

Webometrics Study of All India Institutes of Medical Sciences

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Abstract

Medical Science Institutes websites are increasingly used for wide variety of purposes, such as; upload the brochure, library resources, students' curriculum, faculty individuals' files, research and health care activates new publications, etc. Therefore, it is essential to know about websites of medical sciences institute. This study investigates web based information about of the All India Institutes of Medical Science websites of India. This paper has done observations or evaluation of All India Institute of Medical Sciences through webometrics method. There are seven AIIMSs websites in India. This study has various concepts like on Google Page Rank, Alexa Rank, and Traffic Distribution Rank.

Keywords: *Medical Sciences, Webometrics, Google Page Rank, Alexa and Traffic Distribution Rank, World Wide Web, Search Engines, India*

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INTRODUCTION

The World Wide Web (WWW) is a multifarious system and this is one of the far and wide used services on the Internet. At present websites are essential tools of communication. Nowadays websites connect to each other using various hyperlinks and they provide many types of information on websites/pages to the virtual world and exits from the actual.

Web link structure study means citation analysis that provides links to other web sites/pages. Recent scenario of web based information websites resources have huge function to take part in education, research and other activities [1]. A vast amount of data in each stream is available on various websites. WWW (World Wide Web) network is carrying information of all disciplines in variety forms of data.

Today everybody would like to be on websites/internet because of access of information that lies there to be exchanged with its global connections with millions of users. World Wide Web is world's biggest electronic information published on Web links. Numbers of users are facing many challenges in networked information database

of resources and web service environment. But problem is that how to retrieve desired information. Many challenges were taken and solution comes as 'WEBOMETRICS' [2].

The globalisation of internet is the remarkable source of academic education system and it's providing facilities and their opportunity available globally through webometric system [3,4]. To achieve the goal, there is a need to have websites of each academic institute in order to give platform, where people come to a website to get information about goal of the institute, information of admission, information of courses offered, examination, results, application form, job vacancy, online library catalogue, and further research information for scholar [5].

The present study was deliberate to analyze selected All India Institute of Medical Sciences websites using WIF (web impact factors). In the web environment, impact factor measured the number of WebPages, Google Page Rank, Alexa Rank, and Traffic Distribution Rank.

CONCEPT OF WEBOMETRICS

The World Wide Web (www) produces all types of information, is a highly multifarious

conglomerate which carries variety of information for all kinds of users.

Bojerneborne and Ingwersen [6] defined webometrics as the 'study of the quantitative aspects of the construction and use of information resources, structures and technologies on the web, drawing on bibliometric and informatics approaches'. Quantitative studies of the web have been named as webometrics by Almind and Ingwersen [7].

In short of aforementioned definitions, we may describe in four major parts as follow:

- Web analysis of web pages/sites;
- Link structure analysis of web pages/sites;
- Web pages/sites usage analysis (including page rank and traffic of distribution of browsing) and
- Web technology analysis through search engine performance.

ABOUT ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS) OF INDIA

The **All India Institutes of Medical Sciences** are a group of autonomous public medical colleges of higher education. AIIMS New Delhi was first established institute in India since 1956. The All India Institute of Medical Sciences Amendment Bill put to be introduced in the Lok Sabha on 27 August 2012. Recent ordinance allowed the six AIIMS- like institutes to become operational from September 2012 (Table 1). All AIIMS were run by Minister of Health and Family Welfare, Government of India. The AIIMSs has wide-ranging facilities for teaching, research and healthcare. As provided in the Act, AIIMS conducts teaching programs of medical and para-medical courses at all levels and awards its own degrees. Teaching and research are carried out in 42 disciplines in the field of medical research.

Table 1: Name of AIIMSs and Locations, Establishment Year and Web Links.

