

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. The 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 extend library services and information products to its users. This study conducted to analyze the content of central university library websites of Delhi. The main purpose of the study is to investigate the 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 e-resources. 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 provide 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 effective dissemination of information resources and services through their websites.

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

1.0 Introduction

Generally, the term 'Content' used for a summarized form of chapter divisions in a book. We are able to understand with the help of content of book what matter is contained in chapters of a book. Content analysis is a method of assessing various aspects of the content. In the respect of a website content analysis is a method of measuring and evaluating various aspects or searching links of a website. World Wide Web is a global information system shortly called web which is a fastest growing area of the internet. In the modern age, the Internet uses to disseminate and access information very effectively without geographical distances and time restrictions. The 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. For the purpose information sharing Web service of internet used by intuitions, organizations, business companies, universities, libraries and information centers etc. 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 the library website. Modern libraries provide online reference service, Web-OPAC, general information regarding library rules, services and its collection, links to 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 the backbone 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.

2.0 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 checkpoint. The study focused on *Content Analysis of Web sites of Central*

University Libraries in Delhi, India. This study conducted to measure all aspect of the selected university libraries website on the basis of identified criteria.

3.0 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 found 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 metamorphism consequent to the development of Information Communication Technology. The website works as a digital medium of e-marketing. A 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 websites is service of Internet. (Sarkar, 2012) "Prevalence of widget applications on library websites: an analytical study" The study identified how to academic libraries are making 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. (Vasishtha, 2011) "A content analysis of the library websites of technical university libraries in North India" university library websites works as the 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 a large number of documents in the form of hypertext web pages. Web technology offers to provide information sources online on library website. 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. This study shows the expected services by users on library websites to access through the Internet at their convenience. (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, the characteristics are unique to e-commerce websites.

4.0 Objectives of the Study

The objectives of the study are as follows:

1. Identify different features of library websites of central universities in Delhi;
2. To identify which central university library website provides better services than other university libraries;
3. To know about in performance, presentation, and arrangement of Central University Library websites;
4. To suggest best criteria for website development on the basis of findings.

5.0 Scope and Limitation

The scope of this research work is limited to Central University Library websites in Delhi. 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)

6.0 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. Data were collected with the help of created checklist on 02 April 2015 to 18 May 2015. A checklist is a list of items which are 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. The websites of these libraries were visited by the researcher for the purpose of data collection. Data collection

variables based on their general information like library rules; link with e-resources; services of library, presentation of website etc. The quantitative rating system 0 and 1 adapted to determine presence of things on library website. 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 are better than using YES and NO.

7.0 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 Findability; Maintenance and Updated Criteria; Authority of Central University Library Websites; Downloads and Features and services of Central University Library Websites. The qualitative and quantitative result was fined and presented in the following sections. The comparative statement for ranking of university library websites is presented in Table 11.

Table 1: General Information about Library

S. No.	General Information about Library	DU	IGNOU	JMIU	JNU	SAU	Scores	%
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		

The above table shows that 60 percent university libraries have their name, 80 percent university websites gave 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 Collection

S. No.	Information about Library Collection	DU	IGNOU	JMIU	JNU	SAU	Scores	%
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 Collection	1	1	1	1	0	4	80
IX.	Theses and Dissertations	1	1	1	1	0	4	80
	Total Score (9)	7	8	8	8	6		

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.

Table 3: Library website Link with E-Collection

S. No.	Library website Link with E-Collection	DU	IGNOU	JMIU	JNU	SAU	Scores	%
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		

It is revealed 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 Organization and Structure of Central University Library Websites

S. No.	Organization and Structure of central University Library Websites	D U	IGN OU	JMI U	JN U	SA U	Scor es	%
I.	Website is accessible from all the Browsers	1	1	1	1	1	5	100
II.	How fast the home page download	1	1	1	1	1	5	100
III.	All images, icons, and graphics paint when the web page loads	1	1	1	1	1	5	100
IV.	Content in digestible quantity	1	1	0	1	1	4	80
V.	Arrangement should be eye catchy	1	1	1	1	0	4	80
VI.	Library website should be open in new tab with new look	1	1	0	0	0	2	40
	Total Score (6)	6	6	4	5	4		

It shows in the above table 100 percent university library websites are accessible with all kinds web browsers, 100 percent university library websites homepage download fast, 100 percent university library websites' all images, icons are painted when web pages loads. 80 percent university libraries website content is given in digestible quantity and arrangement is eye catchy.

