Library Websites of Universities in Karnataka State: An Evaluative Study

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Abstract

Library website is a showcase to the world and in fact a mirror of the library depicting its profile, activities, services and innovative practices for the benefit of the society as a whole. In this context, Library managers as Content Managers in the Internet era have designed library websites as a part of its parent institution and this study attempts to evaluate the library websites of Universities in Karnataka comprising of 16 General State Universities including a Central university and eight subject based universities of Karnataka state. The study evaluates these library websites and results are reported with respect to its content, information pertaining to library basics, services, collections, search tools, number of links, performance grade, load time and page size

Keywords

Library Portals, Library website, Library Marketing, Content Management, Universities-Karnataka

Electronic access

The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 3. No.3. 2014. Pp195-202

LIBRARY WEB SITE: A Mirror of the Library

The Internet has emerged as a *de facto* global distribution medium for electronic information, in particular for academic information. Web publications from university campus sites and pre-print archives are flourishing on the Net. Refereed journal articles and article abstracts are increasingly accessible via web delivery from commercial publishers, research libraries and other intermediaries. Subject guides for the higher education and research community, providing links to high quality Internet resources, are becoming increasingly important discovery tools[1] (Vander and Werf-Davelaar, 1999). Perhaps no innovation has impacted the library profession to such a great extent as the Internet, World Wide Web and networked resources especially in the context of national consortia's like UGC Infonet, CeRA, Helinet, INDEST etc.

The quantity and quality of information on the Internet is escalating day by day to an unprecedented rate and there is a need to critically assess the quality of Web sites and determine the extent of its user friendliness and its ability to meet user requirements. The Library professionals as Knowledge Manager or Internet Librarian have been developing library website, as a means to market its information products and services providing useful information about its profile, collections, facilities and digital library services.

Library website has become a Sine-Qua-non for any academic institution either college or university setup to integrate its resources and services under one umbrella – known as Library Website and as such special care has to be taken in designing and developing functionable website from the perspective of user needs. In fact, the accreditation agencies like National Assessment and Accreditation Council (NAAC) advocates for Library website. Hence library websites plays dominant role in marketing their information products and services for information accessibility and use. McGills and Toms[2] (2001) study was to assess the usability of academic library web sites and found that despite their subjects success in completing tasks assigned participants experienced in knowing where to start with the site's information architecture – in particular, with interpreting the categories and labels. According to Palmer[3] (1999), the library web site might be able to function as sort of "electronic signpost" to address a number of problems in the existing provision of

information services, by means of publicizing the library and its services beyond its historical user base and immediate geographical catchments area; providing considerably enhanced access to library services and other electronic sources from home for staff during their working day; providing a window to selected, quality-filtered information geared to the specific needs and interests of practitioners working in mental health, and in community and primary care; offering an effective, customized means of access to the large variety of electronic journals which the library provides; and making available internal resources and products.

Library Website standards – CDLIL[4] (2001) provided guidelines for creating library web pages and specifications for each sub-heading required for library website. Further, the guidelines have been created by the World Wide Web Consortium (W3C) which has developed interoperable technologies i.e. specifications, software and tools to lead the Web to its full potential. The various formats of Image Bar Templates available on the Internet can also be used for creating the contents of main library web pages. According to the study by Chris Jasek[5] (2007) outlined the tips for effective designing of Library Websites to maximize usability by means of organizing the library website as one stop point to meet the user information needs.

- Matching the system and user activities:
  - Make the library website clear and offer it on home page and avoid librarian's jargon, but use simple terms keeping in view of user needs and requirements.
  - Not to overload the library website rather the need based.
  - Good performance of library website with respect to reliability of host, hardware, optimization and download time
- Flexibility and efficiency use
  - Organize information or sub-headings in multiple ways by type of materials or subject
  - Minimize the number of links
  - User friendliness in selecting resources on website
- Orientation, Navigation and Accessibility
  - Link library website directly from parent institutions home page
  - Consistent use of
    - links
    - design elements
    - few colours and graphics
    - search options and
    - better accessibility and testable website.

Today the library website has become a first step for information access to the students, research scholars and faculty in an academic and research environment to support their learning, teaching and research activities, as access to electronic resources both subscribed and consortia based (individual login or IP enabled), indigenous databases, Online Library catalogues, Institutional repository, virtual reference services and even remote access facility starts from Library home page. Thus library website is very critical as it reflects the mirror of library accessible 24x7 irrespective of region and therefore existing library website standards needs to be peeped in before designing and developing library website.

