

# Content Analysis of Academic Library Websites of Sri Lanka: With Special Reference to State Universities

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## ABSTRACT

In the era of digital scholarship, the quality and usability of academic library websites are significant and play several roles. Academic library websites function as critical interfaces for delivering information resources and services to students, faculty, and researchers enabling a vast access to information supporting the teaching learning process and fulfilling research objectives of higher education institutions. This study presents a systematic content analysis of academic library websites across 17 state universities in Sri Lanka, with the objective of evaluating the content user-oriented features, and alignment with international best practices. Using a structured evaluation checklist, consisting of nine (09) major parameters with 53 indicators, the study assessed general information, digital resource provision, user support services, accessibility features, and site navigability. The results indicate considerable variation in website quality and comprehensiveness among the surveyed institutions. The University of Kelaniya achieved the highest score (75.47%), followed by the University of Peradeniya (71.70%), the Universities of Colombo, Sri Jayewardenepura, and the Open University of Sri Lanka, each scoring 69.81%. Universities which were established later such as University of Vavuniya and Gampaha Wickramarachchi University of Indigenous Medicine ranked lowest, with 20.75% and 35.85% respectively. Most universities clustered in the moderate performance range (50–70%), signifying a moderate level of content provision and digital service implementation but also highlighting persistent gaps in areas such as accessibility, user guidance, and regular content updates. The findings show the need for strategies to elevate the standard of academic library websites, including the adoption of benchmarking practices, staff training, and regular usability assessments. The study offers actionable strategies for policy makers and practitioners, for continuous improvement to ensure these digital platforms effectively meet the evolving needs of Sri Lanka's academic community.

**Keywords:** Academic libraries, Website content analysis, Sri Lanka, State universities, Digital services,

## INTRODUCTION

During past decades, the Internet and the advances in web technologies, have changed the mode of dissemination of information and access to information. When consider about organizations and institutes they tend to disseminate information related to their organizations/ institutes through their websites and there is no exception in higher education institutes.[1](Al-Qallaf & Ridha, 2019). Libraries in higher education institutes also obviously pay attention towards this for disseminating the information relevant to libraries and to increase the access to their e resources through library websites.

Applications of web 2.0 tools in providing services are increasingly adopted by libraries in order to enhance their services. Apart from that, introducing the library to user community, to introduce facilities and services, marketing and promotions and maintain user friendly environment, libraries maintain their websites/ webpages which is the need of the hour. As indicated by Verma et al (2022) library websites are accepted as powerful

tools to access and use library and information services over the internet throughout the globe (Verma et al., 2022). Due to its importance, it is essential for every library to develop and maintain user-friendly library portals to cope with the information needs of their users.(Verma et al., 2022). The academic library website, as a supporter of these technologies, becomes the hub for the dissemination of digital information; the portal to a multitude of e-resources and e-services; the main gate way for virtual users; and a marketing tool allowing libraries to project their image.(Al-Qallaf & Ridha, 2019)

Especially users are requested to visit library websites to find out the availability of electronic resources such as databases, e- books and e - journals and libraries offer off site access facilities to get access to these resources through library websites/web pages.

Since at present, most university courses are taught using online mode, the most convenient way to get relevant information for studies and research programs is through electronic resources. In this context the university library websites play a vital role and the present study aims to identify how the state university libraries present their libraries in their respective institutional websites.

## **BACKGROUND STUDY AND REVIEW OF LITERATURE**

This literature review summarizes previous research studies that applied content analysis to evaluate academic library websites. A comprehensive analysis of related literature was carried out related to studies of web content analysis of universities using Google scholar, SCOPUS, Emerald database, Oxford University Press and Taylor and Francis databases in order to get an understanding of the background and to compile the check list for conducting the content analysis.

