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Research Article

Evaluating the Library Websites of Top 20 QS-Ranked Indian Universities: A Web Content Analysis

Madhu S*

Department of Library and Information Science, GM Central Library, GM University, Davangere, Karnataka, INDIA.

ABSTRACT

University library websites function as strategic knowledge gateways, connecting institutional collections with user communities through structured, technology- enabled access. In this regard, the present study examined the library websites of top 20 QS-ranked Indian universities to evaluate how the web content represents library information, resources, facilities, digital services, and the application of interactive tools. The data was collected through online surveys and direct observation of the websites. The major finding of study shows that the majority of libraries (94.74%) maintain dedicated websites, most of which are designed as dynamic multi-webpage platforms (94.74%) to enhance academic visibility. The core library information was provided about library/history, operating hours, and staff details are consistently available. Information regarding print collections such as books and journals (89.47% each), and bound volumes (78.85%) was provided by most of the websites. In contrast, digital resources are universally represented, with all websites offering e-books, e-journals, and databases (100%), often supplemented by abstracting and citation databases (89.47%). Research support services are also prominent, with plagiarism detection tools being the most widely adopted (89.47%). The study concludes with a positive note where QS-ranked Indian university libraries demonstrate strong virtual presence with digital access and service innovation, further efforts are needed in application of Web 2.0/3.0 tools, and inclusive features to align with evolving user needs.

Keywords: Content Analysis/Evaluation, Library websites, QS rank, University libraries, Web 2.0, Web presence.

Correspondence:
Dr. Madhu S
Department of Library and Information Science, GM Central Library, GM University, Davangere-577006, Karnataka, INDIA.
Email: madhu.rey24@gmail.com

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INTRODUCTION

Since, the evolution of the 'internet' has redefined the way information is produced, organized, and accessed, bringing significant changes to the role of academic libraries (Bajpai and Verma 2021). Beyond their physical collections and services, libraries have increasingly established a strong digital presence, with the library websites functioning as the primary interface between patrons and the institution's knowledge resources (Letha 2006; Vijayakumar *et al*., 2009). Through this platform, libraries provide seamless access to digital materials, digital repositories, and a wide range of user support services that extend learning and research opportunities beyond the wall of the libraries (Al-Qallaf and Ridha, 2019). A well-designed website not only improves the 'visibility' and 'accessibility' of resources but also reflects the library's ability to adapt to evolving user expectations in a 'technology-driven' environment (Krishna Devi and Verma, 2018).

The 'QS World University Rankings', published annually by 'Quacquarelli Symonds (QS)', is recognized as one of the most influential global frameworks for assessing 'higher education institutions'(Rafiq *et al*., 2021). Since its inception in 2004, the ranking has employed a systematic methodology that evaluates universities on indicators such as "academic reputation", "employer reputation", "faculty and student ratio", "international outlook", and "research impact". In the 2026 edition, more than 1500 universities across over 100 countries were featured. India has registered significant progress, with 54 institutions appearing in the latest ranking, a substantial increase from only 11 in 2015. This growth positions India as the fourth most represented country globally, reflecting the rising international visibility of its higher education sector and the sustained institutional efforts to enhance teaching, research, and global engagement. In this context, analysing the content of library websites provides a valuable insight into how "QS-ranked" universities present information, deliver services, and support their academic and research activities through digital presence.

