

CONTENT ANALYSIS OF INDIAN INSTITUTES OF TECHNOLOGY LIBRARY WEBSITES

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ABSTRACT

The present study was carried out to analysis the content available in Indian Institute of Technology library websites in India. The study mainly focused on the information available in the library websites, features of library websites, Online library services, links to electronic information resources, value added services, Language options, navigational features and website aids and tools. For this study the researchers analyzed IIT websites based on predetermined criteria's. The same has been analyzed and presented with useful percentage analysis. The suitable table and graphs has been drawn for presentation of data. The article concluded with findings, suggestions and conclusion.

Keywords: Content analysis, Indian Institute of Technology, IIT, Library websites

INTRODUCTION

The Internet has changed many aspects in libraries since the World Wide Web came into being. Library homepages have mushroomed, contributing their information content to and establishing their presence in the Web environment. Now a day's a typical academic library's homepage functions as a main library window and provide various service including digital reference service, online interlibrary loan requests, and online information tutorials, to name a few. It is reasonable to ask, however, whether the library websites developed by the libraries have fully transcended themselves to provide all the services that are offered in traditional set through the library's homepage. If so, what would it be and how should it be presented? Another aspect is the existing library websites are as different as are the libraries – perhaps more different, some would say, because even a high-quality library may have a low-quality Web site that turns users off. Obviously, different libraries have a wide range of target groups, level of service, resources etc. Previous studies mainly OCLC's one of highly cited study "Perceptions of Libraries and Information Resources (2005)" one of the respondent of the study has put it "it is tedious to go to the library; it is easy to trace the information on Internet". This word emphasizes the importance of providing online facilities and services libraries have been traditionally confined to largely print based resources. As the use of online information increasing rapidly and the new generations have very much depend on the e-resources, library website has become starting point for looking for academic or scholarly information. In this changing information environment, libraries have to thrive for understanding users' information preferences to cater and developing tools and techniques for catering the net savvy users. Libraries in India also are moving towards offering web based services. In this context library website has become important space. Therefore the conducting content analysis certainly benefits the libraries to develop a robust website which cater wide variety of net savvy users.

The Indian Institutes of Technology is a group of autonomous engineering and technology-oriented institutes of higher education. The IITs are governed by the Institutes of Technology Act, 1961 which has declared them as "institutions of national importance", and lays down their powers, duties, framework for governance etc. They were created to train scientists and engineers, with the aim of developing a skilled workforce to support the economic and social development of India. IITs are listed as societies under the Indian Societies Registration Act.

The 1961 act lists seven institutes, which are, in order of establishment, IIT Kharagpur in Kharagpur (1950; as IIT 1951, IIT Bombay in Mumbai (1958), IIT Madras in Chennai (1959), IIT Kanpur in Kanpur (1959), IIT Delhi in New Delhi (1961; as IIT 1963), IIT Guwahati in Guwahati (1994) and IIT Roorkee in Roorkee (1847; as IIT 2001). In addition to the seven IITs, the Institutes of Technology (Amendment) Act, 2010 seeks to add nine new institutes to the list. Of these, eight are new institutes, in order of establishment, IIT Ropar in Rupnagar (2008), IIT Bhubaneswar in Bhubaneswar (2008), IIT Gandhinagar in Gandhinagar (2008), IIT Hyderabad in Hyderabad (2008), IIT Patna in Patna (2008), IIT Rajasthan in Rajasthan (2008), IIT Mandi in (2009) and IIT Indore in Indore (2009). These IITs are registered as societies and are in various stages of consolidation and development. The ninth is Institute of Technology, Banaras Hindu University.

IMPORTANCE OF THE STUDY

Library websites are a useful resource that can be improved with further study and analysis. The more information that is collected about website content and design, the better library websites can become. Consequently, this information can be used to better meet the needs of users. This study will be able to give librarians a better sense of the content available on their websites and they will be better able to articulate the services they provide to users. This study will be of use to librarians and webmasters who are responsible for the development and the management of library websites. This study will give better sense of the typical content available in IITs library websites. In a way this study would benefit how the IITs established 1950s have created a niche themselves in not only at the academic front but also administrative front and research front where library plays a crucial role for newly established IITs and its libraries.

