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# Content Analysis of the Library Webpages of Educational Colleges in Goa

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# **ABSTRACT**

In this digital era of abundant information production, there is an increase in demand of high - quality digital information. With the greater demand from users to serve their information needs, the job of the librarian has become critical in terms of delivering services to its patrons. The content richness of the website is the key factor to attract users and facilitate them in navigating through its web pages. These websites are playing a key role in helping students and faculty to carry out their study and academic work. Thus the need arises to continuously evaluate these web pages to keep them updated or use.

This study evaluates 25 selected educational college library web pages in Goa from the usability perspective. For this study 9 main parameters were used to evaluate library web pages. The checklist was made for measuring its various dimensions regarding its usability, validity, efficiency and, effectiveness. The results showed that the web pages are partially usable and hence there is a need to improve their usability. The study further suggested evaluating these web pages to check the relevancy and validity of the information available on the web page. The study revealed that most of the college websites provide an Online Public Access Catalogue but none of the websites mention the availability of plagiarism checking facilities. The study has shown that web pages are lagging in exploiting the potential of the library portal. It also suggests keeping the web page updated as it is frequently used by college students and faculty. This study is capable of providing a basic framework that can be used to design and improve academic library web pages.

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KEYWORDS: Goa, Education, Colleges, Libraries, Evaluation, Information, Websites, Interface

## INTRODUCTION

Professional as well as self-financed colleges are using the digital environment for disseminating information-related services. The internet has given the power to libraries to provide information to its users, also is remotely using Library resources.

Designing and maintaining Library websites is a continuous task. It involves many factors like content validity, a search facility, aesthetics, user-friendliness, speed, mobile-friendly, etc.

The increase in the use of e-resources by users and demand for these types of facilities have put a lot of pressure on the Library and Librarians fraternity creating a challenging environment. Academic Libraries including College Library users have shifted their demand from printed sources to electronic sources. The website consists of web pages, images, videos and, other digital content. The guidelines should be followed by the libraries while designing the website as per the demand of the users. The content of a website can be presented in different forms, the most common and accessible being text and graphics.

## LITERATURE REVIEW

A literature review is defined as an overview of the information that has been published on a particular subject or topic in scholarly journals, books, reports, websites, etc. by renowned scholars and researchers. Literature provides a mental roadmap of the past, present and, future of research in a particular field. A few reviews of past studies and works on the subject of study in hand are given in this chapter. They are expected to be useful background materials for the present study.

Ambika C. A. GanesanP. (2021) the article titled "Central University Library websites in India: web content analysis," studies thirteen central university library websites in India that were established from 2001 to 2010. A Checklist of 29 criteria was made which enabled a detailed study of web content. It gave scope for researchers for future studies.

Brower (2001) in the article, "Academic Health Science Library Website Navigation: An analysis of forty-one websites and their navigation tools" focused on the selected websites. Websites were evaluated in four specific areas. Metrics taken for electronic resources included the intention of the bibliographic database in alphabetical order or by title or by subject area and giving links to specifically named databases.

Hugar(2019): the article titled "Content Analysis of Engineering College Library website in Goa" analyzes and evaluates the library website content of the Library Website of Engineering Colleges in the state of Goa. It also searched for additional features provided on the Library websites. Lastly, it suggested measures for the improvement of college Library websites.

Joo, Soohyung (2011) in the article titled, "A Usability Evaluation Model for Academic Library Websites: Efficiency, Effectiveness, and Learnability" developed a usability evaluation model and a survey tool for academic library websites. This tool helped researchers in future studies in this area.

Kaushik, A. (2015) in the article titled, "An Evaluation of National Institutes of Technology (NITs) Library websites" evaluated 28 NIIT Library websites. The study examined the status of Library related information, services, resources, and other facilities available on NIIT Library websites from February 01 to 28 in 2015. This study revealed that most Libraries do not give Library Mission; search interfaces web 2.0 applications and cloud-based services. This study will be helpful to judge the quality and diverse facilities present on the 28 NIIT Library websites in India.

Konnur, Rajni, Madhusudhan (2010) "Academic Library Website in Bangalore City India: An Evaluation Study," studied different features of the Academic Library Websites in the Geographical setting. It also identified criteria for the evaluation of academic library websites. It ranked the selected websites based on the identified criteria.