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REVIEW OF LITERATURE

For the present study, a selection of pertinent literature was identified and critically reviewed to provide a foundation for the research Geetha *et al.* (2013) surveyed 120 faculty members and researchers at Kuvempu University to examine their use of the library portal. The study found that 85% responders visit the portal mainly for research, 75% considered it effective for accessing e-resources, while slow internet speed was identified as a major barrier. Haridasan and Uwesh (2014) evaluated the forty-two library websites of the central university of India. The results found that most of the websites are performing an impactful role in representing libraries, but lacked in creation of institutional repositories and application of web 2.0 mechanization Pant (2015). Evaluated the central science library website at the University of Delhi using a checklist and user survey, highlighting the need for improvements in efficiency, effectiveness, and learnability. Although resources such as the notice board, site search, 'FAQ's' and library guides were widely available, the study emphasized the need for interface improvements to enhance usability and navigation Gadhavi (2017). Examined eight library websites of institutions of national importance in Gujarat, focusing on general information, collections, services, online resources, and web 2.0 applications. The study found that most websites have basic details such as library hours, and collections, fewer offered current awareness services, online catalogues, or promotion through 'SNS's'. Unique features included discovery tools, plagiarism, and interactive services like "Ask a Librarian". Making the websites generally informative and user-friendly Ukwattage (2019). Conducted an analysis of sixteen academic health sciences library websites in Sri Lanka and identified significant gaps in their content. The study emphasized that these libraries lacked in providing essential resources, including subject guides, instructional materials, tools to support evidence-based medical practice, access to grey literature in health, tutorials, and citation guides Rahman and Batcha (2020) examined the selected ten degree college's library websites affiliated with Delhi University. The majority of the websites have basic information about libraries and lack in utilisation of useful tools such as social networking, feedback mechanism and also missed regular updates of websites Rafiq *et al.* (2021). studied the library websites of the top 50 universities in medicine based on QS world rank. The researcher framed a checklist by selecting 87 standard parameters under nice categories. The results found the majority of the websites combined both textual and visual elements and 86% featured a 'COVID-19' update button, many lacked virtual tours, tutorials, policy details, and books exhibitions. Common services included material renewal, research consultations, ILL, live chat, and fine accrual. Charles *et al.* (2024) analysed library websites of technical institutes ranked under the 2023 NIRF engineering category and found notable variations in the quality of resources and services. Most of the websites highlighted the application of 'RFID' technology and linked the institutional research profiles via 'IRINS' platform Madhu and Kannappanavar (2024). Analysed the library websites of 'NIRF'-ranked pharmacy institutes in South India and found that while a few were developed using 'CMS' platforms, the majority offered only basic information. Approximately half websites included details about reprographic services, remote access, and 'Interlibrary Loan (ILL)', whereas 42% websites have links to e-learning platforms Roy and Sahu (2024). Assessed seventeen university library websites under the "UGC's CPEPA (Centres with Potential for Excellence in Particular Areas)" scheme, focusing on e-resources, databases, services, and 'web 2.0' features. They found that while most libraries maintained dedicated websites with basic collection details, variations existed across institutions, and south Indian sites often supported both English and regional language support.

OBJECTIVES OF THE STUDY

- To examine the accessibility, domain extensions, and availability of library websites of top 20 QS ranked Indian universities.
- To evaluate the representation of library information, resources, services, and facilities provided through these websites.
- To analyse the extent and nature of print and digital collections including e-resources and databases, provided via the websites.
- To assess the integration of user support and research assistance tools such as plagiarism detection software, citation management systems, and discovery services.
- To explore the adoption of Web 2.0 tools, and social and academic networking platforms for enhancing user engagement and outreach.

METHODOLOGY

The present study evaluated the web content available on the library websites of top 20 QS ranked Indian universities that were ranked in the 2026 edition of the ranking process. The study initially identified QS ranked Indian Universities from official websites QS world rank website (Accessed on 31-07-2025 n.d.). However, the analysis was restricted to 19 websites out of 20, as one website was excluded due to insufficient information about the library. Guided by insights from the previous literature a detailed checklist was prepared covering 17 core heading to analyse the selected websites. Further, the data was collected through online surveys and direct observation for the study. The selected websites were (referred in Appendix-I) thoroughly evaluated between 1st August and 31th August 2025. The collected data was systematically recorded and analysed using Google Sheets.

