



Introduction to Web Content Analysis and Library Content Projected on the Web

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Abstract:

Research problem: While thinking on library web services, questions arise in mind like, what is webpage, website, web content, web content analysis, what is needed and what are benefits of web content analysis, what library content can be projected on the web? To find out answers of these questions, this article is composed.

Research method: This paper is a research article where only descriptive method is used. After studying related literature what is studied is described simply.

Descriptive Analysis: This paper deals with introduction of library website content and analysis. Website, web page, content analysis are explained in brief. Need for and importance of library website content analysis is explained simply. The benefits of website content analysis are also in glance. The focus of the study is on 'what library content can be projected on the web.'

Conclusion: The paper concluded with the optimistic view that almost library services can be provided using CMS. This paper will remain supportive to the researcher who will work in the field of website content analysis.

Keywords: *Web Content Analysis, Nature of Library Website, Library E-presence, Online library Services. Library online content. Library Information Dissemination on Web.*

Introduction:

Web technologies developed to enhance learning and remain effective to render services using different search engines like google, Alta vista, MSN, yahoo etc. Now web technologies have compelled information centers or educational institutes to use these technologies to promote effectively available services till end users and save their time and money. In this electronic epoch, web generations brought a drastic change in an academic environment. Innovative concepts and technologies are used to promote education and research field, and websites started to be used and updated effectively. Content management systems (CMS) are used

for library content e-presence. Really CMS are concept rather than product (N. W. Y. Shao, 2003).

Of course, establishment of effective library management system requires the combination of technology and personnel to make best efforts on knowledge sharing and utilization (Guo, 2010). The websites are effective outcomes of web 2.0 and 3.0 technologies to overcome the problem of controlling, manipulating and disseminating of information. Websites have great potential and bright future to attract users. It combines all the benefits of multimedia, digital coding and internet. Websites have wide popularity due to their wider accessibility across geographical

barriers and cost effectiveness in the long run. Hence almost libraries or information centers prefer websites to retrieve information in huge quantities and promote their services. While thinking about websites some questions arise in the mind. It is necessary to find out the answers to following questions that arise in mind.

What is web pages, websites, web content and content analysis? What is a need and what are benefits of library web content analysis? What content can be projected on the web to serve the users?

To find answers to all above questions it was necessary to conduct study on this topic.

Literature Review:

In the paper, 'Web content and design trends of Indian Institute of Technology (IITs) libraries' website: An evaluation', Writers (Devi & Verma, 2018), evaluated web content of Indian institute of Technology (IIT) library website/webpages where 128 criteria were designed for the study. 2. The article, 'Academic Library Websites : Balancing University Guidelines with User Needs' (Lombard & Hite, 2007) deals with the study of satisfaction of user need and adherence to university website guidelines and how these factors sometimes contradict one another. 3. In the paper, 'Usability evaluation of an academic library website Experience with the Central Science Library, University of Delhi', Pant, 2015 evaluated the usability of the website of Central Science Library (CSL), University of Delhi. 4. Website quality in government: Exploring the webmaster's perception and explanation of website quality, researcher Sørsum, Andersen, & Clemmensen, 2013 investigated how webmasters within government body explains quality of websites and design issues. 5. The article Selecting a Web Content Management System for an

Academic Library Website by Black, 2012 describes selection of web content management system at the Ohio State Universities Libraries. 6. The article, Academic Library Websites as Marketing Tools, deals with how academic libraries can be marketing tools for achieving their goals of promoting library services and keeping their place as information providers. This study was conducted by Nooshinfard & Ziaei, 2011 on Islamic Azad University in Teharan. 7. In the paper, Content Management Systems: Trends in Academic Libraries, writer Connell, (2013) studied which web content tools they are using and their satisfaction with the website management system. 8. Chow, Bridges, & Commander, 2014 conducted research on The Website Design and Usability of US Academic and Public Libraries, describes the design, layout, content, site management, and usability of 1,469 academic and public library websites from all 50 states in the United States.

Objective of Study:

1. To study what is web content & Content Analysis.
2. To study what is the need and benefits of library web content analysis.
3. To study what can be projected on the web.

What is Web & Web Content Analysis:

In 1947 English mathematician Alan Turing started first seriously explore intelligent machine. Information age began with the introduction of computers in 1950. In 1956 John McCarthy coined the term 'Artificial Intelligent'. Tim Berners Lee, Kurt Godel and Alan Turing remain pioneer contributors to open the doors of Information Revolution. Godels 'What is Decidable', Turing's 'What is Machine Ability' and Berner Lee's 'What is Solvable on Web' are

central to just how much intelligence can project on Web. Chief and simple way for free global access to large stores of information designed by Tim Berners Lee and as a result the first website published in August 1991. It can be said that today's web is essentially hypertext for human consumption. He is also originator of next generation of web architecture: The Semantic Web. Providing knowledge representation in order to allow machine processing all over world is objective of semantic web.

