Digital Visibility of Academic Library websites in Karnataka: A Content Analysis approach

Usha S S
Librarian
Government First Grade College
Bangarpet, Kolar (Dist), Karnataka, India

B S Biradar
Vice Chancellor,
Bidar University, Bidar, Karnataka, India.

Abstract

The present study examines the digital visibility of the academic library websites of a private aided first-grade college in Karnataka. The study covers 60 colleges across six regions, including Bangalore, Mysore, Shimoga, Dakshina Kannada, Dharwad, and Kalburgi, with 10 colleges in each region. A structured checklist was used to record the contents of the library websites grouped under 13 major parameters. The results of the study show that basic information, such as college information, library details, contact information, library hours, and print collection details, is widely available. However, currency indicators, user engagement facilities, and advanced ICT-based services are limited. The study suggests that private aided colleges should strengthen their independent library websites, user engagement services, and ICT-based services.

Keywords

Content Analysis**;** Academic Library Websites; Digital Visibility; Private Aided Colleges; Karnataka; Web-based library services.

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Introduction

The rapid advancement in ICT has transformed the academic libraries from physical repositories into dynamic information hubs. Library websites serve as gateways for users to access the institution's resources and services. In the present era of information, a well-designed and comprehensive library website is no longer just an information hub, but a necessity for delivering effective library services for 21st-century users. (Harinarayana & Raju, 2010). An effective academic library website reflects the library's physical collections and services. (De Graft Johnson, 2024). In this web era, physical visits to libraries have decreased, whereas virtual visits have increased. (Usha S S et al., 2024).

The present study analyses the current status of library websites, focusing on their accessibility, content, services, ICT integration, and best practices.

Literature Review

Studies on the content analysis of library websites have been conducted by various authors and published in reputable national and international journals; conference proceedings are reviewed in this section.

Kannappanavar & Biradar (2011) and Hugar (2019) analysed the engineering college library websites in Karnataka, and their results show a common deficiency in web-based services. Sampath Kumar et al. (2009) analysed the content analysis of IIM libraries. It was found that all the libraries have provided the library and site map. Only two libraries provided information about the webmaster, and only one had a link to a hit counter. Verma & Devi (2016) analysed the content and design trends of IIM libraries' websites. The study found that all the IIMs are provided with a link to Web 2.0. and suggested that all the links given on the websites should be accessible. Sampath Kumar, B T, Shivakumar S U, (2015) compared the content of the IIT library websites. The study found that only two library websites provided “ask a Librarian " facility, and one library provided new arrivals.Gupta (2022) analysed the e-content on the websites of European National libraries. The study revealed that the most uploaded information concerns the products and services offered by national libraries.

Aharony (2012) analysed the evaluation of 31 academic library websites by comparing their features and content from 2000 to 2010. The study highlights the increased access to electronic journals and interactive "ask a librarian" services. Al-qallaf & Ridha (2018) conducted a content analysis of academic library websites in the Gulf Cooperation Council countries. The study shows that 66.4% of libraries provided both basic and advanced OPAC facilities, and 62.7% did not provide access to any Web 2.0 tools. Kehinde & Tella (2012) conducted the comparative content analysis of Universities in Nigeria and South Africa. The study reveals that both nations are adopting Web 2.0 tools such as Facebook and Twitter. More e-resources were available in South African university libraries compared with Nigerian University libraries. Usha S S & Biradar B S (2024) analysed the contents of the Central University library websites. The authors suggested creating an independent library website to help users access library resources, with the webmaster serving as the librarian.

Dei (2025) conducted a comparative content analysis across 6 categories of institutions, including public universities, technical universities, chartered private universities, university colleges, colleges of education, and nursing and midwifery schools. The study highlights that, except for public universities, other universities failed to provide information services on their library websites. Usha S S & Biradar B S (2024) examined the content analysis of library websites of government colleges in Karnataka. The study found significant disparities in website quality across regions, noting that most library websites provide basic administrative details but lack information on e-resources, open access links, and frequent updates.