The emergence of academic library websites dates back to the early 1990s, when libraries began to utilize the web primarily as an information broadcasting tool, primarily listing resources and providing essential service details. (Blummer, 2007). With the development of web technologies, university libraries worldwide expanded their online presence, integrating comprehensive digital content, access to electronic journals, books and databases, virtual reference services, and interactive user support. Research indicates that academic library websites now function as front-line portals, not only for resource discovery but also for facilitating teaching, learning, research, and scholarly communication (Chauhan et al., 2025; Devi & Verma, 2018)

It was found that researchers in all over the world have produced research studies related to library websites of higher education institutes. It seems that the researchers have focused on several key areas such as usability and design, content quality, accessibility and inclusivity and digital Services and innovation. (Jilani et al., 2025). A study conducted using academic library web sites in USA shows a higher percentage of webpages from the sample population contained information for almost all categories of services, facilities and resources (Ezell et al., 2022). The study conducted by Dadhe & Dubey (2020) on the twenty-three IIT's Libraries' websites in which they explored the various services that may be offered by the Libraries' via their websites. They have found that some Libraries have still not built and manage their web-based information portals such as their website, OPACs, Remote access, etc. (Dadhe & Dubey, 2020). A study done in Agricultural Universities of India, has indicated similar findings. The author has examined the web-based library services provided via their websites and determined the rank of the library websites on the basis of content analysis. Results revealed that, most of the surveyed library websites were up-to-date providing sufficient information related to services and facilities and provide access to e-resources and provide links to remote access facilities to the users (Barman, 2021)

When consider about website design and navigability, Wilson (2015) has evaluated 24 academic library websites and found 18 design and accessibility elements. Further, he indicated that all the websites were accessible through standard web browsers and the hyperlinks were active. All the websites had descriptive headings, titles, and tabs. (95.8%); most links were active (83.3%); most websites were linked to the parent institution's homepage, which users could access from all other library webpages (79.2%).

The presence of web 2.0 tools was studied by Blummer & Kenton (2014) by analyzing community college libraries' websites of United States of America. They found that Web 2.0 tools were available in 97% of the sample and most sites contained more than one Web 2.0 tool. Some popular tools identified in the study were Lib Guides, social media types such as social networking tools and photo video sharing sites, chat technology, and RSS updates. Rahman & Batcha (2020) evaluated ten selected library websites of affiliated colleges of the University of Delhi, India. They used four major criteria namely accessibility, accuracy, currency and user-friendliness. Findings showed that majority of libraries indicated information related to library introduction, library staff, opening hours of the library and membership information on their websites. But unlike in the study of Blummer & Kenton (2014) not a single library website presented social networking tools, feedbacks, regular updates. Also it was found that these websites do not provide past question papers, news-clippings, user manuals and single window search

When consider about recent trends related to this study, it seems that researchers have tried to seek whether web 2.0 tools are included in the library websites in Europe countries, but in Asian countries still they are producing traditional websites but there is a trend for delivering more tools through library websites.

It was found that no in - depth study has been conducted on web content analysis of web sites of state university libraries of Sri Lanka and there is a gap in literature related to this topic. Wickramanayake (2012) has studied instructions and help services offered through academic library websites/ webpages in Sri Lanka using 14 academic library websites. Results indicated that development of websites is in initial stages and there is little utilization in instruction and help application tools by these library websites. The author recommended some measures to improve the web sites of university libraries in Sri Lanka. Punchihewa (2018) conducted a study to find out whether Sri Lankan university libraries employ web 2.0 tools in providing web - based library services by content analysis of 15 state university library websites. The researcher recommended that Sri Lankan university libraries should try to develop to enhance the web 2.0 applications to offer more online services.

## **RESEARCH PROBLEM**

Due to the advancement of technology and changing situations of the globe such as epidemics, economic crisis teaching learning process of universities have changed and inclined towards online platforms. So, libraries too have to change their modes of dissemination of information to online platforms rather than having traditional modes. Libraries have to recognize changing user needs and act accordingly to provide an efficient service to its clientele. Websites/web pages of libraries play a significant role in this aspect. Since users tend to learn through online mode, libraries also should try to fulfill their needs as much as possible by providing required information through their websites. When analyzing literature, it shows a gap in this area and previous research studies have recommended some implementations regarding this. Therefore, web content analysis of Sri Lankan university libraries is a heavy requirement in this context and the present study also hopes to address the gap in the literature in this field.

