

WEB ANALYTICS A SURVEY OF ITS VARIOUS METHODS & TYPES USED IN VARIOUS FIELDS

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ABSTRACT

Today is the age of internet so most of the people interact with internet in their job, education, & other purposes. So many users spent lot of time on the web for various functions, operations performed like search data from the web site or down loading .All these kinds of Operations Are tracked by a generic Software Web Analytics. In this paper we discuss various operations of web analytics, Types of Web Analytics, advantages and disadvantages of the web analytics. This paper there is Comparison between types of Web Analytics. Many users may interact with internet in their work for collecting relevant data So it also keep the track of users, time how many clicks are make by user on the data . All these are the operations of web Analytics. This paper clears the concept of Web Analytics and its various types

KEYWORDS: Tools of Web analytics, Languages used in Web Analytics, Types of Web Analytics, hybrid methods.

1. INTRODUCTION

Web Analytics is a generic term meaning the study of the impact of a web site on its user. E commerce companies and other web site publisher often use Web Analytics software to measure those visitors were unique visitors, how they came to the site .What keywords they searched with on the site search engine .How long They stayed on a given page or on the entire site and what links they clicked on before left the site . Web analytic Software can also be used to monitor whether or not web sites pages are working properly with the given information, Web site administrator can determine which areas of the site are popular and which areas of the site do not get traffic .Web Analytics provides these administrators and publishers which data that can be used to stream line a web site to create a better users experience.



2. CATEGORIES OF WEB ANALYTICS:

- Off-Site Web Analytics
- On-Site Web Analytics

2.1 OFF SITE WEB ANALYTICS:

Off Site Web Analytics Refers to measurement and analysis regardless of whether you own or maintain a web site .It includes the measurement of a web site potential audience (opportunity) Share of Voice (Visibility) and Buzz (Comments) that is happening on the internet as a whole.

2.2 ON SITE WEB ANALYTICS:

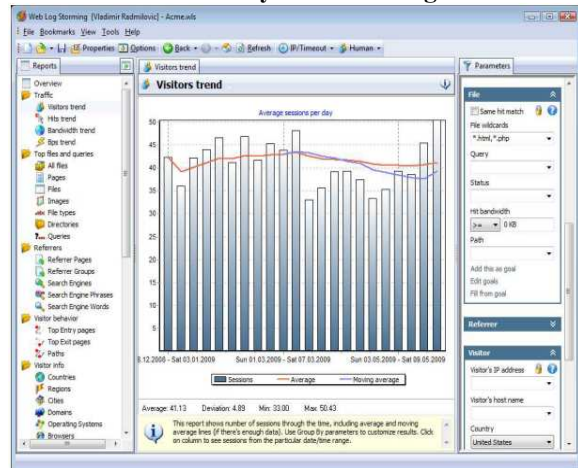
It measures a visitor's behavior once on your web site. This includes its drivers and conversions .On site web analytics measure the performance of your web site in a commercial context. This type of data is typical compared against key performance indicators for performance and used to improve a web site marketing and campaign audience response

3. TOOL USED FOR ON Site WEB ANALYTICS

Google Analytics is most widely used ON SITE Web Analytics service although new tools are also emerging that provides additional layers of information.