LITERATURE REVIEW

Vasishta[6] (2013) analyzed the websites of technical university libraries to ascertain that libraries are effectively utilizing their respective websites to provide trouble-free access to electronic journals available in the library. The study reveals that technical university libraries are trying to set up useful websites but the library websites of most of the institutes seem to be at primitive stage. Prakash[7] (2013) evaluated content of Central University Libraries Websites in India focusing on the information like features of the library websites, online library services, links to other information sources, value added services and so on.

Walia, and Gupta[8] (2012) examines the websites of national libraries to find out their web impact factor and amount of information present on these websites in the form of rich files by analyzing the link structure of data collected between December 2009 and January 2010. Results found that among the selected national libraries, websites of national libraries' of America, Australia and Britain were more visible and hosted the more content compare to the websites of India, Namibia, and South Africa. Kalra and Verma[9] (2011) evaluated the library websites of selected research institutions in India both quantitatively and qualitatively and reveals that there are many inconsistencies and terminological issues and many effective methodologies/techniques for websites evaluation which are practiced at international level but are not being used in such

studies in India. Shukla, and; Tripathi[10] (2010) made a comparative study of 20 central universities and 19 institutes of national importance including Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs) academic libraries from India using a a method to measure Overall Website Performance Calculation (OWPC) and Criteria-wise Website Performance Calculation (CWPC) of library websites.

Babu and Sunil[11] (2008) evaluated the Indian Institute of Technology Library Websites using criteria for the verification of validity, reliability and usefulness of the criteria and found that these library websites have dynamically creative web sites and improvement on the design and layout have been made quite progressively. Lihitkar, Shalini and Sarode, Pratibha[12] (2006) studied 18 websites of Library and Information Networks in India using criteria like contact details, authority, hyperlinks, content coverage, ease of navigation, database, and E-Journals in the websites. Jange and Others[13] (2006) analyzed the library web portals of academic institutions in Karnataka in order to enhance the effective use of library web sites to become more user friendly for information access.

OBJECTIVES OF THE STUDY

The objectives of the study are

- To determine the basic information about the library pertaining to books, journals and other information services and its positioning from its parent institution webpage,
- To determine the type of information content (structured or linear) and the number of links provided to the website,
- To understand whether the library websites makes provision for searching information (within and global), Web OPAC facility, Virtual reference services, and useful links,
- To evaluate the performance of library websites with respect to performance grading, load time of website, page size and the extent of web 2.0 applications to the library website.

METHODOLOGY

The Library websites of universities in Karnataka both state universities and central university (16) and subject based universities (8) have been taken for the study and the contents are analyzed based on the studies conducted by Ebenezer[14] (2001), Spool[15] (2001) and guidelines of Indiana State University[16]. These university library websites are evaluated with respect to its content particularly website positioning, type of content, number of links, basic information about library, collections – books, journals and e-resources, retrieval tools – search interfaces , web OPAC, Virtual reference Services, Web 2.0 applications and library website performance. Performance grade is computed using `Pingdom Website Speed Test' (http://tools.pingdom.com/fpt/) based on the performance of library website with respect to performance grading, load time of website, page size.

RESULTS AND DISCUSSION

Library website has been an electronic signpost of democracy reflecting its strength to the world and it is one of the marketing strategies of Librarians to promote its resources and services. As such, efforts were made to analyze the structural profile of library websites of universities in Karnataka (Table 1) and information content and performance of library websites have been depicted in Table 2 and results found as under :

- Mysore University is one of the oldest universities in Karnataka established during 1916 and the new universities established very recently are Central University of Karnataka, Gulbarga (CUK) (2009) and Vijayanagara Sri Krishnadevaraya University, Bellary (2010), Rani Channamma University, Belgaum (2010), Karnataka Samskrit University (2010) and Karnataka Folklore University, Haveri (2010). Except Mysore University Library, Karnatak University, Dharwad and Gulbarga University, Gulbarga, the remaining universities in Karnataka are managed by Incharge Librarians (N=13, 77%), which is also one of the factors affecting the design, content and updation of library websites (Table 1).

