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# CONTENT ANALYSIS OF WEBSITES OF CENTRAL UNIVERSITY LIBRARIES IN DELHI, INDIA: A STUDY

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#### ABSTRACT

This age called information age whole activities of human being concerned with information. Information becomes a part of life. Without information we can't move from one place to another place. Web technology makes easy to spread and retrieve information around the world. Invention of web technology is a great achievement in the field of information and communication technology. It is used to provide information in the form of text; audio; video; image; and animation files. Libraries are changing their image by adopting new kinds of information communication technology like Web. Library applied web technology to extent library services and information products to its users. This study conducted to analyze content of central university library websites of Delhi. The main purpose of the study is to investigate application of web technology in the context of content analysis of university libraries. The study shows that maximum library websites are well developed and designed and enrich with eresources. In this study it is revealed that Jawaharlal Nehru University library website is best and South Asian University library website is worst according to evaluation criteria. Through this study find that Jawaharlal Nehru University library websites provides best products and services than other central university library websites in Delhi. From this study concluded that University libraries are playing an important role in higher education, research and

development activities by effectively dissemination of information resources and services through their websites.

**Keywords:** Content Analysis; Library Website; University Library; Central Library; Web Technology

## **INTRODUCTION**

Generally the term 'Content' used for summarized form of chapter divisions in a book. We are able to understand with the help of content of book what matter is contained inside chapters of a book. Content analysis is a method of assessment various aspects of the content. In the respect of a website content analysis is method of measuring and evaluating various aspects or searching links of a website. In modern era libraries are changing their image by using new kinds of information and communication technology like web. World Wide Web is a global information system shortly called web which is fastest growing area of the internet. In modern age Internet uses to disseminate and access information very effectively without geographical distances and time restrictions. Internet provides various services such as e-mail, World Wide Web, blogs, telnet, social networking sites etc. these services make us able to share and receive information. Web service of internet used by intuitions, organizations, business companies, universities, libraries and information centers etc. for the purpose information sharing. Libraries and Information centers are using websites in the respect of information sharing over the internet. Web Technology effects on library services and activities. It changed traditional libraries into modern libraries. Traditional libraries are provided library services, information products and resources limited to library building whereas modern libraries are providing library services, information products and resources on library website. Modern libraries provides online reference service, Web-OPAC, general information regarding to library rules, services and its collection, links with e-journals and databases. Modern libraries are capable to provide multimedia information at library website rather than traditional libraries. This study conducts to assess content of central universities library websites in Delhi. University library works as back bone in higher education, research and development activities by disseminating information resources and services through their library website. In this age libraries are called gateway of knowledge because services of libraries are not limited to library building. These are disseminating their services online with the help of World Wide Web. We can say that a good library website works as a mirror for it.

## STATEMENT OF THE PROBLEM

A traditional criterion for evaluation of university library website content is not suitable in present time because technology grows by leaps and bound. In this view present time we need analysis content of university library websites according to new check point. The study focused on *Content Analysis of Websites of Central University Libraries in Delhi, India.* This study conducted to measure all aspect of central university library websites on the basis identified according to modern age.

#### LITERATURE REVIEW

(Haridasan, 2014) "Content analysis of central university library websites in India: a study". University Libraries are playing vital role in collecting and disseminating information services through library websites. This research helps improve the existing sites to provide rich and related information to the library users. A checklist used for data collection consists following criteria such as library collection, library services, uses of social networking sites by university library websites, and application of web 2.0. (Konnur, & Madhusudhan, 2010) Evaluation "Academic Library Websites in Bangalore City, India: An Evaluative Study" this study related to five select academic library websites of Bangalore city. In this study it is find that Indian Institute of Science (IISc) library website is excellent than other academic library websites in selected university library websites. (Suresh, 2013) "University Library web sites in Kerala as marketing tools: an Evaluation" University libraries are undergoing a major metamorphisms consequent to the development of Information Communication Technology. Website works as a digital medium of e-marketing. Lot of university libraries are now trying to provide library collection online in the form of e resources. (Khan 2013) "A Study of the Usability and Design Components of Academic Libraries Websites in Pakistan" with the result that quality website designing is a critical success factor for any institution possessing a presentation on World Wide Web. The Internet has various kinds of services but one of the website is service of Internet. (Sarkar, 2012) "Prevalence of widget applications on library websites: an analytical study" The study identified how to academic libraries are make library resources easily and conveniently accessible to users. This study examining the features, characteristics and purposes of use and types of widget website applications. The study aims to identify application of web technology on different academic libraries in selected area. (Vasishta, 2011) "A content analysis of the library websites of technical university libraries in North India" university library websites works

