

A Sentiment Computing for the Opinions Based on the Twitter

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ABSTRACT

The era of social networking has increased the amount of data generated by the user. People from all over the world share their opinions and thoughts on the micro-blogging sites on daily basis. As the use of internet such as websites, social networks, and blogs increases online portals reviews, opinions, recommendations, ratings, and feedbacks are also generated by users. Twitter is one of the most widely used micro-blogging site where people share their reviews in the form of tweets. This user can give their opinion on anything like books, people, hotels, products, research, events, etc. These sentiments become very useful for businesses, governments, and individuals. However, there are several challenges facing the sentiment analysis and evaluation process. These challenges become mountain in analyzing the accurate meaning of sentiments and measuring sentiment polarity. Therefore, we propose an innovative method to do the sentiment computing for opinions. Our method is based on the social media data of a Tweets, a Word Emotion Association Network (WEAN) is built to jointly express its semantics and emotions, which lays the foundation for the opinion sentiment computation.

Keywords: Sentiment computing, Emotion classification, Social media big data, Opinions, Text mining.

I. INTRODUCTION

This Sentiment computing for opinion based on twitter is a desktop-based web application. This web application gives the exact emotion behind any opinion. Sentiment analysis is the practice of applying natural language processing and text analysis techniques to identify and extract subjective information from text. Now a day's large quantity of data is available on internet, data mining is applied to collect knowledge from the data in many domains. Users express their opinions on day-to-day basis about various services or products using micro-blog posts, review sites etc. Among the 111 tweets, twitter is one of the most popular sites. It allow for valuable and well-timed statement of

Semantic distance from a word as good or bad had information. Twitter supports brief explanation of ideas via short messages of tweets that are no longer than 280 characters.

The average number of tweets to report different opinions is at least 100,000. Each tweet is composed of different materials. The social media data is highly dynamic. The rich information hidden in the social media data is a perfect testing ground for the researchers in the big data area and a powerful tool for the corporations and governments to make specific decisions or global strategies. However, the vital issue faced is that the data available may be unstructured. Therefore, getting the sentiments from the huge unstructured data is very difficult and

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**A Survey on Sentiment Computing for the Opinions Based on the
Twitter**

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ABSTRACT

The sentiment computing of opinions is a significant component of the social media big data. The explosive increase of the social media data on the web has created and promoted the development of the social media data mining area. It has attracted many researches, which could support many real-world applications, such as public opinion monitoring for governments and recommendation for websites. However, existing sentiment computing methods are mainly based on the standard emotion thesaurus or supervised methods, which are not scalable to the social media big data. Therefore, we propose an innovative method to do the sentiment computing for opinions. More specially, based on the social media data (i.e., words and emoticons) of a Twitter, a Word Emotion Association Network (WEAN) is built to jointly express its semantics and emotions, which lays the foundation for the opinion sentiment computation. Based on WEAN, a word emotion computation

“Analyse Big Data Electronic Health Records Database using Hadoop Cluster”

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ABSTRACT - Big data and the related technologies have improved health care enormously, from understanding the origins of diseases, better diagnoses, helping patients to monitor their own conditions. By digitizing, combining effectively using big data, healthcare organizations can improve their quality of service by analyzing the effectiveness of a treatment and the efficiency of the healthcare delivery process and drug abuse more quickly and efficiently. General goals to use analytics are, we can predict readmission risks, increase the efficiency of clinical care, and finding opportunities for cost savings. This paper gives various solutions for how and where big data can be applied in the health care system.

Apache Hadoop is open source software used to process huge data sets in the distributed computing environment using clusters and commodity hardware. MapReduce is a programming model for processing such huge data sets. Further, we propose a MapReduce Program to efficiently Analyse Electronic Health Records (EHR) database.

Keywords: Big Data, HealthCare Solutions, Hadoop Use Cases, Clinical Decision Support.

