Journal of Nigerian Library Association*, 40,1-14
- Gramondi, L. (2005). L'offre de services en ligne d'un système d'information documentaire: Besoins et usages dans le contexte universitaire du SCD Lyon 1[The provision of online services of a documentary information system: Needs and uses in the academic context of SCD, Lyon 1]. Unpublished master's thesis, ENSSIB, Lyon.
- Hanson, K. and Cervone, H.F. (2007). Using interactive technologies in libraries. New York: Neal- Schuman.
- Jasek C. (2004). How to design library web sites to maximize usability. Retrieved from [Online] <u>http://libraryconnectarchive.elsevier.com/lcp/0502/lcp0502.pdf</u> [Accessed 25 September 2018].
- Joo S., Lin S., Lu K. (2011). A usability evaluation model for academic library websites: efficiency, effectiveness and learn ability. *Journal of Library and Information Studies*, 9(2). [Online] <u>http://jlis.lis.ntu.edu.tw/article/v9-2-2.pdf</u> [Accessed 25 November 2018].
- Kuchi, T. (2006). Communicating mission: An analysis of academic library web sites. Journal of Academic Librarianship, 32(2), 148-154.
- Li, S., Wood, W. (2005). Portals in the academic world: Are they meeting expectations. *The Journal of Computer Information Systems*, 45(4), 50–55
- Li, S. and. Ranaweera, R. A. A. (2016). Web based library services of university libraries in Sri Lanka: A content analysis. The 8th Shanghai International Library Forum (SILF2016), pp. 324–38. doi: 10.13140/RG.2.1.4225.3047.
- Liu, S. (2008). Engaging users: the future of academic library web sites. *College and Research Libraries*, 69(1), 6-27.

- Mairaj, M.I. (2013). Use of university's library websites in Pakistan: An evaluation. Pakistan Journal of Library and Information Science, 14, 1-8
- Mairaj, M. I., & Mustafa El-Hadi, W. (2011). Use of university library website: A case study.
  In F. Rotaru (Ed.), *Travaux de Symposium International, Livre. La Romanie. L'Europe. Troisieme edition* (pp. 161-176). Bucharest: Editura Biblioteca Bucurestilor.
- Michalec, M., (2006). A content analysis of art library websites. Art Documentation, 25(2), 46-54.
- Mohammed, A., Garba, G. and Umar, H. (2014). University library websites in Nigeria: An analysis of content. *Information and Knowledge Management*, 4(3), 16-22
- Nasajpour, M. R., Ashrafi-rizi, H., Soleymani, M. R., Shahrzadi, L. & Hassanzadeh, A. (2014). Evaluation of the quality of the college library websites in Iranian Medical Universities based on the Stover model. *Journal of Education Health Promotion*, 3, 121. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4275622/
- Obuezie, A.C. and Osuchukwu, N.P. (Apr. 2017). The evaluation of national library of Nigeria, Uganda and Namibia library's websites using heuristic principles. *International Journal of Social Sciences and Humanities Reviews*, 7(1), 153–160
- Olaleye, S. A., Sanusi, I. T., Ukpabi, D. C. and Okunoye, A. (2018). Evaluation of Nigeria universities websites quality: A comparative analysis. *Library Philosophy and Practice* (e-journal). 1717. [Online] https://digitalcommons.unl.edu/libphilprac/1717[Accessed 25 September 2018].
- Poll, R. (2007). Evaluating the library website: Statistics and quality measure. World Library and Information Congress: 73rd IFLA General Conference and Council 19-23 August 2007, Durban, South Africa. [Online] <u>http://www.ifla.org/iv/ifla73/index.htm</u>
   \_\_\_\_\_[Accessed 25 September 2018].
- Poll, R. (2005). Assessing the quality of library websites, World Library and Information Congress: 71st IFLA General Conference and Council, Oslo, Norway, 14-18 August 2005, [Online]

http://www.ulb.unimuenster.de/bibliothek/projekte/outcome.html#presentation [Accessed 25 September 2018].

Qutab, S. (2004). A study of library web sites of Pakistan. Unpublished master's thesis, University of the Punjab, Lahore.

- Qutab, S. and Mahmood, K. (2009). Library web sites in Pakistan: An analysis of content. *Electronic Library and information systems*, 43 (4), 430-445
- Rahman, A and Batcha, M.S. (2020). Content analysis of library websites of select colleges of Delhi University: A study. DESIDOC Journal of Library & Information Technology, 40 (4), 247-252. DOI: 10.14429/djlit.40.4.15454
- Savitha, K. S. (2016). Content analysis of deemed university library websites of Karnataka State: A study." *International Journal of Digital Library Services*, 6 (1), 87–93.
- Singh, M. P., and Gautam, V. K. (2016). Content analysis of websites of Central University libraries in India. *Journal of Information Management*, 3 (2), 1–14
- Stemler, S. (2001). An overview of content analysis. Practical Assessment Research & Evaluation, 7(17), 1-7. doi:10.7275/z6fm-2e34.