as a best communication medium to extended information about e-resources. Library website works as gateway of information and knowledge. It enhances maximum use of library online services and electronic resources. (Nwagwu, 2008) "Nigerian university websites: A web metric analysis" in the starting 1991, the Internet was based hypertext system. World Wide Web (Web) has contained large number of documents in the form of hypertext web pages. Web technology offers to provide information sources online on library website. Users can access information sources from any place. Web technology supports in distance education by providing e-resources and virtual class. The hyperlinks between sites in the same or different universities are a rich source of information about the content and use of the Web by the universities. University library website act as medium for scholarly publications as well as publicity of information in higher academic institution (Kanamadi, 2006) "Web Based Services Expected from Libraries: A Case Study of Management Institutes in Mumbai City" this paper discusses the library portals and the web based library services expected at management institutes in Mumbai City. The study conducted for to check the availability of institutional library website. This study shows that the no more students are interest in library website. Because inadequate and static information being made available on their library websites. This study also shows the expected services by users on library websites to access through the Internet at their convenience. (Bostock, 2006) "Sociology of the Web" Many young scholars at the start of their careers ask on website how to get published research work. An answer to this problem is provided by the Web, which is in fact academia's rich new frontier, providing many excellent opportunities for publication in journals of the highest standards of peer review, with the additional advantage of being referenced by Google. (Spink, 2004) "Web Search: Public Searching of the Web." Websites are providing ocean of information on Internet. In which focuses on the user oriented aspects of people's web based information needs patterns. This study is related to three broader areas including seeking information in context, retrieval of information and interaction of human with computers. (Choudhury, 2010) "Identification of the characteristics of e-commerce websites" E-commerce websites must possess certain characteristics in order to attract customers/users. Although previous studies have been conducted to determine some of these characteristics of different categories of websites, but the characteristics are unique to e-commerce websites.

# **OBJECTIVES OF THE STUDY**

The objectives of the study are as follows:

- 1. To know different features of library websites of central universities in Delhi;
- 2. To evaluate content of the library websites of central universities;
- 3. To know which central university library website provides better services than other university libraries;
- 4. To know about in performance, presentation and arrangement of Central University Library websites

## SCOPE AND LIMITATION

The scope of this research work is limited to Central University Library websites of Delhi in India. According to University Grants Commission website there are five Central Universities in Delhi. These are: 1-Indira Gandhi National Open University (IGNOU), 2-Jamia Millia Islamia University (JMIU), 3-Jawahar Lal Nehru University (JNU), 4-South Asian University (SAU), and 5-University of Delhi (DU)

# **RESEARCH METHODOLOGY**

This study adopted a survey type of research method because data were collected through online survey from selected university library websites of Delhi. Survey Method of research is the systematic method of discovery new fact or verifying old. The characteristics of the research method are; it is user-friendly, it depends upon the universe, to get the solutions of local and social problems, it is a scientific method, use on large area of population, it is costly on comparison to other data technique. It is more time taking.

## DATA COLLECTION TOOL

To conduct this study a checklist is used as a data collection tool. A checklist is a list of items which is used whether items or things are presented or not. This checklist mainly divided into ten parts of evaluation criteria. These ten criteria are divided into sub parts.

# METHOD OF DATA COLLECTION

To conducts this study data were collected through online survey from selected central university library websites in Delhi. Data were collected with the help of created checklist on April 2015 to 15 May 2015. The websites of these libraries were visited by the researcher for the purpose of data collection and evaluated based on their general information like library rules; link with e-resources; services of library, presentation of website etc. There are a lot of ways to conduct research and collect data. But online survey that is makes it really easy for data collection from library websites with help of Internet. Anyone can collect data for the purpose of research not it

misuse from selected websites of central university libraries, because research conducted for society not for personal use. Research can improves life standers of society by solving problems. The library websites are compared and contrasted based on those scores for ranking. The quantitative rating system (0 and 1) was designed to determine evaluation check list. 1 value is used for present things on websites and 0 means not present things on websites. The system of using 0 and 1 makes easy data analysis and provides quantitative result. 0 and 1 is better than using YES and NO.