- Positioning of library websites has been found in almost all the universities at first level from its parent institutions website. Among the sixteen universities, Gulbarga University, Gulbarga (links-20); Mysore University Library, University of Mysore (links-16); Karnataka State Open University Library, Mysore (links-13); Kuvempu

University Library, Shimoga (links-12);

- Gulbarga (links-10) and Karnatak University, Dharwad (links-9) has structured library websites in which Gulbarga university library has more number of links as compared to other university library websites (Table 1).

- Out of 16 universities, nine university libraries (56.25%) do not have structured websites rather they contain very basic information in linear fashion without any links and they are Bangalore University Central University of Karnataka, Library, library, Bangalore; Kannada University Library, Hampi; Karnataka State Women's University library, Bijapur; Tumkur University Library, Tumkur; Karnataka State Dr.Gangubai Hanagal Music and Performing Arts University, Mysore; Vijayanagara Sri Krishnadevaraya University Library, Bellary; Rani Channamma University; Karnataka Samskrit University Library and Karnataka Folklore University library, Haveri (Table 1).

Table 1: Structural Library Website Profile of Universities in Karnataka (N=16)

No.	University Library with its website	Year established	Librarian Full Time	Access Level – Home Page	Content-Structured/ Linear Text	No. of Links
1.	Mysore University Library, University of Mysore, Mysore (MUM) (http://www.uni-mysore.ac.in/library/index.html)	1916	No (In-charge)	First	Structured	16
2.	Karnatak University, Dharwad (KUD) (http://www.kudlibrary.org/)	1950	Yes	First	Structured	9
3.	Bangalore University, Bangalore (BUB)http://www.bangaloreuniversity.ac.in/library/library.aspx)	1964	No (In-charge)	First	Linear (single)	Single
4.	Mangalore University, Mangalore (MLUM) (http://www.mangaloreuniversity.ac.in/xampp/services/library.htm)	1980	Yes	First	Structured	4
5.	Gulbarga University, Gulbarga (GUG) (http://new.guglibrary.net/)	1980	Yes	First	Structured	20
6.	Kuvempu University Library, Shimoga (KUS)http://www.kuvempu.ac.in/library.ht	1987	Yes	First	Structured	12
7.	Kannada University Library, Hampi (KUH) (http://www.kannadauniversity.org/KN/aboutus.html#about4)	1991	No (In-charge)	First	Linear (single)	Single
8.	Karnataka State Open University Library, Mysore (KSOU) (http://karnatakastateopenuniversity.in/library)	1996	Yes	First	Structured	13
9.	Karnataka State Women's University, Bijapur (KSWUB) (http://www.kswu.ac.in/	2003	No (In-charge)	First	Linear (single)	Single
10.	Tumkur University Library, Tumkur (TUT) (http://tumkuruniversity.in/index.php/university-library/)	2004	No (In-charge)	First	Linear (single)	Single*
11.	Karnataka State Dr.Gangubai Hanagal Music and Performing Arts University, Mysorehttp://www.musicuniversity.ac.in/index.php/en/)	2008	No (In-charge)	First	Linear (single)	Single
12.	Central University of Karnataka, Library, Gulbarga (CUK) (http://www.cuk.ac.in/library.html)	2009	No (In-charge)	First	Structured	10
13.	Vijayanagara Sri Krishnadevaraya University Library, Bellary (http://vskub.ac.in/library.html)	2010	No (In-charge)	First	Linear	2
14.	Rani Channamma University	2010	No	First	Linear	Single

	(http://rcub.ac.in/the-university)		(In-charge)			
15.	Karnataka Samskrit University Library (http://www.ksu.ac.in/en/infrastructure/libra	2010	No (In-charge)	Second	Under construction	
16.	Karnataka Folklore University, Haveri (http://www.janapadauni.in/kannada/)	2010	No (In-charge)	Second	Linear	Single