Objectives

The following objectives were framed for the study

- To examine the accessibility and structural organization of library websites
- To assess the currency and authority indicators
- To evaluate the general information about the library
- To analyse the library collections and services
- To investigate the integration of e-learning platforms and social media tools
- To evaluate the user engagement facilities
- To identify the ICT integration and best practices

Scope of the study

The present study focuses on the library websites of private-aided first-grade colleges in Karnataka, India. The private-aided colleges receive partial government funding while maintaining private management structures. These Colleges offer a very limited number of postgraduate programs across arts, science, and commerce streams.

Research Methodology

This study employs content analysis, a systematic research technique, to examine library websites worldwide. The present study examines the 60 colleges that function under the Department of Collegiate Education, Karnataka. Ten colleges each across the six regions, viz., Bangalore, Mysore, Shimoga, Dharwad, Dakshina Kannada, and Kalburgi, were selected. These colleges were selected randomly; those that maintain publicly accessible websites with a library link.

Data Collection Instrument

A structured checklist comprising 13 major parameters was developed based on an extensive literature review (Dei, 2025; Ambika & Ganesan, 2020; Al-qallaf & Ridha, 2018; Usha S S et al., 2024)). The checklist consists of 13 major parameters, such as website independence and accessibility of library website, Currency indicators, authority Language options, Content and Collections, services, E-learning platforms, social networking, ICT integration, & Automation. Each parameter contains multiple sub-elements.

Data Collection Procedure

Data collection was conducted between October 2025 and December 2025 through systematic observation. The following steps were followed to collect the data. College websites were identified through the official websites of the Department of Collegiate Education. Navigation paths to information were documented. The presence or absence of each checklist item was coded as 1 or 0, respectively. The collected data were organised and analysed using Microsoft Excel.

Analysis and Interpretation

Table 1. Accessibility of the Library Website

Accessibility of the Library Website	Number of Libraries (%)
Link under facilities/central facilities menu/infrastructure	16 (26.7%)
Campus life/student corner	5 (8.3)
Direct Link on the Institution website	30 (50)
other link(other than above three)	9 (15)

Table 1 presents the accessibility of the library website. Accessibility refers to how easily users can locate the library link on the institution's website. 30 (50%) library links were found directly on the institution's website. Followed by 16 (26.7%) libraries found on a link under facilities.

Table 2. Currency of the website

Currency of the Website	Number of Libraries (%)
Date of Updation	3(5)
Provided the present date	1(1.6)
Hit Counter	15(25

The currency parameter is important for establishing the accuracy and reliability of information. However, the currency parameter is largely absent across the selected library websites, as shown in Table 2. Only 3 (5%) of libraries gave the date of updation. Only one library provided the present date. This absence of currency raises serious concerns about the accuracy of information. whereas users cannot determine whether the information is up to date or obsolete.

Table 3: Authority

Authority	Number of Libraries (%)
Copyright Statement	49 (81.6)
Disclaimer Statement	2(3.3)
Privacy Statement	5(8.3)
Details of the webmaster	43(71.6)

The authority parameter indicates the transparency of the website's ownership and responsibility. This parameter is displayed in Table 3. 49 websites (81.6%) display the copyright statement, making it the most common authority element. Indicates the awareness of intellectual property protection. Webmaster details were provided in 43 (71.6%) libraries, which indicates the responsible authority, i.e., the technical contact for website management. However, a disclaimer statement is present in 2 (3.3%) libraries, a privacy statement in 5 (8.3%) library websites.

Table 4: Languages

Languages	Number of Libraries (%)
English	51 (83.3)
Kannada	0 (0)
Both	9 (15)

Language accessibility is an important factor for website usability in multilingual contexts, and it is shown in Table 4. 51 (83.3%) libraries provided the content exclusively in English, making it the dominant communication language. 9 (15%) libraries offer content in both English and Kannada. Notably, no colleges provided content solely in Kannada. It suggests that English is the primary language in digital academic communication across the selected institutions.

