

Web Content and Design Trends of Indian Institutes of Management (IIMs) Libraries Website: An Analysis

Manoj Kumar Verma* and Ksh. Krishna Devi**

Department of Library & Information Science, Mizoram University, Aizawl
*E-mail: *manojdlis@mzu.edu.in; **krsna.devi@gmail.com*

ABSTRACT

Website plays an important role in every institution and every organisation. Websites are the gateway to an institution through online mode. Libraries' websites webpages help the users to get all the information online related to the facilities and services provided by their respective libraries of an institution. IIM are the pioneer management institutions and the libraries website/web page are to be maintained properly where the information should be easily accessible by the user without any hindrance. The study is based on the information available in the library webpage of the concerned universities. A checklist was designed and the library web-pages were evaluated based on the previous evaluations of websites conducted by different authors.

Keywords: Library websites, library webpage, content analysis studies, web content, IIMs libraries website

1. INTRODUCTION

The present world is full of information and it has to be communicated in a proper way with the information seekers where Information Communication Technology plays an important role in the interaction of information with the people. The impact of ICT can be seen in every sphere of life. The World Wide Web has become the popular communication tool for accessing and sharing information on the internet. The easiest way for disseminating and communicating the information is done by the publication on the websites. Websites helps in accessing the universe of knowledge across the globe¹. Websites may be categorised according to the content; like homepages, advocacy pages, business pages, news pages and informational pages where library and information centre homepage belongs to the last mentioned type².

The universities, organisations and colleges maintain their own websites for the communication with their end users. The development of library websites was started in the 1990s³. The library website plays an important role for an institution. The library website/webpages are the primary source of information where they provide information for their users. There are very few institutions which don't have library websites. With the growth of the library websites, it is needed to be evaluated from time to time.

Content analysis has been used in many fields to examine websites and the impact of design elements and to establish best practices for content creation and design⁴. The important part of any website is that, it has to be up-to-date; information should be easily accessible and

maintained properly. The library website is known as the gateway of an institution where they can communicate information with their users. The analysis of library website is an important practice and it has to be done from time to time.

1.1 Indian Institutes Of Management (IIMs)

The Indian Institutes of Management (IIMs) are located in different parts of the country, India, for providing high quality management education to the various sectors of the Indian economy. There are altogether thirteen (13) IIMs in the country. The IIMs are the premier management institutions. They have earned an international reputation. The IIMs are the registered Societies governed by their respective Board of Governors. The IIMs located at Ahmedabad, Kolkata, Bangalore, Lucknow, Indore, Kozhikode and Shillong are the oldest IIMs established in the country. The other six (6) new IIMs have been set up during the XI Five Year Plan at Rohtak, Raipur, Ranchi, Tiruchirappalli, Kashipur and Udaipur. The IIMs conduct different courses like post-graduate diploma programmes; fellowship programmes; short-term management programmes; organisation-based programmes and research (<http://mhrd.gov.in/technical-education-3>). The list of IIMs along with the Library website/webpage links is shown in Table 1. The IIM Bangalore has been excluded from the present study because of the inaccessibility of the website during this survey.

2. REVIEW OF LITERATURE

The present study is focused on the content analysis of the IIMs libraries webpage/website. Many studies have

Table 1. List of Indian Institutes of Management (IIMs)

S. No.	Name of the institute	Library website/webpage	State
1.	IIM Ahmedabad	http://www.iimahd.ernet.in/library/	Gujarat
2.	IIM Raipur	http://www.iimraipur.ac.in/resour_Library.htm	Chhattisgarh
3.	IIM Rohtak	http://www.iimrohtak.ac.in/facilities/knowledge-resources-centre.html	Haryana
4.	IIM Ranchi	http://www.iimranchi.ac.in/?page_id=195	Jharkhand
5.	IIM Kozhikode	http://www.iimk.ac.in/libportal/	Kerela
6.	IIM Calcutta	http://library.iimcal.ac.in/	West Bengal
7.	IIM Lucknow	http://ganga.iiml.ac.in/~librarian/index.htm	Uttar Pradesh
8.	IIM Indore	http://www.iimdr.ac.in/facilities/library/	Madhya Pradesh
9.	IIM Udaipur	http://iimu.ac.in/campus/library.html	Rajasthan
10.	IIM Shillong	http://www.iimshillong.in/iim-shillong/knowledge-centre.asp	Meghalaya
11.	IIM Tiruchirappali	http://www.iimtrichy.ac.in/learning-resource-centre	Tamil Nadu
12.	IIM Kashipur	http://library.iimkashipur.ac.in/	Uttarakhand

already been conducted on the usability and performance evaluation of the libraries website but few have been studied on the websites content analysis.