Web Site Contents		**MUM**	**KUD**	**BUB**	**MLUM**	**GUG**	**KUS**	**KSOU**	**CUK**
Library basics	*About the library*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Library news	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Contact	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Library staff	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Search within Library page		No	Yes	No	No	No	No	No	No
Library services									
Books	Our book stock	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	New Arrivals	Yes	Yes	No	Yes	Yes	No	Yes	
	Library Rules	Yes	No	No	No	Yes	No	Yes	Yes
	Inter-library loans and article requests	Yes	Yes	No	Yes	Yes	Yes	Yes	
Journals	Journals Stock	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	New Issue Arrivals	Yes	Yes	No	Yes	Yes	No	Yes	No
	Print journal's list	No	Yes	No	No	No	Yes	Yes	No
	Library Holdings	Yes	Yes	No	No	No	No	No	No
Online Sources	UGC Infonet								
	Fee-based	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Web OPAC	Web OPAC	Yes	No	No	Yes	Yes	No	Yes	
Useful Links	Free Web databases/ Others	Yes	Yes	No	Yes	Yes	No	No	Yes
FAQs/ Feedback form/ Ask Librarian		No	No	No	No	Yes	No	No	
Last Update		No	No	No	No	No	No		No
Number of Visitors on website		No	No	No	No	Yes	No		No
Performance Grade		88/100	70/100	81/100	81/100	80/100	75/100	74/100	84/100
Load Time (In Seconds)		3.44	3.61	4.28	3.63	1.33	3.03	6.91	693 ms
Page Size (In Kilo Bytes)		774.7	535.5	453.1	293.7	318.7	195.2	897.1	1.2 MB
Web 2.0 Applications (RSS,Blog,Wiki, Podcast,IM etc.)		No	No	No	No	No	No	No	No

Table 2: Information Content and Performance of Library Website of Universities in Karnataka (N=8)

- All the eight universities as shown in Table 2 contain basic information about the library, news, and contact and library staff. Only Karnatak University Library, Dharwad has incorporated Search facility within the library website.
- Information pertaining to library rules is provided on library websites of Mysore University, Gulbarga University, Karnataka State Open University and Central University of Karnataka, Gulbarga. As far as library holdings data, it is only Mysore University and Karnatak University, Dharwad libraries have provided such data on their respective websites (Table 2).

- Except Bangalore University Library, all the remaining library websites provide information about UGC Infonet e-resources and subscribed e-resources. However, except Bangalore University, Kuvempu University and Karnataka State Open University, the remaining universities provide useful links on their respective websites (Table 2).
- WEB-OPAC is available and linked by university libraries of Mysore University, Gulbarga University, Mangalore University and Karnataka State Open University on their respective websites (Table 2).
- It is only Gulbarga University Library provided `Ask Librarian' – virtual email reference service online from their library portal (Table 2).
- No library website provided date of last update on their library websites and only Library, University of Mysore (through WEB-OPAC) and Gulbarga University library has provided number of visitors on their website.
- Performance grading of library websites has been found to be high among Mysore University Library, University of Mysore, Mysore (88/100) and load time of home page is found to be very fast in case of Gulbarga University library with just 1.33 seconds. However, Central University of Karnataka has maximum page size with 1.2 MB whereas Kuvempu University has only 195.2 KB page size (Table 2).
- Except Rajiv Gandhi University of Health Sciences Library, Bangalore, all the remaining seven university libraries do not have full time librarian. University of Agricultural Sciences, Raichur has not provided information about library activities and services (Table 3).
- All the libraries except University of Agricultural Sciences, Raichur has positioned their library website from their parent institution at first level with five university libraries have structured library content (Table 3).

Table 3: Structural Library Website Profile of Subject Based Universities in Karnataka

No.	University Library with its website	Year established	Librarian Full Time	Access Level – Home Page	Content-Structured/ Linear Text	No. of Links
1.	University of Agricultural Sciences Library, Bangalore (UASB) (http://www.uasbangalore.edu.in/index.php/library)	1964	No (In-charge)	First	Structured	6
2.	University of Agricultural Sciences Library, Dharwad (UASD) (http://www.uasd.edu/index.php/library)	1986	No (In-charge)	First	Structured	13
3.	National Law School of India University (NLS) (https://www.nls.ac.in/index.php?option=com_content&view=article&id=146&Itemid=7)	1987	NA	First	Structured	6
4.	Rajiv Gandhi University of Health Sciences Library, Bangalore (RGHUS) (http://www.rguhs.ac.in/)	1996	Full Time	First	Structured	10
5.	Visveswaraiah Technological University Library, Belgaum (VTU) (http://library.vtu.ac.in/)	1998	NA	First	Structured	10
6.	Karnataka Veterinary, Animal & Fisheries Sciences University (KVAFS) (http://www.kvafsu.kar.nic.in/)	2004	No (In-charge)	First	Linear (single)	Single
7.	University of Agricultural Sciences, Raichur (UASR) (http://www.uasraichur.edu.in/)	2008	No (In-charge)	NA	NA	NA
8.	University of Horticultural Sciences (UHS), Bagalkot (http://www.uhsbagalkot.edu.in/library.aspx)	2008	No (In-charge)	First	Linear (single)	Single

