

A Webometric Study of Selected Popular Social Media Websites in World using a Link Analysis Approach

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Abstract

The present study has been done by using webometric methods. Each Social Media web site was searched in Alexa databank and relevant data including traffic rank, pages viewed, links, bounce percentage, time on site, search percentage, and Indian/other users were collected. Social media has become something that is important to enhance social networking and sharing of information through the website. Social media have not only changed social networking, they provide a valuable tool for social organization the website of a Social Media Sites is a platform to exhibit the courses offered by the institution and also about the research activities carried out by that Social Media Site. Prioritizing the content is one of the best ways to make sure the visitors are finding the information the site wants them to find, and that they wants to find, and that they want to find. a total of 64 Popular Social Media Sites were taken up for the study homepage of the Social media were taken up for the study and the various web objects were identified and also their locations in the home page of the Social Media Sites were analyzed and discussed. The study also helps the web designers to improve the usability of websites.

Index terms— webometrics, popular social media, social media websites, link analysis, alexa internet

1 I. Introduction

ocial media is Internet based technology which promotes opportunities to social interaction; among its users. It is enhanced through new communication tools and sites that are called; social networking sites. Internet-based tools and audio-visual technology with the ability to retrieve, store, connect and take the features that make the authors publish their work, including through blogs and receive comments on it Wikis has the ability to promote and facilitate the creation of a common through academic collaboration, Social bookmarking is an online catalog of hyperlinks that help users who want to share Facebook, Twitter, and LinkedIn, including the social networking site called SNS that has the ability of online promotion today websites of any organization/service sector facilitates for the information dissemination and reveals the reputation of the organization since users are becoming net citizens. The content of the websites target the user community and therefore, after ensuring that content is useful, well-written, and in a format that is suitable for the Web, it is important to ensure that the information is clearly organized in the form of different web objects/links in the home page. Therefore content of the home page must be well organized with the necessary information in the home page, grouping related informational elements, etc. The term "webometrics" was coined by Almind and Ingwersen in 1997. Webometricis combination of two words 'web' and 'metric', web is a collection of web pages or text documents including images, video, audio etc. interconnected by hyperlinks and metric means measurement, hence, webometrics is the measurement of web, its structure and application. In this research we used the Alexa Internet tool which was the instrument in the previous studies. (Ambhore, S. P. Khaprde, V.S.and Ranveer, V.B. 2016). The study covers the 64 Popular Social Media Sites It is based on traditional Webometrics methods for ranking of Social Media Sites and analyse the web performances of study.

2 II. Alexa: A Tool for Website Evaluation

Alexa Internet started in April 1996 by American web entrepreneurs Brewster Kahle and Bruce Gilliat and presently it is a California-based subsidiary company of Amazon.com which provides commercial web traffic data. Currently, Alexa Internet is the most well known tool for evaluating websites that offers a free of charge evaluation service. Alexa data is collected from millions of its Toolbar users. Alexa continually gathers various types of information (from all public websites) such as traffic rankings, number of page views, links pointing to sites, average time on site per user, etc. Alexa Toolbar users access various websites and Alexa computes websites' traffic by analysing the web usage of millions of Alexa Toolbar users and data obtained from other diverse traffic data sources.

The Alexa global traffic rank measures how a website, typically defined at the domain level, is doing in respect to all other sites on the web over the past 3 months. The rank is calculated using a combination of the estimated average daily unique visitors to the site and the estimated number of page views on the site over the past months. The site with the highest combination of unique visitors and page views is ranked a) Definition Analysis

3 Webometrics:

As the term 'Webometrics' Björneborn & Ingwersen, 2001 Helwall, 1997 Helwall, , 2008 is combination of two words Web & metrics, we can interpret it as, science of quantitative measurement of websites and its different attributes or contents. The definition of Webometrics is study of quantitative aspects of the construction and use of information resources, structure and technologies on the web drawing on bibliometric and informetric approaches. Alternatively, the field may also be defined the study of web-based content with primarily quantitative methods for social science research goals using techniques that are not specific to one field of study.