Pareck, (2013) in this article titled "Academic Library Websites in Rajasthan an Analysis of content" shows that this study was aimed with the purpose to investigate library websites in Rajasthan to analyze their content and navigational paths and their lacunas and to give recommendations for developing better websites and quality assessment studies"

Verma (2015), in the article "Content analysis of Central Universities Library Websites of North Eastern states of India: A Survey" studied the web contents of the central University Libraries website of the North-Eastern states of India. It evaluates Library services and facilities on the Library websites. This study suggested ideas for the improvement of the North Eastern Central University Libraries website.

Verma, Devi (2018); in the article titled "Content Analysis based evaluation of Library Websites: A Case Study" studied wider areas with the one hundred and seventy-two Parameters applied to each website; a five-point rating scale was designed to rank IIT's and NIIT Library website. This study enables the review of the majority of the criteria in the Library Website.

The website of the Library is its virtual public face which extends services to patrons without any barriers of time and place. Stover (1997) developed an instrument to evaluate academic library websites based on the

mission of the academy role of the Library, hypermedia theory, and principles of webpage design. The instrument consisted of 16 items and was developed in the form of a checklist to evaluate the content and design of academic Library websites.

## **OBJECTIVES OF THE STUDY**

- 1. To evaluate selected college library web pages in Goa
- 2. To find out the services offered by these web pages
- 3. To analyze the contents of the educational college library web pages in Goa
- 4. To know the various features in the educational college library web pages in Goa
- 5. To suggest the steps for the improvement of these web pages

# METHODOLOGY OF THE DATA COLLECTED

The main objective of the study is to evaluate selected educational college library websites in Goa. The study is restricted in evaluating educational college library websites in Goa listed on the Goa University website. This study is confined to the college library websites in Goa. These websites were further selected according to the availability of the library site. But due to the limitation of unavailability of the library site, all of the educational college library websites in Goa could not be covered in the study. In total, there are 32 educational colleges in Goa but here only 25 are considered.

# **EVALUATION CRITERIA FOR THE PRESENT STUDY**

After studying the criteria given by different researchers, the present study has adopted the following criteria:

Authority	It should be clearly defined who has created the website and who owns the copyright of the
	website. There should be an email address listed or other contact information. Ex. The name of
	the developer like the NIC, Info-Tech must be given, and other related details.
Purpose	The purpose and scope of the website should be specific and well defined. Ex. The website
	must have a clear purpose and must provide information accordingly.
Currency	The currency of an information source can be affected by how recently it was created. To
	avoid outdated information; one needs to find out when the page was created and how often it
	is updated. Look when it is last updated. Check the links mostly older websites have links
	that have expired.

Objectivity	An objective source will contain more quality information than a heavily biased source. If the
	page is of an advertisement, there may be an encouragement to provide biased
	information. The advertising should be different from the informational content of the site. It
	should be clearly stated why the site is created and for whom. Ex. Any website must not sway
	the user by giving irrelevant information.
Accuracy	A high-quality website source contains accurate information that can be verified by other
	sources. The information should be free from spelling, grammar, and punctuation mistakes.
	There should be evidence of an editor or fact-checker who is responsible for making sure that
	the information is correct. Ex. If the website is regarding tourism then it must provide related
	information not any other.
Limitations	Check whether there are any limitations like an absence of the latest information, visitor
	counter, user-friendliness, etc.
Special	It must contain features that attract users and makes the website unique. Ex. Website must
Features	have photo gallery, visitor's counter, etc. special and unique features.

In addition to these criteria, the researcher selected two more evaluative measures. One was General Library Details and the other one was Extended Online Library Services. Under these criteria researcher listed out sub-criteria to evaluate the information over the web page.

## LIST OF COLLEGE LIBRARY WEBPAGES EVALUATED

The researcher listed out the educational colleges given on the Goa University Website and selected the same for the present study. Out of 32 colleges, 25 colleges have a library page. Of the remaining 7, 4 colleges don't have the college website and 3 colleges don't provide any information about their library. Following are the colleges of which the library pages are evaluated.

