International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Digital Visibility and Web-Content Analysis of Academic Information Systems: A Case Study of Veer Narmad South Gujarat University Library Web Profile

Mr. Mahendra G. Patel[1], Dr. Ajit Prajapati[2]

[1]Research Scholar, Veer Narmad South Gujarat University, Surat, Gujarat, India.
[2]Librarian, Government Arts and Commerce College, Netrang, Bharuch, Gujarat, India.

Abstract:
In the contemporary digital ecosystem, the university library website has transcended its traditional role as a static information page to become a dynamic "virtual gateway" for intellectual engagement. As higher education institutions increasingly rely on Information and Communication Technology (ICT) to bridge the gap between physical collections and remote users, the web presence of a library becomes a critical indicator of its institutional vitality. This research paper presents a comprehensive content analysis of the University Central Library website of Veer Narmad South Gujarat University (VNSGU), Surat. Utilizing a descriptive content analysis methodology, this study audits the library's digital presence across five key dimensions: general infrastructure, collection digitization, e-resource accessibility, research support services, and administrative transparency. The findings reveal that VNSGU has successfully established a hybrid information environment, managed by SOUL 3.0 software, providing access to over 2.1 lakh print volumes and a vast digital repository through the "One Nation One Subscription" (ONOS) initiative. The study further highlights unique strengths, including the "Shantaben Ishwarbhai Savani" Research Repository and the deployment of assistive technologies like the KIBO XS device for visually impaired scholars. The paper concludes that while the VNSGU library website effectively serves as the "heart" of the university's research infrastructure, future integrations of Web 2.0 tools could further enhance user engagement.

Keywords: Academic Libraries, Content Analysis, Webometrics, Digital Libraries, VNSGU, Library Services, Information Science, Shodhganga, Assistive Technology.

1. Introduction

The academic library has historically been regarded as the "heart" of a university, pumping the vital blood of knowledge through the institution's veins. However, the advent of the World Wide Web and the proliferation of Information and Communication Technologies (ICT) have fundamentally shifted the operational paradigm of these institutions. In the 21st century, a library's physical collection - no matter how vast - is only as valuable as its discoverability and accessibility (Madhusudhan, 2012). The library website has emerged as the primary interface for this discovery, serving as a 24/7 workstation that reflects the institution's commitment to access, research, and inclusivity.

For Veer Narmad South Gujarat University (VNSGU), established in 1967, the library is not merely a building but a "hub of excellence" designed to create skilled technocrats and devoted human beings. As the university strives to have a transformative impact on society through innovation and research, its library website acts as the critical bridge connecting users - students, faculty, and researchers - to a massive reservoir of printed and digital knowledge.

The transition from traditional libraries to "hybrid" libraries - institutions that manage both physical and digital resources - requires a robust digital interface. A poorly designed website can act as a barrier to information, while a well-structured one can exponentially increase the usage of expensive subscribed resources (Vasishta, 2013). This paper performs a granular content analysis of the VNSGU library's web profile to evaluate its effectiveness in this role.

2. Literature Review

Content analysis of library websites is a mature field of study within Library and Information Science (LIS). It provides a systematic method for evaluating the "digital visibility" of institutions.

2.1. Web Content Analysis in India

Recent studies in the Indian context have highlighted both the progress and the disparities in academic library websites. Sawai and Chavan (2023) conducted a content analysis of university libraries in Maharashtra, observing that while most accredited universities effectively displayed core information (OPAC, collections), there was significant variation in the depth of service descriptions. Their findings suggest that a library's digital visibility is directly correlated with its NAAC accreditation status, a relevant metric for VNSGU. Similarly, Yumnam and Singh (2021)analyzed central university libraries in North East India, emphasizing that websites must provide authentic, user-friendly, and dynamic information to be effective.

2.2. Webometrics and State Universities

In a broader regional study, Tandel et. al., (2022) performed a webometric analysis of state universities in Gujarat. Their study emphasized that university websites serve as "gateways of the virtual location," critical for accessing catalogues and electronic databases. They found that while infrastructure details were common, high-impact features like integrated research repositories were less uniformly distributed across the state's universities. This sets a benchmark against which VNSGU's performance can be measured.