Clausen⁵ studied an empirical survey of 12 Danish academic libraries websites on the basis of 38 website evaluation criteria under six category like design and structure, quality of information, links and navigation, aesthetic impression, miscellaneous, and general assessment and resolved that Danish Academic Libraries was average in comparison to that of websites in general. He also suggested that regular update of the library web sites was necessary for its development which can be done with the help of user studies and comparative evaluation suggested by the author. Michalec⁶ conducted web content analysis of 82 art libraries website and analysed the content, contact details, hours of operation, library collection, the library web pages, library OPAC, link to the parent institution, number of clicks required to navigate library information, link to search engines, link to reference assistance, up-to-date of the website, etc. He concluded that web site maintenance is the most important issue which is to provide webbased library services. Babu, Kumar & Gopalakrishnan⁷ examined 43 universities website in Tamil Nadu and revealed that the majority of the university websites in Tamil Nadu are not updated regularly so they have suggested for evaluating the websites from time-to-time by using established criteria like web design, accessibility, arrangement, etc. Qutab & Mahmood⁸ has analysed 52 websites of Pakistan including academic, special, public and national libraries with the help of 77 items checklist and found that the features like- accessibility, speed, navigation, etc., were highly observed in comparison to that of library functions like OPAC, circulation, reference and other services and suggested user centric studies to develop the interactive websites so as to fulfill the information seeking needs of users.

Kumar⁹, *et al.*, have studied the contents and usability of six IIMs (Bangalore, Ahmedabad, Calcutta, Lucknow, Indore, and Khozikode) libraries website on the basis

of about 60 criteria the study reveals that the basic and the required information are available in their respective IIMs libraries portals. They recommended that the date of updating must be mentioned in the library website as it shows the currency of information on the webpage. Aharony¹⁰ analysed the academic libraries website during 2000-2010. He selected 31 academic libraries homepage from the ACRL accredited LIS schools and study revealed that libraries website have changed over the ten years (2000-2010) with an immense use of e-journals and Web 2.0 applications. It is observed that graphics have been used in websites focusing in attracting their users. Joicy & Rekha¹¹ have analysed Central University websites of India and revealed that link analysis of the central universities websites is an unexplored area of webometric research. The study finds that all the basic information and details (history, links to contact, copyright, news and events, etc.) were available in the majority of the central universities website whereas very few websites provide opportunity for the user interaction in the form of feedback.

3. OBJECTIVES

- To analyse the web contents of the IIM libraries website
- To determine the library services and the facilities provided through their respective library website
- To suggest measures for the improvement of the IIM libraries website

4. METHODOLOGY

The survey method of research has applied and observation techniques have been used for data collection from the respective libraries website of IIMs. A checklist was designed for the data collection of the present study. On the basis of the previous evaluations of websites conducted by Michalec¹², Babu, Kumar & Gopalakrishnan¹³, NoaAharony¹⁴, Joicy & Rekha¹⁵, 112 criteria under the 10 headings were enumerated to

analyse the contents of the IIM libraries website. The data of webpage size and download speed have been collected after the analysis of the IIM libraries website URL respectively in the WebSiteOptimization.com (<http://www.websiteoptimization.com/services/analyze/>). The present study is confined to evaluate the web contents of 12 IIMs listed in Table 1. The selected libraries' websites were analysed at various times and the data were presented in tabular form and for analysis the data Microsoft Excel is used.

