

APPLICATIONS OF BIG DATA IN SOCIAL MEDIA

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Abstract

This paper looks at how big data can be used to analyze social media participation and then, with artificial intelligence, take the analysis further. Social media analytics is one of the most popular areas where big data is being used in today's businesses. It can give you a better understanding of what is happening and help you to analyze your social media interactions better.

Keywords: Social media, big data, velocity, veracity, volume, data analysis, data integrity

I. INTRODUCTION

Big Data is a high volume, Velocity, and variety of information assets that demand cost-effective, innovative forms of information processing for enhanced insight & decision-making. It refers to a massive amount of data that keeps on growing exponentially with time. It includes data mining, data storage, data analysis, data sharing, and data visualization. According to the report, Face book's databases are added to daily with 500+ terabytes of fresh data. Messages exchanged, comments made, and upload of photos and videos are the major ways that this data is produced.

Big data, as the name implies, is a collection of enormous data sets that conventional computer methods cannot process. The phrase applies to both the data and the many supporting frameworks, tools, and methodologies. Players in the sector now face a problem as a result of technological development, the introduction of new channels of communication (like social networking), and new, more powerful gadgets because they must discover alternative methods for handling data. Up until 2003, there were only five billion terabytes of data in existence on Earth. In 2011, the same quantity of data was produced in only two days. This volume was produced every 10 minutes by 2013.

II. BIG DATA APPLICATIONS

Big data is a term that has been talked about by experts in the field in the past few years. It is typically associated with large data sets that are difficult to manage. You could be wondering how you can use big data to better analyse social media participation.

The way you communicate with your audience and customers is key to being successful. Big data is the new way that many businesses are looking to communicate with their audience. It can be abused by businesses or by the government if it is not handled properly. The key to success in the social media world is to be fast and efficient.

- ***Banking and securities***

Big Data is being used by the Securities and Exchange Commission (SEC) to monitor financial market activity. They are currently using network analytics and natural language processors to detect illegal financial trading activity. Retail traders, big banks, hedge funds, and other financial market "big boys" use Big Data for trade analytics in high-frequency trading, pre-trade decision-support analytics, sentiment measurement, Predictive Analytics, and so on.

- ***Communication, Media and Entertainment***

Spotify, an on-demand music service, collects data from its millions of users worldwide using Hadoop Big Data analytics and then analyzes the data to provide informed music recommendations to individual users. Amazon Prime, which aims to provide a great customer experience by combining video, music, and Kindle books in one place, also makes extensive use of Big Data. Infochimps, Splunk, Pervasive Software, and Visible Measures are among the Big Data Providers in this industry.

- ***HealthCare Industry***

The healthcare sector has access to massive amounts of data, but it has been plagued by failures in utilizing the data to reduce rising healthcare costs, as well as inefficient systems that stifle faster and better healthcare benefits across the board. This is primarily due to electronic data being unavailable, insufficient, or unusable. Furthermore, healthcare databases that contain health-related information have made it difficult to link data that can reveal patterns useful in the medical field.

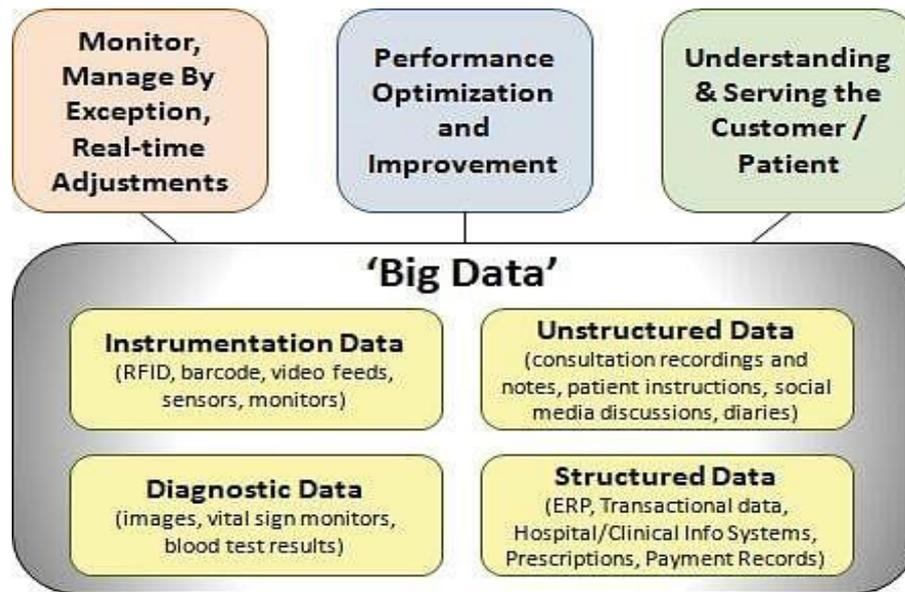


Fig 1: Big Data-Applications

III. BIG DATA INFLUENCING CHANGES IN SOCIAL MEDIA

Social media is a huge part of our daily lives, but it can also be used for business purposes. With big data, you can analyze trends and see how people are using social media. Just like social media, big data is constantly growing and changing. The key is to use big data correctly so you can improve your social media presence. With all of the data social media companies are collecting from their users, they can easily predict and analyze the behaviour of their audience. Big data also helps the company understand how to change the way they market their products. To make their users happy, companies will have to start using big data to their advantage.