DATA ANALYSIS AND INTERPRETATION

Domain Extension

Table 1 highlights the domain extension of QS ranked university library websites that has been used for creation of library websites. The analysis found that the majority of websites (16 out of 19, 84.21%) used the ".ac.in" domain, which is the nationally recognized standard for accredited higher education institutions in India and reflects institutional credibility. A smaller proportion (2 universities, 10.53%) websites operate with the ".in" domain, which although India-specific, is more generic and not exclusively for academics. Only one website (5.26%) employs the ".edu" domain, a globally recognized extension commonly associated with U.S institutions, suggesting an attempt to enhance international visibility.

Placement Patterns of Library Links

Table 2 reveals the placement of library links on university homepages unevenly distributed, with some provided as direct links and others placed under different submenus. The analysis shows that most of the links were placed under the "academic facilities/facilities" menu (*n*=5, 26.32%), emphasizing the positioning of the library as a central component of academic support. An equal (*n*=4, 21.05%) share of links was placed under the "resources" menu and "direct links" from the institution homepage. A smaller proportion (*n*=2, 10.53%) of the websites appears under the student's menu, while menus such as 'administration', 'central facilities', 'explore' and 'departments' each account for only one link (*n*=1, 5.26%).

Status of Library Websites

Table 3 explores the status of the library websites, whether the library has a dedicated website or only a webpage to showcase its online presence. The analysis indicates that the majority (*n*=18, 94.74%) of the libraries have dedicated websites, reflecting a stronger institutional commitment towards developing independent websites. In contrast, only one library (*n*=1, 5.26%) relied on a separate webpage within the main university website, which may limit the scope and visibility of library-specific information and resources.

Typology of the Website

Table 4 presents the typology of library websites, illustrating their structural design, distinguishing between dynamic multi-page platforms and single static webpage. The analysis resolved that the majority (*n*=18, 94.74%) employ multiple webpages to construct the library website, indicating a preference for dynamic structures that allows for the systematic organization of information and resources. While, only one library website (*n*=1, 5.26%) maintains a single or static webpage to provide library related information and resources.

Website Language Compatibility

Language compatibility in library websites reflects the inclusiveness and accessibility of information services, enabling institutions to cater to diverse user groups. Table 5 indicates that the majority of library websites (*n*=15, 78.85%) are compatible with "English" language only. A smaller proportion of websites (*n*=3, 15.79%) supports both "Hindi and English", reflecting attempts to serve bilingual users and promote inclusivity. Only one website (*n*=1, 5.26%) offers "multilingual" language options, thereby extending broader linguistic accessibility.

Website Functional Components

The functional component of the library website highlights the range of interactive tools and services designed to improve accessibility, communication, and user engagement. The analysis presented in Table 6 shows that most frequently featured elements were FAQ's (Frequently Asked Questions)" and image swap-over

Table 1: Domain Classification.

Criteria	Total	Percentage
Academic India (ac.in)	16	84.21%
India (.in)	2	10.53%
Education domain (.edu)	1	5.26%
Total	19	100.00%

Table 2: Placement of Library Links.

Criteria	Total	Percentage
Academic Facilities/Facilities	5	26.32%
Resources	4	21.05%
Direct Links	4	21.05%
Students	2	10.53%
Administration	1	5.26%
Central Facilities	1	5.26%
Explore	1	5.26%
Departments	1	5.26%
Total	19	100.00%

Table 3: Status of Websites.

Criteria	Total	Percentage
The library has a dedicated website	14	73.68%
Uses a Separate Webpage	5	26.32%
Total	19	100.00%

Table 4: Nature of Websites.

Criteria	Total	Percentage
Websites with multiple webpages	18	94.74%
Single/Static webpage	1	5.26%
Total	19	100.00%

Table 5: Language Compatibility.

Criteria	Total	Percentage
English	15	78.95%
Both Hindi and English	3	15.79%
Multilingual	1	5.26%
Total	19	100.00%

Table 6: Functional Components.