5. DATA ANALYSIS

5.1 Accessibility of Library Webpage

Out of the 13 IIMs, 12 IIMs' libraries website were evaluated (Table 1) and analysed for the present study. Two criteria are listed under the heading 'Accessibility of library web page'. Easy access to the information for the users from the home page is an important part of any website. It is required to be evaluated whether the library webpage is easily accessible from the home page or the links have been provided under facilities, quick links, etc. It is observed from the study that three library webpages have the direct links on the respective home page and they are, IIM Calcutta, IIM Indore and IIM Tiruchirappalli. The other 9 library webpages, IIM Ahmedabad, IIM Raipur, IIM Rohtak, IIM Ranchi, IIM Khozikode, IIM Lucknow, IIM Udaipur, IIM Shillong, and IIM Kashipur, have the links under facilities, quick links, etc.

5.2 Website Classification by Webpage Size

The site of any institute/organisation should be constructed in such a way that it should be accessed withinpersecond. The WebSiteOptimization.com (Web Page Analyzer Tool) is used for the data collection of the webpage size and the download speed of the particular libraries website. Table 2 depicts the total size of the website in bytes. For the present study 56K connection

rate was taken to represent the other connection rates. The IIM Ranchi (5474207 bytes) and Kashipur (3053348 bytes) have exceeded the maximum size (3000000 bytes) of the bytes so the data cannot be retrieved from the Web Page Analyer Tool. It is observed from the Table 3 that the download time at 56K is highest in IIM Khozikode (462.44s) because of the total size of the website and the total size of the images available in the site. When the size of the images is more then it will definitely take more time in downloading the page. In comparison to all the IIMs, webpage of IIM Lucknow (22.56s) takes the least time for downloading the page.

5.3 Website Descriptions

It is observed from the study that all the 12 IIMs websites are using graphics for providing the information and attracting the users to have a look on the facilities provided by the authorities about their respective institutes. Seven IIMs facilitate the site to view in more than one language, i.e., English and Hindi. The websites of IIM Calcutta, Lucknow, Udaipur, Shillong, and Kashipur provides the information only in English language.

5.4 Navigation

Table 3 shows the classification of websites with respect to navigation. In website design, navigation plays an important role which can be achieved by the proper titles and the links back to the homepage from any in-link webpage of the particular website. It is observed from the study that all the three criteria under Navigation have been fulfilled by the IIMs website.

5.5 Website Aids and Tools

The features under Table 4, website aids and tools, include four items: Search option, feedback link/form, RTI, and sitemap. IIM Ranchi and IIM Shillong websites don't provide the search option whereas sitemap is available in the 12 IIMs website. IIMs at Rohtak, Ranchi, Indore and Udaipur don't provide the feedback link/form in their

Table 2. Website classification by webpage size

S. No.	IIMs	Total size of the website in bytes	Total size of the images in bytes	Percentage of images in total size (%)	Download time at 56 K connection in s.
1.	IIM Ahmedabad	874417	471165	53.88	188.67
2.	IIM Raipur	196775	96972	49.28	41.42
3.	IIM Rohtak	599768	227200	37.88	134.13
4.	IIM Ranchi	-	-	-	-
5.	IIM Kozhikode	2191876	2131196	97.23	462.44
6.	IIM Calcutta	388900	328944	84.58	78.91
7.	IIM Lucknow	104158	6619	6.35	22.56
8.	IIM Indore	714821	502891	70.35	159.06
9.	IIM Udaipur	1037663	926253	89.26	219.60
10.	IIM Shillong	89061	41490	46.58	24.55
11.	IIM Tiruchirappali	283907	143325	50.48	63.98
12.	IIM Kashipur	-	-	-	-

Table 3. Classification of website on the basis of navigation

S. No.	Criteria	Frequency
1.	Page title appears in the top window bar	12
2.	Home link on library web page	12
3.	Page title describes content or location in site structure	12

Table 4. Website aids and tools

S.No.	Criteria	Frequency
1	Search option	10 (83.33 %)
2	Feedback	8 (66.67 %)
3	RTI	8 (66.67 %)
4	Sitemap	12 (100 %)

respective website. Further, IIMs at Ahmedabad, Calcutta, Lucknow and Shillong don't have the information about the RTI on their websites.

