

# Enterprising Social Network Using Google Analytics- A Review

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## Abstract-

**S**ocial media are important communication channel that reach a wide group of people, social media are in work organizations as tools for communication among employees. Despite the growth of special collaboration, many enterprise today are still finding their way with the relatively new world of enterprise social collaboration. Web analytical tools which are capable of providing valuable information regarding the website users such as their navigation behaviours and browser details. Goggle analytic tools are most widely used to collect the user information. Creating survey model to get user opinion with the site and from that collecting information about site and making user more interactive and based on the user feedback, providing statistics in percentage and pie chart. Creating user group on site side, then recoding the interests of users on other group and sending automatic notification of other group information to the user. If his interests continues, joining him automatically to that group.

**Keywords----** Google Analytics, Social Media, Statistics, Web Analytic Tool, Survey Model

## I. INTRODUCTION

Social media is defined as web-based and mobile based internet applications that allow the creation, access and exchange of user-generated content. Social media is to encompass really simple syndication feeds, blogs, wikis and news all typically yielding unstructured text and accessible through the web.

Enterprising social media through analytics involves many analytics tools, analytics platforms and analytics techniques. Web analytic tools are newly emerging tools to evaluate web sites compared to **observations, think-aloud, questionnaires, eye tracking** methods. These classical methods are time consuming and costly compared to newly emerging web analytic tools. The preliminary aim of this study was testing whether newly emerging web analytic tools which save time and which are cost effective compared to classical methods can be used instead of or to support classical methods to improve the information architecture of information driven web sites.

Among web analytic tools, Google Analytics which is a commercial web analytics tool owned by Google. discover that valuable features of web analytic tools are not used because they are complex and confusing. To overcome this problem, exploring Google Analytics. As Google's mission is to make the search experience as nice as possible for the user, they do not believe in returning just anything from the search query. The results from the search must be relevant and to achieve that Google relies on more than 200 signals and techniques to determine which sites are the best for that specific search query. These signals and techniques include Google's algorithms.

Google's algorithms have developed greatly and now they rely on more than 200 unique signals that enable the users to find what they are looking for in the web. For a marketer, it is these signals that are important to know and to understand, or at least part of them as Google does not reveal all the signals to public knowledge. It is these signals, upon which the algorithms define whether the page is shown in first results or not. The signals are for example keywords on websites, the region, and freshness of site content as well as the ranking of the page in internet search. The whole process behind search starts with crawling and indexing pages. For this, Google and other search engines have developed their own robots to crawl the web. These crawling robots go from one page to another and analyse its contents and determine whether it is relevant site or not.

Organization has Social Network through which every employee of the organization can communicate with each other and can share the files, documents, news with each other. And employee in the social network make their own user group with other employees. But if an Employee wants to know information about other group automatically. An employee interested in other group activities, and he also attends surveys in their groups and gets statistical detail about particular topic. Google Analytic tool collect information about user by his activities and interests and sends automatic notification to interested employee. And It sends automatic notification about other group activities.

## II. RELATED WORK

Enterprise social media - rather than functioning as a *channel* through which communication travels, enterprise social media operate as a *platform* upon which social interaction occurs. Because this platform is digital, in contrast to the physical platforms of offices, conference rooms, and hallways that have traditionally been the stages on which most workplace communication is played out, anyone in the organization can participate at any time from any place [1]. Some of the methodology, techniques are used to develop efficient social media : [2]

### **A. Social media methodology and critique**

#### **Analytics:**

Currently, social media data is typically either available via simple general routines or require the researcher to program their analytics in a language such as MATLAB, Java or Python. As discussed above, researchers require:

- Analytics dashboards—non-programming interfaces are required for giving what might be termed as ‘deep’ access to ‘raw’ data.
- Holistic data analysis—tools are required for combining (and conducting analytics across) multiple social media and other data sets.
- Data visualization—researchers also require visualization tools whereby information that has been abstracted can be visualized in some schematic form with the goal of communicating information clearly and effectively through graphical means.