## **OBJECTIVES OF THE STUDY**

The main objective of the study is to examine the web-based content available on UGC recognized state university library websites.

The specific objectives of the study are;

1. to find out the availability of library website/web page in the state university libraries in Sri Lanka.
2. to study the way of presenting information in the websites of the state university libraries in Sri Lanka.
3. to analyze the contents of the library websites/webpages using a check list developed for this purpose.

## RESEARCH DESIGN AND METHODS

Content analysis was used as the method to analyze the web content of websites of university libraries.

### Population and the Sample

All universities governed under University Grant Commission (UGC) were selected as the population of the present study. So the total population was 17 state universities. (UGC statistics, 2022). The total population was selected as the sample. All the university Library websites were analyzed as the sample. Table 1 indicates the sample university Libraries, with the URL of library websites and year of gained university status.

Table 1 Analyzed Library websites

	University	URL of the library websites	Established year (University status)
1	University of Colombo	<a href="https://lib.cmb.ac.lk/">https://lib.cmb.ac.lk/</a>	1942
2	University of Peradeniya	<a href="http://www.lib.pdn.ac.lk/">http://www.lib.pdn.ac.lk/</a>	1942
3	University of Sri Jayewardenepura	<a href="https://lib.sjp.ac.lk/">https://lib.sjp.ac.lk/</a>	1958
4	University of Kelaniya	<a href="https://library.kln.ac.lk/">https://library.kln.ac.lk/</a>	1959
5	University of Moratuwa	<a href="https://uom.lk/lib">https://uom.lk/lib</a>	1979
6	University of Jaffna	<a href="https://www.lib.jfn.ac.lk/">https://www.lib.jfn.ac.lk/</a>	1979
7	The Open University of Sri Lanka	<a href="https://lib.ou.ac.lk/">https://lib.ou.ac.lk/</a>	1979
8	University of Ruhuna	<a href="https://www.lib.ruh.ac.lk/">https://www.lib.ruh.ac.lk/</a>	1984
9	Eastern University of Sri Lanka	<a href="http://192.248.64.59/library/index.php">http://192.248.64.59/library/index.php</a>	1986
10	Sabaragamuwa University of Sri Lanka	<a href="https://www.sab.ac.lk/lib/">https://www.sab.ac.lk/lib/</a>	1995
11	South Eastern University of Sri Lanka	<a href="https://www.seu.ac.lk/library/">https://www.seu.ac.lk/library/</a>	1996
12	Rajarata University of Sri Lanka	<a href="https://lib.rjt.ac.lk/">https://lib.rjt.ac.lk/</a>	1996
13	Wayamba University of Sri Lanka	<a href="https://libsys.wyb.ac.lk/">https://libsys.wyb.ac.lk/</a>	1999
14	Uva Wellassa University	<a href="http://www.lib.uwu.ac.lk/">http://www.lib.uwu.ac.lk/</a>	2005
15	University of the Visual & Performing Arts	<a href="https://lib.vpa.ac.lk/">https://lib.vpa.ac.lk/</a>	2005
16	Gampaha Wickramarachchi University of Indigenous Medicine	<a href="https://gwu.ac.lk/library/">https://gwu.ac.lk/library/</a>	2020
17	University of Vavuniya	<a href="https://vau.ac.lk/lib/">https://vau.ac.lk/lib/</a>	2021

Source: UGC statistics, 2023

## METHOD

First, a google search was conducted with the name of the university to check the availability of library website. For those having a website, further analysis was conducted using a check-list prepared for this study. A check list was used as the research instrument. A comprehensive check-list was formulated after an extensive literature survey related to the topic considering Sri Lankan context. The checklist was used as the data collection tool to obtain data from library websites. Based on previous related studies, a total of 53 parameters/checklists were prepared and those parameters were grouped under nine major categories as (1) Access to website (2) Website Appearance /design (3) Currency of contents (4) General information (5) Library services/technical services (6) Value added services (7) Library resources (8) Information dissemination tools /social media tools (9) Educating and training information tools. Each library website was visited twice (a month after) in order to avoid any human errors and for checking any updates

## DATA ANALYSIS

Content analysis and categorical analysis were done using quantitative techniques. For data analysis, the available and non-available parameters were structured in two variables, that is, Available=1 and Not Available=0. Descriptive analysis techniques were used for interpret the findings. Parameters used in the study were indicated below under nine broad categories.