Criteria	Total	Percentage
FAQ's (Frequently Asked Questions)	11	57.89%
Image Swap over effect	11	57.89%
Email Us	10	52.63%
News Tickers	10	52.63%
Key Word Search option	9	47.37%
Sitemap	8	42.11%
Chat Bot Assistant	8	42.11%
Feedback/Suggestion form	7	36.84%
QR Code Facility	6	31.58%
360 view/Library Virtual Tour	4	21.05%

Table 7: General Information of Libraries.

Criteria	Total	Percentage
About the Library/History	19	100.00%
Library Operating Hours	15	78.95%
Library Rules/Regulations	15	78.95%
Library Staff Details	15	78.95%
Library Working Days	13	68.42%
Library Membership	13	68.42%
Library News and Events	12	63.16%
Library Holidays	10	52.63%
Library Sections	9	47.37%
Library Name	9	47.37%
Mission/Vision/Objectives	7	36.84%

effect (*n*=11 each, 57.89%), both of which contribute to user guidance and improved visual navigation. Furthermore, features such as email us and news ticker (*n*=10 each, 52.63%) indicate an emphasis on communication and timely updates. Similarly, the inclusion of the keyword search facility (*n*=9, 47.37%) and site maps (*n*=8, 42.11%) reflects efforts to facilitate efficient information retrieval. Advanced tools such as chatbot assistants (*n*=8, 42.11%) and feedback/suggestion forms (*n*=7, 36.84%) exhibit emerging practices in user engagement. Additionally, QR code facilitates (*n*=6, 31.58%) mobile-friendly access, while features such as 360 view/Library Virtual Tour (*n*=4, 21.05%) enhance the sense of virtual presence.

General Profile of the Library Websites

The general profile of library websites reflects the essential informational components made available to users, offering insights into operational transparency, services, and institutional identity of the libraries. Table 7 reveals that all surveyed library websites (*n*=19, 100%) provide information About the library/history. A large proportion (*n*=15 each, 78.95%) websites provided information regarding library operating hours, rules and regulation, and, staff details. Information regarding library working days and membership (*n*=13 each, 68.42%) as well as news and events (*n*=12, 63.16%) further emphasizes operational updates and user engagement. Fewer libraries provide information on library holidays (*n*=10, 52.63%), library sections, and library names (*n*=9 each, 47.37%) Interestingly, some libraries are named after renowned personalities from the institution or presented as Knowledge Resource Centres, reflecting efforts to convey prestige and a modernized institutional image. Only a limited number (*n*=7, 36.84%) of the websites articulate their mission, vision, or objectives statements.

Library Specific Details

Library-specific details highlight the operational, infrastructural, and technological dimensions presented on library websites, offering users insights into facilities, services, and institutional practices. Table 8 reveals that the majority of library websites provide library infrastructure details (*n*=14, 73.68%) and library statistics (*n*=13, 68.42%), reflecting efforts to demonstrate resource strength and capacity. Similarly, a considerable proportion website showcase photo/video galleries (*n*=12, 63.16%) and information on library layout/floor and automation packages (*n*=11 each, 57.89%). Over half (*n*=10, 52.63%) presents information library advisory committee, suggesting participatory governance practice. However, the adoption of advance facilities such as RFID implementation (*n*=8, 42.11%), "ISO certification for libraries and kiosks facility (*n*=4, each, 21.05%), and assistive technologies for user with disabilities (*n*=3, 15.79%) were less frequently represented. Notably, elements such as technical organization (*n*=2, 10.53%), book drop facilities (*n*=2, 10.52%), academic calendar, "budget allocation, and newsletters (*n*=1 each, 5.26%) are minimally reported.

Statement of responsibility

The "statement of responsibility" on library websites specifies the contact details of the library or the responsible authority for handling user inquiries. Table 9 shows that most library websites provide email id (*n*=17, 89.47%) as the primary contact mode, followed by phone numbers and postal addresses (*n*=15 each, 78.95%), ensuring the availability of both digital and formal communication channels. A smaller proportion of the websites provide separate contact links (*n*=8, 42.11%), while mobile numbers (*n*=3, 15.79%) and fax number (*n*=1, 5.26%) are rarely used.