## **Data Analysis and Interpretation**

This study analyzed contents of the university library websites in ten areas such as following: General Information about library; Information about library collection; Library website Link with E- Collection; Organization and Structure of Central University Library Websites; Presentation of Central University Library Websites; Navigation and Find ability; Maintenance and Updated Criteria; Authority of Central University Library Websites; Downloads and Features and services of Central University Library Websites. Qualitative and quantitative result were fined and presented in the following sections. The comparative statement for ranking of university library websites is presented in the Table 11.

S.	General Information	DU	IGNOU	JMIU	JNU	SAU	Scores	%
No.	about Library							
I.	Library Name	0	0	1	1	1	3	60
II.	Mission Statement	1	1	0	1	1	4	80
III.	History of Library	1	1	1	1	1	5	100
IV.	Working Hours	1	1	1	1	1	5	100
V.	Membership	1	1	1	1	1	5	100
VI.	Library Rules	1	1	1	1	1	5	100
	Total Score (6)	5	5	5	6	6		

**Table 1: General Information about Library** 

The above table shows that 60 percent university libraries have their name, 80 percent university websites given mission statement of library, 100 percent information given related to history of library, working hours, information about membership and library rules on libraries websites of central universities. These are above given general information about university libraries.

	Table 2: Information about Library Conection												
S. No.	Information about	DU	IGNOU	JMIU	JNU	SAU	Scores	%					
	Library Collection												
I.	Books	1	1	1	1	1	5	100					
II.	E- books	1	1	1	1	1	5	100					
III.	Journals (Print)	1	1	1	1	1	5	100					
IV.	E- Journals	1	1	1	1	1	5	100					
V.	Manuscripts	1	0	1	1	1	4	80					
VI.	Newspapers	0	1	1	1	0	3	60					
VII.	Magazines	0	1	0	0	1	2	40					
VIII.	Multi Media	1	1	1	1	0	4	80					
	Collection												
IX.	Theses and	1	1	1	1	0	4	80					
	Dissertations												
	Total Score (9)	7	8	8	8	6							

**Table 2: Information about Library Collection** 

It is presented in the above table that 100 percent information given related to library collection like Books, E- books, Printed Journals and E- journals on university library websites, 80 percent information given manuscripts, multimedia collection and theses and dissertations 60 percents information given related to newspapers, and 40 percent information given related to magazines on university library websites.

S.	Library website Link with	DU	IGNOU	JMIU	JNU	SAU	Scores	%
No.	<b>E-Collection</b>							
I.	Info net Consortium	1	0	1	1	0	3	60
II.	Links of E- Journals	1	1	1	1	1	5	100
III.	Links of E- books	1	1	1	1	1	5	100
IV.	Multi Media Collection available on website	0	1	0	1	1	3	60
V.	Digital archives	0	1	1	1	1	4	80
	Total Score (5)	3	4	4	5	4		

Table 3: Library website Link with E-Collection

It is reveals in the above table that 60 percent university library website linked with Info-net consortium, 100 percent linked with E- journals and E- books, 60 percent linked with multimedia collection and 80 percent linked with digital archives.

Table 4 shows that the 100 percent university library websites are accessible with all kinds web browsers, 100 percent university library websites home page download fast, 100 percent university library websites' all images, icons are paint when web pages loads. 80 percent university libraries website content is given in digestible quantity and arrangement is eye catchy.