Name	Established	State/UT	Web Link
AIIMS New Delhi [8]	1956	Delhi	www.aiims.edu/
AIIMS Bhopal [9]	2012	Madhya Pradesh	www.aiimsbhopal.edu.in/
AIIMS Bhubaneswar [10]	2012	Odisha	www.aiimsbhubaneswar.edu.in/
AIIMS Jodhpur [11]	2012	Rajasthan	www.aiimsjodhpur.edu.in/
AIIMS Patna [12]	2012	Bihar	www.aiimspatna.org/
AIIMS Raipur [13]	2012	Chhattisgarh	www.aiimsraipur.edu.in/
AIIMS Rishikesh [14]	2012	Uttarakhand	www.aiimsrishikesh.edu.in/

OBJECTIVES

The objectives of this study given as under:

- To identify and classify the web domain of AIIMSs of India.
- To find out Google Page Rank, Alexa Rank of the AIIMSs websites of India.
- To find out rank of the rich files.
- To find out traffic distribution of source of AIIMSs websites of India.

METHODOLOGY OF THE STUDY

In this study, Alexa and Traffic Rank of each website were taken up for the study. Web Page/sites Rank Checker has been used to calculate the Google Page Rank for the AIIMS of India observed by the study. The rich files were collected, data using Advanced Google

Scholar and tabulated. The rich files of the AIIMSs of India are calculated from the Advanced Google Scholar system by: e.g., site: www.aiims.edu/ file type: pdf, site: www.aiims.edu/ file type: xls; site: www.aiims.edu/ file type: ppt; and site: www.aiims.edu/ filetype: doc [15].

Some of the other following tools used in this methodology are given below:

Alexa Traffic Rank

A ranking system set by www.alexa.com, a contributory of www.amazon.com, basically audits and makes public the frequency of visits on various Web sites. The algorithm, Alexa traffic ranking is calculated, about traffic recorded of particular website from users.

How many number of users used any one particular website in a day and in last three month.

Google Page Rank

Google page rank is providing analysis algorithm link through Google Internet search engine. The 'page rank' name is a trademark and process patented of Google.

Rich Files

Google search engine provides the information rich files. The researcher used Advance Google search engine of all rich files.

LITERATURE OF REVIEWS

Ingwersen [16] has developed the Web Impact Factor (WIF) to measure the impact of websites through the received number of links. He added that web impact factor can be defined on ratio of links made to a websites to the number of pages at the website.

According to Brin and Page [17], there are three types of web impact factor for example, simple, overall and external web impact factors. Out of them, external web impact factor shows to be the best suitable measures of IF. It is much alike to Google's concept for page rank. The previous weblink studies show that the web page as the prime indivisible source of document for purposes of counting (Thelwall) [18,19].

The outcomes show that approximately 66% of websites perform external links, the majority of which are targeted as a specific intention however, about 17% put out general links, through inferences for designing and promotion for websites (Thelwall) [20].

Ortega and Aguillo [21] studied the link associations in the Nordic academic web space which consist of 23 Finish, 11 Danish, 28 Swedish web domains and the European one. Outcomes illustrate that the Nordic network as a cohesive network, set up via three well defined sub networks as well as it resting on the Finnish and Swedish sub networks.

The study of 34 State agricultural universities' websites in India shows that the domain

systems of the websites, examined the number of web pages and link pages, and considered the simple, self link, external link and revised web impact factor (Ramesh Babu, Jeysankar and Nageswara Rao) [22,23].

They ranked the websites according to their WIF. Jalal, Biswas and Mokhopadhyay [24] have revealed the effectiveness and importance of web impact factor of Indian universities' websites. The study evaluates the WIF as to how the links based metrics are build up and are functional.

Islam and Alam [25] observed 44 websites of private university in Bangladesh and discovered the number of webpages, link pages and determine the overall WIF and Absolute WIF through use of Altavista search engine. The study exposes several private universities which contain higher number however, their link pages are extremely little in number therefore, the website fall at the back in ranking.

Shukla and Poluru [26] have investigated the web exist of 173 Indian State Universities. The study demonstrates that several state universities have good visibility compared to their counter parts. The various tools like blog, emails, social networking, open access, institutional repositories, and association with other universities etc. make easy to boost the visibility of the website.