#### **Critique:**

Analytical tools provided by vendors are often tied to a single data set, maybe limited in analytical capability, and data charges make them expensive to use.

### **B. Social media analytics techniques**

Opinion mining (or sentiment analysis) is an attempt to take advantage of the vast amounts of user-generated text and news content online. One of the primary characteristics of such content is its textual disorder and high diversity. Here, natural language processing, computational linguistics and text analytics are deployed to identify and extract subjective information from source text. The general aim is to determine the attitude of a writer (or speaker) with respect to some topic or the overall contextual polarity of a document.

- Computational science techniques: Automated sentiment analysis of digital texts uses elements from machine learning such as latent semantic analysis, support vector machines, bag-of-words model and semantic orientation (Turney2002).
- Sentiment analysis: Sentiment is about mining attitudes, emotions, feelings—it is subjective impressions rather than facts. Generally speaking, sentiment analysis aims to determine the attitude expressed by the text writer or speaker with respect to the topic or the overall contextual polarity of a document (Mejova2009). Pang and Lee (2008) provide a thorough documentation on the fundamentals and approaches of sentiment classification and extraction, including sentiment polarity, degrees of positivity, subjectivity detection, opinion identification, non-factual information, term presence versus frequency, POS (parts of speech), syntax, negation, topic-oriented features and term-based features beyond term unigrams.

### **C. Social media analytics tools:**

- Scientific programming tools: Popular scientific analytics libraries and tools have been enhanced to provide support for sourcing, searching and analyzing text. Examples include: R—used for statistical programming, MATLAB—used for numeric scientific programming, and mathematic—used for symbolic scientific programming (computer algebra).
- Business toolkits: Business Toolkits are commercial suites of tools that allow users to source, search and analyze text for a range of commercial purposes.
- Social media monitoring tools: Social media monitoring tools are sentiment analysis tools for tracking and measuring what people are saying (typically) about a company or its products, or any topic across the web’s social media landscape.

### **D. Social media analytics platforms:**

They broadly subdivide into:

- News platforms—platforms such as Thomson Reuters providing news archives/feeds and associated analytics and targeting companies such as financial institutions seeking to monitor market sentiment in news.
- Social network media platforms—platforms that provide data mining and analytics on Twitter, Facebook and a wide range of other social network media sources. Providers typically target companies seeking to monitor sentiment around their brands or products.

There are five main methods which can be used to collect visitor data: Page Tags (client side data collection), Log files (server-side data collection), Hybrid solutions, Network Data Collection devices or “packet sniffers”, using a Web-server API Loadable Module programs (Clifton, 2008b; Clifton, 2010). In recent years, the popularity of Page Tags has increased due to its allowing the analysis to be outsourced, “Hosted” solution.[3].

The remote study used an advanced web proxy that leverages AJAX technology to record both the pages viewed and the actions taken by users on the web pages that they visited. Their study was conducted remotely. Their study reflects web accessibility from the perspective of web users and describes quantitative differences in the browsing behaviour of blind and sighted web users. [4]

Effects of the accessibility of web page components.

- Probing: A probing event occurs when a user leaves and then quickly returns to a page. Web users often exhibit probing behaviour as a method of exploration when they are unsure which link to choose [18]. Probing is also

often used as a metric of the quality of results returned when analysing search engines [28]. If a returned link is probed, then the user likely did not find the contents relevant. Because exploring the context surrounding links is less efficient for screen reader users, they may choose to directly follow links to determine explicitly where they lead. If screen reader users probe more than their sighted counterparts then this would motivate the further development of techniques for associating contextual clues with links. In our study, we investigated the use of probing by our blind and sighted participants.