Table 5: General Information about the Library

General Information	No.of Libraries (%)
Information about the College	57 (95)
About Library	53 (88.3)
Vision/Mission/Objectives	29 (48.3)
Library Hours	42 (70)
Holiday Information	12 (20)
Library Rules	30 (50)
Library Membership	16 (26.6)
Newsletter/Library News	5 (8.3)
Photo Gallery	31 (51.6)
Library Committee	24 (40)
Future Plans	4 (6.6)
Library Budget	10 (16.6)
Campus Site Map	18 (30)
Contact Details	48 (80)
Library Floor Plan	8 (13.3)
Library User Statistics	2 (3.3)

General information about the library to facilitate users' understanding is shown in Table 5. 57 (95%) of the colleges provided information about the college, followed by 53 (88.3%) providing information about the library, and 48 (80%) of the libraries providing contact details. 42 (70%) provided library hours, which were essential for planning a physical visit. 31 (51.6%) provided a photo gallery; library rules are provided in 30 (50%) libraries, while membership details appear in 16 (26.6%) libraries.

Library committees are listed in 24 (40%) of libraries. Additional features like floor plans (8 (13.3%)) and user statistics (2 (3.3%) were rarely provided on the website. The table shows that most libraries provided basic information, but did not provide information that enhances service understanding and facilitates effective library use.

Table 6: Library Collection -Print

Library Collection-Print	**No.of Libraries (%)**
Books	53 (88.3)
Journals	45 (75)
Back Volumes of Journals	21(35)
Magazines	47 (78.3)
Newspaper	44 (73.3)
Reference Source	24 (40)
Previous Year Question Paper	34 (56.6)
Syllabus	12 (20)
Conference Proceedings	2 (3.3)
Projects	10 (16.6)
Annual Reports	0
Special/Rare Collection	7 (11.6)
Braille Books	1 (1.6)
Competitive Exam books	2 (3.3)

The most prominent content represented on the library website is the print collection (Table 6). The most commonly represented resource is books, which are provided by 53 (88.3%) libraries, magazines by 47 (78.3%) colleges, journals by 45(75.0%) colleges, and newspapers by 44(73.3%) colleges. Previous year question papers are provided by 34 (56.7%) of colleges. However, syllabi, projects, rare books, braille books, conference proceedings, and competitive exam books are poorly represented. Annual reports are not reported by any of the selected libraries.

Table 7: Library Collection-Digital

Library Collection- Digital	**No.of Libraries (%)**
E-books	34 (56.6)
E-journals	32 (53.3)
Databases	3 (5)
Institutional Repository (IR)	6 (10)
Faculty Publications	5 (8.3)
National Digital Library of India (NDLI)	22 (36.6)

Compared to the print collection, the digital collection shows lower representation (Table 7). E-books provided in 34(56.7%) libraries and e-journals by 32(53.3%) colleges. Integration with the National Digital Library of India (NDLI), a free platform providing access to more than 8 million resources, appeared in 22 (36.7%) colleges. The findings suggest that the limited adoption of this is either limited awareness among library staff or less priority given to promoting free digital resources. Institutional repositories are institutional research outputs that appeared in 6(10%) of the colleges, and faculty publications are by 5(8.3%) libraries.

Table 8: Library Services- Conventional

Library Services-Conventional	**No.of Libraries (%)**
Circulation	51 (85)
Reference service	38 (63.3)
Inter Library Loan (ILL)	15 (25)
Newspaper Clippings	23 (38.3)
New Arrivals	30 (50)
Reprography	25 (41.6)
Table of Contents	3 (5)
Current Awareness Services	12 (20)
Book Bank	27 (45)
Institutional Membership	0
Overnight Issue	7 (11.6)
Career Guidance	9 (15)

Conventional services remain widely represented in selected libraries (Table 8). The circulation services are most frequently listed services by 51 (85%) colleges, reference services by 38 (63.3%), and new arrivals by 30 (50%) colleges. Book bank, reprography, and newspaper clipping services show a moderate presence. Overnight issue, table of

contents, and career Guidance are less frequently listed on library websites. Institutional Membership is not listed by any of the selected colleges.

Table 9: Web-Based Library Services

Web-Based Library Services	No.of Libraries (%)
Web-OPAC	38 (63.3)
Mobile APP.	0
ONOS/ NList	38 (63.3)
Virtual Tour	1 (1.6)
Subject Gateways	1 (1.6)
ASK Librarian	2 (3.3)
Remote Access Services	2 (3.3)

Web-based services are represented in a mixed manner (Table 9). Web-OPAC is available in 38 libraries (63.3%), enabling users to search library collections online. Similarly, ONOS/N-list access is present in 38 (63.3%) libraries, indicating institutional participation in national digital resource programs. However, advanced services such as virtual library tours, subject gateways, Ask a Librarian, and remote access services are rarely present. No library provides a mobile application.