- 1. Carmel College of Arts, Science & Commerce for Women, Nuvem Goa
- 2. Cuncolim Educational Society's College of Arts & Commerce, Cuncolim Goa
- 3. Dempo Charities Trust Dhempe College of Arts & Science, Miramar Goa
- 4. Dempo Charities Trust's S.S. Dempo College of Commerce & Economics, Cujira Goa
- 5. Diocesan Society of Education's Rosary College of Commerce & Arts, Navelim Goa
- 6. Dnyan Prabodhini Mandal's Shree Mallikarjun and Shri ChetanManju Desai 5ollege, Canacona Goa
- 7. Dnyanprassarak Mandal's College of Arts, Sou. Sheela Premanand Vaidya College of Science & V. N. S. Bandekar College of Commerce, Assagao Goa
- 8. Fr. Agnel College of Arts & Commerce, Pilar Goa
- 9. Goa College of Home Science Campal, Panaji Goa

- 10. Goa Vidyaprasarak Mandal's Gopal Govind Poy Raiturcar College of Commerce & Economics, Farmagudi Goa
- 11. Government College of Arts, Science & Commerce, Khandola Goa
- 12. Government College of Arts, Science & Commerce, Quepem Goa
- 13. Government College of Arts, Science & Commerce, Sanquelim Goa
- 14. Government College of Commerce & Economics, Borda Goa
- 15. Murgaon Education Society's College of Arts & Commerce, Zuarinagar Goa
- 16. Parvatibai Chowgule College of Arts & Science, Fatorda Goa
- 17. Ponda Education Society's Shri Ravi S. Naik College of Arts & Science, Farmagudi Goa
- 18. Sant Sohirobanath Ambiye Govt. College of Arts & Commerce, Pernem Goa
- 19. Saraswat Vidyalaya's SridoraCaculo College of Commerce & Management Studies, Mapusa Goa
- 20. Sateri Pisani Education Society's Gopal Gaonkar Memorial Goa Multi-Faculty College, Dharbandora Goa
- 21. St. Xavier's College of Arts, Science & Commerce, Mapusa Goa
- 22. Swami Vivekanand Vidyaprasarak College of Commerce Borim
- 23. Vidya Prabodhini College of Commerce, Education, Computer & Management, Porvorim Goa
- 24. Vidya Vikas Mandal's Shree Damodar College of Commerce & Economics, Comba Goa
- 25. Zantye Brothers Educational Foundation's Narayan Zantye College of Commerce, Bicholim Goa

# LIST OF COLLEGES OF WHICH WEBSITES/ LIBRARY WEBPAGES ARE NOT AVAILABLE

- 1. Dnyanvardhini Divyang Training College, Bogda Goa (No website)
- 2. Goa College of Hospitality & Culinary Education, Vainguinim Beach Goa (No library page on the website)
- 3. Goa Salesian Society's Don Bosco College, Panaji Goa (No library page on the website)
- 4. Kamaxi College of Culinary Arts, Salcete Goa (No library page on the website)
- 5. Mandre College of Commerce, Economics and Management, Mandrem Goa (No website)
- 6. St. Joseph Vaz College, Cortalim Goa (No website)
- 7. Swami Brahmanand Mahavidyalayam, Kundaim Goa (No website)

Website evaluation is important for providing successful library services to its users. Therefore, the colleges need to make an effort to ensure their websites are developed according to the standards. For existing websites, it is equally important for colleges to check how usable they are. For future research, we recommend researchers adopt the parsimonious evaluation template used in this study to evaluate college library websites in other countries.

#### DATA INTERPRETATION AND ANALYSIS

Libraries are the supporting centers for teaching, learning, research, and other activities. Service given through the library home page enables the users to search information from their desktop which saves their valuable time. This study is undertaken based on the availability of library information on 25 educational college library webpages by using predefined criteria during a period from 1<sup>st</sup> October to 20<sup>th</sup> October 2021.