- **Timing:** Underlying work in improving web accessibility is the goal of increasing efficiency for blind web users. In our study, we attempted to quantify the differences in time spent web browsing by blind and sighted web users. We first looked at average time per page to see if there is a measurable effect of blindness on per page browsing time. We then looked at specific tasks that were common across our users that we identified from our collected data. The first was entering a query on the Google search engine, looking through the returned results and then clicking on a result page. The second was using our web history page to find a particular page they themselves had visited during the web study, finding it on the results page and then entering feedback for the page. Even though both groups of users could accomplish these tasks (they were accessible to each group), this comparison provides a sense of the relative efficiency of performing typical tasks.[4]

Originally, search engines started developing algorithms to make the search easier and for the users to find the information they needed without browsing through numerous pages before finding what they were looking for. The developers of algorithms find it extremely important to understand the user behaviour in order to further enhance the user experience in search.

SEO revolves around user’s needs and behavioural issues, for example successful keywords come from the words that the customers type when searching for something.

the searches that users conduct divided into three categories (2009, 6). [5]

- The first category is “navigational query”, with which is meant the search of a certain webpage, where the user is looking for certain company or brand but may not be sure about the URL. So the user types the name or what he or she remembers of the name to search query.
- The second search category that the users conduct is “transactional query”. Transactional query happens when the user is searching the web in order to buy something. This query is rather wide and involves also things like creating Gmail account, paying bills or finding a restaurant from the area where to dine.
- The third category is “informational query” and as its name suggests, is used when looking for information on something. The range for this query is extremely wide as it includes everything from checking the local weather to details on cameras or the names of actors. The goal of this search is primarily information and the query is often non-transactional even if the user was looking at a certain product.[5].

### III. GOOGLE ANALYTIC PLATFORM

The Google Analytics Platform lets you measure user interactions with your business across various devices and environments. The platform provides all the computing resources to collect, store, process, and report on these user-interactions.

The following diagram describes the relationships between the components and APIs:

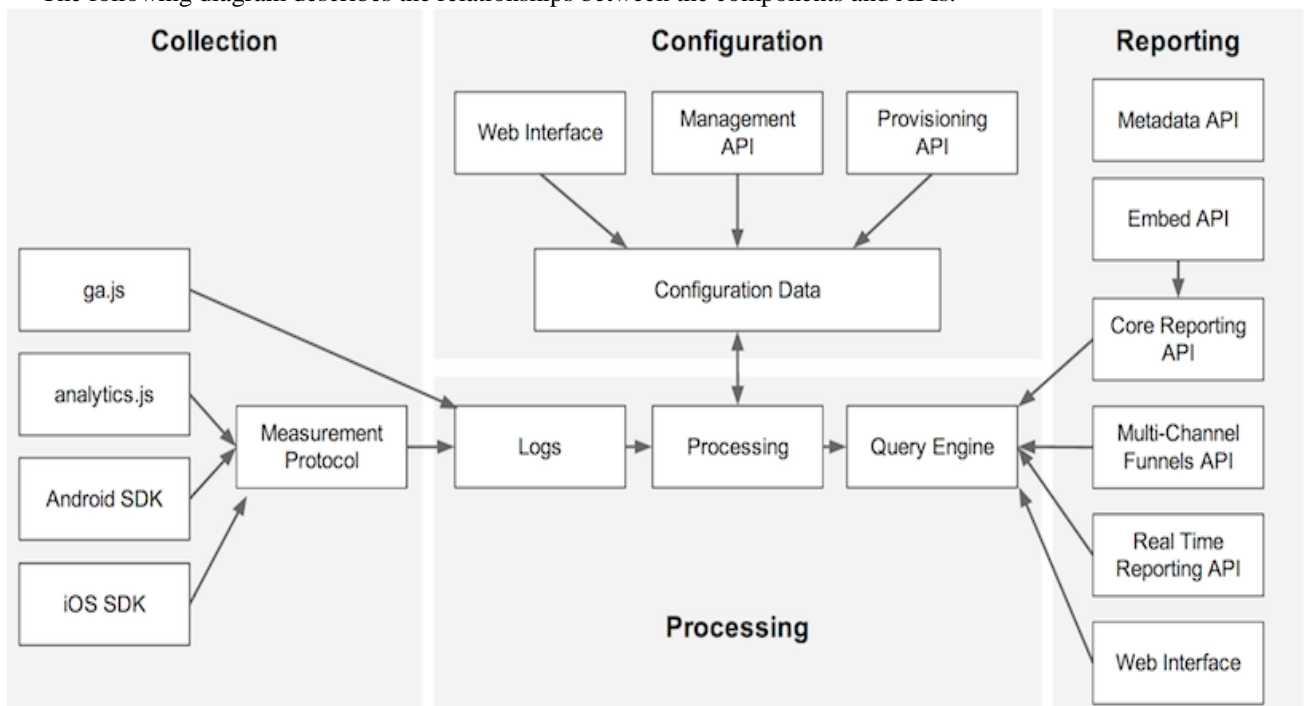


Fig. 1 Relationship between components and API

- Collection – collects user-interaction data.
- Configuration – allows you to manage how the data is processed.
- Processing – processes the user-interaction data, with the configuration data.
- Reporting – provides access to all the processed data.

Google Analytics has a number of features that allow you to measure the impact of social media on your business: SocialActivities, SocialReferrals, and SocialInteractions.



Fig 2 The social data sources that can be measured using Google Analytics

- Social Activity represents a social action (e.g. Like, comment, share etc.) that happens offsite on a social network and references content on your website. Google Analytics Automatically enables measurement of social activities related to your content for a variety of Social networks.
- Social Referral helps to refer the social activities to user and make user to interact with social data.
- Social Interaction is an user interaction with social buttons embedded on your property, such as the Google+ "+1" button, or the Facebook "Like" button, represent social interactions with your content. These social interactions are valuable signals of user engagement and can be measured using Google Analytics.

Google Analytics helps to retrieve information as shown in following figure, basic steps. The figure shows how Google server works.

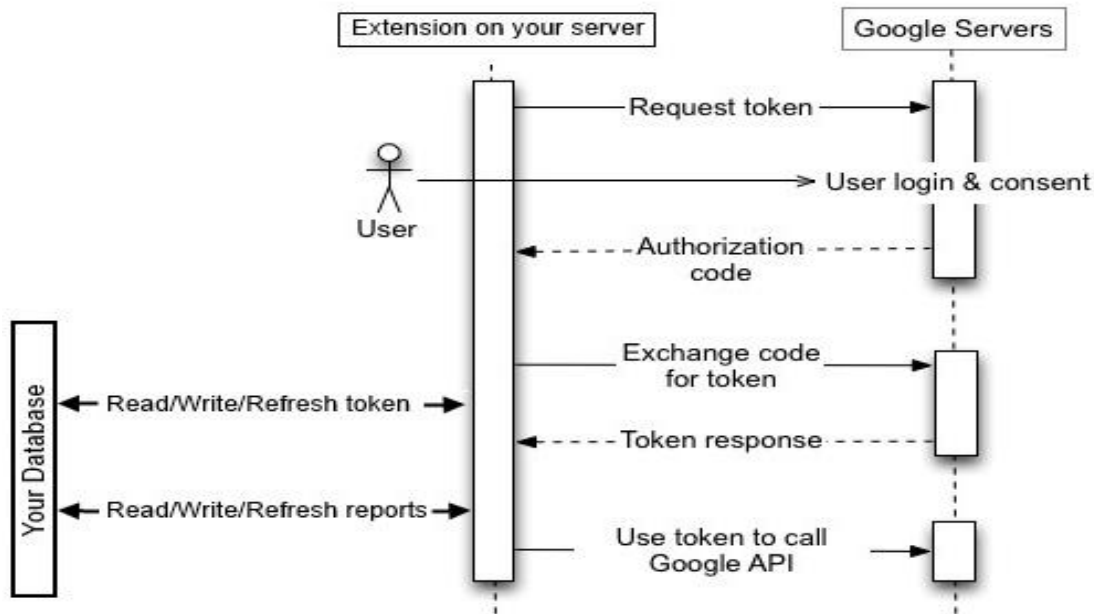


Fig. 3 Google server working architecture

#### IV. SURVEY MODEL

Every Social sites wants to know about user opinion after visiting and seeing that site, so every site will maintain one survey model, it may in the form of Feedback also. In organization social Network also, they started maintain Survey model with survey form and submissions, after that Organization can get statistics about that user opinion and interests. And in some Survey Model, interested user can also add his own questions to that Survey Model.