Table 10: E-learning Platforms

E-LEARNING PLATFORMS	No.of Libraries (%)
Swayam	21 (35)
Swayam Prabha	11 (18.3)
E-PG patashala	16 (26.6)
Gyankosh	9 (15)
Spoken Tutorials	3 (5)
NPTEL	9 (15)
Coursera	3 (5)
edx	2 (3.3)

E-learning integration is shown in Table 10. SWAYAM is the most frequently listed platform by 21 (35%) colleges, and SWAYAM Prabha is in 11 (18.3%) colleges. NPTEL and Gyankosh are available in 9 (15%) colleges. Coursera, edX, and Spoken Tutorials rarely appeared. The findings show that many libraries have not yet fully positioned their websites as gateways to e-learning.

Integration of social networking sites among selected libraries varies across the platforms represented in Table 11. Facebook is the most commonly linked platform with 16 (26.6%) colleges, followed by YouTube (16.6%). Instagram and Twitter are each provided in 15% of websites. Blogs, RSS, Academia.edu, and ResearchGate are rarely integrated. The results show the low usage of networking tools, which limits online engagement and outreach opportunities.

Table 11: Social Networking Sites

Social Networking Sites	No.of Libraries (%)
YouTube	10 (16.6)
Facebook	16 (26.6)
Instagram	9 (15)
WhatsApp	3 (5)
Twitter	9 (15)
Blogs	1 (1.6)
RSS	1 (1.6)
Research Gate	2 (3.3)
Academia	1 (1.6)
LinkedIn	3 (5)

Table 12: User Engagement Facilities

User Engagement Facilities	No.of Libraries (%)
Feedback Form	17 (28.3)
FAQ	0
E-mail alerts	0
Live Chat	2 (3.3)
Site Search	14 (23.3)
Book/Journal Recommendation	3 (5)
User Manuals	2 (3.3)

User engagement facilities appear limited (Table 12). Feedback forms are available in 17 (28.3%) libraries, and the site search function appears in 14 (23.3%) libraries. Live chat, user manuals, and book/journal recommendation services are rarely available. FAQ and email alerts are not provided by selected libraries. This suggests that most library websites still function as information display pages rather than interactive service platforms.

Table 13: ICT Integration & Automation

ICT Integration & Automation	No.of Libraries (%)
LMS (Automation Software)	37 (61.6)
RFID	0
QR Code Support	1 (1.6)
Self-Check Kiosks	0
Barcode facility	12 (20)

ICT integration and automation are shown in Table 13. ICT integration is mainly visible through Automation software. The Library Management System (LMS) is reported by 37 colleges (61.6%), indicating that more than half of libraries have implemented automation. While the barcode facility is shown in 12 (20%) of colleges. Advanced systems, such as RFID Self-check kiosks, are absent, and QR code support is available at only one college. The results show that basic automation has advanced, but advanced technology integration remains low.

Findings & Suggestions

Direct visibility of the library link is moderate. Only half of the colleges provide a direct link on their websites. It is suggested that college libraries should provide a clear, visible library link on the home page. 51 (85%) of library websites use only English. It is suggested that Library websites in Karnataka should preferably provide bilingual content, i.e., in English and Kannada. Information about the print collection is better represented than that in the digital collection. It is suggested to update and organise the digital collections to ensure easy and quick access to current information. E-learning platforms and social networking tools have appeared moderately on library websites. It is suggested to integrate social networking sites and E-learning platforms on the library website to enhance online engagement and outreach opportunities, and websites as gateways to e-learning. Web-OPAC and N-list/ONOS are available in a majority of selected libraries.

Conclusion

The present study shows that Private-Aided First Grade College library websites in Karnataka have provided a basic level of digital visibility. As library websites are a mirror of the library. To improve the effectiveness of academic library websites, colleges should provide regularly updated, user-friendly, and service-oriented library webpages, strengthening digital collections, ICT based facilities will improve the overall quality and usefulness of library websites for their users. A strong library website is not only displaying basic information; it should function as a gateway that connects library users with library resources. Improving these library websites will enhance the visibility, usability, and academic value of college libraries in Karnataka.

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