1. Webpages: Webpage is part of website and may contain text, graphics and hyperlink to other webpages. On August 1991, Tim Berners Lee created first webpage at CERN.

2. Website: Website is a set of webpages available on internet and accessed by specific URL. Marrian Webster defined website as, *"A group of world wide web page usually containing hyperlinks to each other and made available online by an individual, company, educational institution or organization"*.

3. Web Content: Web content deals with topics, ideas, facts or statements in webpage. Webpage content may be in the form of text, image, audio and video which helps users to get maximum information regarding study, research or information of that organization or institute. It reflects all services, products, and ways of communication.

4. Content Analysis: In this process content is identified properly and information collected. It is a study method used to determine patterns, themes and meanings. For systematic fast and short process, coding system can be applied. Using software like SPSS or python to analyze data will fruitful to present results. Content analysis is an approach to quantify qualitative information by systematically sorting and comparing items of information in order to summarize them.

5. Need for Library Web Content Analysis:

In this information age all libraries are trying their best to develop as fast as possible. This is electronic era where websites are playing vital role in promotion of libraries and information centers. Websites or webpages are reflections of institutional activities which show institutes as a mirror. So, websites should be complete with all aspects which can provide maximum information and easy ways to interact with users with institutes. Many people related to library have confusion about content of library webpages and they could not construct good web pages. Study of library website content analysis may help to find few weaknesses of all institutes and if those institutes recover these drawbacks, those institutes will reach to close to ideal website. Sometime new developing libraries also remain unknown about framework of websites. After this study those institutes or library professionals also can use this study to frame their websites.

Benefits of website Content Analysis:

After analyzing website content, it can help you to ensure website is well structured, user-friendly and engaging.

1. Content analysis helps to assess the relevance of presented content and target audience
2. This allows you to evaluate content quality
3. You can compare your website with other websites by content analysis and can improve your website.
4. Researcher can find all targeted Library websites and observe all aspects of websites.
5. Check all aspects with standard criteria.
6. To draw weaknesses of library webpages.
7. Can formulate standard platforms for library websites.

What Library Content Can Projected on Web:

1. Basic Information About Library:

- About Library and mother institution
- Vision & Mission of the Library
- Library Hours
- Library Rules

Library Services:

1. Reference Services:

- Library location Map
- Library location address

- Contact details
- Chat Box

Reference service is a systematic process of helping readers to identify information sources in response to user's particular query assignment or any problem. Dr. R S Rangnathan defined reference service as a, Reference service is a personal service to each reader in helping them to find document which can help to answer their particular query pinpointedly, exhaustively and expeditiously.

Table 1: Reference Services

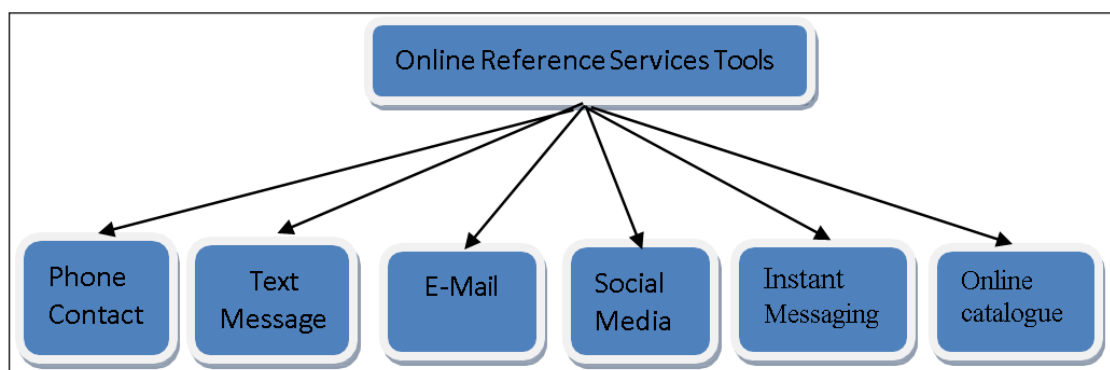
1	E-Books and E-Journals access	9	Discussion forums, chat, or messaging systems
2	Link to open access websites	10	Content Updates
3	Ask a Librarian	11	Basic reference queries
4	Remote Access to databases	12	Collaboration and Sharing
5	Training and Support Information	13	Video Links
6	Feedback and Improvement	14	Links to social media
7	Reference Librarian	15	Institutional repository
8	Analytics and Usage Statistics	16	FAQ

There are some tools/systems or resources to provide online reference services to users. Following tools can be used for library reference services

2. Tools/Systems used for online Reference Library Services:

There are some tools to provide reference services to users. Using these tools or systems library can provide reference service without any physical barrier Graphical presentation of online reference service tool given below for more understanding.

