

SOCIAL MOBILITY ANALYTICS CLOUD (SMAC): AN OVERVIEW AND ITS IMPACTS ON SOCIETY

Dr. Anamika Bhargava¹, Aruna Verma², Satinder³

^{1,2} Associate Professor, Department of Computer Science,

DAV Institute of Management, Faridabad Haryana, (India)

³ Assistant Prof. (Extn.), Department of Computer Science,

Govt. College for Women, Hisar Haryana, (India)

ABSTRACT

Every day internet user are daily uploading 1.5 millions of file on net .Now a days a normal person is downloading three times more data as compare to earlier and it will grow in multiple form. This paper will tell how to store, manage, analysis, retrieve this heterogeneous data to transform in a meaning and useful form to help the internet user to retrieve and online analyze different type of data and get interesting pattern to achieve appropriate result. This paper will also tell that what are the techniques and role of big data analytics in fifth wave of IT , a SMAC .

Keywords: Data Retrieval, Data Mining, Data classification, Social media, Mobile, Data Analytics, Cloud Computing.

I. INTRODUCTION

When I look around me trying to findout, what is the next big possibly thing in enterprise circle I am surrounded? some analyst has predicted big money in there. Excuse me? A unified Social, Mobile, Analytics (Big Data analysis and processing) and Cloud based solutions are the 'next big thing'? Today's SMAC Stack— 'the fifth wave' of IT architecture is growing very faster than anything that's come earlier. After five year as many as 100 billion computing devices will be connected to the Web and corporations will be managing 50 times more data they are doing currently. SMAC is a abbreviation of Social, Mobile, Analytics and cloud computing. SMAC will have a multiplying effect on businesses and increase productivity across the organization. Business and research are being transformed by data-driven approach and prediction.

II. SOCIAL MEDIA

Social media are computer based tools that allow people to create, share or exchange data and information, ideas, and pictures/videos in virtual communities/groups and networks. Social media is defined as "a group of Internet-based applications that build on the ideological and technological foundations of web , and that allow the creation and exchange of user-generated content"^[1] Furthermore, social media depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, discuss, and modify user-generated content. They introduce solid and pervasive changes to communication between organizations, businesses, communities, and individuals.^[2] These changes are the focus of the emerging field of techno self-studies. Social media are different from traditional or industrial media in many ways,

including quality,^[3] reach, frequency, usability, immediacy, and permanence. Social media operates in a dialogic transmission system, (many sources to many receivers).^[4] This is in contrast to traditional media that operates under a monologist transmission model (one source to many receivers).

Social media is a combined package of identity, conversations, sharing, presence, relationships, reputation, and groups.”

- **Identity:** This represents the range to which users disclose their identities in a social media setting. This can involve revealing information such as name, gender, age, profession, location, and also confidential information.
- **Conversations:** In This block, the extent to which users communicate with other users in a social media setting. Many social media sites are designed primarily to facilitate conversations among individuals and groups. These conversations happen for all sorts of reasons. People tweet, blog, et cetera to meet new like-minded people, to find true love, to build their self-esteem, or to be on the cutting edge of new ideas or trending topics. Yet others see social media as a way of making their message heard and positively impacting humanitarian causes, environmental problems, economic issues, or political debates.
- **Sharing:** This block represents the extent to which users exchange, distribute, and receive content. The term ‘social’ often implies that exchanges between people are crucial. In many cases, however, sociality is about the objects that mediate these ties between people—the reasons why they meet online and associate with each other.
- **Relationships:** This block represents the extent to which users can be related to other users. Two or more users have some form of association that leads them to converse, share objects of sociality, meet up, or simply just list each other as a friend or fan.
- **Groups:** This block represents the extent to which users can form communities and sub communities. The more ‘social’ a network becomes, the bigger the group of friends, followers, and contacts.

III. MOBILE DEVICE

A mobile device is a small computing device, typically small enough to be handheld (and hence also commonly known as a handheld computer or simply handheld) having a display screen with touch input and/or a miniature keyboard and Samsung, Sony, HTC, LG, Motorola Mobility and Apple are just a few examples of the many manufacturers that produce these types of devices. A handheld computing device has an operating system (OS), and can run various types of application software, known as apps. Most handheld devices can also be equipped with Wi-Fi, Bluetooth, NFC and GPS capabilities that can allow connections to the Internet and other devices, such as an automobile or a microphone headset or can be used to provide Location-based services. A camera or media player feature for video or music files can also be typically found on these devices along with a stable battery power source such as a lithium battery. Early pocket-sized devices were joined in the late 2000s by larger but otherwise similar tablet computers. Input and output of modern mobile devices are often combined into a touch-screen interface. Smartphones and PDAs are popular among those who wish to use some of the powers of a conventional computer in environments where carrying one would be impractical. Enterprise digital assistants can further extend the available functionality for the business user by offering integrated data capture devices like barcode, RFID and smart card reader.