SCOPE OF THE STUDY

This study was examined and discovered through webometric study, considering the websites of All India Institutes of Medical Science of India. There is total numbers of seven AIIMSs in India.

The study aimed to establish a kind of academic ranking of websites of AIIMSs of India by evaluating of their Google Page Rank, Alexa and Traffic Distribution Rank files. An attempt has been made in this study to rank AIIMSs on the basis of the webometric indicators.

ANALYSIS AND DISCUSSION

Alexa Traffic Rank of AIIMSs Website

Table 2: AIIMS Websites and their Alexa Traffic Ranks.

Sr. No.	Name of Institute	Alexa Traffic Rank	Rank
1	AIIMS New Delhi	70451	1
2	AIIMS Rishikesh	216281	2
3	AIIMS Raipur	252296	3
4	AIIMS Bhubaneswar	295890	4
5	AIIMS Patna	396825	5
6	AIIMS Jodhpur	503848	6
7	AIIMS Bhopal	611982	7

Source: www.alexa.com (date as on 30/01/2015)

In above Table 2, Alexa Traffic Ranks are calculated for the All India Institute of Medical Sciences Websites. AIIMS New Delhi, AIIMS Rishikesh and AIIMS

Raipur were engage first, second and third positions, respectively. While AIIMS Jodhpur and Bhopal got sixth and seventh position at Alexa Traffic Rank.

Google Page Rank Analysis of AIIMSs Website

Table 3: AIIMS Websites and their Google Page Rank.

Sr. no.	Name of Institute	Google Page Rank (out of 10)	Rank
1	AIIMS New Delhi	6	1
2	AIIMS Jodhpur	3	2
3	AIIMS Bhopal	2	3
4	AIIMS Bhubaneswar	2	3
5	AIIMS Patna	2	3
6	AIIMS Raipur	2	3
7	AIIMS Rishikesh	2	3

Above Table 3 describes ranks according to Google Page Rank of AIIMSs website of India. AIIMS New Delhi got score first Google page rank with six points out of 10 points. AIIMS Jodhpur scored second Google

page rank with three points out of 10 Google page rank. AIIMSs Bhopal, Bhubaneswar, Patna, Raipur and Rishikesh share third rank with two points out of 10 points.

Rich Files of AIIMS Websites

Table 4: Number of Rich Files of AIIMS Websites.

Sr. No.	Name of Institute	.pdf	.xls	.ppt	.doc	Total No. of Files
1	AIIMS New Delhi	5100	6	13	195	5315
2	AIIMS Bhubaneswar	729	0	0	0	731
3	AIIMS Bhopal	590	0	0	0	593
4	AIIMS Patna	582	0	0	0	586
5	AIIMS Jodhpur	491	0	0	1	497
6	AIIMS Rishikesh	154	0	0	1	161
7	AIIMS Raipur	84	0	0	0	91

Rich files are categorized into four types. They are .pdf (Portable Document Format files), .xls (Excel files), .ppt (Power Point presentation Files) and .doc (Document files). For this study, only .pdf, .xls, .ppt and .doc files are searched and tabulated. The total number of rich files for each of the AIIMSs of India is shown in Tabulated data (Table 4). AIIMS