Print Collections

Table 10 highlights the diversity of information regarding the print collections available through library websites. The analysis determined that the majority of the websites are details on print books and journals (*n*=17 each, 89.47%), followed by back volumes (*n*=15, 78.95%) and thesis/dissertation (*n*=12, 63.16%). A moderate level of information was available on standards (*n*=11, 57.89%) and special collections such as braille materials (*n*=8, 42.11%). A smaller proportion of websites reports holdings of technical reports, magazines, and newspapers (*n*=7 each, 36.84%), along with book bank facility and gratis collections (*n*=4 each, 21.05%). Only a few websites listed information on conference proceedings, pamphlets, and rare books (*n*=3 each, 15.79%), while reprographic materials are the least represented (*n*=2, 10.53%).

Digital Collections

Table 11 demonstrates that all the selected library websites maintain a strong digital collection and information regarding e-journals, e-books, and databases available in all the websites (*n*=19 each, 100%). A significant proportion (*n*=17, 89.47%) of the websites have information and provide access to abstracting and citation databases (Scopus and Web of Science) and showcases faculty publication through IRINS (Indian Research Information Network System) (*n*=14, 73.68%), reflecting the growing emphasis on research visibility. Additionally, information on e-theses (*n*=13, 68.42%) and e-consortia memberships (*n*=12, 63.16%) enhance scholarly communication and resource sharing While initiatives such as the National Digital Library (NDL) (*n*=8, 42.11%) and use of CD/DVD collections (*n*=8, 42.11%) are moderately presented. A smaller proportion (*n*=4 each, 21.05%) of websites have information on specialized resources like CD-ROM/DVD-ROM and DELNET.

Table 8: General Information of Libraries.

Criteria	Total	Percentage
Library Infrastructure Details	14	73.68%
Library Statistics	13	68.42%
Photo/Video Gallery	12	63.16%
Library Layout/Floor	11	57.89%
About Library Automation Package	11	57.89%
Library Advisory Committee	10	52.63%
RFID Implementation	8	42.11%
ISO Certification	4	21.05%
Kiosk	4	21.05%
Assistive Technologies/ Disabilities	3	15.79%
Technical Organisation	2	10.53%
Book Drop	2	10.53%
Academic Calendar	1	5.26%
Budget Allocation for the Library	1	5.26%
Newsletter	1	5.26%

Table 9: Statement of responsibility.

Criteria	Total	Percentage
Email ID	17	89.47%
Phone	15	78.95%
Postal Address	15	78.95%
Separate Contact Link	8	42.11%
Mobile Number	3	15.79%
Fax	1	5.26%

Scholarly Tools and Assistance

Table 12 highlights the range of research supported tools that were offered through library websites. Plagiarism detection tools (*n*=17, 89.47%) are the most widely provided, reflecting a strong emphasis on maintaining academic integrity. A moderate number of libraries also feature grammar checkers (*n*=11, 57.89%) and citation management tools (*n*=8, 42.11%), which facilitate scholarly writing and proper referencing. Fewer institutions offer advanced support services such as research assistance (*n*=4, 21.05%), Overleaf for collaborative academic writing (*n*=3, 15.79%), ORICD ID creation services (*n*=2, 10.53%), and paraphrasing tools (*n*=1, 5.26%).

User Services and Facilities

Table 13 presents the range of library services and facilities accessible through library websites. The analysis found that

Table 10: Physical Collections of Libraries.

Criteria	Total	Percentage
Books	17	89.47%
Printed Journal	17	89.47%
Back/Bound Volumes	15	78.95%
Thesis/Dissertations	12	63.16%
Standards	11	57.89%
Special Collection (Braille)	8	42.11%
Technical Reports	7	36.84%
Magazines	7	36.84%
Newspapers	7	36.84%
Book Bank	4	21.05%
Gratis	4	21.05%
Conference Proceedings	3	15.79%
Pamphlets	3	15.79%
Rare Books	3	15.79%
Reprographic Materials	2	10.53%

Table 11: Physical Collections of Libraries.