5.6 Website Authority Details

Authority means the author who is an expert and is responsible for the content available in the website. The information available in the website must be reliable and truthful. So, once the information is uploaded it has to be maintained regularly. The authority of the information is in the hands of the website's copyright who regularly update the date and avails the current information to its users. So, the authenticity of the information is confirmed by its authority only. The name of the maintaining authority must be given on the home page. It is observed from the study that out of the 12 IIMs only one IIM, i.e., IIM Ranchi does not provide information about the copyright statement and none of the IIM websites provide the information about the maintenance detail of the website.

5.7 Availability of Library Websites

Under the heading 'availability of library websites' two criteria have been listed, i.e., library has website/webpage or a page dedicated. It is observed that seven IIMs, viz., IIM Ahmedabad, Khozicode, Calcutta, Lucknow, Indore, Tiruchirappalli and Kashipur, have their own library webpage/website and the rest five IIMs, i.e., IIM Rohtak, Raipur, Ranchi, Udaipur and Shillong has a page dedicated for the library in their respective IIM website.

5.8 General Information of the Library Webpage

An institutions library portal must provide the general information about the library, like a brief introduction of the library, library news and events, library hours, library staff, library rules, membership details, etc. Table 5 provides the general information available in the library webpage of IIMs. All the IIMs libraries web page have given the information about the library. It is observed from the present study that only IIM Ahmedabad has provided the facility of library news and events;

Table 5. General Information of the library webpage

S. No.	Criteria	Frequency
1.	About the library	12 (100 %)
2.	Library news and events	1 (8.33 %)
3.	Library hours	8 (66.67 %)
4.	Library staff	6 (50 %)
5.	Floor plan/ location guide	3 (25 %)
6.	Membership details	3 (25 %)
7.	User orientation programme	1 (8.33 %)
8.	FAQs	3 (25 %)
9.	Library rules	6 (50 %)
10.	Mission statement/ objective/aims	3 (25 %)
11.	Library committee	1 (8.33 %)
12.	Date of updation	2 (16.67 %)
13.	Suggestion	2 (16.67 %)
14.	Library virtual tour	1 (8.33 %)
15.	Ask a librarian	5 (41.67 %)
16.	Library catalogue	1 (8.33 %)
17.	Help	1 (8.33 %)
18.	Future plans	1 (8.33 %)

library committee; library virtual tour. IIMs at Raipur, Ranchi, Udaipur and Shillong have not provided the information about the library hours in their respective library webpage. The information of library staff has given by the IIMs of Ahmedabad, Raipur, Khozicode, Calcutta, Lucknow, and Indore. The IIMs of Khozicode, Calcutta, and Lucknow have given information about the location guide in their web pages. The membership details have been provided by IIMs of Khozicode, Lucknow and Tiruchirappalli. The information about the user orientation programme has been given by IIM Calcutta only. FAQ is available in the library webpage of IIMs at Ahmedabad, Khozicode and Tiruchirappalli. The study reveals that library rules are available only in 6 IIMs, i.e., IIMs at Ahmedabad, Khozicode, Calcutta, Lucknow, Tiruchirappalli and Kashipur. Objective/Aims of the library is available in 3 IIMs, Lucknow, Indore and Tiruchirappalli. Date of updation is present in IIM Ahmedabad and IIM Lucknow. Suggestion is available in IIM Khozicode and IIM Calcutta only. Ask a librarian is present in IIMs of Ahmedabad, Khozicode, Calcutta, Lucknow and Kashipur. Library Catalogue and Help are present only in IIM Calcutta and the last criteria "future plans" of the library is available only in IIM Tiruchirappalli. It is observed from the study that IIM Ranchi, Udaipur and Shillong have only the information about the library under this broad heading.

