A Survey on Social Media Analytics Software

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ABSTRACT: As the amount of data on social media networks is increasing, it is becoming challenging to find a specific tool that measures the data relevant for a specific purpose. Social Media network applications like Twitter, Facebook, Instagram, Linkdln etc , all create a huge amount of data on day to day basis. Churning this data to get useful insights is a role of social media analytical software. But with increasing social media usage the data being generated by analytics should focus on providing information rather than creating more junk data in process and unvalued information in bargain. This paper thus focuses on a study of what we should expect from an analytical software and further explores few dimensions that can be used for creating new Analytics for Social Media networks.

KEYWORDS: Dimensions, Reach, Engagement, ROI.

I. INTRODUCTION

 Social Media had gained popularity in last couple years which was not if unforeseen was surely unimagined few years back. We all are aware that Social Media has now become a driving force in business decisions. No company small, medium or large can ignore the extent of reach provided by this Social Media to extend its customer base. A helpful role in this aspect is being played by the Social Media Analytical softwares that defines ways to explore and enhance business opportunities through the customer base present on Social Media like Twitter, Facebook, Instagram etc.

But as Social Media was reaching more and more heights in popularity chart, analytical softwares also were getting developed in more and more numbers. The situation today is a that there exists so many software analytical tools for social media that its hard to zero on one or even two which will cater to all the demands of its customer[1] . As different tools addresses different measurements for social media it is important to know what we need to analyze thoroughly. Therefore it is necessary to strategize what needs to be measured than how it needs to be measured. This paper will help in understanding different dimensions that are measured in few analytical tools present today.

Also in study, I have noted that most of the tools measure the common dimensions and few have treaded new paths. This paper also list few dimensions that can be helpful for getting useful data and also about tools that exists for measuring these mentioned dimensions.

The paper is divided in four sections in which section I is a general study of few existing softwares that are right now popular in market. We will briefly see what dimensions they measure and how they display the same. From this study of currently existing analytical softwares for social media we will make a list of generic dimensions and functionalities provided by various analytics in section II. Section III describes the categories of social data used by analytical softwares. In section IV some new dimensions are mentioned which provides a different viewpoints to be drawn from Social Media data.

II. EXISTING SOFTWARES

    As there are so many softwares existing today, I have listed only five such softwares that are known to be popular in market. The softwares mentioned are solely from my study and the list does not provide any relative popularity ratings. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and

A. Google Analytics:

Google[4] provides a free analytical tool which can measure location, messages and time. It is a very popular analytical tool which can work on multiple devices and multiple channels. The reports in Google Analytics is generated through predefined and customized filters. Filters are created from dimensions and metrics. Dimensions are the attributes of visitors and the visits they create (i.e. keyword, traffic source, etc.). Metrics are the actual data that is collected (things like revenue, conversion rate, visits, etc.)

Google Analytics help in measuring a business entity the ROI (Return of Investment) on web media. It measures how people are being refereed to their sites, amount of content being shared on social media or brand reputation on social media. This helps in measuring amount of impact on Social and financial growth generated from this Social presence.
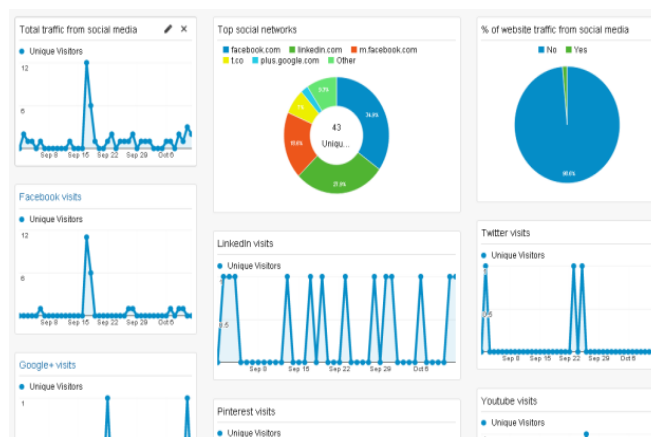

Figure 1. A Google Analytics Dashboard (courtesy Google)

B. IBM Social Media Analytics:

IBM[5] provides multiple tools to analyze the social media data which provides information about user sentiments about the brand on social media networks. This also helps in creating customer profiles that can help in introducing customer oriented brand changes and offers that can help in increasing sales. It also helps in creating brand reputation on the social media.

IBM provides three different Social Media Analytics tool that are -

a. SPSS :-
    This is a suite of softwares that provide data collection, statistics and modeling which predicts data based on which decision taking and problem solving is improved.

b. Customer Analytics:-
    Helps in studying customer that are currently doing business with any organizations. Customer analytics studies customer requirements and generates loyalty by satisfying these requirements at right time in a right way.

c. Cognos :-
    Cognos now a part of IBM extends its Business   Intelligence software suits to analyze social media data along with internal data available in the organizations. It caters requirements for all kinds of organizations big or small. They have a range of tools that helps in modeling data with customizations and enhanced reporting features that come with desktop versions as well as for mobile devices.

d. Hootsuit:-

It integrates all the social media networks in one dashboard and provides analysis for all of them together. It is more of a management tool that helps in organizing multiple accounts and channels by providing monitoring for 50 plus account simultaneously. It also helps in posting and delegating via a schedular.