IV. UTILIZATION OF BIG DATA BY BUSINESSES IN SOCIAL MEDIA

Social media has become a powerful tool that's being used by many businesses to better their marketing strategies. Businesses can use social media to build relationships and trust with customers, and they can use it to collect data on those customers. If you have a business, social media should be something you pay attention to. Big data is one of the most overused and misunderstood terms in the industry these days. Big data is using a lot of data to generate real-time insights. Data is the most valuable resource in the world because it gives us information about our customers, our competitors, and our industry. The more data you have, the more you can learn about what your customers want.

Big data enables marketers to identify social media trends and gain insights, which can then be used to make engagement decisions such as which users to communicate with, which group of users to send marketing emails to, and so on. It also makes keeping track of demographics easier when deciding which social media platform to target. Businesses can easily understand market sentiments using big data, allowing them to develop winning strategies. Rather than relying solely on past performance to determine what improvements are needed, big data assists in making informed decisions to better meet consumers' future needs and expectations.

V. ANALYZE THE SOCIAL MEDIA THROUGH BIG DATA

Social media has become a valuable resource for businesses, individuals and organizations to connect with their target audience. One of the most interesting parts of participating in social media is being able to interact with others, as well as to keep up with what is happening in the world. Some of the platforms that have become more popular in the past few years include: Twitter, Instagram, Pinterest, Google, and Tumblr.

Big data is the new way to look at and analyze social media participation. Big data can be analyzed by advanced machine learning algorithms, which can make predictions and detect patterns in large volumes of data. By using big data, brands can learn how customers interact with the products, how they use them, and what they do with them afterwards. Based on wisdom get the Relationship among data and go for Discovery

VI. Role of Big Data in Social media

Big data refers to the increasing volume, variety, and velocity of data. In the past, data was generally textual. Now, social media posts and other Internet activities have made non-textual sources of data more common. The amount of data that is shared in social media is increasing at a very rapid pace. Understand Relationship among data. Like get Independent and Dependent data and Relation among them.

Big data in social media analytics is extremely important. When you use big data analytics tools on social media, you can better understand the important metrics of your brand's performance. When you have access to a plethora of metrics such as post comments, reactions, replies, likes, and more. Any company can gain insight into how their customers interact with their content. As a result, all demographics, charts, and graphs provide critical information about your brand. Demographics tell you who your current

audience is, engagement charts show how your audience interacts with your content, and an audience growth graph shows how many likes you get on your social media profile each day.

Finally, all of this gives you a way to work toward shifting your objectives or brand message to better fit your existing customer base. Big data on social media benefits social media marketing the most because marketers can make the best decisions for their business. It results in a better customer experience and increased profitability. Not only that, but social media analytics will help you identify problems with your brand. Regardless of how knowledgeable a marketer is, he cannot properly analyze issues. To find relevant information, he will require the appropriate tools or analytics. Big data is influencing and transforming our everyday lives. It also has numerous applications in other fields.

VII.CONCLUSION

Big data with predictive analytics, high performance computing systems, machine learning, and other strategies have been used in the past and will continue to be used heavily in the future of computational physics. By using these big data-related systems, engineers and scientists have been able to more easily design cars, airplanes, and other vehicles. They have also been able to more accurately predict daily weather as well as natural disasters. Big data analytics has affected the field of computational physics almost since computational physics was created. Computational physics with big data will continue to improve the quality of everyday life even though there will always be challenges, to overcome. Big data can make it simpler for social media marketers to zero in on an individual or a certain customer category and sell them things that would be very successful. This indicates that big data has a significant impact on social media marketing. The amount of individuals interacting with companies on social media has increased throughout the years. So, if you want to succeed in a cutthroat social media climate, you really need to be data-savvy.