I. INTRODUCTION

Big data is a collection of techniques and technologies, which needs new forms of integration to uncover large hidden values from large datasets that are diverse, complex, and of a massive scale. Big data can also be defined as large volume of unstructured data, which cannot be handled by traditional data management tools like relational database management system. The increasing digitization of healthcare information is opening new possibilities for providers and payers to enhance the excellence of care, improve healthcare outcomes, and reduce costs. Due to advance technologies, the paper works are converted into digital format (digital health records or Electronic Health Records (EHR)). Since information is in digital form, healthcare providers can use some available tools and technologies to analyse that information and generate valuable insights. As health care data is generated in variety of devices, with high velocity and huge volume the big data solutions are required to solve the problems of storage and processing. There are many big data technologies available to solve these issues. But as health care data need to be handled in a different way we many need to customize according to the specific purpose. Big data analysis in health care data can reduce the costs and improve the quality of health care by providing a personalized health care. Big Data in healthcare industry promises to support a

diverse range of healthcare data management functions such as population health management, clinical decision support and disease surveillance. The Healthcare industry is still in the early stages of getting its feet wet in the large-scale integration and analysis of big data.

With 80% of the healthcare data being unstructured, it is a challenge for the healthcare industry to make sense of all this data and leverage it effectively for Clinical operations, Medical research, and Treatment courses.

II. LITERATURE REVIEW

The increasing digitization of healthcare information is opening new possibilities for providers and payers to improve the quality of care, health care results, and minimize the costs. The latest tools and technologies are used on digital information of health care organizations can generate valuable insights. Organizations must also analyse internal and external patient information to more accurately measure risk and outcomes. At the same time, many providers and payers are working to increase data transparency to produce new insight knowledge. Existing analytical techniques can be applied to the vast amount of existing (but currently unanalysed) patient related health and medical data to reach a deeper understanding of results, which can be applied at the point of care. Ideally, these data would inform each physician and their patients during the decision-making process and used to identify the appropriate treatment option for that particular patient.

A. Tools and Application in Health Care System

The health care system has a large volume of unstructured data, so it is impossible to do research and diagnoses without an appropriate tool or technique. Hadoop is a tool that is designed to process huge volumes of data, which is integrated with map-reduce concept. Map reduce can divide the data set into multiple chunks, each will be processed in parallel among multiple nodes. MapR can overcome the limitation of Hadoop, as it has dynamic read-write data layer that provides unparalleled dependability.

B. Application of Big Data in Health Care:

1. Personalized Treatment Planning: Based on the medical histories of every individual patient, diagnoses can be done, which can be used to decide the appropriate treatment and medicine for that patient. Real time analysis will be done using MapR and Hadoop, based on the analytics results, the patient can have personalized care for them.

Collaborating Technologies for Evolution in Agriculture

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ABSTRACT

As India is rightly said “The land of Agriculture”, the main part of income in India is agriculture. Ever since people learned to grow crops, harvest and sell them to market. But the farmers are not aware about the fact that changes in weather conditions, pests, soil fertility and diseases etc. affects the final outcome and they have grown the same crops for centuries. Now there is need to formulate techniques for smart and sustainable agriculture. Smart in sense, employment of technologies such as IoT, Cloud computing, Big data etc. In this proposed system, we emerge sensors into farmland and then Soil and environment properties are sensed, are periodically sent to cloud through IoT. The Cloud is used to store the details of farmers, periodic soil properties of farmlands, and current environmental conditions also information about crop diseases. The Big data analysis on data is done for fertilizer requirements, best crop sequence analysis, and for better crop production.

Keywords: Smart Agriculture, Internet of Things, Cloud Computing and Big data analysis.

I. INTRODUCTION

Agriculture is the major source of income for the largest population in India and is major contributor to Indian economy. However, technological involvement and its usability still have to be grown and cultivated for agro sector in India. Although few initiatives have also been taken by the Indian Government for providing online and mobile messaging services to farmers related to agricultural queries, agro vendor's information to farmers, it provides static data related to soil quality at each region. The system, which utilizes real time data of soil quality based on its current properties for decision-making, has not been implemented. Soil properties determine the quality of soil. The soil pH value and amount of properties like Nitrate, Phosphate and Potassium in the soil is an important factor, which determines the soil quality and type of crop production.