- University Library of Agricultural Sciences Library, Dharwad has provided 13 sub-headings (links) from their website for useful information and ten links have been provided by libraries of Rajiv Gandhi
- University of Health Sciences Library, Bangalore and Visveswaraiah Technological University Library, Belgaum. Library staff information is not available from the library Website of National Law School of India University (NLS) (Table 4).
- Only Library of Agricultural Sciences Library, Dharwad provided search facility to search the information within its library website and also provided information about library rules. RGHUS also provided information library rules on their website. (Table 4).

Table 4:Information Content and Performance of Library Website of Subject Based Universities in Karnataka

Web Site Contents		**UASB**	**UASD**	**NLS**	**RGUHS**	**VTU**
Library basics	*About the library*	Yes	Yes	Yes	Yes	Yes
	Library news	Yes	Yes	Yes	Yes	Yes
	Contact	Yes	Yes	Yes	Yes	Yes
	Library staff	Yes	Yes	No	Yes	Yes
Search Option within website		No	Yes	No	No	No
Library services						
Books	Our book stock	Yes	Yes	Yes	Yes	Yes
	New Arrivals	Yes	Yes	Yes	Yes	Yes
	Library Rules	No	Yes	No	Yes	No
	Inter-library loans and article requests	Yes	Yes	No	Yes	No
Journals	Journals Stock	Yes	Yes	Yes	Yes	Yes
	New Issue Arrivals	No	Yes	No	Yes	Yes
	Print journal's list	No	Yes	No	Yes	No
	Library Holdings	No	Yes	No	Yes	No
Online Sources	CERA/ HELINET					
	Fee-based online databases	Yes	Yes	No	Yes	Yes
Web OPAC	Web OPAC	Yes	Yes	Yes	No	Yes
Useful Links	Free Web databases/ Other resources	No	No	No	Yes	Yes
FAQs/ Feedback form/ Ask Librarian		No	No	No	No	Yes
Performance Grade		82/100	78/100	76/100	75/100	90/100
Load Time		3.25 s	7.67 s	14.3 s	2.10 s	6.78 s
Page Size		933.9 k	1.0 MB	1.2 MB	66 kb	915.8 kb
Web 2.0 Applications (RSS,Blog,Wiki,Podcast,IM etc.)		No	No	No	No	No

- Except National Law School of India University, remaining libraries provided fee based e-resources on their portal and only RGHUS provided useful links. Web OPAC has been integrated in the websites except RGHUS library, but it has strong Institutional repository facilitating searching thesis and question papers (Table 4).
- Performance grading of Visveswaraiah Technological University Library, Belgaum and University of Agricultural Sciences Library, Bangalore has been found to be 90 and 82 respectively. Library website of Rajiv Gandhi University of Health Sciences Library, Bangalore takes only 2.10 seconds to load page and National Law School of India University has maximum of 1.2 MB page size (Table 4).
- None of the university library websites under study has made use of any Web 2.0 applications on their websites (Table 2 and 4).

As a whole, among the 16 university libraries under study and based on the results, Mysore University Library, University of Mysore, Mysore has an edge over others and then followed by Gulbarga University Library, Karnatak University Library, Dharwad, Mangalore University Library, Central University of Karnataka, Gulbarga and Kuvempu University Library are found to be appealing with respect to presentation, layout, colour, content, services, retrieval tools, number of links, performance grade, load time and page size.

CONCLUSION

Today in the changing information landscape of e-information, wherein the role of traditional librarian has drastically changed and mere proclaiming librarians as Internet or Knowledge or Content Managers would be of less value unless justification is done in true spirit by creating comprehensive and pertinent library website either on their own or through web masters. Library website reflects the mirror of the library and taking into consideration of existing guidelines and standards, library website has to be designed and developed. Looking into the existing well designed library websites, meaningful and an ideal library website can be designed. The results are of course encouraging, but still most of the websites either academic or subject based universities have to strengthen their library website with content and performance.

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