S.	Organization and Structure	DU	IGNOU	<b>JMIU</b>	JNU	SAU	Scores	%
No.	of central University Library							
	Websites							
I.	Website is accessible from all	1	1	1	1	1	5	100
	the Browsers							
II.	How fast the home page	1	1	1	1	1	5	100
	download							
III.	All images, icons and graphics	1	1	1	1	1	5	100
	paint when the web page loads							
IV.	Content in digestible quantity	1	1	0	1	1	4	80
V.	Arrangement should be eye	1	1	1	1	0	4	80
	catchy							
VI.	Library website should be open	1	1	0	0	0	2	40
	in new tab with new look							
	Total Score (6)	6	6	4	5	4		

Table 4 Organization and Structure of central University Library Websites

**Table 5: Presentation of Central University Library Websites** 

S.	Presentation of Central	DU	IGNOU	JMIU	JNU	SAU	Scores	%
No.	University Library Websites							
I.	The graphics and texts are most clear and easy to read	1	1	1	1	0	4	80
II.	Web pages are easy to navigate	1	0	1	1	1	4	80
III.	Every page included way to turn the home page for the site	0	1	0	1	0	2	40
IV.	Website available in bilingual	0	1	0	0	1	2	40
V.	Library image has given at home page	1	1	0	0	0	2	40
	Total Score (5)	3	4	2	3	2		

It is presented in the above table that 80 percent university libraries websites' graphics and texts are most clear and easy to read, 80 percent university library websites web pages are easy to navigate, 40 percent Every page included way to turn the home page for the site, 40 percents library Website available in bilingual, and 40 percents on library website library image given at home page of the library website.

Table 6 shows that the 100 percents library websites have intuitive URL, Links open in same tag, search engine and affiliated organization sites link. In this criteria all points are fulfill by all selected university library websites.

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S.	Navigation and Find	DU	IGNOU	JMIU	JNU	SAU	Scores	%			
No.	ability										
I.	Intuitive URL	1	1	1	1	1	5	100			
II.	Links open in same tag	1	1	1	1	1	5	100			
III.	Search Engine	1	1	1	1	1	5	100			
IV.	Affiliated organization sites link	1	1	1	1	1	5	100			
	Total Score (4)	4	4	4	4	4					

Table 6: Navigation and Find ability

**Table 7: Maintenance Criteria** 

S. No.	Maintenance Criteria	DU	IGNOU	JMIU	JNU	SAU	Scores	%
I.	Server appear to be fast	1	1	1	1	1	5	100
II.	Allows a user to send feedback or comments to library	1	1	1	1	0	4	80
III.	FAQ's(Frequently asked questions)	0	1	0	1	0	2	40
IV.	Last time the site was updated	1	1	0	1	0	3	60
	Total Score (4)	3	4	2	4	1		

The above table reveals that 100 percent library websites server appear fast, 80 percent library websites allows users send feedback or comments to library, 40 percents library websites provides frequently asked questions, 60 percents library websites shows last time updated.

S. No.	Authority of Central University Library Websites	DU	IGNOU	JMIU	JNU	SAU	Scores	%
I.	Details of Librarian	1	1	1	1	0	4	80
II.	Contact detail of Librarian (email, phone number)	1	1	1	1	1	5	100
III.	Library contact detail	1	1	1	1	1	5	100
	Total Score (3)	3	3	3	3	2		

 Table 8 Authority of Central University Library Websites

The above table shows that 80 percents librarian detail given on library websites, 100 percents contact detail given on library websites and 80 percents library contact on library website.

The **Table 9** presents that 80 percents library websites provide new user registration form, 40 percents library websites provides books requisition form and journal requisition form in the download criteria. 20 percents library websites no dues form.

		1 40	ic J. Dowin	Julus				
S.	Downloads	DU	IGNOU	JMIU	JNU	SAU	Scores	%
No.								
I.	New user Registration	1	1	0	1	1	4	80
	form							
II.	Books Requisition form	0	1	0	0	1	2	40
III.	Journals requisition form	0	1	0	0	1	2	40
IV.	No dues form	0	0	0	1	0	1	20
	Total Score (4)	1	3	0	2	3		

**Table 9: Downloads** 

Table 10: Features and services of Central University Library Websites

<b>S.</b>	Features and services of	DU	IGNOU	JMIU	JNU	SAU	Scores	%
No.	University Library Websites							
I.	An option to request reference	1	1	0	1	0	3	60
	assistance							
II.	New Arrivals News	1	0	1	1	0	3	60
III.	An option to search a library	1	1	1	1	1	5	100
	Web OPAC							
IV.	Web OPAC is accessible from	1	0	1	1	1	4	80
	out of campus							
V.	Central Library Link with	1	0	0	1	0	2	40
	Institutional or departmental							
	Libraries							
VI.	Latest News related to Library	1	0	0	1	0	2	40
VII.	Provide IR services	1	0	0	1	0	2	40
	Total Score (7)	7	2	3	7	2		