C. MEASURES:-

So what do we normally measure from the analytic softwares ? Social Media Analytics can be carried out in various dimensions and multiple dimensions [7] can be grouped as well to get customized views for reporting. This section provides a brief detail of different analytical software categories.

Types of Social Analytics - The various analytical tools can be classified according to the analysis carried out by them .The measure an analytics perform are in metrics and each metrics provide a perspective for the data termed as dimension. Dimensions can be anything from simple dimensions like messages, tweets, likes, locations and time to some complex ones like conversion rate and user sentiments.

a.   Text Based Analysis:-

This is the analysis done on the textual content and links on social media networks. As text is available freely in huge amounts on network the analysis is carried out by almost all analytical softwares and is most popular. Clubbed with location this gives us a generic measure of spread of content or term. Time based textual analysis provides us topics prevalent in time also known as Trend Analysis. The analysis focuses on hash tags that are the common terms used among the posts. An example quite popular recently is with Sentiment Analysis [2] that is carried out from generic facebook posts or tweets.

Figure 2. Semantic Analysis (courtesy Microsoft)

The challenges faced by content analysis is due to short messaging, frequently changing terms and metalinguistic in nature.

b.   User Centric Analysis

Not only the content being analyzed is important but also who are posting them. As all contents come from some person having identity, phone, location etc analysis can be done for generating user profiles that give useful information like user preferences, usage pattern, demographic analysis. An example can be identifying a set of target customers for a perform producing company for teenagers looking for a set of user from a particular age groups located from a particular area having a specific preference. Challenges typically are data not readily available and reliable also. Therefore generally analysis is done for two dimensions only.

C. Region Specific Analysis:

The final set of analysis can be carried out for a group decided on a network or range. The analysis proceeds from a set of nodes and propagates along similar nodes based on similarity. For example a set of followers for a particular which can be extended by studying their respective followers and so on.Location based analysis combined with content based analysis provides a useful information that explores a lot of possibilities. Challenges are again getting the specific information as network profiling is very difficult.

D. SOCIAL MEDIA ANALYTIC

The next important question in Social Media analytics is what is being analyzed. This section provides details of what kind of data is analyzed from Social Media.

a. Organization Specific data:
This covers all the data used in engagement tactics that study the data present on social media. The study of ongoing topics and trends on social media helps in analyzing and managing the customer communication.

b. Financial Data
Analyzing the effectiveness of social media investments made by the company can be done by setting clear objectives and measuring the same in terms of financial gains attained. This gives us a clear ROI which might not seem relevant in beginning but may grow slowly.

c. Communication Data
The customer profiles created from getting customer related information and online transactions made by them provides us with a way to track customer relationship management from the social media data. This data though quite useful has a lot of security concerns and may not be shared by customers readily. This might get expensive to obtain in the process and if fallen in wrong hands might even result in loss of customers as well.

d. Trends Data
Getting data generated by a set customers and studying what the customer are saying on social media not only a difficult task to pull off but also costly affair. This analysis studies the trends and focuses on providing predictions for companies. The data mining requires a lot of skill and technological support.

E. UNEXPLORED DIMENSIONS:-

Apart from conventional measures some new measures are being introduced that [6] can provide new insights from Social Media data. These dimensions are -

a. Conversation rate:-
Measuring the amount of response generated on social media by each post or message posted by a company. For example, no of likes on Facebook or number of positive comments on Twitter. High conversation rates provides positive feedbacks for company policies and vice versa.

b. Amplification rate:-
The measure of the reach of a social media data can not only be counted by its first level of conversion but also by second level of conversion. For example the shared post of Facebook can be subsequently shared by many people simultaneously. Thus measuring the amount of sharing being generated from social media data can provides the amount of positive feedbacks being created.

c. Applause Rate:-
Amount of positive feedback generated on the social media helps in creating brand reputation for a company and to provide right moves that goes well with customers. This can be measured by number of likes, favorites, +1s on different social networks.

d. Economic Value:-

The micro and macro conversions done from creating positive impact for a brand on social network through conversions, amplifications and applause can be measured in terms of financial gain generated. This gain gives the measure of monetary gain generated by social media tapping.

III. CONCLUSION

The Social Analytics software is the need of the day to get useful insights for organizations and can provide financial gains when data mining meets customer requirements. But it is very important to strategize the objectives for which social media needs to be analyzed. On the same time a through study of available tools will make it easy to select the tool which meets the requirements completely.

IV. FUTURE SCOPE AND CHALLENGES

New tools can be developed with few complex dimensions that provide new insights with social data. These dimensions can combine data from multiple channels at same time and present it visually which is more user centric[3].

On exploring these dimensions its very important to verify that no security threats are being created and also user privacy in maintained. The social media analytic software should not be used for encroaching on user privacy.

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BIOGRAPHY

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