IV. ANALYTICS

Analytics allow businesses to understand how, when and where people consume certain goods and services and Cloud computing provides a new way to access technology and the data a business needs to quickly respond to changing markets and solve business problems. While each of the four technologies can impact a business individually, their convergence is proving to be a disruptive force that is creating entirely new business models for service providers. [5] Big data analysis is used to examine large amount of data by using appropriate information for identification of pattern and unknown correlation. It gives competitive advantage in business strategies and decision and provides greater revenue, customer satisfaction.

Three characteristics of big data analytics

- a. Data volume
- b. Data speed
- c. Data Type

V. CLOUD COMPUTING

Cloud computing is a computing term or metaphor that evolved in the late 2000s, based on utility and consumption of computer resources. Cloud computing involves deploying groups of remote servers and software networks that allow different kinds of data sources to be uploaded for real-time processing to generate computing results without the need to store processed data on the cloud. Clouds can be classified as public, private or hybrid. [6][7] Cloud computing [8] relies on sharing of resources to achieve coherence and economies of scale, similar to a utility (like the electricity grid) over a network.^[2] At the foundation of cloud computing is the broader concept of converged infrastructure and shared services.

VI. THE FOUR PILLARS OF SMAC

The emergence of new technologies over the last 5 years has resulted in a transformational change in the world. From the rise of social media with its over 2 billion subscribers worldwide, to the everywhere spread of mobile devices and the resulting eruption of big analytics and big data, the world around us is changing faster than any one of us could ever imagine.

The essential four key technologies will hold the key to success for enterprises across the world. These include:



Figure 1. Basic Four Pillars of Smac

VII. HOW SMAC FUNCTION COLLECTIVELY

SMAC is hassle for technology developments - 45% population of the world uses social media, number of mobile phones going to be more than the world's residents, software claims forecasting upcoming, and cloud environment gives everything at lowest price - cannot be neglected by companies or Information Technology heads. The impacts of these technologies on corporate is noticeable. If measured commonly, this heap offers magnification of capacity to change the trade model itself. Currently no solution or service is comprehensive devoid of at-least one technology from SMAC pile. Fresh application acquisitions are actuality evaluate on the basis of whether it can install on cloud environment. Big data and advanced analytics are essential phraseology in the business houses. Moving ahead, SMAC heap would be basis of business applications and would impact all applications used by companies. Currently, it is hard to imagine an ERP system without of mobile capability or not existing on cloud network. All organization today has several ways of social networking technology amongst its workforces to make them extra inventive and these technologies are made available on mobile products. Greatest sample can be seen in telecom company – seller can give personalize facilities to customers centered on their methods of service utilization, where customers to make some credit points kept in a cloud based application available from everywhere. Billions of people using social media, mobility and cloud computing every day.

VIII. SMAC INFLUENCE: SOCIAL

Social obsession has mostly not wedged the enterprise applications. To resolve the difficult trade complications, there is hope from these applications. Trade Complications includes:-

- Productions Planning
- Payroll Processing
- Making Balance sheet
- Vendor Evaluations
- Business Processing Improvements etc.

Surviving operations are using these applications from so many years so, they are happy from these applications. However, new users desire to have an experience which they practice in their routine with entirely modern devices and technologies a find them challenging to utilize.

In term of shared functioning, [9]Additional enablement is desired by new users. A trade is required to associates with juniors, colleagues and bosses. Which deal in an enterprise application currently such partnership is not seized as slice of the transaction but is through external means like messenger, emails, phones etc. [10] Choice is offered to chat with the person in-change along with “follow”, “Chat”, “like” and “Comments” and provides a unique experience to use the application in an interesting way.

In shared method of functioning,[11] it moves away from Jam-packed UI to a more natural UE and therefore helps in growing efficiency and effectiveness. Redefining of the user interaction process with their enterprise application which compelling sellers to redraft the application, the “social” empowered UE has this power.

IX. SMAC INFLUENCE: MOBILE

Business applications on mobile products are available but the possibility has been partial so far. Due to immovable nature of most of the enterprise applications most of the users work on sitting their desk themselves. Precise training and acquaintance is needed for complicated enterprise application. But on the other hand where

transactions can be executed rapidly use mobile applications which caters for a simple UE. Moreover, enterprise applications is slower than mobile technologies in modification and regular improvement can be quickly possible in mobile technologies.

Therefore, using of mobiles for enterprise applications restricted. On the basis of mobility practices and implementation, there are two classes:-

Low usage class includes:-

- ERP, BPM, Project Management etc.
- High usages – BI, CRM, etc.

For field workforce, Mobile enterprise applications will be mainly used for taking speedy decision field workforce is used. In enterprise application universe for retrieving data and approvals, substantial practice of mobile is used through desktops and laptops bulk of work would be accomplished.

