Paper title:
A Systematic Review Towards Big Data Analytics in Social Media

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1.Summery:
1.1 Motivation:
With the recent advancements in internet 2.0 and web 2.0 technologies, social media has become a powerful tool for connecting people worldwide. This "society 2.0" era allows users to directly interact with each other, businesses, and even governments. This openness to sharing opinions, views, and ideas has created a vast amount of data known as "Big Social Data." This paper explores the potential of social media big data analytics and its importance in data-driven decision-making. It proposes the "Sunflower Model of Big Data" to categorize and understand big data, and identifies the top ten social data analytics techniques along with relevant statistical/machine learning methods. By providing a comprehensive overview and taxonomy of social media analytics, this research aims to assist researchers in selecting the most suitable analytics for their needs.

1.2 Contribution:
This paper contributes to the field of social media big data analytics by offering a comprehensive overview of recent works, highlighting the significance of social data in decision-making, proposing the novel "Sunflower Model of Big Data" for categorization, identifying the top ten essential analytics techniques with their respective statistical/machine learning methods, and creating a taxonomy of social media analytics to provide a clear understanding and guide future research endeavors.

1.3 Methodology:
This research employed a Systematic Mapping Study (SMS) methodology to identify popular big data analytics techniques used in social media platforms. By following guidelines from Kitchenham & Charters and Petersen et al. (with slight modifications), the research defined six key tasks: research goal, research questions, searching strategy, selection criteria, selection of studies, and result analysis. A specific keyword-based search was conducted in three databases (ACM, IEEE, and ScienceDirect) targeting article titles and abstracts. 85 initial articles were refined to 41 after title/abstract review, and finally narrowed down to 20 articles based on detailed analysis. This process resulted in the selection of 20 relevant articles for further analysis and provided valuable insights into the landscape of big data analytics for social media platforms.

1.4 Conclusion:
This research highlights the significance of big data analytics in understanding human behavior through social media data analysis. It identifies the ten most widely used big data analytics techniques and categorizes them based on purpose, usage, and working area. It also emphasizes the role of machine learning in social media data analysis and suggests future research directions to further enhance the utilization of big data analytics in the field of social media.

2.Limitations:
2.1 First Limitation:
The increasing abundance of social media data presents challenges in managing and accessing it. Data is often distributed across multiple locations, requiring specialized skills and technical expertise to access and process. Additionally, maintaining these large datasets can be expensive and requires significant resources.

2.2 Second Limitation:
Social media data often contains irrelevant information and noise, such as status updates, photos, and videos not relevant to the analysis. Cleaning and filtering this complex data to extract meaningful insights can be time-consuming and costly. Furthermore, integrating and combining data from various social media platforms poses a significant challenge due to inconsistencies and platform-specific formats.

3.Synthesis:
Big data analytics for social media holds immense potential to understand human behavior and aid various disciplines. Ten widely used analytics techniques are identified and categorized. Machine learning plays a crucial role in extracting insights. Challenges include data accessibility, quality, and integration. Future research should focus on specific domains, platforms, algorithms, and attributes. Overcoming these limitations will unleash the full potential of big data analytics in social media.