### **(1) Access to website**

1. Separate library website/ domain name
2. Direct link from University Home page

### **(2) Website Appearance /design**

3. Both graphic and text representation
4. Graphics are clear and text easily readable

### **(3) Currency of contents**

5. Copyright information
6. Last updated information

### **(4) General information**

7. Library mission and objectives
8. Library section's information
9. Library collections
10. Library services
11. Library policies and rules
12. Staff information
13. Library opening hours
14. Library virtual tours
15. Library membership guides/forms
16. Library Instruction tutorials about to use library
17. Library exhibitions
18. Newsletters
19. Ongoing projects

### **(5) Library services/technical services**

20. Library online catalogue (OPAC)
21. Ask a Librarian/inquiry information
22. Inter library loan
23. Library services for students and Faculty
24. Library services for alumni
25. Material renewal
26. Library fine
27. Research consultations
28. Patron driven acquisition
29. Document delivery information

### **(6) Value added service**

30. Library news
31. Library events calendar
32. Newly added resources/collection
33. Awareness/updates about webinars/workshops
34. Mobile library app/databases app

### **(7) Library resources**

#### **Databases**

35. Databases subscribed
36. Databases through CONSAL
37. Openaccess databases



**E -Journals and Books**

- 38. Subscribed E -Journals and Books
- 39. Open access journals and books
- 40. E- Theses & dissertation
- 41. Other reference sources (dictionary, encyclopedia etc.)
- 42. Institutional repository
- 43. Trial access links

**(8) Information dissemination tools /social media tools**

- 44. WhatsApp
- 45. Facebook
- 46. RSS feed

**(9) Educating and training information tools**

- 47. Trainings and workshops
- 48. Seminars/webinars
- 49. Research/subject guides for users
- 50. Information literacy programs
- 51. Reference tools trainings
- 52. Video lectures
- 53. Plagiarism/similarity index guidance

**FINDINGS**

All the universities selected for the study contains a separate library website including different types of information relevant to the library.

**(1) Access to websites**

According to the findings, it shows that amongst all the universities, 58.8% of the universities have direct links to library websites, that is link to the library has provided on the homepage of each University website. But almost all university libraries have separate domain for library except in one university.

**(2) Website Appearance /design**

There were two criteria for designing the library websites. All university libraries have used both text and graphic designing and all are very clear and easy to understand.

**(3) Currency of contents**

Though most of the library websites (88%) contain copyright information only 52.9% have indicated updated year.

**(4) General information**

Investigated library websites had scored above 75% for 8 criteria out of 13 attributes, while section information was observed in 64.71% library websites. But for, four criteria very low percentages were observed that is for Newsletters (23.53%), virtual tours (11.76%), and library exhibitions and ongoing projects (both 5.88%).

**(5) Library services/technical services**

There were 10 criteria under library services. Out of 10 only 5 criteria have shown above 75% while information regarding library fines was seen in 64.71% of library websites. Ask a librarian or inquiry information was observed in 47.0% library websites. However, none of the library websites did not provide space for patron driven acquisitions.

## (6) Value added services

Under this, library news was more prominent (88.24%) and awareness about workshops / seminars was observed in 58.62% library websites.

## (7) Library resources

Under library resources, criteria related to databases, e –books and journals, theses and dissertations, institutional repository and links to open access resources were analyzed. The highest percentage was observed for having institutional repository. Except in one university (recently established) all other investigated university library websites contain an institutional repository. Links to the databases received through CONSAL is also prominent (88.24%). This is followed by links to open access resources (journals, books and databases) which is 70.59%. Low percentages were observed (17.65%) for E-theses and dissertations and for reference sources such as dictionaries, encyclopedias etc.

## (8) Information dissemination tools /social media tools

It was noted that none of the library websites had provided links to WhatsApp. However 41.18% had links to Facebook and 5.88% (only one library) had links to RSS feed.