Real time monitoring of these properties helps to maintain soil health intact by applying only required



amount of fertilizers. Soil moisture analysis helps to apply the water whenever necessary avoiding wastage of water. In addition, environmental conditions such as temperature and moisture also affect the crop production and crop diseases. In this respect, we need a dynamic model, which collects such real time data. In support to this, all agriculture entities need to be connected to have decision-making system to increase the production and ease the distribution of agricultural products from farmers to marketing agencies and from vendors to farmers. Such system will also be responsible for controlling other parameters like agro product rates.

Smart mobile phones are available now days to many users including in the rural areas.

Pic controller, which can be interfaced to soil and environmental sensors to collect soil properties and current environmental conditions. This motivates to develop a cost effective and portable sensor kit for sensing the soil properties for current requirements



Experimental Investigation of Single Cylinder Direct Injection CI Engine Performance Using Biofuels

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Abstract

This paper presents the results of investigations carried out on a single cylinder direct injection engine operating on diesel fuel, Methyl esters of Honge and Jatropha Curcas Oil. Optimum parameters for Honge and Jatropha Curcas oil biodiesel when used in a single cylinder DI, CI engine were found experimentally. The raw vegetable oils were converted into their biodiesels (BD) separately by transesterification process. Tests were also carried to determine the properties of the fuels which include Flash point, Fire point, Kinematic viscosity and Gross calorific value at South Western Railways diesel loco shed laboratory. Engine tests were carried out using engine with PC interface separately for petroleum diesel, BD made from Jatropha oil and Pongamia Pinnata oils. Initially tests were carried out at three different injection timings to arrive at the optimum injection timings for the three fuels separately. Engine tests have been carried out with the aim of obtaining comparative measures of brake thermal efficiency (BTE), brake specific fuel consumption (bsfc), brake power, exhaust gas temperature, NO_x, HC and smoke emissions. All the tests were conducted at six different power outputs (No load, 20%, 40%, 60%, 80% and 100% of rated power) and for three injection timings of 19°, 23° and 27° btdc keeping the injection pressure constant at 205 bar. It was observed that the optimum injection timing for Honge oil methyl ester (HOME), diesel and Jatropha oil methyl ester (JOME) at 205 bar injection pressure are 19°, 23° and 27° btdc respectively. It is observed that the brake thermal efficiency for HOME and JOME are slightly lower than neat diesel operation. However the brake specific fuel consumption of HOME and JOME were higher compared to Diesel. Emissions of NO_x and HC also were comparatively lower for HOME and JOME when compared with Diesel for various Brake power conditions.

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Design and Evaluation of MANET attack model with DSR routing protocol

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Abstract

MANET is one of widely used unsecured open nature wireless networks in small to large real time applications. The open nature of such network leads to possibilities of both inside and outside security threats for important communications in MANET. As we aware that, MANET is not having any fixed topology and mobile nodes are moving randomly in network, this also leads to the possibility of security threats in network. The solutions for network security in MANET is designed and evaluated with goal of QoS efficiency while defending against the MANET security threats like malicious user attack, black hole attack etc. The goal of this paper is not to present another security solution based on routing protocol for MANET, rather our aim is to design the MANET routing attack model and its simulation with well known routing protocol DSR by considering with and without attacks in network. This study will gives us the impact of MANET routing attacks on routing performance and identification of areas in which efficient mitigation should be performed through the extensive NS2 based simulation.

Keywords: Mobile ad hoc network, Routing, Security, Wireless Communications, Wireless Network

INTRODUCTION

The ad-hoc means short term and Mobile means 'moving' without the infrastructure. So, the mobile ad-hoc network is created the sets of mobile nodes, these collaborate to communicate with each other nodes externally any fixed central base station [1]. The mobile ad hoc network (MANET) is also known as mesh mobile network, these are the network of electronic (mobile) devices join by the wireless links. The MANET is also called as the temporary network. In the temporary network, the mobile devices are composed separately on another mobile nodes, these node are similar in the wireless network. The mobile nodes in wireless network are moving rapidly in overall wireless network. The MANET networks are mainly created for temporary wireless networks and these networks does not necessary of infrastructure for deploying administration and deploying. The mobile nodes communication are totally based on the routing algorithm, these are used known as multi-hop routing protocols. These protocols are main functionality of sending the data packet from sender mobile number to the expected receiver. In the wireless networks each and every mobile node is working on the forwarding node and host node. The forwarding nodes meaning are the routing algorithm functionality and operation. The another meaning are, the routing algorithm (protocol) for the mobile ad hoc network are invented for foundation the wireless communication network and communication router.