**TABLE 1: AUTHORITY** 

													Sr	. No.	Of Co	llege										
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	URL	✓	✓	<b>√</b>	<b>√</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	✓	✓	✓	✓	✓	<b>√</b>
2	E-mail	✓	<b>√</b>	×	×	✓	✓	✓	×	✓	✓	✓	✓	×	✓	×	✓	✓	×	×	✓	✓	<b>√</b>	✓	×	<b>√</b>
3	Fax No.	×	×	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
4	Phone No.	×	✓	×	×	×	✓	✓	<b>√</b>	×	✓	✓	✓	✓	✓	×	✓	✓	×	×	✓	×	✓	✓	×	<b>✓</b>
5	Address	✓	✓	×	×	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>	✓	✓	✓	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	✓	✓	<b>✓</b>
6	Copyright	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	<b>√</b>	✓	✓	✓	✓	✓	<b>✓</b>	<b>✓</b>	✓	×	<b>✓</b>	✓	✓	<b>√</b>

The above table covers sub-points of criterion authority. It provides information about the URL, email, fax number, phone number, and address of the library. From the above table, it is observed that all the web pages have their URL. Concerning email, it is found that out of 25 web pages 8 web pages have not mentioned their email ID. This shows that the user cannot contact the concerned library staff immediately for any assistance. Concerning the fax number, only 1 web page has given the fax no. and 15 websites have to give the phone number. This indicates that the libraries have not taken care of reflecting their important information on the website. It is revealed that 23 web pages have provided the address whereas 2 have not provided it.

**TABLE 2: PURPOSE** 

	Sr. No. Of College																									
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.	_																									
1	Mission	✓	×	×	X	✓	✓	✓	✓	×	✓	✓	×	×	×	✓	✓	×	×	×	✓	×	×	×	×	✓
2	Activities	×	×	<b>√</b>	<b>✓</b>	✓	✓	✓	✓	×	✓	✓	×	×	✓	✓	×	×	×	×	✓	✓	✓	×	×	✓
3	Notifications	×	✓	×	✓	✓	✓	✓	✓	×	✓	✓	×	×	×	✓	×	×	×	×	✓	×	<b>√</b>	×	×	×

The second evaluation criterion was the purpose. The purpose of the website is evaluated through sub-points namely, the mission, activities, and notifications. It was studied that 11 web pages have provided the mission of the libraries. 14 web pages cover activities of the libraries. 11 web pages provide notifications which show that 14 web pages need to provide this information.

**TABLE 3: CURRENCY** 

											5	Sr. No	. Of (	Colleg	e											
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	Last Update	×	×	×	×	×	×	✓	×	×	✓	✓	×	×	×	×	×	×	×	×	×	×	×	✓	×	✓
2	Latest News	X	>	>	<b>✓</b>	<b>\</b>	✓	✓	<b>\</b>	×	✓	✓	×	×	×	✓	✓	<b>\</b>	×	×	✓	✓	<b>\</b>	×	✓	✓
3	Placed On	×	×	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Web																									

The above table provides information on the sub-points of the criterion currency. This is one of the most important criteria that every website must follow. If the information provided by the websites is not current then the main motto of the website fails. Among 25 websites only 5 web pages are providing the last updated date which is a very less number. Each website must be updated regularly and frequently and must provide the updated date to enable the user to depend upon the information. 17 web pages provide the latest news which is a good number. Only 1 website gives the date of placing it on the web. From the above data, it is revealed that most of the websites are lacking behind in providing current information.

**TABLE 4: ACCURACY** 

												,	Sr. No	o. Of (	Colleg	e										
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	All The	×	✓	✓	<b>✓</b>	✓	×	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	×	×	✓	<b>✓</b>	✓	✓	<b>✓</b>	×	✓	✓	×	✓	<b>✓</b>	<b>✓</b>	✓
	Hyperlinks																									
	Retrieving In																									
	The																									
	Web Page?																									
2	Official Logo	✓	✓	✓	<b>✓</b>	<b>√</b>	✓	<b>√</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	✓	✓	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	✓
	Of																									
	The Site?																									
3	No Spelling	✓	✓	✓	<b>✓</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	Or																									
	Grammatical																									
	Errors In																									
	The																									
	Website?																									

The above table describes the criterion accuracy and its sub-points – whether all hyperlinks retrieve, whether the official logo is given, and whether there are any spelling or grammatical mistakes. Thus this table shows that hyperlinks of 19 web pages can be retrieved. All web pages have given their official logo. Similarly, no spelling or grammatical mistakes can be found in 1 website. From this data, it is observed that almost all the websites provide accurate information.

