REVIEW APPLICATION OF SOCIAL NETWORK ANALYTICS IN THE BIG DATA ENVIRONMENT

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CSC 3303 Big Data Analytics

Assignment

Social media is internet-build applications that build on the ideological and technological foundations foundations of web 2.0. The usage of social media sparked a few decades ago and started to be as one of the main platforms in communication. Later, it is also viewed as a market for few parties to gain studies of data that are available in the social media. Few characteristics that are in the social media can be a good elements to be manipulated and later be used for good benefits. The amount of content that is produced daily and the rising number of active users on the platforms. Few parties are motivated to study the issues and trends evolve to discover the risks and chances in this field and derive any useful implications from it. This is due to gain insight of the data that are in the platform.

Social Media Analytics (SMA) is defined as an "emerging interdisciplinary research field that aims combining, extending and adapting methods for analysis of social media data and is about methodologies used to analyse social media data. Furthermore, in this era, businesses make use of SMA for several purposes. New trends in communication can be detected and issues like uncontrollable bad publicity can be solved through the social media data. It is also used as a channel to communicate with customers and help with decision-making processes. This can be a very good paradox catalyst for business to improve company's publicity, market or strategy.

Two aspects are considered as important elements, system perspectives and content creator perspectives. System perspectives covers on the data that can be processed to acquire insights and can help to expand a company in many ways possible. Furthermore, important or influential content creators that has a large crowd under his influence can draw a lot of attention to his contents. Influential content creator can be detected through SMA and he can be lit to a spark to promote or review a business, product or entity. This is the reason data science and big data is one of the top careers demanding industry.

Big Data in social media concerned on a few Vs that is considered to be challenges to handle it; Volume, Velocity, Veracity, Value and Variety. Volume is the scale of produced data that are in the social media that continuously growing. As there are massive amount of active users that are currently interacting, communicating and creating. Velocity is the speed scale of the data produced by the users. Sensors on a mobile phone for instance, camera detect facial recognition to record the users' expression while displaying the content to detect users rate of likeness toward contents may produce a lot of data in the meantime. Veracity represents the reliability of the data concerning whether the data acquired is accurate or not. Value on the other hand, represent the usefulness of the data to an entity that want to process it. Lastly, variety indicates the various data sources and types. It can come in various shapes or forms; video, text,

pictures, audio and etc., and also in various structures; fully, semi, quasi structured or non-structured at all.

Data that are in the social media need to pass a few stages in order to make use of it. There are few stages in this field; discovery, collection, preparation and analysis. Discovery is to study which data that are available to the resources can be useful for analysis. Once the it is discovering, collection stages will start to take place. In this collection stage, many techniques can be used; surveys,online tracking, transactions and many more, however in this social media analytics, the most relevant techniques are social media monitoring and web crawling. Preparation stage concerned about getting the data ready for analysis and processes. The most important part is to get rid of outliers and unuseful attributes, imputing missing values and detect and study the attributes relationship to the target attributes. Next is to do analysis to the preprocessed data. According to the data relevancy, it can used to do prediction or to uncover important insights for the business or both.

SMA gathers data from social platforms and analyses it. From here, business could create content that can grow the business and evaluate the impact of marketing campaigns, make better decisions and build strong strategy for the business and also, improve customer experience and satisfaction and build brand awareness in the media.

Few applications of the SMA has resulted businesses to bomb in the market. An american and media streaming website used SMA to analyze and define the segments of its audience that were most interested in certain types of video games in order to offer insight and more effectively support its clients' ad strategies. On the other hand, SMA can increase engagement and responsiveness; a marketing software company increased the leads generated through social media by 47% over last year using the customers cooperation.

Furthermore, organisations used SMA to measure and improve brand awareness. As brand awareness cause a major impact on customer choices, a British non-profit amplified message and increased fundraising through deep insight acquired from what consumers says about its brand and the success of its promoted hashtags. SMA can also highlight problems and weaknesses to discover new trends and avoid a brand crisis; a brewing company found out that one of its products has a 25% negative rating. Using SMA, the company is able to control the crisis and recover quickly.

In Conclusion, the mass of social information available on the web has made SMA is a very useful tool in this informational era. SMA can help entity to learn from the competition. Monitoring and analyzing unstructured information help companies stay informed about the latest from competitors, as well as the reactions customers and the activities to avoid. One of the most important European supermarkets analyzed social conversations around the home delivery service of its biggest competitor in order to understand who its key customers were, how customers described the service and customers' "level of trust" in the company. Community should study and exploit the availability of SMA to gain maximum benefit from it.