4 Review of Literature:

Catledge and Pitkow (1995)¹ conducted a study at Georgia Institute of Technology that captured client-side user events of NCSA's XMOsaic. Actual user behaviour, as determined from client-side log file analysis, supplemented our understanding of user navigation strategies as well as provided real interface usage data. Log files analysis also yielded design and usability suggestions for www pages, sites and browsers Björneborn and Ingwersen (2004)² defined webometrics within the framework of informetric studies and bibliometrics, as belonging to library and information science, and as associated with cybermetrics as a generic subfield. They developed a consistent and detailed link typology and terminology and make explicit the distinction among different Web node levels when using the proposed conceptual framework.

Park (2004)³ traced South Korean Web pages hyper linking pages hosted in Taiwan, using a search engine. The context in which Taiwan appears in South Korean pages was also examined. Specifically, the structure of hyperlink connectivity from South Korea and Taiwan was analysed. It was found that the hyperlink network was very sparsely connected in terms of the number of South Korean Web Pages hyperlinking to the pages of the other country.

Jose, Isidro and Jose (2006)⁴ conducted a longitudinal study of the evolution and the state of 738 websites in two different points in time 1997 and 2004). It tries to establish the rate of growth and decay of the Web and all the web elements. To this end, the structure and the contents of these websites are extracted through a crawler and compared at the two different moments in time. The main results confirm a growth of web contents and elements in the web, although there is also a high degree of web content decay. The results suggest that in the seven year period covered by this study the web is characterised by both strong dynamism and instability. Ambhore, S. P. Khaparde, V.S. and Ranveer, V.B. (2016)⁵ Marathi News Paper Websites: A Webometric Study. Using 'Alexa Internet' the result study show that regarding Marathi News Paper web sites for eight indexes (traffic rank, pages viewed, speed, links, bounce percentage, time on site, search percentage and Indian/foreign users) as obtained from Alexa Internet.

5 b) Scope of the Study

The scope of the present study is limited to 64 Popular Social Media Web Sites in world.

6 III. Methodology of the Study

This study consists of the 64 websites of Popular Social Media Web Sites in world which are listed by taken as a sample for evaluation in the present study. The URLs of these Popular Social Media were collected from the internet. The present study has been done by using webometrics methods with the help of Alexa databank, which is known as the most famous tool for evaluating websites. In this research we selected seven indexes -i.e. traffic rank, pages viewed, links, bounce percentage, time on site, search percentage, Indian and other users. In order to analyse Social Media websites. Using these each Social Media URLs, web site was searched on June, 2018 in Alexa website (www.alexa.com) and all the data were obtained by realtime examination according to prearranged evaluation indexes (Table 1). The data collection process was completed on the same day to decrease possible errors associated with frequent website updates. The downloaded data were further entered into the

specially designed Microsoft Excel worksheet. Then data were analyzed and tabulated to relevant findings in accordance with the desired objectives. The Social Media with their URLs, which are coming under the purview of this study, are provided.

7 a) Objectives of the Study

The objective of this study is given below.

8 iv. Links

Regarding the number of links that each Social Media websites has received, Facebook Social Media websites has received the highest number of links (5,047,596), which is considerably different from other Social Media websites. This websites has covered a various range of which has probably made it much more popular than others. Twitter Social Media websites with 3,851,643 links occupy second place. Google+ with 2,467,386 links is the last in the queue (Table 1). Majority of the Social Media websites have less than thousand links shows their poor performance in this attribute.

9 v. Bounce percentage

Friendster Social Media websites has the high bounce percentage (88.80%), followed by Viber Social Media websites with (84.90%) and WhatsApp Social Media websites (81.80%), and Tagged Social Media websites shows the lowest rate of bounce percentage (17.00%) shows its weak performance (Table 1). The higher bounce rate in most of the Social Media websites indicates their weak performance in this attribute.

10 vi. Time on site vii. Search Visitors percentage

The highest percentage of visits that came from search engines is for The Search Visits in India Quora Social Media websites with (58.40%) and the lowest is Kiwibox Social Media websites (5.00%) for (Table 1). IV. Findings