The above table shows that 60 percents library websites have option to reference assistance, 60 percents library websites provides new arrivals news, 100 percents library websites are providing web OPAC on this websites in which 80 percents library websites web OPAC is accessible from out of campus. 40 percents library websites are linked with departmental libraries, 40 percents library websites provides latest news related to library services and 40 percents library websites are providing Institutional Repository services.

It is reveals from the **Table 11** that JNU library websites obtained highest scores 47 from maximum scores 53. Its rank first is assigned and measures under excellent rank. The second rank library website is IGNOU library website obtained 43 scores. DU library website obtained third rank in and obtained 42 scores. JMIU library website obtained 35 scores and its rank is fourth. SAU library website obtained 34 scores its rank is lowest from other central university library website in Delhi

S.	Evaluation Criteria	DU	IGNOU	JMIU	JNU	SAU
S. No.		DU	101100	JIVILU	JNU	SAU
1	General Information about Library (6)	5	5	5	6	6
2	Information about Library Collection (9)	7	8	8	8	6
3	Library website Link with E- Collection	3	4	4	5	4
	(5)					
4	Organization and Structure of Central	6	6	4	5	4
	University Library Websites (6)					
5	Presentation of Central University	3	4	2	3	2
	Library Websites (5)					
6	Navigation and Find ability (4)	4	4	4	4	4
7	Maintenance and Updated Criteria (4)	3	4	2	4	1
8	Authority of Central University Library	3	3	3	3	2
	Websites(3)					
9	Downloads (4)	1	3	0	2	3
10	Features and services of Central	7	2	3	7	2
	University Library Websites (7)					
	Total Score (53)	42	43	35	47	34

**Table11: Total Points of Central University Library Websites** 

# FINDINGS

This study carried out at Content Analysis of Websites of Central University Libraries Study in Delhi, India. In this study some merits and demerits are found after analysis and interpretation of data. The findings of the study are following:

- 1. All library websites of central universities are accessible with all web browsers.
- 2. Some university libraries names are given.
- 3. General information related to library such as library rules, library history and working hours, collection are given at concerned university library websites.
- 4. All libraries university website linked links with electronic journals, e- books and some of them linked with Info-net consortium.
- 5. Mostly library websites provides link of digital archives and multimedia collection.
- 6. All library websites images and graphics are painted when website home page download, mostly library websites content given in digestible quantity and attractive, some of them libraries websites are opening by default in new tab with new look.
- 7. Some library websites are available in bilingual and library image given at home page.
- 8. Mostly library websites allows users to send feedback on library websites.
- 9. Mostly library websites providing new users' registration form in downloads facility.

- 10. Some library websites are providing news service of new arrivals and an option to reference assistance on library website.
- 11. All library websites are providing web OPAC facility on their library websites and some of them web OPAC are accessible from out of campus.
- 12. Some library websites are providing Institutional Repository services on their library websites.

#### **Conclusion:**

The main objective of the study to know different features of library websites of central universities in Delhi; to evaluate content of the library websites of central universities with the help of identified criteria. In this study it is revealed that JNU library website is best and SAU library website is worst according to evaluation criteria. The study shows that maximum library websites are well developed and designed and enrich with e-resources. Selected university library websites are contains with e- journals, e-books, e-newspapers; multimedia collection, abstract of thesis and dissertations and digital archives. These library websites are also linked with database, Info net consortium, DELNET. These library websites are providing online services like web OPAC, institutional repository, provides new arrivals news, chat with librarian, latest news related to library, allows users to send feedback to librarian and frequently asked questions services on their library websites. The selected university library websites providing general information regarding to library such as library working hours, library rules, and membership on their library websites. Some library websites are linked with departmental libraries and providing collection detail online. In this study it is reveals that mostly library websites are full-filing all objectives of library by providing resources and online services related to users need. Mostly library websites are reflecting their whole library image on their library websites. A university library website works as mirror for university library library.

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