OBJECTIVES

The objectives of the study are as follows:

1. To investigate the general information available in the library websites, Library services, hyperlinks to other resources and website aids and tools.
2. To identify the type of content and features made available in IIT library websites
3. To study the current status of IIT library websites and how they have been integrating contemporary web technologies for library related activities
4. To examine the difference in terms of library websites of IITs established in 1950s and newly established IITs.

METHODOLOGY

The investigator has done detailed literature survey related to library websites content analysis. The indexing databases like LISTA, LISA, Emerald and other open sources resources have been scanned. Based upon the literature survey objectives were designed and the investigator

identified the list of IIT library websites and based on the pre determined criteria/ features the content of the IITs library websites have been evaluated. Each library websites were visited during for data collection during the month of February 2012.

SCOPE AND LIMITATIONS OF THE STUDY

The study is confined to examine the contents of fifteen IIT library Websites. No other library websites have been considered for the study. The study only recorded the presence and the absence of content features rather ranking or evaluating library websites.

ANALYSIS AND INTERPRETATION OF DATA

The data was collected by different methods were analyzed and interpreted and same presented in the following tables and graphs.

Library General Information

The table-1 presents the library general information features. It can be seen from the table that brief introduction about the library was found in (93.33%) of the IIT library websites. Other important library general information features found often or more than 50.00% are: Information about library membership (66.66%), library collections (53.33%), Hours of operations (53.33%), and Staff details (53.33%). Other features such introduction to library services, policies and procedure mail to librarian, and important features like annual reports, library committees and library newsletter have found in less than 50.00% of the library websites.

Table-1: Library General Information

Features	Occurrences (n=15)	Percentage (n=15)
Library introduction	14	93.33%
Information about membership	10	66.66%
Library collections	08	53.33%
Hours of operation	08	53.33%
Staff directory	08	53.33%
Introduction to library services	07	46.66%
policies and procedures	07	46.66%
Mailto facility to librarian/staff	07	46.66%
Introduction to library sources	05	33.33%
Instructions or tutorials about library use	05	33.33%
Library committees	05	33.33%
Ongoing projects	05	33.33%
Information about the building	04	26.66%
Annual reports/statistics	04	23.66%
Library mission statement	03	20.00%
Information about branch libraries of library (if any)	02	13.33%
Newsletter	02	13.33%

Library Resources

The table-2 depicts the library resources. The features analyzed were OPAC, reference sources, online databases, link to other library websites, pathfinders or subject guides, link to local information and newspaper index. 66.00% of the library websites have provided OPACs. Users can search library catalogues online. New established IITs like IIT-Gandhinagar, IIT-Hyderabad and IIT-Rajasthan have restricted access to their library OPACs within the campus. Some of the well established IITs like IIT-Bombay, IIT-Delhi, and IIT Madras have provided online access to their library OPACs. Reference sources were found in 53.33% of the Library websites. Online bibliographic databases have found in 53.33% of the library websites. All the IITs which are established in 1950s have provided this feature, but only one new IIT library websites has listed online database information in their library websites.

Table-2: Library Resources

Features	Occurrences	Percentage
OPACs	10	66.66%
Reference sources (style guides, dictionaries encyclopedias etc)	08	53.33%
Online Bibliographical databases	08	53.33%
Link to other library websites (branch, city or national)	06	40.00%
Path finder's (Subject directories)	05	33.33%
Local information	03	20.00%
Newspaper index	01	06.66%

