

Era Of Social Media Analytic Tools: A New Approach

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Abstract:-

Data is a word plays a vital role in every kind of aspects. In earlier days data can be expressed manually through communication channels. Day by day technology is enhanced in various etiquette. As per trends, technology is directly proportional to the data. Data will be transmitted from source to destination by using communication channel at wide range massively. The massive data is produced at the moment by using social media, as per today's technology. Data communication will be passing through internet by adopting various kinds of several media platforms (Face book, twitter, snap chat). Raw data is in the form of unstructured where it moves to social media platforms. Unstructured data is unreadable in nature. To overcome this factor Social Media Analytics (SMA) is a weapon to organize the unstructured data into the manner of structured. To perform the analysis on the unstructured data, need to adopt different analytics tools. Among the different analytical tools, Tanagra is the best optimized tool to organized and analyzed the unstructured data and produces the users concerned data.

Keywords:- Structured Data, Unstructured Data, Social Media, Social Media Analytics

Introduction:-

Data is an actual value stored in the system that has been translated into a form for processing. The term used to describe data in digital form is raw data. Data importance, in business world became popular by the terms data processing and Electronic data processing. Data is represented in the form like video, images, sounds and text, as

binary values using patterns of 1's and 0's. In past, data is stored in the form of documents, spreadsheet, etc. At present, data can be stored and processed by using comma-separated values. All the individual facts stored in system can be processed and analyzed to get specified results. Actual value is a fact, can be analyzed to gain

knowledge and to obtain decisions related to present scenario. Representation of data is liable in two different formats like structured and unstructured. Structured data is stored in a predefined format where unstructured data is stored in varied types in their native formats. Structured data uses less memory space rather than unstructured data users more space. The Structured data is a predefined format before being placed in data storage. The organized nature of structured data allows us for easy manipulation and to retrieve query information. The structured data is stored in data warehouse in a structured manner. Changes that occur in the data, will also meet the present requirement of data processing. It results in huge expenses of resources and time generated by human or machine. Unstructured data is stored in local format and not processed until it is used. It comes in varied formats like email, social media posts, presentations, chats, IoT sensor data, and satellite imagery. No need to predefine data earlier and it can be collected easily and quickly based on user's requirement. The largest snag of unstructured data needs data science expertise to prepare and analyze the data. The unstructured data is qualitative rather than quantitative, which means that it is more quality and clear-cut in nature.

Literature Review:-

This paper mainly focuses on various analysis tools. Section I describes the formations of data. Section III focus on various trends towards social media. The study of structured and unstructured data is elaborated in section IV. Section V describes social media analytics. Section VI describes varied social media analysis platforms and tools. Section VII explains the social media analysis: Proposed Tool. Section VIII concludes the paper by describing the potential advantages of the tool Tanagra and its applications along with the future scope.

Trends Towards Social Media:-

Information can be gathered from various social media platforms via internet. To improve or enhance the information users can give feedback related to their browsing data. Social Networking users are using social media through social

network platforms. Such as Face Book, whats app, YouTube, instagram snap chat etc based on their key requirements. In daily routine social media[3] has become an essential part of people's lives. Times have changed. As technology has increased over time our habits have changed. "Once upon a time the eyes were dazzled by the light of the sunrise. At present, the light of ray comes from mobiles is what gives them the dawn". Social Media plays a vital role in today's environment. More content is overloaded by day to day and competition becomes very high at analyzing the data. Social Media analysis is required in this concern. The varied trends in social media at present are TikTok, tiny networks will become popular for advertisements today, data exchange will continue to expand through network channels, and new users can access the social media, it becomes a primary goal, video and audio content in the social media dominated the trends of the people, increase in the use of social media for customer service and finally user generated content will become popular through this media.

Internet is a tool to communicate with more number of people in a network. Social Media is the platform where people communicate virtually through internet. As per current statistics the numbers of social media users are increasing day by day as per technology concerns. Browsing interest and convenient user charges of internet are the two factors behind the data circulation. The table shows the usage of social media platforms by the number of users

Social Media Platforms	Number of Users
Face book	2.89 Billions
Instagram	1.39 Billions
YouTube	2.2 Billions
Tiktok	1 Billion
Snapchat	538 Million
Twitter	436 Millions
Reddit	3 llons

Table 3.1.Social Media Platforms

Structured vs. Unstructured:-

Data is the collection of continues information from social networks, where users can share and view their ideas. Browsing data from various social networks can be obtained in the form of both structured and unstructured. Analyzing the structured data is possible at present scenario. To analyze the unstructured data into the structured form, user can perform analysis on unstructured data. Structured data consists of clearly predefined data types with patterns that make them easily searchable. Data resides in relational databases management system. Data is generated using human or machine readable form. This arrangement is extremely searchable, both with human-generated queries and via algorithms using types of data and field names, such as alphanumerical, currency and date. Unstructured data is not easily searchable, including the formats like audio, video, and social media postings. Data has an internal structure but is not structured. It may be textual or non-textual, and human- or machine-generated. Data is stored in a non-relational database like NoSQL, MongoDB, etc.