The infrastructure of dynamic communication a route in the overall network is over between the starting node to ending node for communication purpose on demand way and hence these are the main task of MANET routing protocols [2].

The mobile ad hoc networks does not stable network topology required to the cause that nodes are rapidly modify their movement and position. Mobile ad hoc networks having are various kinds of routing algorithm (protocols) these are hybrid, proactive protocol and reactive [3]. So we are used these algorithm (protocol) with various network structure and versatility pattern. The reactive protocols thus are as Ad hoc on demand Distance Vector Routing (AODV) and Dynamic Source Routing (DSR) are commonly used for MANET protocols. The examples of the reactive protocol are Optimized Link State Routing (OLSR) and Sequenced Destination Vectoring (SDS). The hybrid protocol is the various kinds of protocols thus are ZRP (Zone Routing Protocol). These protocols are used in the mobile ad hoc networks. Required to the defective, malicious, virus and self central nature of mobile nodes are outcomes in to deviates node. The any types of the hardware or software defects are responsible for defective nodes. The self central nodes are taking the inputs from the other nodes in the mobile network but do not send to another sending node and these are fall these data packets [4]. The Malicious node in the mobile network accepted another nodes into the incorrect direction enough that the knowing direction by published data that that he has smallest path for knowing recipient of data. This attack is known as DoS attack. The all receive data packet fall by the defective node. The black node attacks are defective performance of the nodes outcomes in to the falling data packets. That due to these types of attack, MANET network becomes the unprotected for the performance serve of used routing protocols. These are multiple explanation are invented for addressing this wireless networks attacks and still the researches are going on. But we use the routing protocols for the mobile network that can be affected on throughput and performance degradations for these mobile networks [5].

Thus in such conditions we need to have good IDS (intrusion detection system) mechanism in place to secure the wireless networks. Recently in literature we have studied the different methods presented by different authors to identify and mitigate the attacks over MANET. However each method is suffered from limitations like when group mobile attackers performing the collaborative attack on MANET, existing methods such as EAACK [1], 2ACK [2] etc. performing worst to recognize and protect thus attack.

In this research paper are, presenting the study on design of attack model and its evaluation with reactive routing protocol called DSR. DSR is one of widely used routing method for

Use of Data mining technology in Agricultural Sustainable development

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1. Abstract:

Data mining is an interdisciplinary subfield of computer science. Data mining technology enables agricultural business to understand the hidden patterns inside weather conditions, fertilizer, water, insecticide, pesticide, mix crop patterns according to main crop. The information helps agricultural business promote their most profitable crop cultivation way and maximize the profit. In addition it encourages farmer to Sustainable development that they may have been missed or overlooked.

Thus data mining technology can be used in agricultural system from the level of designing infrastructure to extract the relationship between crop cultivation, input likes mix crop pattern/modal, fertigation, irrigation, weather season condition, market price analysis for sustainable development thus it can also be used to predict cropping span time, cost and dependencies among other tasks.

So the paper focuses for one parameter that how to predict the weather condition for the month so that farmer can be suggested to take decisions accordingly. The algorithm proposed is WEATHERPREDICT.

2. Introduction:

“Without data you're just a person with an opinion”. W. Edwards Deming. “Turn your data into ultimate value”. “What get measured gets managed” Peter Drucker American Management Guru (1909-2005)

The goal of Data Mining Technology is to turn data into information and information into input to informed decision i.e. insight

Data mining technology helps to determine the sustainability of natural resources while farming practices are done. Thus there is new emerging field called Agricultural data mining, concerns with developing methods that discover knowledge from data originating from agricultural practices. The goals of Agricultural Data Mining are identified as predicting weather conditions and advancing farming practices. Data Mining can be helpful to help farmer to take informed accurate decisions and also for prediction of the result of crop pattern. With the result of agricultural field the farmer can focus on what to cultivate and how to cultivate. Farming practices can be captured and used to develop techniques to cultivate crop.