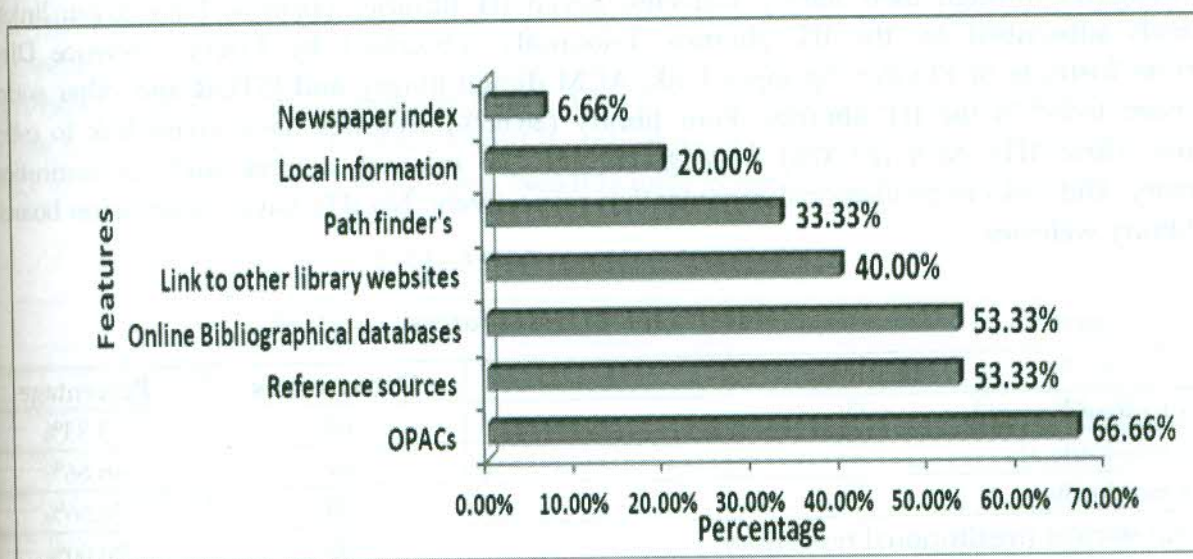


Figure-1: Library Resources

Library Services/Technical Services

The table-3 presents the information about library service or technical service offered in IIT library websites. Web master e-mail link was found in 66.66% of the library websites. Request to photocopy was found in 53.33% of the library websites. Purchase suggestions were offered in 40.00% of the library. IIT-Bombay, IIT-Delhi and IIT- Madras have offered purchase suggestion features. Followed by 33.33% information search request and fine accrued, 03 (20.00%) Reference queries "Ask a librarian, 02 (13.33%) Information about classification and cataloguing and

acquisition department, 01 (06.66%) Renew material and the IITs libraries do not have material reservation feature in their website.

Table-3: Library Services/Technical Services

Features	Occurrences	Percentage
Webmaster link	08	66.66%
Request a photocopy	07	53.33%
Purchase suggestions	06	40.00%
Information search request	05	33.33%
Fine accrued	05	33.33%
Reference queries "Ask a librarian"	03	20.00%
Information about classification and cataloguing	02	13.33%
Acquisition department	02	13.33%
Renew material	01	06.66%
Material reservation	00	00.00

Link to E-Resources

The table-4 shows the various e-resources and link provided for online reference services offered by institutions and freely available sources. Eight libraries (53.33%) have given link to search engines through their library websites, Seven IIT libraries (46.66%) have given links to e-journals subscribed by the IIT libraries. E-journals subscribed by Elsevier Science Direct, American Institute of Physics, Springer Link, ACM digital library and JSTOR and other sources have been listed in the IIT libraries. Four library (26.66%) websites have given link to e-book features. Three IITs each (20.00%) have given links to internal sources such as institutional repository, and links to professional organization respectively. No IITs have a discussion board in their library websites.