4. On Site Web Analytics Technologies:

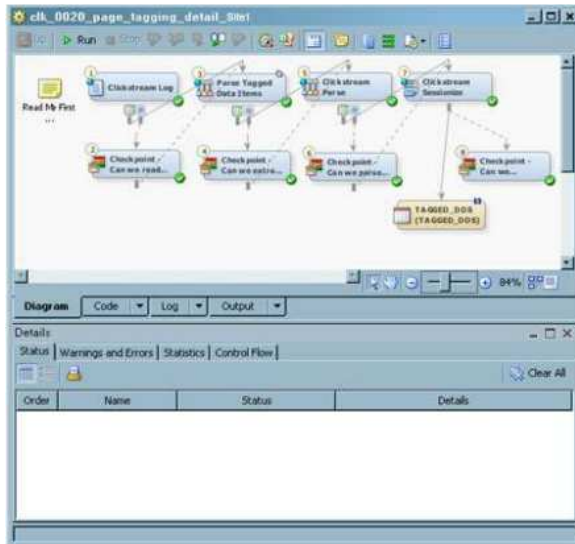


4.1 Web Server Log File Analysis:

Web log analysis software that parses a server log file from a web server, and based on the values contained in the log file, derives indicators about when, how, and by whom a web server is visited. Usually reports are generated from the log files immediately, but the log files can alternatively be parsed to a database and reports generated on demand. Web server record some of their transactions in a log file. It was soon realized that these log files could be read by a program to provide data web sites .Thus arose Web analysis Software

4.2 Page Tagging :

It concerns about accuracy of the log file analysis in the desires to be able to perform web analytics as an out sourced service led to the second data collection method page tagging or Web Bugs.



5. ADVANTAGES OF LOG FILE ANALYSIS:

- The web server normally already produces log file so the raw data is already available. No changes to the web site are required
- The data is on the company's own server and is in a standard rather than a propriety format. This makes it easy for a company to switch program later use several different program and analyze historical data with new program
- Log files contains information on visitor from search engine Spiders which generally execute java script on a page and therefore not recorded by page tagging Although all these should not reported as part of human activity. It is useful information for search engine optimization

6. ADVANTAGES OF PAGE TAGGING :

- Counting is activated by opening the page not requesting it from the server .If page is cached it will not counted by server cached pages can account for up to one third of all page views .Not counting cached pages serious many sites metrics .It is for this reason server based log Analysis is not considered suitable for Analysis of human activity on web sites
- Data is gathered via component in the page usually written in java script through java script can be used and increasingly flash is used Ajax can also be used in conjunction with server side scripting language to manipulate and store it in a data base basically enabling complete control over how the data is represented
- The script may have access to additional information on the web client or on the user not sent in the query such as visitor screen size and price of goods they purchased
- Page Tagging can report on event which do not involve a request to the web servers such as interactions within flash movies , partial form completion , mouse events such as an click on Mouse over ,on focus, on blur Etc

7. ECONOMICS FACTOR FOR WEB ANALYTICS:

Log file Analysis is almost always performed in house .Page Tagging can be performed not in-house, but it is more often provided as a third party service .The economic difference between these two models can also be a considerations for a company deciding which to purchase

- Log file Analysis typically involves a one off software purchased however, some vendors are introducing maximum annual page views with additional costs to process additional information .In addition to Commercial offering several log file Analysis tool are available free for charge
- For Log File analysis you have to store and achieve your own data which often grows very large hardware to do this in minimal for an IT department can be considerable
- For Log File Analysis you need to maintain the software including updates and security patches
- Complex Page Tagging vendor charge a monthly fee based on volume That is number of page views per month collected

8. HYBRID METHODS:

Some Companies produce a solution that collect data through both log files and page tagging and can analyze both kinds by using this hybrid method , they aim to produce more accurate statics than either method on its own .An early hybrid solution was produced in 1998.Some of Hybrid Methods are discussed Below:

8.1 Geolocation Of Visitors: With this method it is possible to track visitors location .Using Ip geolocation database or API visitors can be geolocated to city, region or country level .IP INTELLIGENCE is the technology that maps the internet and catalogues IP addresses by parameters such as geographic location .The first generation of IP intelligence was referred to as GEO TARGETTING or GEO LOCATION technology

8.2 Click Analytics: It is a special type of web analytics that gives special attention to clicks .Commonly click analytics focuses on On-Site analytics An editor of a web site uses clicks analytics to determine performance of his or her particulars site to with regards where the users of site are clicking .Also click analytics may happen real or unreal time depending on type of information sought .Typically front page editors on high traffic news ,media sites will want to monitor their pages in real time to optimize the content

8.3 Customer Life Cycle Analytics: This is visitors centric approach to measuring that falls under umbrellas of life cycles marketing. Page views clicks other events all are tied to an individual visitor instead of being stored as separate data points.