It makes every user more interactive with social site of organisations. The following Figure is the basic architecture of Survey Model:

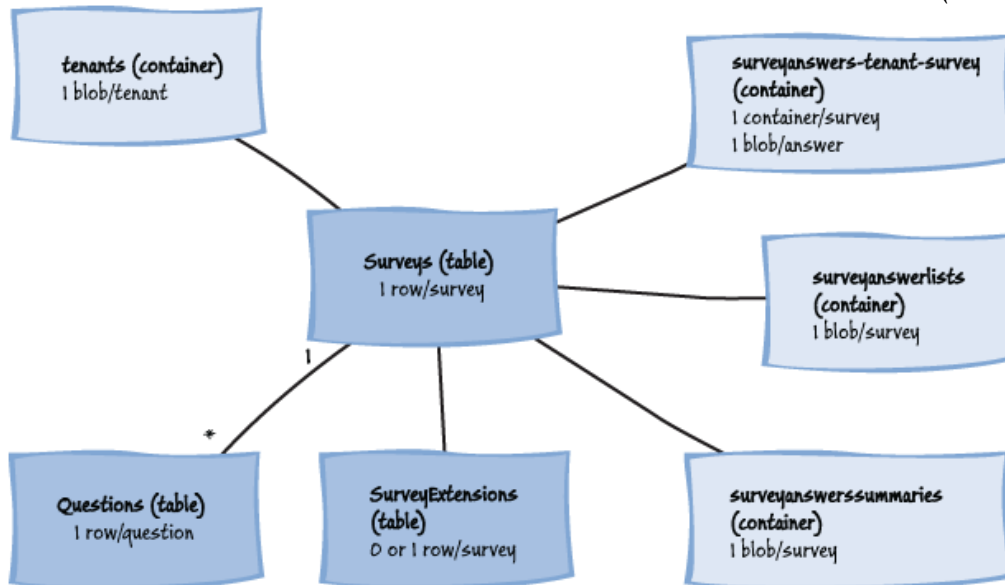


Fig. 4 Basic architecture of Survey Model

The following Figure shows example of survey form on social Network, form contains question with multiple choice answer, after user selects choice as answer for all question, user will submit the answer by clicking the “Submit” button.

**How well do each of the following statements represent how you feel about this community?**

		Not at All	Somewhat	Mostly	Completely
1.	I get important needs of mine met because I am part of this community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	Community members and I value the same things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	This community has been successful in getting the needs of its members met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	Being a member of this community makes me feel good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	When I have a problem, I can talk about it with members of this community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	People in this community have similar needs, priorities, and goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	I can trust people in this community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Fig. 5 Survey Form

After user Submission of the form Organization will get statistical detail about that user interests by Google Analytics in the form of Pie chart, line charts or Graphs. The following Figure shows that.



Fig. 6 Statistical Information- Pie Chart

## V. CONCLUSION

Social technologies are becoming pervasive in today's organizations, and are functioning as a platform through which much internal communication occurs. Social media has emphasized the powerful effects they can exert on the ways in organizations connect with customers and external stakeholders, exploring issues linked to marketing, branding, and customer relationship management. Technologies can also have significant implications for communication inside the workplace, influencing such organizational communication issues as interaction with new hires, knowledge sharing and management, and employees' abilities to form relationships and build social capital.

In this article we reviewed employees in Organizations to more interactive by making use of Google Analytics tools, techniques, platforms, managing tools. Google Analytic Platform Which includes, Social activities, Social Referral, Social Interaction, helps to make developers and user to know more about Google analytics. And making use of Survey Model in Organization Social Network, to get user opinion. and interest.

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