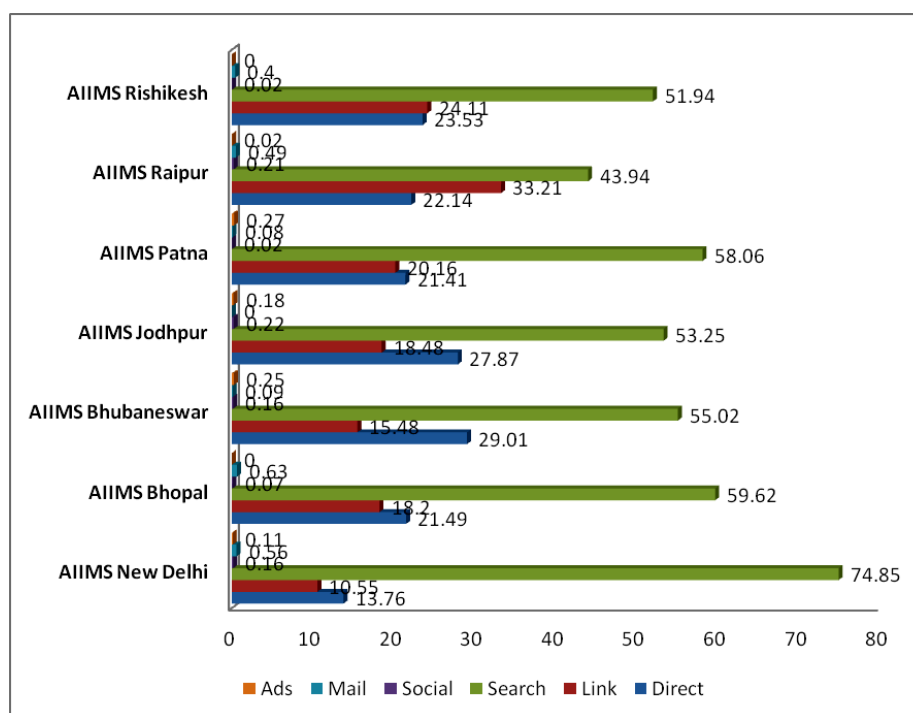
New Delhi having 5100 rich .pdf files, 6 xls files, 13 ppt files and 195 docs files at first rank in all of AIIMSs of India. AIIMS Bhubaneswar has second rank with 731 rich files. Last three rank AIIMS of Raipur, Rishikesh and Jodhpur having 91,161 and 497 rich file rank.

Traffic Distribution by Source of AIIMSs Website

Table 5: Traffic Distribution by Source of AIIMS Website.

Sr. No.	Name of Institute	Direct	Link	Search	Social	Mail	Ads
1	AIIMS New Delhi	13.76	10.55	74.85	0.16	0.56	0.11
2	AIIMS Bhopal	21.49	18.2	59.62	0.07	0.63	0
3	AIIMS Bhubaneswar	29.01	15.48	55.02	0.16	0.09	0.25
4	AIIMS Jodhpur	27.87	18.48	53.25	0.22	0	0.18
5	AIIMS Patna	21.41	20.16	58.06	0.02	0.08	0.27
6	AIIMS Raipur	22.14	33.21	43.94	0.21	0.49	0.02
7	AIIMS Rishikesh	23.53	24.11	51.94	0.02	0.4	0

*Source: Google Scholar (date as on 30/01/2015)



Graph 1: Traffic Distribution by Source of AIIMSs Website.

Graph 1 describes the distribution of traffic by sources of websites of AIIMS of India. AIIMS were various traffics distribution purpose of direct, link, search, social, mail and advertise. AIIMS New Delhi was highest distribution traffic source of direct and searches when lowest of AIIMS Raipur distribution traffic of direct searching but where highest link traffic of search. Other traffic distributions are variation of social mail and advertise (Table 5).

CONCLUSION

This study has been tentative and there is prospect for upcoming and further research in this area of webometric. This analysis could be comprehensive further by comparing interstate

same discipline institutes within the country or by comparing institutions between countries. The findings of this study indicated that All India Institutes of Medical Science had a low number of web pages, Google page rank and rich files. This may cause these AIIMSs website to have a low presence on the Web. Medical Science Institutes should improve their web sites and try to catch the attention of more visibility by publishing more important information in the different international languages. They should put out more web pages and valuable content information to make them more effective and attached with internationally. For instance, lesson plans of each department, course syllabus and resources, annual reports, free online courses,

inform about conferences for Post Graduate and Ph.D. students, pamphlets and presentations, research projects, thesis/dissertations and member details of institutes and faculties.

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Cite this Article

Harshadkumar J. Patel, Shamajibhai D. Parmar, Webometrics Study of All India Institutes of Medical Sciences, *Journal of Advancements in Library Sciences.* 2015; 2(2): 12–17p.