9. Languages used in Web Analytic Software:

BPEL(Business Process Executational Language): Business Process Execution Language (BPEL), short for Web Services Business Process Execution Language (WS-BPEL) is an OASIS standard executable language for specifying action within business with web services. Processes in BPEL export and import information by using web service interfaces exclusively. The origins of BPEL go back to WSFL and XLANG. It is serialized in XML and aims to enable programming in the large. The concepts of programming in the large and programming in the small distinguish between two aspects of writing the type of long-running asynchronous processes that one typically sees in business processes:

9.1 Programming in the large generally refers to the high-level state transition interactions of a

process—BPEL refers to this concept as an Abstract Process. A BPEL Abstract Process represents a set of publicly observable behaviors in a standardized fashion. An Abstract Process includes information such as when to wait for messages, when to send messages, when to compensate for failed transactions, etc.

9.2 *Programming in the small*, in contrast, deals with short-lived programmatic behavior, often executed as a single transaction and involving access to local logic and resources such as files, databases, et cetera. BPEL's development came out of the notion that programming in the large and programming in the small required different types of languages.

10 XHTML

(Extensible HyperText Markup Language) is a family of XML markup languages that mirror or extend versions of the widely used Hypertext Markup Language (HTML), the language in which Web pages are written.

XHTML 1.0 is "a reformulation of the three HTML 4 document types as applications of XML 1.0".^[3] The World Wide Web Consortium (W3C) also continues to maintain the HTML 4.01 Recommendation, and the specifications for HTML5 and XHTML5 are being actively developed. In the current XHTML 1.0 Recommendation document, as published and revised to August 2002, the W3C commented that, "The XHTML family is the next step in the evolution of the Internet. By migrating to XHTML today, content developers can enter the XML world with all of its attendant benefits, while still remaining confident in their content's backward and future

CONCLUSION:

By the study of all the techniques of the Web Analytics .It is noticed that the ON – Site Web Analytics and its sub types techniques are more suitable for gathering or notice the Web site and its various user by more effective way . So According to view ON –Site web Analytic is the best and more accurate results are obtained by On Site web analytics

Reason: ON SITE Web Analytics technique is more suitable because the data is totally protected from any unauthorized user and it cannot be stolen by any user because in this technique not any kind of audience, share of voice, and other kind of data record are made in which can be access by any user Tool used For this is Open source tool and easily available through internet access

REFERENCES

1. Rapid service oriented business process generation method based on ontology
2. Pseudo- location updating system for privacy preserving location based services
3. Wide Areas , web based mobility analysis using probe data
4. Collaborating ,Monitoring, And Analysis For Simulation Scientists
5. Plaza, Beatriz. "Google Analytics." Online 34.5 (2010): 33-37. Academic Search Premier. EBSCO. Web. 9 May 2011] <http://www.listrak.com/Whitepaper/Google-Analytics-and-Email/2/>
6. <http://www.ga-experts.com/google-analytics-book.php>
7. http://inkriti.com/ideas/whitepaper_google_analytics_webse arch
8. <http://www.smashingmagazine.com/2009/07/16/a-guide-to-google-analytics-and-useful-tools/>
9. <http://pm4web.blogspot.com/2010/11/understanding-google-analytics-reports.html>
10. <http://projects-with-google-analytics-custom-segments.html>

11. <http://www.jonbishop.com/2010/10/competitor-website-reports-and-analytics/>
12. <http://thegooleanalytics.org/limitations-of-google-analytics/>
13. <http://www.searchenginejournal.com/google-analytics-fails-for-seo-purposes/5722/>
14. <http://www.googleanalyticsresearch.com/2011/02/limitation-s-of-google-analytics-as-seo-tool/>
15. <http://affiliate-marketing-forums.5staraffiliateprograms.com/search-engine-marketing-seo-forum/27097-google-analytics>