**TABLE 5: OBJECTIVITY** 

												Sr	. No. (	Of Co	llege											
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	All images/	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	icons																									
	presents																									

	When the web page loads?																									
2	All the links	✓	✓	✓	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Relevant																									
3	Is site	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	✓	$\overline{}$	<b>√</b>	$\overline{}$	<b>✓</b>	<b>✓</b>	$\checkmark$	<b>√</b>	<b>✓</b>	$\overline{}$	$\overline{}$	<b>√</b>	$\checkmark$	<b>✓</b>	✓
														•												
	map present on													·		·	·	·		·	·		•			
	map present on the home													,	·	·	·	,			·	•	·			

Another criterion of evaluation is objectivity. It covers sub-points like whether the images/icons/graphics are present when the webpage loads, whether all the hyperlinks are appropriate and relevant, and whether the site map of the content of the website is present on the home page. Among 25 web pages, images/icons/graphics, 23 get present on the webpage. Links provided by 23 web pages are appropriate and relevant. Sitemap/contents are available on all web pages. Thus this shows that information provided by most of the web pages is relevant and useful.

**TABLE 6: LIMITATIONS** 

												S	r. No.	Of C	ollege	;										
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	No	×	<b>✓</b>	X	×	X	×	×	×	<b>✓</b>	×	×	<b>✓</b>	✓	×	×	×	×	<b>✓</b>	<b>✓</b>	×	×	×	✓	×	×
	Attractiveness																									
2	Absence Of	✓	✓	✓	<b>√</b>	<b>✓</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>
	Information																									1
3	Small Font	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

This table interprets another criterion i.e. limitations. It covers sub-points with no attractiveness, an absence of information, and a small font. 7 web pages are found to be not attractive which must be developed by concerned libraries. The absence of information is found on all the web pages. The libraries must provide that information since it can be difficult for the user to get that information from any other source. No web page has the information in a small font.

**TABLE 7: SPECIAL FEATURES** 

												S	r. No	o. Of	Coll	ege										
Sr.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No.																										
1	Visitor	×	X	X	×	×	<b>✓</b>	<b>✓</b>	×	×	<b>✓</b>	✓	✓	×	✓	×	×	✓	×	×	×	×	×	×	<b>✓</b>	✓
	Counter																									
2	Photos	X	X	×	×	×	×	<b>√</b>	<b>✓</b>	×	×	×	×	×	✓	×	×	×	×	×	<b>√</b>	✓	✓	×	<b>✓</b>	✓
3	Social	<b>✓</b>	X	<b>✓</b>	<b>▲</b>	<b>✓</b>	×	<b>√</b>	<b>✓</b>	×	<b>✓</b>	✓	×	×	✓	✓	×	×	×	×	×	×	×	×	<b>✓</b>	✓
	Networking																									
4	Google	$\checkmark$	X	X	×	<b>√</b>	<b>✓</b>	<b>√</b>	×	×	<b>✓</b>	✓	×	×	✓	×	×	×	×	×	×	×	×	×	×	×
	Translate																									
5	User	×	X	X	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	Friendly																									
6	Search box	<b>√</b>	×	✓	✓	✓	×	✓	✓	×	<b>√</b>	✓	×	×	<b>√</b>	×	✓	<b>√</b>	×	×	×	<b>√</b>	×	×	×	×
7	Feedback	×	X	×	×	×	<b>✓</b>	<b>√</b>	<b>√</b>	×	<b>✓</b>	✓	×	×	<b>√</b>	×	✓	×	×	×	×	×	×	×	×	×
	Form																									

8	Log In	<b>√</b>	×	✓	<b>✓</b>	<b>√</b>	×	<b>√</b>	✓	×	✓	✓	×	×	<b>✓</b>	×	✓	×	×	×	×	×	×	×	×	×
9	RSS Feed	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
10	Archive	$\checkmark$	✓	>	<b>√</b>	✓	>	>	>	×	<b>√</b>	✓	×	×	✓	×	×	✓	×	✓	×	✓	✓	✓	<b>√</b>	<b>\</b>
11	Rlog	X	×	×	×	×	×	<b>√</b>	×	×	×	×	X	×	×	×	×	×	×	X	×	×	×	×	X	×