Table-4: Link to E-Resources

Features	Occurrences	Percentage
Links to search engines	08	53.33%
Links to e-journals	07	46.66%
Links to e-books	04	26.66%
Internal sources (institutional repository)	03	20.00%
Professional organizations or associations	03	20.00%
Links to manuals for e-resources	03	20.00%
Reference tools list	02	13.33%
Professional journals/literature	01	06.66%
E-discussion lists	00	00.00%

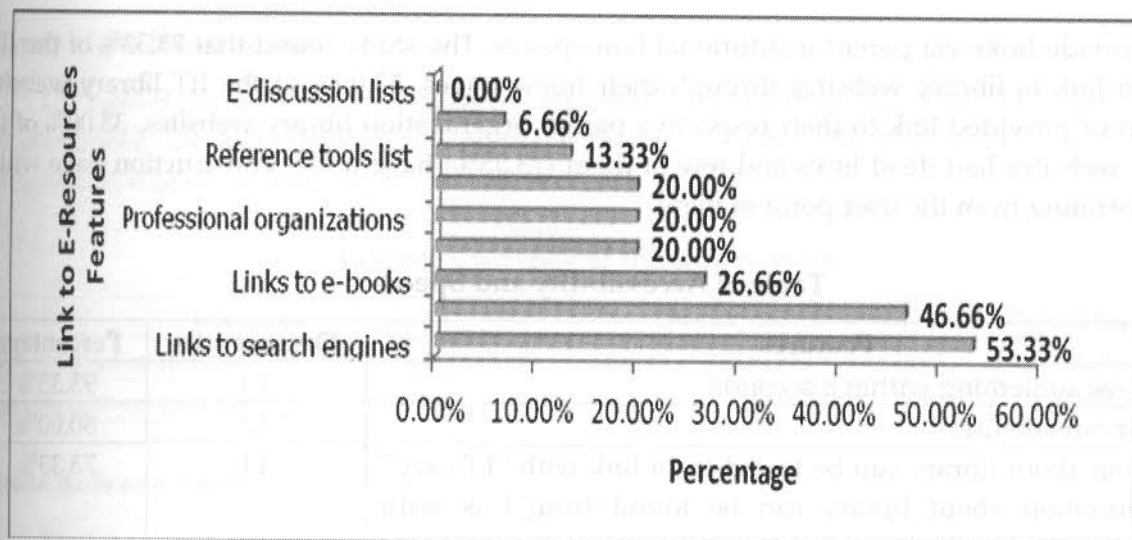


Figure -4: Links to E-Resources

Value-added Services

“Generally these “value-added” services are not part of a library’s main functions but they are becoming essential to compete with the “boom” of personalized services offered by many other web services” noted by Qutab & Mahamod (2009). Library news alert found in 46.66% of the library websites. IITs like IIT-Bombay, IIT-Madras and few others established in 1950s have provided this service. RSS news feeds a XML format for receiving automatic alerts have found in 33.33% of the library websites. New arrival option was found in 20.00% of the library. Job vacancy information was provided in 3(20.00%) IIT library websites. Web 2.0 options such as blogs, Twitter, Facebook and other social networking sites have found in only three IIT library websites. Bombay IIT has a presence in Twitter social net working sites. Two IITs have given link to book vendor websites.

Table-5: Value-added Services

Features	Occurrences	Percentage
Library “news alerts”	07	46.66%
RSS newsfeeds	05	33.33%
New arrivals	03	20.00%
Library events calendar	03	20.00%
Job vacancies	03	20.00%
Web 2.0 (blogs, Twitter and presence in Facebook, etc)	03	20.00%
Book vendors links	02	13.33%

Accessibility and Speed

Accessibility and speed of the websites features were given Table-6. Accessibility and speed of the website features help users to access websites with much hustles. All most all the home pages of the IITs (93.33%) library websites could be accessed within eight seconds. Twelve IITs have provided access to all the resources except OPACs in few instances outside users except two IITs. One of the important aspects of providing visibility to the institutional library home page is

through provide links via parent institutional homepages. The study found that 73.33% of the IITs have given link to library websites through their home pages. 53.00% of the IIT library websites have given or provided link to their respective parent organization library websites. 33.00% of the IIT library websites had dead links and few of them (13.33%) have under construction page which is very frustrating from the user point of view.