Criteria	Total	Percentage
E-Journals	19	100.00%
E-Books	19	100.00%
Databases	19	100.00%
Abstracting and Citation Databases	17	89.47%
Faculty Publications/IRINS	14	73.68%
E-Theses	13	68.42%
Library Consortia	12	63.16%
National Digital Library (NDL)	8	42.11%
CD/DVD	7	36.84%
DELNET	4	21.05%
CD-ROM/DVD-ROM	4	21.05%
Question Banks/Papers	2	10.53%
Patents	1	5.26%
Library Networks	1	5.26%

Table 12: Research Support and Services.

Criteria	Total	Percentage
Plagiarism Detection Tools	17	89.47%
Grammar Checker	11	57.89%
Citation Management Tools	8	42.11%
Research Assistance	4	21.05%
Overleaf	3	15.79%
Creation of Orchid ID	2	10.53%
Paraphrasing Tools	1	5.26%

the majority of the websites provide remote access (*n*=15, 78.95%) and new arrivals display (*n*=14, 73.68%), highlighting the libraries efforts to provide seamless access to resources and showcase updated collections. A moderate proportion of libraries offer services such as interlibrary loan (*n*=10, 52.63%), reprographic services, reference service and document delivery (*n*=9 each, 47.37%) services, which support both academic and research needs. Core services circulation and internet browsing (*n*=8 each, 42.11%) are less frequently emphasized online, while traditional facilities such as reading rooms (*n*=6, 31.58%) and referral services (*n*=4. 21.05%) remain limited in visibility. More specialized services such as newspaper clippings (*n*=3, 15.79%), table of contents alerts and current awareness services (*n*=2 each, 10.53%), bibliographic services and selective dissemination of information (*n*=1, 5.26%) are least represented.

Enhanced Library Services

Table 14 highlights the availability of enhanced library services library websites. The majority provide access to Web OPAC (*n*=16, 84.21%) and advanced/federated search facilities

Table 13: General Services and Facilities.

Criteria	Total	Percentage
Remote Access	15	78.95%
New Arrivals Display	14	73.68%
ILL (Interlibrary Loan)	10	52.63%
Reprographic Services	9	47.37%
Reference Services	9	47.37%
Document Delivery	9	47.37%
Circulation Services	8	42.11%
Internet Browsing (Ports and Wi-Fi)	8	42.11%
Reading Rooms	6	31.58%
Referral Services	4	21.05%
Newspaper Clippings	3	15.79%
Table of Contents (TOC)	2	10.53%
Current Awareness Services (CAS)	2	10.53%
Bibliographic Services	1	5.26%
Selective Dissemination of Information (SDI)	1	5.26%

(*n*=14, 73.68%), underscoring their role in facilitating efficient resource discovery. A considerable proportion also features institutional repositories and links to open access resources (*n*=12 each, 63.16%), reflecting an institutional commitment to open knowledge dissemination. Moderate representation is observed in library guides (*n*=10, 52.63%) and book/material recommendation services (*n*=6, 31.58%), which supports user navigation and collection development. However, more user-centred and interactive services such as links to e-learning platforms (*n*=5, 26.32%), online membership and mobile library applications (*n*=2, 10.53%) remain limited.

Library Engagement Programs

Table 15 presents the extent of library engagement programs offered across the library websites. The finding shows that workshops (*n*=7, 36.84%) and library orientation programs (*n*=6, 31.58%) are the most common initiatives, reflecting the libraries focus on skill development and familiarising users with resources and services. A smaller proportion of libraries offer user education programs and book exhibitions (*n*=3 each, 15.79%), while specialized initiatives such as training and literary programs (*n*=2 each, 10.53%), along with academic events like conferences, seminars, webinars, and celebrations of librarian's day (*n*=1 each, 5.26%) are minimally represented. Notably, one (5.26%) institution reported conducting NPTEL courses, reflecting the role of premier institutes like IIT Delhi in advancing academic and research engagement through digital learning initiatives.