2.3. Accessibility and Inclusivity

A growing body of literature focuses on web accessibility for users with disabilities. Garg and Sharma (2017) utilized the WAVE tool to evaluate Indian university library websites, finding that many still lag in compliance with Web Content Accessibility Guidelines (WCAG). However, the integration of assistive technologies is becoming a new standard for excellence. Kumari and Verma (2020) argue that true digital inclusion requires both software accessibility and hardware support (like screen readers), a standard VNSGU attempts to meet with its KIBO devices.

2.4. Digital Repositories and Shodhganga

The role of digital repositories in enhancing research visibility is well-documented. Panda (2016) and Garg and Sharma (2017) have extensively studied the impact of Shodhganga, noting that it has democratized access to doctoral theses and reduced plagiarism. They posit that a library's active participation in Shodhganga is a primary indicator of its support for Open Access initiatives.

2.5. E-Resource Management

Recent literature emphasizes the transformative potential of centralized digital repositories in democrati-

zation of knowledge. Negi and Goel (2025) argue that the "One Nation One Subscription" (ONOS) initiative serves as a revolutionary model for resource equity, effectively bridging the digital divide by providing uniform access to high-impact journals across diverse user demographics. This shift towards centralized access is critical for state universities transitioning from legacy systems. For instance, in a closely related case study, Sharib et al. (2024) evaluated the Tagore Library at the University of Lucknow. Their webometric analysis revealed that while electronic resources were quantitatively well-represented, significant qualitative improvements were needed in content organization and information architecture - a structural challenge that many traditional academic libraries, including VNSGU, currently face.

3. Objectives of the Study

1. To evaluate the current status of the VNSGU University Central Library website in terms of information dissemination.
2. To analyze the collection strength (print and digital) as presented on the web portal.
3. To assess the extent of ICT-enabled services and e-resource accessibility provided to users.
4. To examine the library's support for research scholars and inclusivity for Divyangjan (users with disabilities).
5. To compare the VNSGU library's digital profile with established standards in the LIS literature.

4. Methodology

This research utilizes a Descriptive Content Analysis method. The study involves a thorough audit of the VNSGU University Central Library's web pages and associated digital documents (PDF forms, brochures) available as of October 2025.

Data Collection Instrument: A standard checklist was developed based on parameters from relevant literature (Madhusudhan, 2012; Sawai & Chavan, 2023). The checklist includes 50 items categorized into five zones:

1. General Info: History, Location, Hours, Vision.
2. Collection: Books, Theses, Journals, Rare Books.
3. E-Resources: Databases, Consortia, Remote Access.
4. Services: Reprography, Plagiarism Check, Internet Access.
5. Web 2.0/Interaction: Feedback forms, Social Media, FAQs.

Data Analysis: The presence or absence of these features was recorded (Binary 0/1 coding), and quantitative data (numbers of books, square footage) was extracted for qualitative assessment.

5. Data Analysis and Findings

5.1. General Information and Infrastructure

The content analysis reveals that the VNSGU library operates with a clearly defined identity. Established in 1967 and moving to its separate building in 1976, the library occupies a substantial construction area of 28,000 sq. ft..

- **Accessibility:** The website highlights user-centric hours, operating from 6:30 a.m. to 10:00 p.m. every day, including Sundays and public holidays. This explicit mention of extended hours on the website signals a commitment to student success, aligning with the "third place" theory in library science where libraries serve as social and intellectual hubs.

- **Vision and Mission:** The web content articulates a mission to "develop a comprehensive collection" and "provide efficient dissemination of knowledge". The vision extends beyond mere academics to creating a "healthy and friendly atmosphere," positioning the library as a community hub.

5.2. Collection Analysis: A Hybrid Repository

The core strength of any library is its collection. The VNSGU website provides detailed statistical transparency regarding its holdings, current up to March 2024.

- **Print Collection:** The library houses a massive collection of 210,001 print books. This is supplemented by a significant academic output of 11,352 dissertations and 2,862 hard-copy theses.
- **Rare and Special Collections:** A distinguishing feature found in the content analysis is the "Rare Collection" of 1,926 books dating from 1809 to 1947. Additionally, the library dedicates separate corners to national icons, including Mahatma Gandhi, Sardar Patel, and Dr. B.R. Ambedkar, ensuring that the collection serves a cultural preservation role alongside its academic one.
- **Government Documents:** The library serves as a depository for government data, holding 703 Census reports, 133 Lok Sabha debates, and 260 Gujarat Legislative Assembly debates.