The above table is of the special features of websites like the visitor counter, photo gallery, social networking, Google translate, user-friendliness, a search box, feedback facility, login facility RSS feed, archives, and blog. After studying websites based on these sub-points it was noticed that only 9 web pages provide the visitor's counter, which is a very less number. Only 8 web pages provide a photo gallery which gives the user extra information. Only 12 web pages provide a link to social networking which is a very less number and must be increased since this is the age of social networking. 7 web pages provide Google translate facility. This facility must be provided by every library since the user of any language can access the web page and gain information. No website is user-friendly i.e. these web pages can't be accessed by differently-abled persons. 12 web pages provide a search box that facilitates the search of information within the web page quickly. Users can give feedback to only 7 web pages. Login facility is provided by only 10 web pages. It must be provided by every web page since the user can access his/her account. No web page provides an RSS feed. Only 1 web page provides a blog facility and lastly, archives are given by 18 web pages.

**TABLE 8: GENERAL LIBRARY DETAILS** 

													Sr. N	o. Of	Colle	ge										
Sr. No.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	About	<b>√</b>	×	<b>√</b>	×	✓	<b>✓</b>	<b>√</b>	✓	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
2	Resources	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	<b>√</b>	✓	✓	<b>√</b>	✓	×	✓	×	<b>√</b>	✓	×	✓	✓
3	In-House Services	×	×	✓	✓	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	×	✓	<b>√</b>	×	<b>√</b>	×	<b>√</b>	×	×	<b>✓</b>	<b>√</b>						
4	Working Hours	✓	×	✓	✓	✓	<b>√</b>	<b>√</b>	✓	×	✓	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>						
5	Staff Details	✓	×	✓	×	×	<b>√</b>	✓	✓	×	✓	<b>√</b>	×	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	×	<b>√</b>						
6	Rules	✓	×	×	✓	×	✓	<b>✓</b>	×	×	✓	✓	<b>√</b>	<b>√</b>	✓	✓	<b>√</b>	✓	×	✓	✓	<b>√</b>	✓	✓	×	×
7	Committee	×	×	×	×	×	✓	✓	✓	×	×	×	×	<b>✓</b>	✓	✓	×	✓	×	×	✓	<b>√</b>	<b>✓</b>	×	✓	✓
8	Sections	✓	×	×	✓	✓	✓	✓	✓	×	×	×	×	×	✓	✓	×	×	×	✓	×	×	×	×	✓	✓

The above table shows the general library details provided on the respective library page. Only 4 web pages lack in providing information about the library. 4 libraries do not provide information about its resources. 5 libraries do not provide information on in-house services. 21 web pages show the working hours of the library which is a good number. 18 web pages provide details of the staff. 7 web pages do not give the rules of the library use whereas 12 libraries give committee details. Lastly, 11 web pages provide the details of the different sections of the library.

TABLE 9: EXTENDED ONLINE LIBRARY SERVICES

		Sr. No. Of College																								
Sr. No.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Reference Assistance	×	<	×	×	<	×	×	×	×	<b>\</b>	<b>V</b>	×	×	×	×	<b>~</b>	×	×	×	×	×	<b>~</b>	×	×	×
2	OPAC	<b>✓</b>	×	<b>√</b>	✓	<b>√</b>	X	✓	✓	×	<b>√</b>	✓	×	×	✓	×	×	×	×	×	✓	×	×	×	×	✓
3	E-Journals & Databases	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	✓	<b>\</b>	<b>✓</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>
4	Open Access Resources	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>√</b>	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	×	<b>√</b>	×	<b>√</b>	×	<b>√</b>	<b>√</b>	<b>√</b>
5	Other Libraries' Catalogue	×	×	×		<b>★</b>	×	✓	×	×	×	×	×	×	✓	×	×	✓	×	✓	×	×	×	×	×	×
6	Audio-Visual Material	×	×	×	×	×	×	<b>√</b>	×	×	×	×	×	×	<b>√</b>	<b>√</b>	×	×	×	×	✓	×	×	×	<b>√</b>	×
7	Book Reservation	~	×	<b>✓</b>	✓	<b>✓</b>	×	✓	<b>√</b>	×	<b>√</b>	<b>√</b>	×	×	✓	×	×	×	×	×	×	×	×	×	×	×
8	Indexing	×	X	X	×	X	X	✓	×	×	×	×	×	×	<b>√</b>	×	×	×	×	×	×	×	×	×	×	×
9	Link to Professional Org. &Asso.	<b>√</b>	×	×	~	<b>√</b>	<b>✓</b>	<b>√</b>	×	<b>✓</b>	✓	×	×	<b>√</b>	<b>√</b>	<b>V</b>	<b>V</b>	<b>V</b>	×	<b>√</b>	×	×	×	✓	<b>V</b>	<b>√</b>
10	New Arrivals	×	✓	×	✓	<b>√</b>	×	✓	×		✓	✓	×	×	<b>√</b>	×	✓	×	×	×	✓	✓	×	×	×	×
11	Plagiarism Check	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
12	Newspaper	✓	✓	×	✓	×	×	✓	×	×	×	✓	×	✓	<b>√</b>	✓	✓	✓	×	×	×	×	×	✓	✓	<b>√</b>
13	Virtual Tour	×	×	×	×	×	×	<b>\</b>	×	×	<b>✓</b>	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	×
14	Membership Form	×	×	×	×	×	×	×	×	×	×	✓	×	×	<b>√</b>	×	<b>√</b>	×	×	×	×	×	×	×	×	×

