

Chapter 6

Big Data Analytics in Social Media: An Overview

Janani Balakumar
Bharathiar University, India

Vijayarani Mohan
Bharathiar University, India

ABSTRACT

The rapid development of online social media is the method of collaboratively produced content material presents new possibilities and challenges to both producers and patrons of knowledge. The term big data refers to large-scale information control and evaluation technologies that exceed the functionality of conventional data processing techniques. In the current scenario, social media has gained amazing attention within the last decade. Accessing social media platforms and websites such as Facebook, Twitter, YouTube, LinkedIn, Instagram, and Google+, web technologies have become more responsible. People are becoming more fascinated about and relying on social media platform for records, news, and opinion of other customers on diverse topics. Hence, these situations produce a large volume of data. The main objective of this chapter is to provide knowledge about big data analytics in social media. A brief overview of big data and social media are discussed. Research challenges in social media are also discussed.

DOI: 10.4018/978-1-5225-3534-8.ch006

INTRODUCTION

Big data is a term that designates the massive volume of information and normally it is in the form of structured, semi-structured and unstructured. However the amount of data is not necessary, instead of that, what organizations do with the data is incredibly important. Big data can be analyzed for insights that lead to better decisions and considered for business moves. It is being created by everything around us at all the times (Agrawal et al., 2011). Each digital process and social media exchange creates the big data. Big Data analytics is the progression of analyzing huge volumes of data sets which contain a range of data types to find out the hidden patterns, market trends, unknown correlations, customer preferences and some of the other useful business information.

Meanwhile, Big Data is a new developing field, there is a need for development of new architectures, frameworks, methodologies and algorithms for handling big data. Big Data might be produced by a handheld device, social media, multimedia and some other new applications that must have the features of volume, velocity, variety and veracity. Social media consists of methods, techniques, tools and technologies that use the internet to enable the communication in an open environment. In social media the process of being connected with people, the common entity is 'Big Data'. The following summary facts about social media (Gandomi, 2015),

- Generally 75% of Male users using Facebook and 83% of Female users.
- 22% of the world's total population use Facebook.
- 81% of pertaining of thousand checks Twitter at least once per day.
- The average LinkedIn user spends 17 minutes on the site per month
- 93% of Pinterest users use the platform to plan or make purchases
- 29% of college students use Twitter, compared to 20% with a high school or less.
- Most Instagram users between 18-29 years old, six out of ten in online adults.

NEED FOR INNOVATIVE TECHNOLOGIES

To support and execute the big data, the traditional analytic methods and technologies are ruined. Hence, there is a need to develop a new and efficient technology for the following reason (Bakshi, K. 2013),

- To store and execute the huge volume of dynamic data
- To handle the variety of data simultaneously
- To analyze and manage the unstructured data

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/big-data-analytics-in-social-media/207382

Related Content

Characterization and Predictive Analysis of Volatile Financial Markets Using Detrended Fluctuation Analysis, Wavelet Decomposition, and Machine Learning

Manas K. Sanyal, Indranil Ghosh and R. K. Jana (2021). *International Journal of Data Analytics* (pp. 1-31).

www.irma-international.org/article/characterization-and-predictive-analysis-of-volatile-financial-markets-using-detrended-fluctuation-analysis-wavelet-decomposition-and-machine-learning/272107

Prediction Length of Stay with Neural Network Trained by Particle Swarm Optimization

Azadeh Oliyaei and Zahra Aghababaei (2017). *International Journal of Big Data and Analytics in Healthcare* (pp. 21-38).

www.irma-international.org/article/prediction-length-of-stay-with-neural-network-trained-by-particle-swarm-optimization/204446

Real Time Analysis Based on Intelligent Applications of Big Data and IoT in Smart Health Care Systems

Mamata Rath (2018). *International Journal of Big Data and Analytics in Healthcare* (pp. 45-61).

www.irma-international.org/article/real-time-analysis-based-on-intelligent-applications-of-big-data-and-iot-in-smart-health-care-systems/223166

A Review of Artificial Intelligence Technologies to Achieve Machining Objectives

Deivanathan R. (2019). *Cognitive Social Mining Applications in Data Analytics and Forensics* (pp. 138-159).

www.irma-international.org/chapter/a-review-of-artificial-intelligence-technologies-to-achieve-machining-objectives/218396

Voluntary Reporting of Performance Data: Should it Measure the Magnitude of Events and Change?

Vahé A. Kazandjian (2018). *International Journal of Big Data and Analytics in Healthcare* (pp. 27-37).

www.irma-international.org/article/voluntary-reporting-of-performance-data/209739