5.3. E-Resource Infrastructure and Digital Access

The analysis confirms that VNSGU has aggressively pivoted toward digital resource management, utilizing the website to facilitate remote access.

- **Consortia and Subscriptions:** The library is a beneficiary of the "One Nation One Subscription" (ONOS) initiative and provides access to over 5,200+ e-journals via INFLIBNET. This is a critical indicator of the library's status as a research-intensive hub.
- **E-Books:** The digital book collection includes 2,493 titles, comprising 694 purchased for lifetime access and 1,000 gifted titles. Furthermore, the website promotes an Amazon Kindle Unlimited subscription, expanding potential access to approximately 20 lakh e-books. This is a highly innovative service for a state university, rarely seen in comparable content analyses.
- **Databases:** Specialized academic needs are met through subscriptions to 7 e-databases and the IBM SPSS package for the Department of Economics.

5.4. Service Evaluation: Technology and Inclusivity

The website profiles a wide array of services that go beyond simple book lending.

- **Automation:** The library is fully automated using SOUL 3.0 software. The Web OPAC (Online Public Access Catalogue) is highlighted as a tool for searching and retrieving information via a "powerful, accurate and faster search engine".
- **Connectivity:** The digital infrastructure is supported by VNSGU Fiber Optics and high-speed BSNL connectivity, offering Wi-Fi (NAMO) to users.
- **Inclusivity (Divyangjan Support):** A major finding of this analysis is the library's emphasis on accessibility. The website lists the KIBO XS Device, a multilingual scanning and reading tool for blind users. Combined with ramps and specialized chairs, the library demonstrates a high level of compliance with inclusivity standards, addressing the gaps often cited in accessibility literature (Sharma & Choudhary, 2024).
- **Research Support:** The "Shantaben Ishwarbhai Savani" Research Repository Center is a dedicated facility profiled on the site. It offers plagiarism detection services, separate reading rooms for researchers, and facilitates the uploading of theses to the Shodhganga platform (with 3,200 theses currently uploaded).

5.5. Staffing and Administrative Transparency

The website maintains transparency regarding its administration, listing qualifications for all key staff.

- **Leadership:** The library is headed by I/c. University Librarian Dr. Parul R. Patel and Deputy Librarian Dr. Jiteshkumar K. Topiwala, both holding Ph.D.s in Library and Information Science.
- **Professionalism:** The support staff, including Junior Library Assistants and clerks, largely hold professional degrees (B.L.I.Sc/M.L.I.Sc), indicating a workforce capable of managing complex information queries.

6. Discussion

The content analysis of the VNSGU library website paints a picture of an institution that is successfully managing the "hybrid" library model - balancing a massive physical inventory with cutting-edge digital services.

Comparative Analysis: When compared to the findings of Tandel et al. (2022) regarding Gujarat universities, VNSGU appears to perform above the average, particularly in the provision of specialized research tools (SPSS, Shodhganga) and assistive technology (KIBO). While many libraries provide basic OPAC services, VNSGU's integration of the "One Nation One Subscription" (ONOS) and Kindle Unlimited places it at the forefront of digital resource delivery.

Research Visibility: The explicit detailing of the Shodhganga contribution (3,200 theses) is significant. According to Panda (2016), high contribution rates to national repositories correlate with increased institutional ranking and visibility. VNSGU's transparent data on this front underscores its active role in the national research ecosystem.

User-Centric Architecture: The clear segmentation of services - from the "Book Gallery" for new arrivals to the "Research Repository" for scholars - suggests a user-centric web architecture. This aligns with Yumnam and Singh (2021), who argue that successful library websites must cater to distinct user personas (e.g., undergraduates vs. Ph.D. scholars) effectively.