5.9 Information about Library Collection

The library collection is the most important part in the library. The information about the library collection must be given in the library webpage. Table-6 provides the information about the library collection available in the respective library web page of IIMs. Journals information

is available in all the 12 IIMs. Except IIM Rohtak, the other 11 IIMs have given the information about books. Reference Sources is available in IIM Ahmedabad, Rohtak, Calcutta, Lucknow, Indore and Shillong library web page. The information on reports is given in the library web page of IIM at Ranchi, Khozikode, Calcutta, Lucknow, Indore and Kashipur. Information about Theses/Dissertation is available in IIMs of Ahmedabad, Khozikode, Calcutta, Indore, Shillong, Tiruchirappalli and Kashipur. Information about Newspaper/Magazines is available on IIM Raipur, Rohtak, Calcutta, Indore, Udaipur, Tiruchirappalli and Kashipur. Conference Proceedings is available only in IIM Indore library webpage. Students Project Report is available only in IIM Ahmedabad. Working Papers is available in the library web page of IIMs at Ahmedabad, Rohtak, Calcutta, Indore and Shillong.

Audio-visual material is available in IIMs of Khozikode, Calcutta, Lucknow and Kashipur. Information about the CDs/DVDs is available in the library web page of IIMs of Ahmedabad, Rohtak, Ranchi, Khozikode, Calcutta, Indore, Udaipur and Shillong. Information about CD ROM is available in IIMs at Khozikode, Indore and Kashipur. Only IIM Lucknow gives information about the microforms in their library website. IIM Tiruchirappalli and Kashipur provide information about the patents in their respective library webpage. Information about standards in IIM Kashipur, Software and Citing Sources are in IIM Tiruchirappalli; videos are available in the library web page of IIM Khozikode and IIM Shillong; case studies/notes are available in IIM Khozikode and IIM Indore.

Table 6. Information about library collection

S. No.	Criteria	Frequency
1.	Books	11 (91.67 %)
2.	Journals	12 (100 %)
3.	Reference sources	6 (50 %)
4.	Reports	6 (50 %)
5.	Theses/dissertations	7 (58.33 %)
6.	Newspaper/magazines	7 (58.33 %)
7.	Conference proceedings	1 (8.33 %)
8.	Students project reports	1 (8.33 %)
9.	Working papers	5 (41.67 %)
10.	Audio-visual material	4 (33.33 %)
11.	CDs/DVDs	8 (66.67 %)
12.	CD ROM	3 (25 %)
13.	Microforms	1 (8.33 %)
14.	Patents	2 (16.67 %)
15.	Standards	1 (8.33 %)
16.	Videos	2 (16.67 %)
17.	Case studies/notes	2 (16.67 %)
18.	Software	1 (8.33 %)
19.	Citing sources	1 (8.33 %)

5.10 Information about E-resources

In the age of ICT, most people prefer electronic resources comparing to that of printed. The electronic resources can be accessed easily with the help of technology. Table 7 provides the information about the e-resources available in the libraries web page of IIM. Under this heading, it includes e-journals, e-books, e-databases, institutional repository, e-theses & dissertations, etc. E-Databases are available in all the 12 IIMs. E-Journal links is available in 11 IIMs except in IIM Tiruchirappalli. E-Book is also available in 10 IIMs excluding IIM Rohtak and IIM Tiruchirappalli. Web OPAC is available in the library web page of IIMs at Ahmedabad, Khozikode, Calcutta and Tiruchirappalli. Institutional repository is available in internet in the library web page of IIM Ahmedabad, Khozikode and Lucknow. E-theses & dissertations are available in IIM Raipur, Ranchi and Khozikode. Online Newspaper link is available in 7 IIMs excluding IIM Ranchi, Indore, Udaipur, Shillong and Tiruchirappalli. INDEST and IIM Consortium links are available in IIM Khozikode and Calcutta. DSpace is available only in IIM Khozikode. Important and other links are available in IIM Ahmedabad, Khozikode, Calcutta, Lucknow and Tiruchirappalli. DELNET link is available only in IIM Lucknow and IIM Tiruchirappalli. NICMAN (National Information Centre on Management) is available only in IIM Ahmedabad.