## (9) Educating and training information tools.

Out of seven attributes, only two criteria had 58.82% that is for information regarding training and workshops and for information literacy programs. All other criteria had very low percentages below 40%

## Ranking of university library websites

Ranking was determined based on the scores obtained for fulfillment of criteria indicated above by each university. Scores were calculated out of 53 (since there were 53 criteria) and accordingly percentages were calculated

Table 2. Ranking of the University library websites

Rank	University	Score obtained (out of 53)	Percentage	Year of University status
1	University of kelaniya	40	75.47	1959
2	University of Peradeniya	38	71.70	1942
3	University of Sri Jayewardenepura	37	69.81	1958
4	University of Colombo	37	69.81	1942
5	The Open University of Sri Lanka	37	69.81	1979
6	Sabaragamuwa University of Sri Lanka	34	64.15	1995
7	University of Ruhuna	31	58.49	1984
8	Rajarata University of Sri Lanka	31	58.49	1996
9	University of Moratuwa	30	56.60	1979
10	South Eastern University of Sri Lanka	30	56.60	1996
11	Eastern University of Sri Lanka	27	50.94	1986
12	Wayamba University of Sri Lanka	27	50.94	1999
13	University of the Visual & Performing Arts	26	49.06	2005
14	University of Jaffna	24	45.28	1979
15	Uva Wellassa University	21	39.62	2005
16	Gampaha Wickramarachchi University of Indigenous Medicine	19	35.85	2020
17	University of Vavuniya	11	20.75	2021

As indicated in the Table 2 , out of 17 university library websites , 12 universities have scored above 50%, while only one university library website has scored above 75% (University of Kelaniya). University Vavnniya has the least score which is the recently established youngest university.

## CONCLUSIONS AND DISCUSSION

The internet and web portals play a crucial role, enabling libraries to provide services in this demanding environment. In the present study, fifty three (53) parameters /criteria were prepared and grouped under nine broad categories: (1) Access to website, (2) Website Appearance /design (3) Currency of contents, (4) General information, (5) Library services/technical services (6) Value added services, (7) Library resources , (8) Information dissemination tools /social media tools and (9) Educating and training information tools.

As pointed out in findings the majority (94.1%) of the libraries have separate websites. This indicates a strong commitment to establishing a distinct online presence for their libraries. However, a direct link from the university homepage is available only in 58.8% of cases, indicating possibility for improvement in ease of access.

All libraries provide a good combination of graphics and text, ensuring a visually appealing and user-friendly interface. However, only 52.9% update their content regularly, showing a need for improvement in keeping information current. This reduces the effectiveness of online libraries as up-to-date knowledge hubs

While most libraries provide essential general information like policies, services, and staff details, only a few (11.8%) offer interactive elements such as virtual tours. This represents an opportunity for enhancing user engagement. While libraries perform well in providing essential services like OPAC, interlibrary loans, and material renewal, fewer libraries offer user support through “Ask a Librarian” services or research consultations. While institutional repositories are highly available (94.1%), the number of libraries subscribing to databases and offering e-journals (58.8%) is relatively low, which could impact access to scholarly resources.

The availability of services for students and faculty is strong (94.1%), but services for alumni are missing. This highlights a potential area for libraries to engage with their alumni community.

Mobile apps and social media (Facebook, RSS feeds) are underutilized, indicating that libraries could expand their outreach and accessibility through modern digital tools. The limited use of social media and mobile apps suggests a need for libraries to embrace modern communication and service delivery tools to reach users where they are most active.

With a low percentage of libraries offering virtual tours and mobile apps, libraries could improve by incorporating more interactive and mobile-friendly features. This is crucial for engaging modern users.

It was noted that recently established universities after 2000, except University of Jaffna has scored below 50% which indicates that still these are at the developing stage.

These are the essential aspects that most libraries need to be considered to ease their library users. The findings of the present study reveal that library professionals have adopted various services and facilities on the websites of the universities This study also provides significant information for librarians and library IT professionals, and policymakers to upgrade and modify the process of information dissemination through websites.

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