

CLUSTERING TECHNIQUES USING SWARM OPTIMIZATION

^{1,2}**V.Manogna, B.Mamatha**, Dept. of Cse, Sri Chandrasekharendra Saraswati Viswa Mahavidyalaya University, Kanchipuram.

³**Ms.E. Padma**, Assistant professor, Dept. of Cse, Sri Chandrasekharendra Saraswati Viswa Mahavidyalaya University, Kanchipuram

ABSTRACT: Enhancement rebates on general information, by means of an algorithm. In order to overcome this problem, the data on the metals, are unable to move a particle of the swarm itself in the effect cannot be conveyed to the algorithm. PSO performs in parallel gathering web analytics data services and the like. Counting developer duty cloud of large web developer. This composition has become a problem in the cloud. To reduce this problem, in the cloud in parallel Optimization (PO) proposed a spark is based on a distributed environment. The particle spark Line Optimization (SPSO) takes algorithm to optimize the choice of inert weight data service performance. PSO is scalable, robust and simple.

INTRODUCTION

On the first point social media website "easy to meet people from the site, which makes it similar to find the courage communicate and share content and build a city" This type of site allows and encourages various activities, such as business or social mixed. Social categories include digital media library, e-commerce, entertainment, market geotagging, social, social review, social games and social networking. The social network of the total social media, which is a social structure that people from the common interest. Social media channels are using web technologies, mobile technologies desktops. These technologies create

the most interactive platforms through which individuals, communities and organizations can share knowledge, evaluate and modify user-read comments and online content. This is the progress of the communication between the current event, organizations, communities, and of men. , A great company of men, in the way of technology and the sharing of social media are changing, and more and more is developed.

LITERATURE REVIEW

Literature survey is the most important step in software development process. Before developing the tool it is

necessary to determine the time factor, economy and company strength. Once these things are satisfied, then the next step is to determine which operating system and language can be used for developing the tool. Once the programmers start building the tool the programmers need lot of external support. This support can be obtained from senior programmers, from book or from websites. Before building the system the above consideration are taken into account for developing the proposed system. The major part of the project development sector considers and fully survey all the required needs for developing the project. For every project Literature survey is the most important sector in software development process. Before developing the tools and the associated designing it is necessary to determine and survey the time factor, resource requirement, man power, economy, and company strength. Once these things are satisfied and fully surveyed, then the next step is to determine about the software specifications in the respective system such as what type of operating system the project would require, and what are all the necessary software are needed to proceed with the next step such as developing the tools, and the associated operations.

A google wave-based fuzzy recommender system to disseminate information in University Digital Libraries 2.0

Nowadays Digital Libraries 2.0 are mainly based on the interaction between users through collaborative applications such as wikis, blogs, etc. or new possible paradigms like the *waves* proposed by Google. This new concept, the *wave*, represents a common space where resources and users can work together. The problem arises when the number of resources and users is high, then tools for assisting the users in their information needs are necessary. In this case a fuzzy linguistic recommender system based on the Google Wave capabilities is proposed as tool for communicating researchers interested in common research lines. The system allows the creation of a common space by means a *wave* as a way of collaborating and exchanging ideas between several researchers interested in the same topic. In addition, the system suggests, in an automatic way, several researchers and useful resources for each wave. These recommendations are computed following several previously defined preferences and characteristics by means of fuzzy linguistic labels. Thus the system facilitates the possible collaborations between multi-disciplinar researchers and recommends complementary resources useful for the interaction. In order to test the effectiveness of the

proposed system, a prototype of the system has been developed and tested with several research groups from the same university achieving successful results.

A hybrid fuzzy-based personalized recommender system for telecom products/services

The Internet creates excellent opportunities for businesses to provide personalized online services to their customers. Recommender systems are designed to automatically generate personalized suggestions of products/services to customers. Because various uncertainties exist within both product and customer data, it is a challenge to achieve high recommendation accuracy. This study develops a hybrid recommendation approach which combines user-based and item-based collaborative filtering techniques with fuzzy set techniques and applies it to mobile product and service recommendation. It particularly implements the proposed approach in an intelligent recommender system software called Fuzzy-based Telecom Product Recommender System (FTCP-RS). Experimental results demonstrate the effectiveness of the proposed approach and the initial application shows that the FTCP-RS can effectively help customers to select the most suitable mobile products or services.

Recommender systems based on social networks

The traditional recommender systems, especially the collaborative filtering recommender systems, have been studied by many researchers in the past decade. However, they ignore the social relationships among users. In fact, these relationships can improve the accuracy of recommendation. In recent years, the study of social-based recommender systems has become an active research topic. In this paper, we propose a social regularization approach that incorporates social network information to benefit recommender systems. Both users' friendships and rating records (tags) are employed to predict the missing values (tags) in the user-item matrix. Especially, we use a biclustering algorithm to identify the most suitable group of friends for generating different final recommendations. Empirical analyses on real datasets show that the proposed approach achieves superior performance to existing approaches.

A Hybrid Trust-Based Recommender System for Online Communities of Practice

The needs for life-long learning and the rapid development of information technologies promote the development of various types of online Community of Practices. In online CoPs, bounded rationality and metacognition are two major

issues, especially when learners face information overload and there is no knowledge authority within the learning environment. This study proposes a hybrid, trust-based recommender system to mitigate above learning issues in online CoPs. A case study was conducted using Stack Overflow data to test the recommender system. Important findings include: (1) comparing with other social community platforms, learners in online CoPs have stronger social relations and tend to interact with a smaller group of people only; (2) the hybrid algorithm can provide more accurate recommendations than celebrity-based and content-based algorithm and; (3) the proposed recommender system can facilitate the formation of personalized learning communities.