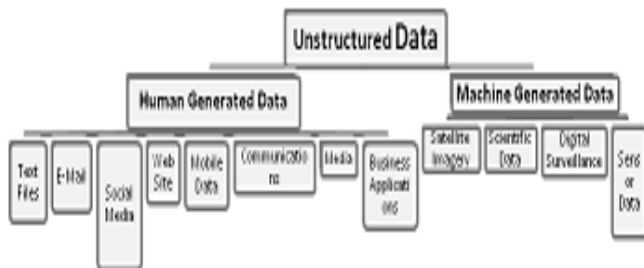


Fig 4.1 Hierarchal Relation Of Unstructured Data

Human generated unstructured data includes text files (word processing, spreadsheets, presentations and logs), E-mail, Social Media(data from Face book, twitter and linkedIn), website(YouTube, instagram and photo sharing sites), mobile data includes text messages and locations, communications like chat, Internet Manager, phone recordings and collaboration software, media (MP3 format, digital photos, audio and video files), Business applications include MS

Office documents and productivity applications. Machine-generated unstructured data includes satellite imagery (weather data, landforms and military movements), Scientific data (oil and gas exploration, space exploration, seismic imagery and atmospheric data), digital surveillance includes surveillance photos and video, sensor data like traffic, weather, oceanographic sensors. Next generation tools are available to analyze unstructured data for specific use case parameters, based on machine learning. Structured data analytics can use machine learning as well, but the substantial volume and many dissimilar types of unstructured data requires it.

Type of data	Description with Examples
Text Files	word processing, spread sheets presentations and logs
E-mail	
Social Media	data from Face book, twitter and linkedIn.
Web Site	YouTube, instagram and photo sharing sites
Mobile Data	text messages and locations
Communications	chat, Internet Manager, phone recordings and collaboration software
Media	MP3 format, digital photos, audio and video files
Business Applications	MS Office documents and productivity applications.
Satellite imagery	weather data, landforms and military movements
Scientific data	oil and gas exploration, space exploration, seismic imagery and atmospheric data
Digital surveillance	surveillance photos and video
Sensor data	traffic, weather, oceanographic

Table 4.1 Data repetitions

Social Media Analytics:-

Social network’s data information is collected from social media platforms. At current it is helpful to

customers, consumers and marketers to make decisions which are relevant from the gathered data. The steps to analyze social data is to collect data generated by users on networking sites and then to analyze that data. The process of analyzing typically takes place in real-time and is then used to determine various patterns. In some terms social data is lacking for several reasons. Users may or may not share their views truly. One more crisis is that many users on social media are not real users but fake robot, bot, accounts.

Social Media Analytics [2] is about people to share their lives with others based on frequent interests. The collection of data from social media sites and blogs and evaluating that data to make business decisions is referred to as Social Media Analytics (SMA). Social media analysis is the process of collecting most valuable data from social media channels to derive conclusions from the data. Social media analytics is the ability to gather and find meaningful data from social network channels to support various operations such as business decisions and more, to determine measures and performance based on the decisions through social media. Natural Language Processing and Machine Learning Technologies are used for performing analysis of unstructured data. Another factor to categorize the social media members by geography, age, gender and marital status is segmentation.

Social Media Analytics Tools:-

A social media analytics tool[4] helps us to create performance reports to share with our team and stakeholders of the world. They assess social media marketing strategy on both macro and micro levels. The top most social media analytics tools are as follows. Hoot Suite Analytics- At one place all the performance data from social networking channels can easily be understand through reports. This tool is best suited for small scale to medium sized businesses and marketing users (Ex Twitter analytics, instagram analytics, face book analytics, pinterest analytics, linkedln analytics all in one place).There is no need to check individual platforms. Google Analytics- Through social media channels it determines the traffic flow of

websites. Web based business professionals are familiar with this tool. Using this tool we can effectively strategize the future scope.UTM Parameters- The benefit of this tool is how much web traffic and conversions are made from social media channels. From this we know that how many people are interacting with the content posted until the user closes the website. HootSuite Insights powered by Brandwatch- It is a powerful enterprise level social listening tool. It analyzes the brand response and customer demographics in real time environment. Brandwatch- It will track and analyze more than 95 million sources including blogs, review sites and as well as social networks. Talkwalker- It monitors conversation from million sources of people, comments and emotions of users.

Social Media Analysis - Proposed Tool:-

Social Media Analysis has reached new heights in the present trending world. The unstructured data can be analyzed by using artificial intelligence and machine learning tools. Data recognition, regression, classification, clustering, association and pattern grouping are important areas of interesting problems in the field of engineering and scientific disciplines. The proposed machine learning integrated social media analysis tool is Tangara. The various tasks involved in Tanagra to perform data analysis and support data mining tasks are: descriptive statistics, Instance selection, Feature selection, Feature construction, Factor analysis.

Conclusion & Future Scope:-

Structured data and unstructured data are ruling the analyzing scenario. Analyzing the structured data into the form of structured manner is possible by applying machine learning and artificial algorithm tools. Tanagra is the best tool to obtain analyzed data as per statistics. In future there is a scope of practical approach on unstructured data to obtain the best optimistic solutions in the form of structured manner.

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