1. Among the 64 popular social media websites were taken up for the study 2. The web object, Administration, as the other web objects like Logo, Title, etc. was found in almost all the social media websites and it is very much below the control of the websites. 3. The findings of this study provides an overall picture of social media websites status in terms of their performances on the web based on the seven indexes of Alexa internet evaluation tool. Results of show that, most of social media websites do not act successfully on the web and need much attention. Similarly, some high traffic ranking social media websites showed weak performance in some of the attributes whereas some open traffic ranking social media websites performed comparatively better in some of the attributes. The bounce rate of most of the social media websites are not satisfactory, which needs to be given due attention as it could increase the number of visitors for the respective social media and their consequent global reach. Besides administrators of social media, the results of this study will be useful for web site managers in any field including those in charge of library web sites. The study will also help librarians and anyone interested to increase usage of a web site by analyzing the use of web site using Alexa internet. number of links it receives. WIF calculations were found to be a crude instrument for Webometrics studies Webometrics research want search engines and an academic web crawler have been used. The purpose of this website evaluation using Alexa Internet tool helps the webmaster and the respective Open University websites to improvise the usability of websites. The present study has been exploratory and there is possibility to future research in this area. The result of this study gives an overall preview of the Open University websites traffic and page ranks of local and foreign.

1

1. The objective of this study is the to Evaluate of Popular Social Media websites based on Alexa indexes they are:
Traffic rank (India and Foreign)
? Pages viewed
? Time on site
? Links
? Speed
? Bounce percentage
? Search percentage
? Users Percentage (Indian users).

Figure 1: Table 1 :

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The estimated daily time spent on site by the visitors is highest for VKontakte (VK) Social Media websites (9.59), Face book Social Media websites occupies second place with

The time spent on the rest of the (Table 1).

| | | | | | | | | | | | | |
|---------|---------------------|---------------|-----------|----|---|---|---|-------|-------|--------|-------|-------|
| Sr. No. | Web objects | About | Available | 37 | 1 | 1 | 1 | % | 57.81 | Not | % | 42.19 |
| 1 2 3 4 | Us | Accessibility | Statement | | | | | 1.56 | 1.56 | Avail- | 98.44 | |
| | AdChoices | Add | | | | | | 1.56 | | able | 98.44 | |
| | your business | | | | | | | | | 27 | 98.44 | |
| | | | | | | | | | | 63 | | |
| | | | | | | | | | | 63 | | |
| | | | | | | | | | | 63 | | |
| 5 6 | Ads info | Advertis- | 4 | 11 | | | | 6.25 | 17.19 | 60 | 93.75 | |
| | ing | | | | | | | | | 53 | 82.81 | |
| 7 8 9 | Album | Analytics | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 63 | 98.44 | |
| | ananasonastick | | | | | | | 1.56 | 1.56 | 63 | 98.44 | |
| | Announcements | | | | | | | 1.56 | 1.56 | 63 | 98.44 | |
| | Annual Meeting | | | | | | | 1.56 | 10.94 | 63 | 98.44 | |
| | apathycollusion | | | | | | | 4.69 | 1.56 | 63 | 98.44 | |
| | API Apps & Tools | | | | | | | 1.56 | 1.56 | 63 | 98.44 | |
| | Articles ARTIST | | | | | | | | | 63 | 98.44 | |
| | OF THE DAY | | | | | | | | | 57 | 89.06 | |
| | Attribution avva | | | | | | | | | 61 | 95.31 | |
| | | | | | | | | | | 63 | 98.44 | |
| | | | | | | | | | | 63 | 98.44 | |
| | | | | | | | | | | 63 | 98.44 | |
| | Badoo | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | Baidu homepage | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | Beans | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | Beauty live | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | Beauty salon reser- | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | vation | | | | | | | | | | | |
| | Benefits Plus | | 1 | | | | | 1.56 | | 63 | 98.44 | |
| | Blogs | | 17 | | | | | 26.56 | | 47 | 73.44 | |

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Figure 2: Table 2 :

Figure 3:

3

Figure 4: Table 3

¹(H)

²Year 2019 © 2019 Global Journals

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Majority of the web objects are available in the Social Media websites. The web objects that are not available in the Social Media websites were also calculated. Chart Control method has been generally adopted for identifying the quality control of the attribute. Normally different charts used are p chart, np chart, c chart, and u chart. In this study, np chart is used to identify the quality control of the attribute. Np charts may be defined as the Fraction of non-conformants which is the ratio of the number of nonconforming objects found to the total number of web pages actually taken up for the study. Np charts are statistical process control tools used to evaluate the items of non-conformity in a process.

The value of p is calculated using the formula

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