7. Conclusion and Recommendations

The content analysis of the Veer Narmad South Gujarat University Library website reveals a highly sophisticated, user-centric, and technologically advanced information center. The library successfully bridges the gap between traditional print collections and modern digital demands. Key strengths include:

1. Statistical Transparency: Clear data on collections builds trust.
2. Research Focus: The dedicated repository and Shodhganga integration support the university's doctoral output.
3. Inclusivity: The KIBO device and accessible infrastructure are highlighted effectively.

Recommendations:

To further elevate its standing, the following strategic enhancements are proposed:

- Web 2.0 Integration: The library should integrate interactive features such as a "Librarian Chat" widget and RSS feeds for new arrivals to foster real-time engagement.
- Dedicated Library Domain: Currently, the library exists as a sub-directory of the university site. It is recommended to establish a dedicated subdomain (e.g., library.vnsgu.ac.in). A distinct library domain improves Search Engine Optimization (SEO), makes the URL easier for users to recall, and provides a unique digital identity separate from the main administrative website. This "domain authority" is crucial for modern digital libraries to be indexed effectively by global academic search engines.

8. References

1. Garg, K. C., & Sharma, C. (2017). Bibliometrics of Library and Information Science research in India during 2004-2015. *DESIDOC Journal of Library & Information Technology*, *37*(3), 221–227. https://doi.org/10.14429/djlit.37.3.11188
2. Kumari, P., & Verma, S. (2020). Website Accessibility Evaluation of National Institutes under the DEPWD Ministry of Social Justice & Empowerment. *Library Philosophy and Practice*. https://digitalcommons.unl.edu/libphilprac/
3. Madhusudhan, M. (2012). Content Evaluation of Indian Institutes of Technology Library Websites in India. *World Digital Libraries: An International Journal*, *5*(2), 1–20. https://doi.org/10.3233/WDL-120087
4. Negi, D. S., & Goel, S. (2025). One Nation One Subscription (ONOS) in Promoting Higher Education in India: Library Perspective. *International Journal of Information Dissemination and Technology*, *15*(1), 22–24. https://doi.org/10.5958/2249-5576.2025.00004.7
5. Panda, S. K. (2016a). Shodhganga – a national level open access ETD repository of Indian electronic theses: Current status and discussions. *Library Hi Tech News*, *33*(1), 23–26. https://doi.org/10.1108/LHTN-09-2015-0062
6. Panda, S. K. (2016b). Shodhganga – a national level open access ETD repository of Indian electronic theses: Current status and discussions. *Library Hi Tech News*, *33*(1), 23–26. https://doi.org/10.1108/LHTN-09-2015-0062
7. Sawai, A. B., & Chavan, S. P. (2023a). Content Analysis of University Libraries Websites in Maharashtra: A Study. *Indian Journal of Library and Information Science*, *17*(2), 145–150. https://doi.org/10.21088/ijlis.0973.9548.17223.4
8. Sawai, A. B., & Chavan, S. P. (2023b). Content Analysis of University Libraries Websites in Maharashtra: A Study. *Indian Journal of Library and Information Science*, *17*(2), 145–150. https://doi.org/10.21088/ijlis.0973.9548.17223.4
9. Sharib, M., Ansari, M. A., & Eqbal, N. (2024). Content analysis and web design of library website of the university of Lucknow: An evaluative study. *Pearl : A Journal of Library and Information Science*, *18*(4), 235–243. https://doi.org/10.5958/0975-6922.2024.00026.3
10. Tandel, B., Gandhi, S., & Gandhi, V. K. (2022). Websites of State Universities in Gujarat: A Webometric Analysis. *Journal of Emerging Technologies and Innovative Research*, *9*(11).
11. Vasishta, S. (2013). Dissemination of electronic journals: A content analysis of the library websites of technical university libraries in North India. *The Electronic Library*, *31*(3), 278–289. https://doi.org/10.1108/EL-03-2011-0038
12. Yumnam, G., & Singh, Ch. I. (2021a). Content analysis of library websites of central universities of North East India. *IP Indian Journal of Library Science and Information Technology*, *6*(1), 9–13. https://doi.org/10.18231/j.ijlsit.2021.003
13. Yumnam, G., & Singh, Ch. I. (2021b). Content analysis of library websites of central universities of North East India. *IP Indian Journal of Library Science and Information Technology*, *6*(1), 9–13. https://doi.org/10.18231/j.ijlsit.2021.003