Table 5: Presentation of Central University Library Websites

S. No.	Presentation of Central University Library Websites	DU	IGNOU	JMIU	JNU	SAU	Scores	%
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 is given at home page of the library website.

Table 6: Navigation and Find ability

S. No.	Navigation and Findability	DU	IGNOU	JMIU	JNU	SAU	Scores	%
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		

It is shown in the above table that 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 fulfilled by all selected university library websites.

Table 7: Maintenance Criteria

S. No.	Maintenance Criteria	D U	IGNO U	JMI U	JN U	SA U	Score s	%
I.	Server appears 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 allow users send feedback or comments to library, 40 percents library websites provides frequently asked questions, 60 percents library websites shows last time updated.

Table 8 Authority of Central University Library Websites

S. No.	Authority of Central University Library Websites	D U	IGNO U	JMI U	JN U	SA U	Score s	%
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		

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

Table 9: Downloads

S. No.	Downloads	DU	IGNOU	JMIU	JNU	SAU	Scores	%
I.	New User Registration form	1	1	0	1	1	4	80
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		

The above table 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.

Table 10: Features and services of Central University Library Websites

S. No.	Features and services of University Library Websites	DU	IGNOU	JMIU	JNU	SAU	Scores	%
I.	An option to request reference assistance	1	1	0	1	0	3	60
II.	New Arrivals News	1	0	1	1	0	3	60
III.	An option to search a library Web OPAC	1	1	1	1	1	5	100
IV.	Web OPAC is accessible from out of campus	1	0	1	1	1	4	80
V.	Central Library Link with Institutional or departmental Libraries	1	0	0	1	0	2	40
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 the option to reference assistance, and new arrivals news, 100 percents library websites are providing web OPAC on this website in which 80 percents library websites web OPAC is accessible from out of campus. 40 percents library websites are linked with departmental libraries, latest news related to library services and Institutional Repository services.

Table11: Total Points of Central University Library Websites

S. No.	Evaluation Criteria	DU	IGNOU	JMIU	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 (5)	3	4	4	5	4
4	Organization and Structure of Central University Library Websites (6)	6	6	4	5	4
5	Presentation of Central University Library Websites (5)	3	4	2	3	2
6	Navigation and Findability (4)	4	4	4	4	4
7	Maintenance and Updated Criteria (4)	3	4	2	4	1
8	Authority of Central University Library Websites(3)	3	3	3	3	2
9	Downloads (4)	1	3	0	2	3
10	Features and services of Central University Library Websites (7)	7	2	3	7	2
	Total Score (53)	42	43	35	47	34

It is revealed from the above table that JNU library websites obtained highest scores 47 out of 53 scores. Its rank first is assigned among all selected universities. The second rank library website is IGNOU library website obtained 43 scores. DU library website obtained the 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.

8.0 Findings

This study carried out at Content Analysis of Web sites 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 libraries 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 provide link of digital archives and multimedia collection.
6. All library websites images and graphics are painted when website homepage 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. Most library websites allow users to send feedback on library websites.
9. Most 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.

9.0 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 contain 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 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 revealed that most library websites are full-filling 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.

University Library websites should be compatible with all web browsers, well arranged and attractive. University Library websites should have online facilities like Web-OPAC, digital Archives, news of new arrivals in the library, online reference service, and FAQs. University library website enriches with digital collection and database online journals. General information related to university library websites should be online. University Library websites every page included way to turn the home page and internal search engine. Central University Library websites available in bilingual (English and state language). University Library websites allows user to send feedback or comments to the library with the help of Social networking site

10.0 References:

1. Ahmad, S., & Waris, A. (2001). Use of internet facility by p.g. Students of j. N. Medical college, A.M.U., Aligarh. *e-Resource Management in Libraries: Issues and Challenges*, 106-115.
2. Asogwa, B. E., & Asogwa, M. N. (2014). Information and Communication Technologies And Igbo Studies In Tertiary Institutions In Nigeria: Issues And Challenges. *Library Philosophy and Practice (e-journal)*, 1-24.