Link to Web 2.0 tools

Table 16 highlights the integration of web 2.0 tools across the library websites. The findings show that social media platforms such as Facebook (*n*=6, 31.58%), Instagram (*n*=5 each, 26.32%), and X (formerly Twitter) are the most frequently used tools, underscoring their role in outreach and user engagement. Other networking platforms like LinkedIn (*n*=4, 21.05%) and YouTube channels (*n*=3, 15.79%) are moderately adopted, while specialized scholarly academic networking platforms such as ResearchGate, Pinterest, and Threads (*n*=1 each, 5.26%) are minimally represented.

Currency and Authority

Table 17 presents the indicators of currency and authority statements presented on the library websites. The majority of websites include a copyright statement (*n*=14, 73.68%), reflecting attention to ownership and intellectual property rights. Maintenance details are provided by more than half of the libraries (*n*=11, 57.89%). A small proportion of websites displaying visitor countries (*n*=4, 21.05%), while disclaimer statements, privacy statements, and usage policies (*n*=1 each, 5.26%) are rarely represented.

Table 14: Library Enhanced Services.

Criteria	Total	Percentage
Web OPAC	16	84.21%
Advanced/Federated Search Facility	14	73.68%
Institutional Repositories	12	63.16%
Link to Open Access Resources	12	63.16%
Library Guides	10	52.63%
Book/Material Recommendation	6	31.58%
Link to E-Learning Platforms	5	26.32%
Ask a Librarian	3	15.79%
Online Membership	2	10.53%
Mobile Library App	2	10.53%

Table 15: Library Engagement Programs.

Criteria	Total	Percentage
Workshop	7	36.84%
Library Orientation Programs	6	31.58%
User Education Programs	3	15.79%
Book Exhibition	3	15.79%
Training	2	10.53%
Information on Literary Programs	2	10.53%
Conference	1	5.26%
Seminar	1	5.26%
Webinars	1	5.26%
Librarian's Day	1	5.26%
Conduction of NPTEL Courses	1	5.26%

KEY SUGGESTIONS

- University library websites should be directly linked from the institution's homepage, rather than being placed under multiple submenus, as this improves 'accessibility', 'visibility' and strengthens institutional 'credibility'.
- The library websites should enhance inclusivity and usability by expanding multilingual support.
- The core objective library website is to represent the virtual presence of physical presence of the library. Accordingly, the websites should provide comprehensive information about the library, including its resources, services and facilities intended for its target users.
- Library websites should regularly monitor and update their websites to remove inactive or broken links, thereby ensuring seamless access to resources and strengthening user trust.
- Integration of 'Web 2.0' tools such as 'RSS feeds', 'wikis', and blogs are essential for library websites. These tools support timely updates, promote collaborative knowledge sharing, and enhance user participation within the academic community.
- Libraries should develop and promote mobile applications to extend their services beyond physical spaces and traditional websites. Such initiatives enhance user convenience and

Table 16: Links to Web 2.0 tools.

Criteria	Total	Percentage
Facebook	6	31.58%
Instagram	5	26.32%
X	5	26.32%
LinkedIn	4	21.05%
YouTube	3	15.79%
ResearchGate	1	5.26%
Pin interest	1	5.26%
Threads	1	5.26%

Table 17: Currency and Authority Statements.

Criteria	Total	Percentage
Copyright Statement	14	73.68%
Maintenance Details	11	57.89%
Visitors Counter	4	21.05%
Date of Last Update	1	5.26%
Disclaimer Statement	1	5.26%
Privacy Statement	1	5.26%
Usage Policy	1	5.26%

encourage greater engagement with library resources and services.