Table-6: Accessibility and Speed

Features	Occurrences	Percentage
User can see something within 8 seconds	14	93.33%
Access for outside users	12	80.00%
Information about library can be found from link with "Library" title Information about library can be found from link with Faculties/Resources.	11	73.33%
Link on parent organization website homepage	08	53.33%
Not more than three clicks from homepage	05	33.33%
Are there dead links	05	33.33%
Under construction pages	02	13.33%

Language Options

The table-7 shows the language options available for accessing library websites. Almost all the library websites have provided English versions of the library websites. Only 26.66% of the library websites have provided both Hindi and English language to access the library home page. 13.33% of the library website have provided translation facilities.

Table-7: Language Options

Features	Occurrences	Percentage
English	15	100.00%
Both in Hindi and English	04	26.66%
Translation Facility	02	13.33%

Navigational Features

The table-8 presents the navigation features available in IIT library websites. 66% of the IIT library websites have provided home link options in every page of the library websites. 46% have used graphics or pictures in their home pages for enhancing the aesthetic value, Followed by 20.00% of the library website page title appears in the top window bar and 06.66% websites page title describes content or location in site structure.

Table-8: Navigational Features

Features	Occurrences	Percentage
Home link on every page of website	10	66.66%
Use of graphics (symbols and signs)	07	46.66%
Page title appears in the top window bar	03	20.00%
Page title describes content or location in site structure	01	06.66%

Currency of the Information

The table-9 depicts the currency of the information. Only three (20.00%) IIT library websites have mentioned the last update date of the web pages. Seven (80.00%) library websites have copyright information or disclaimer.

Table-9: Currency of the Information

Features	Occurrences	Percentage
Copyright information	12	80.00%
Web site last update date	03	20.00%

Website Aids and Tools

The table- 10 presents the help features and tools available in IIT library websites. 53.00% of the IITs library websites have provided search options in their home pages. 46.00% of the websites have feedback options where user can send their comments, site map/index was found in 40.00% of the websites. FAQs were found 33.33% of the IIT library websites.

Table -10 Website Aids and Tools

Features	Occurrences	Percentage
Search Options	08	53.33%
Library web site feedback form or e-mail link	07	46.66%
Site map/Index	06	40.00%
Frequently Asked Questions	05	33.33%

FINDINGS

The major findings of the study are:

- Majority 93.00% of IITs website provides information about the library.
- 66.66% of IITs library websites provides OPAC features.
- Ask a librarian was found only 30.00% of the library websites.
- Links to e-journal was found in 46.66% of the library websites.
- The study found the compared to IITs established 1950s have created better websites compared to the newly established IITS in 2008.
- Only 20.00% of the library websites have provided last update date which is important to know the currency of the information.
- Only 26.66% of the sites have provided users the opportunity access website in national language (Hindi).
- Only 20.00% of the IIT library has been implemented Web 2.0 features.

SUGGESTIONS AND CONCLUSION

The newly established IITs website should be updated regularly. These website should contain advance features and services. The websites should provided users the opportunity to browse/ access resources in multi languages. IIT library websites should provide option for e-discussion facility with the library professionals and all the IIT s websites should be interlinked to each other to provide better information to its users. This study found that all the IIT websites have a web page for their libraries. But in few case there is no indication that the more information will be made available on an intranet or it has been password protected. All the websites give detail introduction about the organization. The link provided to other section like library etc should be systematically designed. It should show total number of users browsing IIT or IITs library websites at the bottom of homepage. It should contain web 2.0, Library 2.0 and other advance features. However the lack of any indication of the existence of library seems odd in this technological age. Also, the lack of subject guides or pathfinders perhaps indicates librarians and information professionals in IITs libraries are expected to locate and provide information for users instead of teaching patrons how to locate information themselves.

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