Table 7. Information about e-resources

S.No.	Criteria	Frequency
1.	Web OPAC	4 (33.33 %)
2.	E-Journal	11 (91.67 %)
3.	E-Books	10 (83.33 %)
4.	Institutional repository	3 (25 %)
5.	E-databases	12 (100 %)
6.	E-theses & dissertations	3 (25 %)
7.	Online newspaper	7 (58.33 %)
8.	INDEST	2 (16.67 %)
9.	IIM consortium	2 (16.67 %)
10.	Dspace	1 (8.33 %)
11.	Links	5 (41.67 %)
12.	DELNET	2 (16.67 %)
13.	NICMAN	1 (8.33 %)

5.11 Information about Library Services

The library plays an important role in the dissemination of information by different services to their patrons. The library services may include; reference service, OPAC, inter-library loan, CAS, SDI, reprographic service, etc. Table 8 gives information about the library services available in the respective IIM library web page. It is observed from the present study that IIM Ranchi does not provide any services listed under Table 8 through their library webpage. The information on reference service is provided by 6 IIMs, i.e., IIM Ahmedabad,

Khozikode, Lucknow, Indore, Shillong and Kashipur. OPAC is accessible via intranet in 7 IIMs, viz., Raipur, Rohtak, Lucknow, Indore, Udaipur, Shillong and Kashipur. Classroom support; special access arrangement; document delivery service and media alert service are offered only in IIM Khozikode. Bibliography & documentation; children section and citation management tool services are offered only in IIM Lucknow. Information alert service is offered by 4 IIMs, viz., IIM Khozikode, Udaipur, Shillong and Kashipur. User instruction is offered in IIM Khozikode, IIM Lucknow and at IIM Kashipur. Remote access facility is offered by IIM Ahmedabad, Khozikode, Calcutta, Indore and Kashipur. Web scale discovery service is offered in IIM Ahmedabad, Khozikode and Lucknow. Inter-library loan is offered in IIM Ahmedabad, Khozikode, Calcutta, Lucknow, Indore, Udaipur, Shillong, Tiruchirappalli and Kashipur. The information of the reprographic service is offered in IIM Ahmedabad, Khozikode, Calcutta, Lucknow, Shillong, Tiruchirappalli and Kashipur. CAS is offered in IIMs at Udaipur, Shillong, Tiruchirappalli and Kashipur. SDI is offered in IIM Lucknow, Udaipur and Shillong. The information on newspaper clipping is offered only in IIM Shillong.

5.12 Value-added Services

The value-added service attracts the user towards the libraries and their webpages. Table 9 depicts the value-added services provided by the respective IIMs in their webpages. It is observed 'new arrival list' is offered by IIMs of Ahmedabad, Khozikode, Calcutta, Lucknow, Indore and Tiruchirappalli. 'Shelf guide' and 'number of visitors' are offered by IIM Ahmedabad. 'Book purchased detail' and 'library recommendation' is offered by IIM

Table 8. Information about library services

S. No.	Criteria	Frequency
1.	Research & reference services	6 (50 %)
2.	OPAC	7 (58.33 %)
3.	Curriculum support, class room support	1 (8.33 %)
4.	Special access arrangement	1 (8.33 %)
5.	Information alerts (email services)	4 (33.33 %)
6.	User instruction/assistance/awareness programs	3 (25 %)
7.	Remote access facility	5 (41.67 %)
8.	Web scale discovery service	3 (25 %)
9.	Inter-library loan	9 (75 %)
10.	Document delivery service (DDS)	1 (8.33 %)
11.	Reprographic services	7 (58.33 %)
12.	Media alert services	1 (8.33 %)
13.	Current awareness service (CAS)	4 (33.33 %)
14.	Selective dissemination of information (SDI)	3 (25 %)
15.	Newspaper clippings	1 (8.33 %)
16.	Bibliography & documentation	1 (8.33 %)
17.	Children section	1 (8.33 %)
18.	Citation management tool	1 (8.33 %)

Table 9. Value added services

S. No.	Criteria	Frequency
1.	New Arrival List	6 (50 %)
2.	Shelf Guide	1 (8.33 %)
3.	Book Purchased details	1 (8.33 %)
4.	Library Statistics	3 (25 %)
5.	Book Recommendations	5 (41.67 %)
6.	Library Recommendations	1 (8.33 %)
7.	Best user award	1 (8.33 %)
8.	Retrospective Searches	1 (8.33 %)
9.	Video Conference Lab	1 (8.33 %)
10.	No. of Visitor	1 (8.33 %)
11.	Book Display	4 (33.33 %)
12.	External Membership	3 (25 %)

Khozikode. Best user award "promoting reading habits and usability" is offered by, IIM Udaipur. Retrospective searches and video conference lab is offered by IIM Lucknow. The information on book display in the library is offered by IIM Calcutta, Indore, Tiruchirappalli and Kashipur. 'External membership' detail is offered by the IIMs of Lucknow, Indore and Udaipur.