3. Bhatia, M., & Kumar, A. (2010). Paradigm shifts: from pre-web information systems to recent web-based contextual information retrieval. *Webology*, 1-6.
4. Bostock, W. W. (2006). Editorial Sociology of the Web. *Webology*, 1-3.
5. Choudhury, M. M., & Choudhury, A. M. (2010). Identification of the characteristics of ecommerce. *Webology*, 1-11.
6. DU. (2015, Feb 12). *University of Delhi*. Retrieved from WWW.du.ac.in/: <http://www.du.ac.in/du/>
7. Galina, I. (2007). The Institutional Repository. *Webology*, 1-3.
8. Gao, J. (1991). Introduction to Internet and WWW. *Web-Based Systems and Tools*, 1-27.
9. Godebole, A. (2008). *Web Technologies*. New Delhi: Tata Mc Graw Hill.
10. Haridasan, S., & Uwesh, M. (2014). Content analysis of central university library websites in india: a study. *Journal of Information Management*, 1-10.
11. IGNOU. (2015, March 2). *Indira Gandhi National Open University*. Retrieved from <http://www.ignou.ac.in/>: <http://www.ignou.ac.in/ignou/aboutignou/profile/2>
12. JNU. (2015, Feb 25). *Jawahar Lal Heharu University Library*. Retrieved from: <http://lib.jnu.ac.in/>: <http://lib.jnu.ac.in/>
13. JMIU. (2015, Feb 25). *Jamia Millia Islamia*. Retrieved from <http://jmi.ac.in/>: http://jmi.ac.in/aboutjamia/profile/history/historical_note-13
14. Jones. (2007). Institutional repositories: Content and culture in an Open Access environment. *Webology*, 1-3.
15. Jain, S. (2013). *Internet Technology and Web Design*. New Delhi: BPB Publications.
16. Kanamadi, S., & Kumbar, B. (2006). Web-based services expected from libraries: A case study of management institutes in Mumbai city. *Webology*, 1-9.
17. Khan, A., Ahmed, S., Mahmood, Y., & Naeem, S. B. (2013). A Study of the Usability and Design Componentsof Academic Libraries Websites in Pakistan. *Library Philosophy and Practice (e-journal)*, 1-17
18. KomolafeOpadeji, H. (2015). Use of Internet and Electronic Resources amongst Postgraduate Students of a Nigerian Private University. *Journal of the South African Society of Archivists*, 1-1.
19. Konnur, P. (2010). Academic Library Websites in Bangalore City, India: An Evaluative Study." India: An Evaluative Study. *Library Philosophy and Practic*, 1-15.
20. Nwagwu, W. E., & Agarin, O. (2008). Nigerian university websites: A webometric analysis. *Webology*, 1-16.
21. Noruzi, A. (2004). Application of Ranganathan's Laws to the Web. *Webology*, 1-11.
22. SAU. (2015, Feb 26). *Sauth Asian University*. Retrieved from <http://www.sau.int/>: <http://www.sau.int/about/about-sau.html>
23. Sarkar, T. D. (2013). Prevalence of widget applications on library websites: an analytical study. *New Library World*, 110 - 131.
24. Spink, A., & Jansen, B. J. (2004). A Study of Web Search Trends. *Webology*, 1-8.
25. Suresh (2013). University Library web sites in Kerala as marketing tools: an Evaluation. *Library Philosophy and Practice (e-journal)*, 1-17.
26. Vasishta, S. (2011). A content analysis of the library websites of technical university libraries in North India. *Dissemination of electronic journals*, 278-289.
27. Williams, P., Dennis, K., & Nicholas, D. (2005). An Evaluation of the Websites of Charities and VoluntaryOrganisations Providing Support for Young People: Case Study:Drugscope. *Webology*, 1-19.
28. Yuvaraj, M. (2013). Cloud Computing Applications in Indian Central University libraries: A study of librarians` use. *Library Philosophy and Practice (e-journal)*, 1-20.

This study examines 40 central universities websites in India. Investigates domain systems of the websites, analyses the number of webpages and link... We use cookies to offer you a better experience, personalize content, tailor advertising, provide social media features, and better understand the use of our services. To learn more or modify/prevent the use of cookies, see our Cookie Policy and Privacy Policy. Accept Cookies. Comparative study of 20 central universities and 19 institutes of national importance including Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs) academic libraries from India suggest that the library websites of institutes of national importance have better content awareness than central university library websites as per the identified criteria. The criteria studied would be helpful for librarians and webmasters to improve content awareness status of their library websites.

Introduction The recent years have seen the emergence of websites as an ideal medium th Contents of University Library websites of Central Universities of India: An analysis. A website is a key tool for information and for academic purpose, it considered as prime importance for pioneer information and awareness. The Central University library is the center and focused organization of each state. So this paper more. This research study examined the relationship of TMC with JS of Pakistani university librarians. A randomly selected sample of 225 Pakistani university librarians was used to test the relationship of four dimensions of TMC with general more. The second batch of Advanced Certificate in Library & Information Services program at the Faculty of Arts commenced as scheduled.