X. SMAC INFLUENCE: ANALYTICS

Enterprise application have fortune of very smart and valuable information with in them, which they have integrated over an intended period of practices. For producing reports and making decisions on the basis of output, this number so far has been nursed into BI. In most of the circumstances, a brief report devoid which is result of BI application is applied in analytical way.

Moving tendency of this leads into essential slice of enterprise application such as CRM, ERP and BPM. Its area is wide and used for much more forward thinking, upcoming analytical competencies leads to ADVO vied level of analytical practices. And the result driven by advanced analytical competencies is based on

- Past inclinations
- And Present conditions

And for making rapid choice it is based on real time analysis. In this way analytics influences the enterprise in better way and a smart application for forecasting the future trends.

XI. SMAC INFLUENCE: CLOUD

The price of enterprise application coming down through clouds and with the help of it, enterprise access their applications at quicker speed. Discovery of choices to transfer their current applications to cloud and in addition to it purchasing of fresh application on cloud these profits are responsible i.e. quickly work. [12] By proposing modernization, on demand service, entrée to modern technology and power to scale up and scale down. Enterprise get supplier by cloud empowering. Big enterprises prepared their own premise applications. A substitute is offered to these applications by cloud. [13]Cloud carries in so much benefit like

- Information
- Safety
- Regulation
- Confidentiality

Cloud helps in alteration of the methods of the enterprise for installations of applications. The fresh groundwork of enterprise of IT industry is cloud. In Companies to other technologies of SMAC pile, cloud is the quickest way.

XII. SMAC INFLUENCE ON SOCIETY

Several enterprise applications are using by the companies to run their establishments in successful way. These companies giving different packages and services to society in many ways. Directly or indirectly every company or every mobile user is using the facilities if SMAC .Project management, ERP, CRM, Business Intelligence, BPM and many other are the application and these application are in practices from several years. From Pile of SMAC, This application collection is being challenged. Enterprise modifies and in house cover media application are began to establish by business certain application on private clouds are also brought up.

XIII. CONCLUSION

Every enterprise will use at least one technology of SMAC. In the pile of development, business heal should be watchful and its movement should not be over signed, as this technology pile helps the business to convert the operation in the way they want. So, to upset their IT field, this pile has high capabilities. Influence from each of these technologies on their application can be assessed cautiously. No instant implementation of this is required put its influences is essential. Particularly for enterprise application, influence of this whole pile is high.

REFERENCES

- [1]. Kaplan Andreas M., Haenlein Michael (2010). "Users of the world, unite! The challenges and opportunities of social media". *Business Horizons* **53** (1). p. 61.
- [2]. H. Kietzmann, Jan; Kristopher Hermkens (2011). "Social media? Get serious! Understanding the functional building blocks of social media". *Business Horizons* **54**: 241–251.
- [3]. Agichtein, Eugene; Carlos Castillo. Debora Donato; Aristides Gionis; GiladMishne (2008). "Finding high-quality content in social media". *WISDOM – Proceedings of the 2008 International Conference on Web Search and Data Mining*: 183–193.
- [4]. Pavlik & MacIntoch, John and Shawn (2015). *Converging Media 4th Edition*. New York, NY: Oxford University Press. p. 189. ISBN 978-0-19-934230-3.
- [5]. Slide share and Wikipedia
- [6]. Aichner, T. and Jacob, F. (March 2015). "Measuring the Degree of Corporate Social Media Use". *International Journal of Market Research* **57** (2): 257–275
- [7]. Hassan, Qusay (2011). "Demystifying Cloud Computing". *The Journal of Defense Software Engineering (CrossTalk)* **2011** (Jan/Feb): 16–21. Retrieved 11 December 2014.
- [8]. "The NIST Definition of Cloud Computing". National Institute Technology. Retrieved 24 July 2011
- [9]. http://www.caluniv.ac.in/global-mdia-journal/ARTICLE-JUNE-2014/A_3.pdf
- [10]. Tang, Qian; Gu, Bin; Whinston, Andrew B. (2012). "Content Contribution for Revenue Sharing and Reputation in Social Media: A Dynamic Structural Model". *Journal of Management Information Systems* **29**: 41–75.
- [11]. Aichner, T. and Jacob, F. (March 2015). "Measuring the Degree of Corporate Social Media Use". *International Journal of Market Research* **57** (2): 257–275
- [12]. Hassan, Qusay (2011). "Demystifying Cloud Computing". *The Journal of Defense Software Engineering (CrossTalk)* **2011** (Jan/Feb): 16–21. Retrieved 11 December 2014.
- [13]. "The NIST Definition of Cloud Computing". National Institute Technology. Retrieved 24 July 2011
- [14]. "Know Why Cloud Computing Technology is the New Revolution". By Fonebell. Retrieved 8 January 2015.