5.13 Statement of Responsibility

The website must include all the possible contact details. The details include postal address, phone numbers, fax, e-mail ID, separate contact link, etc. Table 10 describes the responsibility-wise analysis of the IIMs library web page. It is observed from the present study that the postal address is available in all the 12 IIMs. Phone number of the library or the concerned people is available in IIMs of Ahmedabad, Raipur, Khozikode, Lucknow, Indore, Tiruchirappalli and Kashipur. Fax number is available in IIM Ahmedabad and IIM Lucknow. E-mail ID of the concerned people of the library is available in IIM Ahmedabad, Raipur, Khozikode, Calcutta, Lucknow, Indore, Tiruchirappalli and Kashipur. Separate contact link is available in IIM Ahmedabad, Lucknow, and Indore.

5.14 Web 2.0 Tools

Web 2.0 tools are mostly used by the people in every corner of the world. It keeps the people updated with the latest information. Under the heading Web 2.0 tools in Table 11, 8 criteria have been listed. It is observed from the study that none of the IIM websites have RSS Feed. Out of the 12 IIMs, 10 IIMs is providing the Facebook

Table 10. Statement of responsibility

S. No.	Criteria	Frequency
1.	Postal address	12 (100 %)
2.	Phone	7 (58.33 %)
3.	Fax	2 (16.67 %)
4.	E-mail ID	8 (66.67 %)
5.	Separate contact link	3 (25 %)

Table 11. Web 2.0 tools

S. No.	Criteria	Frequency
1.	RSS Feed	-
2.	Facebook	10 (83.33 %)
3.	YouTube	6 (50 %)
4.	Twitter	8 (66.67 %)
5.	Blog	7 (58.33 %)
6.	LinkedIn	7 (58.33 %)
7.	Google+	4 (33.33 %)
8.	Wiki	1 (8.33 %)

link, viz., IIM Ahmedabad, Raipur, Ranchi, Calcutta, Lucknow, Indore, Udaipur, Shillong, Tiruchirappalli and Kashipur. Next Twitter link is available in 8 IIMs, viz., IIM Raipur, Ranchi, Calcutta, Lucknow, Udaipur, Shillong, Tiruchirappalli and Kashipur. YouTube link is provided by IIM Raipur, Calcutta, Indore, Udaipur, Shillong and Tiruchirappalli. Blog link is provided by IIM Raipur, Ranchi, Khozikode, Calcutta, Udaipur, Tiruchirappalli and Kashipur. LinkedIn link is provided by IIM Raipur, Calcutta, Lucknow, Indore, Udaipur, Tiruchirappalli and Kashipur. Google+ is provided by IIM Ranchi, Udaipur, Shillong and Tiruchirappalli. Only IIM Ranchi has provided Wiki in their respective website.

7. SUGGESTIONS

The following are some of the suggestions brought out from the present study:

- (1) The IIMs are the pioneer institutes of management in India. So, the IIM website must provide their separate library website with attractivity and interactivity one and facilitating all the services available for their end users.
- (2) The library website/webpage must create in such a way that the user can open and access the page easily at just one single click within a second or few seconds. The more number of graphics used in the website may increase the download time of the website
- (3) The IIMs must include the copyright maintenance details in their website to make it effective
- (4) The dead links should be removed from the websites and the websites should be updated from time to time.
- (5) The IIM libraries websites must have the institutional repositories so that they can share the scholarly published literature among their students globally.