The above table represents the extended online library services provided by these college libraries. It is found that only 6 libraries provide online reference assistance to the user which is a very less number. Another main service is OPAC. It is provided by only 12 libraries. Links to E-journals, databases, and open access resources are provided by 22 libraries which is a good number. Only 6 libraries give the link to other libraries' catalogs. 5 libraries are giving audio-visual material facilities whereas 9 libraries are giving the book reservation facility. Only 1 library provides an indexing facility. 9 libraries do not provide a link to professional organizations. 14 libraries are not giving the details of new arrivals. Not a single library gives the plagiarism check facility which is very important in this competitive age. 13 libraries are giving newspaper links to the renowned newspapers. Only 3 libraries provide a virtual tour of the library and lastly, only 3 libraries are providing online membership forms to their users.

#### **SUGGESTIONS**

- 1) Websites should be updated regularly so that users can have current and updated information.
- 2) There is a need to maintain the attractiveness of the websites.
- 3) Websites need to provide visitor's counter and log-in facilities.
- 4) Librarians should assess users' expectations which will help them in designing the structure and contents of the items to be included.
- 5) Websites need to provide hyperlinks to other reputed libraries.

- 6) The University Grants Commission (UGC) and Central Universities should give some guidelines for designing library websites.
- 7) Library professionals must be completely involved and should be trained in designing and integrating all the library sources, services, and facilities in the website by attending seminars, conferences, workshops, etc.
- 8) There is a need to give contact information such as an address, phone number, name of the authority, and email ID.
- 9) It is suggested that the design of the website concerning its usability should be designed accordingly so that it can be used by differently-abled people too.

#### **CONCLUSION**

Academic library websites are like a mirror of their collection, services, and user-focused access. They play a key role in learning and research processes. The users access library websites more than the physical library itself. Effective and versatile library websites and online library services attract users to the libraries. Hence, the study was carried out to show the need for well-structured and well-maintained library websites. The most important facet of any website is its usability. The website of an academic library should fulfill users' needs and expectations. The library website content, structure, and design need to reflect changes in user behavior, technology, and information resources.

Based on the findings, educational college library websites in Goa have not come up to expectations as virtual expressions of the quality level of academic excellence. There is a lack of information organization in most of the web pages. Hence, these libraries need to implement internal as well as external and manual and automated periodic evaluation of their web pages. Such a kind of evaluation will give reliable evaluation that critically shows the defects of every web page.

Findings show that many of the study web pages are yet to make use of the full potential of cyberspace, which are productive tools for library-user interaction and communication. It is hoped that libraries at the academic institutions will attend to the lacunae and develop soon a fully functional, interactive, dynamic content web portal with Web 2.0 and Web 3.0 technologies.

The study concludes with the recommendation of conducting such evaluative studies regularly to keep the library websites up-to-date and meet the expectations of its clientele and also to develop a digital environment for the delivery of library services. It is assumed that the study will serve as an example for future research on developing measurement structures for library website evaluation.

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