CONCLUSION

The present study examines the library websites of the top 20 QS-ranked Indian universities. Out of these, one website was excluded due to limited information about the library. The remaining websites demonstrate significant progress in delivering comprehensive digital services, including access to collections, research support tools, and advanced discovery systems. However, challenges such as uneven placement of library links, limited multilingual support, and the underutilization of interactive features indicate the need for further improvement. The findings highlight the importance of strengthening website design, expanding inclusive services, and adopting innovative tools aligned with Web 2.0 (Social media, blogs, wikis, RSS feeds, Academic networking platforms), 3.0 (semantic search, personalization, and interoperability) and 4.0 (AI-driven, user-centered system) technologies. By adopting these advancements, university libraries can ensure that their websites evolve beyond static repositories into interactive, intelligent, and future-ready platforms in the digital era.

ABBREVIATIONS

QS: Quacquarelli Symonds; **DPI:** Dots Per Inch; **FAQ's:** Frequently Asked Questions; **SNS's:** Social Networking Sites; **ILL:** Interlibrary Loan; **RFID:** Radio Frequency Identification; **IRINS:** Indian Research Information Network System; **CMS:** Content Management System; **UGC:** University Grants Commission; **CPEPA:** Centres with Potential for Excellence in Particular Areas; **ac.in:** Academic India; **edu:** Education domain; **ISO:** International Organization for Standardization; **NDL:** National Digital Library; **DELNET:** Developing Library Network; **CD-ROM:** Compact Disc Read-Only Memory; **DVD-ROM:** Digital Versatile Disc Read-Only Memory; **ORICD:** Open Researcher and Contributor ID; **TOC:** Table of Contents; **CAS:** Current Awareness Services; **SDI:** Selective Dissemination of Information; **Web OPAC:** Web Online Public Access Catalog; **NPTEL:** National Programme on Technology Enhanced Learning; **X:** Formerly Twitter; **RSS:** Really Simple Syndication; **AI:** Artificial Intelligence; **NIRF:** National Institutional Ranking Framework; **IIT:** Indian Institute of Technology; **CSIR:** Council of Scientific and Industrial Research.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

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Appendix-I

SL No.	University Name	Library URL	QS-Rank (2025)
1	Indian Institute of Technology, Delhi	https://library.iitd.ac.in/	123
2	Indian Institute of Technology, Bombay	https://www.library.iitb.ac.in/	129
3	Indian Institute of Technology, Madras	https://cenlib.iitm.ac.in/	180
4	Indian Institute of Technology, Kharagpur	https://pkklib.iitk.ac.in/	215
5	Indian Institute of Science, Bangalore	https://library.iisc.ac.in/	219
6	Indian Institute of Technology, Kanpur	https://library.iitkgp.ac.in/	222
7	University of Delhi	https://crl.du.ac.in/	328
8	Indian Institute of Technology, Guwahati	https://www.iitg.ac.in/lib/	334
9	Indian Institute of Technology, Roorkee	https://mgcl.iitr.ac.in/	339
10	Anna University	https://library.annauniv.edu/	465
11	Indian Institute of Technology, Indore	https://library.iiti.ac.in/	556
12	Jawaharlal Nehru University	http://lib.jnu.ac.in/	558
13	Indian Institute of Technology, Varanasi	https://www.iitbhu.ac.in/cf/lib	566
14	Savitribai Phule Pune University	https://lib.unipune.ac.in/	566
15	Chandigarh University	https://www.cuchd.in/student-services/libraries.php	575
16	Indian Institute of Technology, Hyderabad	https://library.iith.ac.in/	664
17	University of Mumbai	https://mu.ac.in/archives/courses/knowledge-resource-centre	664
18	Birla Institute of Technology and Science, Pilani	https://library.bits-pilani.ac.in/	668
19	Jadavpur University	https://jadavpuruniversity.in/about/facilities/library/	676