Boosting Response Aware Model-Based Collaborative Filtering

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Abstract—Recommender systems are promising for providing personalized favourite services. Collaborative filtering (CF) technologies, making prediction of users' preference based on users' previous behaviours, have become one of the most successful techniques to build modern recommender systems. Several difficult problems occur in antecedently planned CF strategies: First is most CF methods ignore users' response patterns and should yield biased parameter estimation and suboptimal performance; Second is some CF methods adopt heuristic weight settings, which lacks a systematical implementation; Third is the multinomial mixture models may weaken the computational ability of matrix factorization for generating the data matrix, thus increasing the computational cost of training. To resolve these issues, we incorporate users' response models into the probabilistic matrix factorization (PMF), a popular matrix factorization CF model, to establish the Response Aware Probabilistic Matrix Factorization (RAPMF) framework. More specifically, we make the assumption on the user response as a Bernoulli distribution which is parameterized by the rating scores for the observed ratings while as a step function for the unobserved ratings. Moreover, we have a tendency to speed up the algorithmic program by a mini-batch implementation and a crafting programming policy. Finally, we design different experimental protocols and conduct systematically empirical evaluation on both synthetic and real-world datasets to demonstrate the merits of the proposed RAPMF and its mini-batch implementation.

Keywords — Cold start technique, recommended system, mini-batch learning, collaborative filtering, RAPMF.

1 INTRODUCTION

RECENTLY, online shopping and entertainment services are growing explosively. Popular service providers, e.g., Amazon, Netflix, iTunes Match, Yahoo! Music, etc., have contributed to building up platforms for consumers to buy new products or rate them. As a coin has two sides, these platforms can provide users attractive services to improve their lifestyle, they also introduce inundated choice which increases users' information overload. Matching consumers' taste and presenting the most appropriate products to them is a key to enhance users' satisfaction and loyalty in using these online services. Hence, recommender systems, providing personalized favourite recommendations, have been prevalently adopted in these services to boost the sales of retailers and trigger the growth of business. Due to the prominence of the commercial value and technical challenges, recommender techniques have attracted the interests of researchers from academia and practitioners from industry [2], [4], [6]. Collaborative filtering (CF) technologies, aiming to automatically predict consumers' preferences by analyzing their previous behaviours, e.g., the transaction history or product ratings, become mainstream techniques for recommender systems. These techniques can usually be classified into memory-based CF methods and model based CF methods, see [2], [6] and the references therein. Overall, previously proposed CF methods mainly focus on manipulating the explicitly observed rating scores to understand users' preferences for future prediction. An explicit rating score clearly indicates a user's preference on a particular item as well as an item's inherent features. The scores that a user assigns to different items convey information on what the user likes and what the user dislikes. The rating values that an item received from different users also carry information on intrinsic properties of the item. The rating information indeed can present users' preferences on different items. However, valuable implicit information of users' response patterns, i.e., some items are rated while others not, is usually less explored in existing CF methods. Several pieces of research publications have been conducted to exploit users' response patterns. For example, the original problem is formulated as the one-class collaborative filtering task, where a heuristic weight in the range of 0 to 1 is introduced to calibrate the loss on those unseen ratings [8], [9] or the user information is embedded to optimize the weight on the unseen ratings via users' similarity. The multinomial mixture model is combined with conditional probability tables with Bernoulli distribution to model the non-random response. This work is also extended to specify the probability that a rating is missing in a logistic form which depends on both the values of the underlying ratings and the identity of the items. The previous work, however, may suffer from some practical limitations: 1) the heuristic weight setting methods may lack a systematic way to model users' response patterns; 2) the multinomial mixture models may weaken the computational ability of generating data matrix and increase the computational cost of training the model. To overcome the above limitations, in this paper, we propose a Response Aware Probability Matrix Factorization (RAPMF) framework by expanding the Bernoulli response patterns to probability matrix factorization for users' ratings in [13]. Different from previously proposed methods, we present a succinct assumption on response patterns and further investigate the properties and effectiveness of the proposed RAPMF. We highlight the key contributions of this article as follows: • First, our proposed RAPMF framework consists of a data model and a response model. The data model generates users' ratings