Figure 1 Tools/Systems used for online Reference Library Services



2. Reference Sources:

Reference sources are one of the major resources of library collection. Reference sources like encyclopedias are considered to

be a strong reference book. Some reference sources are presented below.

Table 2: Reference Sources, can be Provided with links via CMS

1	Dictionaries	10	Historical tables, Chronologies, yearbooks
2	Encyclopaedias	11	Indexes or Abstracts
3	Thesaurus	12	Bibliographies or Guides to Literature.
4	Directories	13	News digest services like Asian Recorder
5	Biographical Dictionaries	14	Statistical sources, Government sources.
6	Gazetteers or Atlases	15	Manuscripts
7	Almanacs	16	Syllabus
8	Handbooks and Manuals	17	Previous Question Papers
9	Reviews or Criticisms		

3. Referral Services:

In the library referral service, library professionals guide users to get documents which are not available in library. This is external information when library resources are insufficient to meet the need. According to

Cambridge Dictionary referral service is, ‘The act of directing someone to different place or person for action information or help often to a person or group with more knowledge.

Table 3: Referral Services

1	Union Catalogues	7	Government Repositories
2	World Cat	8	Other digital online resources
3	Subject Guides	9	References for staff to attend workshops, webinars, and conferences
4	Any Library Database	10	Information to staff and students about online learning like Coursera, Udemy, Edx, Swayam
5	Any publisher database	11	Information regarding publishing research papers, books etc.
6	Any Institutional Repository		

4. SDI Services:

SDI is also special service provided to users according to their interest and need. The documents related to profiles demand provided timely. Science direct defined SDI as ‘A organized method of distributing the current

information to individuals on the basis of specific area of interest as soon as possible’

In this service user profile is created with topics of interest and proper keywords. It is one of the current awareness services.

Table 4: Nature of SDI Service

1	User profile
2	Content Alert information to related users
3	Periodical arrival information to related users
4	Notification for forthcoming conferences, seminars according to users’ profile
5	Providing individual document matching to users’ demand
6	Providing Latest Publication to researcher according to user’s profile
7	SMS/ Text Message for user Related SDI service

5. Current Awareness Service (CAS):

Current awareness service is an essential service provided to users to keep them updated. According to Dictionary of information and Library Service, 'Current awareness service is informing someone most

up-to-date information on the specific subject'.

This service aims to provide up-to-date information research findings, new publication, new information trends along with other relevant content.

Table 5: CAS Services

1	New Books Arrival information	8	News by RSS Feeds
2	New Journals and Magazines information	9	Library Newsletters
3	New Circulars	10	Document Delivery Services
4	Notifications	11	Newspaper clipping service
5	Newspaper access	12	Alerts about conferences, events, workshops
6	Research progress announcement	13	Job Alerts
7	Email Alerts		

6. Web 2.0 Services (Links Can Provided):

Web 2.0, which is called read-write web is changed to the face of library services. Providing online library services to users has

become easy and library started to provide links of web 2.0 tools. Readers are attracted to these services and use of library increased.

Table 6: Web 2.0 tools

1	Facebook	6	Wiki
2	Youtube	7	Skype
3	Twiter	8	Instagram
4	Blog	9	Research Gate
5	Linked In Google+	10	Printrest

7. Other Services/Information:

There are some other services /facilities or information can be provided on

the website. Following information can be provided on wensite.

Table 7: Other Library Services/Information

1	Internally Published Newsletters, Reports & Journals	6	Library Related forms
2	Virtual Reference Desk:	7	budget allocation of the library
3	Consortium Service	8	Mobile Library App information
4	Facilities for differently abled persons	9	Inter-library loan information
5	Career guidance bulletin	10	Library timing Information
1	Circulation/ Book lending Information	11	Library Map
2	Book Bank Information	12	Library Committee
3	reprographic service Information	13	Library Staff
4	Book Collection Information	14	Library Budget
5	Journals Information	15	Reading Room Information
6	Magazines Information	16	CD/DVD Information

7	User Education Information	17	User stat
8	Library Sections Information		
9	Library Rules		

Conclusion:

This paper remains fruitful to users to get information regarding the need and benefits of content analysis. The e-presence of library is showing effectively how library is prosperous with library resources and help to keep user in contact with the library. After the completion of this study, it can be concluded that almost library services can be provided with CMS. This article will remain informative to users to know information about library content. This will help them to frame their own website. Researchers also can use this article to do further research in this field.

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