VIII. REFERENCES

- [1] DR.C.K.Gomathy , V.Geetha , S.Madhumitha , S.Sangeetha , R.Vishnupriya Article: A Secure With Efficient Data Transaction In Cloud Service, Published by International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5 Issue 4, March 2016, ISSN: 2278 – 1323.
- [2] Dr.C.K.Gomathy,C K Hemalatha, Article: A Study On Employee Safety And Health Management International Research Journal Of Engineering And Technology (Irjet)- Volume: 08 Issue: 04 | Apr 2021
- [3] Dr.C K Gomathy, Article: A Study on the Effect of Digital Literacy and information Management, IAETSD Journal For Advanced Research In Applied Sciences, Volume 7 Issue 3, P.No-51-57, ISSN NO: 2279-543X,Mar/2018
- [4] Dr.C K Gomathy, Article: An Effective Innovation Technology In Enhancing Teaching And Learning Of Knowledge Using Ict Methods, International Journal Of Contemporary Research In Computer Science And Technology (Ijcrct) E-Issn: 2395-5325 Volume3, Issue 4,P.No-10-13, April '2017
- [5] Dr.C K Gomathy, Article: Supply chain-Impact of importance and Technology in Software Release Management, International Journal of Scientific Research in Computer Science Engineering and Information Technology (IJSRCSEIT) Volume 3 | Issue 6 | ISSN : 2456-3307, P.No:1-4, July-2018.
- [6] C K Gomathy and V Geetha. Article: A Real Time Analysis of Service based using Mobile Phone Controlled Vehicle using DTMF for Accident Prevention. International Journal of Computer Applications 138(2):11-13, March 2016. Published by Foundation of Computer Science (FCS), NY, USA,ISSN No: 0975-8887
- [7] C K Gomathy and V Geetha. Article: Evaluation on Ethernet based Passive Optical Network Service Enhancement through Splitting of Architecture. International Journal of Computer Applications 138(2):14-17, March 2016. Published by Foundation of Computer Science (FCS), NY, USA, ISSN No: 0975-8887
- [8] C.K.Gomathy and Dr.S.Rajalakshmi.(2014), "A Software Design Pattern for Bank Service Oriented Architecture", International Journal of Advanced Research in Computer Engineering and Technology(IJARCET), Volume 3,Issue IV, April 2014,P.No:1302-1306, ,ISSN:2278-1323.
- [9] C. K. Gomathy and S. Rajalakshmi, "A software quality metric performance of professional management in service oriented architecture," Second International Conference on Current Trends in Engineering and Technology - ICCTET 2014, 2014, pp. 41-47, doi: 10.1109/ICCTET.2014.6966260.
- [10] Dr.C K Gomathy, V Geetha ,T N V Siddartha, M Sandeep , B Srinivasa Srujay Article: Web Service Composition In A Digitalized Health Care Environment For Effective Communications, Published by International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5 Issue 4, April 2016, ISSN: 2278 – 1323.
- [11] C.K.Gomathy.(2010),"Cloud Computing: Business Management for Effective Service Oriented Architecture" International Journal of Power Control Signal and Computation (IJPCSC), Volume 1, Issue IV, Oct - Dec 2010, P.No:22-27, ISSN: 0976-268X .

- [12] Dr.C K Gomathy, Article: A Study on the recent Advancements in Online Surveying , International Journal of Emerging technologies and Innovative Research (JETIR) Volume 5 | Issue 11 | ISSN : 2349-5162, P.No:327-331, Nov-2018
- [13] Dr.C.K.Gomathy,C K Hemalatha, Article: A Study On Employee Safety And Health Management International Research Journal Of Engineering And Technology (Irjet)- Volume: 08 Issue: 04 | Apr 2021
- [14] Dr.C K Gomathy, V Geetha , T.Jayanthi, M.Bhargavi, P.Sai Haritha Article: A Medical Information Security Using Cryptosystem For Wireless Sensor Networks, International Journal Of Contemporary Research In Computer Science And Technology (Ijcrct) E-Issn: 2395-5325 Volume3, Issue 4, P.No-1-5, April '2017
- [15] C.K.Gomathy and Dr.S.Rajalakshmi.(2014), "Service Oriented Architecture to improve Quality of Software System in Public Sector Organization with Improved Progress Ability", Proceedings of ERCICA-2014, organized by Nitte Meenakshi Institute of Technology, Bangalore. Archived in Elsevier Xplore Digital Library, August 2014, ISBN:978-9-3510-7216-4.
- [16] Parameshwari, R. & Gomathy, C K. (2015). A Novel Approach to Identify Sullied Terms in Service Level Agreement. International Journal of Computer Applications. 115. 16-20. 10.5120/20163-2253.
- [17] C.K.Gomathy and Dr.S.Rajalakshmi.(2014),"A Software Quality Metric Performance of Professional Management in Service Oriented Architecture", Proceedings of ICCTET'14, organized by Akshaya College of Engineering, Coimbatore. Archived in IEEE Xplore Digital Library, July 2014,ISBN:978-1-4799-7986-8.
- [18] C.K.Gomathy and Dr.S.Rajalakshmi.(2011), "Business Process Development In Service Oriented Architecture", International Journal of Research in Computer Application and Management (IJRCM) ,Volume 1,Issue IV, August 2011,P.No:50-53,ISSN : 2231-1009

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