8. CONCLUSIONS

It is observed from the present study that all the IIMs library webpage is different in themselves in many respects. It is observed from the study that only 7 IIMs out of 12 IIMs have their separate library webpage. The other 5 IIMs; IIM Raipur, Rohtak, Ranchi, Udaipur and Shillong have a dedicated library page in their respective

IIM websites. It is recommended that each of the IIM institutes must have their separate library web page where they can independently provide all the information relating to the library services and facilities in their library webpages. This will help a great extent to the library users using the library website where they get all the information at one place. All the library webpage must have included phone numbers and email IDs of the responsive person of the library in their respective library webpage. The IIMs library webpage must make it available all the detailed information about the e-resources; library collection their services for their users in their respective library webpages. All these facilities provided by their institute have to be highlighted in their library webpage. It is observed from the present study that all of the IIMs are familiar of Web 2.0 tools. But not a single of the IIMs have RSS feed in their websites. It should be noted that all the links provided in the library webpages must be accessible. The library web pages must be maintained regularly and updated. This will make the demand of the library web pages among the users.

REFERENCES

1. Babu, B.R.; Kumar, A.N. & Gopalakrishnan, S. Credibility of university websites in Tamil Nadu. *DESIDOC J. of Lib. & Inf. Tech.*, 2009, **29**(3), 16-28.
2. Clausen, H. User-oriented evaluation of library and information centre websites. *New Lib. World*, 1999, **100**(1), 5-10.
3. Qutab, S. & Mahmood, K. Library websites in Pakistan: An analysis of content. *Program*, 2009, **43**(4), 430-45.
4. Wilson, D.E. Web content and design trends of Alabama academic libraries. *The Electronic Library*, 2015, **33**(1), 88-102.
5. Clausen, H. Evaluation of library websites: The Danish case. *The Electronic Library*, 1999, **17**(2), 83-7.
6. Michalec, M. A content analysis of art library web sites. *Art Documentation*, 2006, **25**(2), 46-54.
7. Kumar, B.T., *et al.* Content analysis of Indian Institute of Management library websites: An analytical study. In CALIBER-2009. Paper presented at the 7th International CALIBER, 25-27 February 2009, Puducherry. Information and Library Network Centre, (INFLIBNET), Ahmedabad, 2009. pp. 194-201.
8. Aharony, N. An analysis of American academic libraries' websites: 2000-2010. *The Electronic Library*, 2012, **30**(6), 764-76.
9. Joicy, A.J. & Rekha, R.V. Content analysis of the websites of Central Universities in India. *J. of Int. Acad. Res. for Multid.*, 2014, **2**(1), 58-67.
10. Lihitkar, S.R. Information systems & networks in India. Today & Tommorrow's Printers and Publishers, New Delhi, 2012.

11. Babu, B.R.; Jeyshankar, R. & Rao, P.N. Websites of central universities in India: A webometric analysis. *DESIDOC J. of Lib. & Inf. Tech.*, 2010, **30**(4), 33-43.
12. McGillis, L., & Toms, E.G. Usability of the academic library website: Implications for design. *College & Res. Lib.*, 2001, 355-67.
13. Osorio, N.L. Web Sites of science-engineering libraries: An analysis of content and design. <http://www.istl.org/01-winter/refereed.html> (accessed on 13 December 2015).
14. Archana, S.N. & Kabir, S.H. Web presence of the Engineering college libraries in Kerela: An analysis of content. *Kelpro Bulletin*, 2010, **14**(1), 35-47.
15. Still, J.M. A content analysis of university library Websites in English speaking countries. *Online Inf. Rev.*, 2001, **25**(3), 160-65.
16. Ministry of Human Resource Development (MHRD):

Department of Higher Education. <http://mhrd.gov.in/technical-education-3> (accessed on 10 December 2015).

Contributors

Dr Manoj Kumar Verma is working as Assistant Professor at Department of Library & Information Science, Mizoram University, Aizawl. He has completed his MLIS & PhD from G.G. University, Bilaspur. He has more than 16 years of professional experience. He has published 50 papers in national & international journals/conference proceedings, 10 book chapters and 3 books. His area of interest includes: Library automation, knowledge management, application of ICT in libraries, webometrics, etc.

Ksh Krishna Devi is a PhD research scholar in Department of Library & Information Science, Mizoram University, Aizawl. She has obtained her MLISc from University of Pune, Pune in 2011. Her areas of interest include: ICT, webometrics, software packages, etc.