RecomMetz: A context-aware knowledge-based mobile recommender system for movie showtimes

Recommender systems are used to provide filtered information from a large amount of elements. They provide personalized recommendations on products or services to users. The recommendations are intended to provide interesting elements to users. Recommender systems can be developed using different techniques and algorithms where the selection of these techniques depends on the area in which they will be applied. This paper proposes a recommender system in the leisure domain, specifically in

the movie showtimes domain. The system proposed is called RecomMetz, and it is a context-aware mobile recommender system based on Semantic Web technologies. In detail, a domain ontology primarily serving a semantic similarity metric adjusted to the concept of “packages of single items” was developed in this research. In addition, location, crowd and time were considered as three different kinds of contextual information in RecomMetz. In a nutshell, RecomMetz has unique features: (1) the items to be recommended have a composite structure (movie theater + movie + showtime), (2) the integration of the time and crowd factors into a context-aware model, (3) the implementation of an ontology-based context modeling approach and (4) the development of a multi-platform native mobile user interface intended to leverage the hardware capabilities (sensors) of mobile devices. The evaluation results show the efficiency and effectiveness of the recommendation mechanism implemented by RecomMetz in both a cold-start scenario and a no cold-start scenario.

A novel hybrid approach improving effectiveness of recommender systems

Recommender systems support users by generating potentially interesting suggestions about relevant products and information. The increasing attention towards such

tools is witnessed by both the great number of powerful and sophisticated recommender algorithms developed in recent years and their adoption in many popular Web platforms. However, performances of recommender systems can be affected by many critical issues as for instance, over-specialization, attribute selection and scalability. To mitigate some of such negative effects, a hybrid recommender system, called Relevance Based Recommender, is proposed in this paper. It exploits individual measures of perceived relevance computed by each user for each instance of interest and, to obtain a better precision, also by considering the analogous measures computed by the other users for the same instances. Some experiments show the advantages introduced by this recommender when generating potentially attractive suggestions.

A recommender system for researchers based on bibliometrics

Recommender systems (RSs) exploit past behaviors and user similarities to provide personalized recommendations. There are some precedents of usage in academic environments to assist users finding relevant information, based on assumptions about the characteristics of the items and users. Even if quality has already been taken into account as a property of items in previous works, it has

never been given a key role in the re-ranking process for both items and users.

In this paper, we present REFORE, a quality-based fuzzy linguistic REcommender system FOr REsearchers. We propose the use of some bibliometric measures as the way to quantify the quality of both items and users without the interaction of experts as well as the use of 2-tuple linguistic approach to describe the linguistic information. The system takes into account the measured quality as the main factor for the re-ranking of the top-N recommendations list in order to point out researchers to the latest and the best papers in their research fields. To prove the accuracy improvement, we conduct a study involving different recommendation approaches, aiming at measuring their performance gain. The results obtained proved to be satisfactory for the researchers from different departments who took part on the tests.

A peer-to-peer recommender system for self-emerging user communities based on gossip overlays

Gossip-based peer-to-peer protocols proved to be very efficient for supporting dynamic and complex information exchange among distributed peers. They are useful for building and maintaining the network topology itself as well as to support a pervasive diffusion of the information

injected into the network. This is very useful in a world where there is a growing need to access and be aware of many types of distributed resources like Internet pages, shared files, online products, news and information. Finding flexible, scalable and efficient mechanisms addressing this topic is a key issue, even with relevant social and economic aspects. In this paper, we propose the general architecture of a system whose aim is to exploit the collaborative exchange of information between peers in order to build a system able to gather similar users and spread useful suggestions among them.

Social and Content Hybrid Image Recommender System for Mobile Social Networks

One of the advantages of social networks is the possibility to socialize and personalize the content created or shared by the users. In mobile social networks, where the devices have limited capabilities in terms of screen size and computing power, Multimedia Recommender Systems help to present the most relevant content to the users, depending on their tastes, relationships and profile. Previous recommender systems are not able to cope with the uncertainty of automated tagging and are knowledge domain dependant. In addition, the instantiation of a recommender in this domain should cope with problems arising from the collaborative filtering inherent nature

(cold start, banana problem, large number of users to run, etc.). The solution presented in this paper addresses the abovementioned problems by proposing a hybrid image recommender system, which combines collaborative filtering (social techniques) with content-based techniques, leaving the user the liberty to give these processes a personal weight. It takes into account aesthetics and the formal characteristics of the images to overcome the problems of current techniques, improving the performance of existing systems to create a mobile social networks recommender with a high degree of adaptation to any kind of user.

A Personalized Recommender System Based on a Hybrid Model

Recommender systems are means for web personalization and tailoring the browsing experience to the users' specific needs. There are two categories of recommender systems; memory-based and model-based systems. In this paper we propose a personalized recommender system for the next page prediction that is based on a hybrid model from both categories. The generalized patterns generated by a model based techniques are tailored to specific users by integrating user profiles generated from the traditional memory-based system's user-item matrix. The suggested system offered a significant improvement in prediction

speed over traditional model-based usage mining systems, while also offering an average improvement in the system accuracy and system precision by 0.27% and 2.35%, respectively.

Existing systems:

- It optimizes the iterative problem parallels to improve solution based on measure of quality.
- It cannot work with problems of scattering.
- It has low convergence rate in the iterative process.

Proposed system:

- PSO adopts real number code and it is decided directly by the solution.
- No. of dimensions is equal to constant of solution.
- Parallel optimization can be done easily.
- Computational cost is less.

Hardware requirements:

- Operating system: Microsoft Windows 10
- Ram: 4GB
- Processor: Intel i3 core processor

Software required:

- Back end : Microsoft Sql Server Management studio
- Front end : Project Data base

Algorithm:

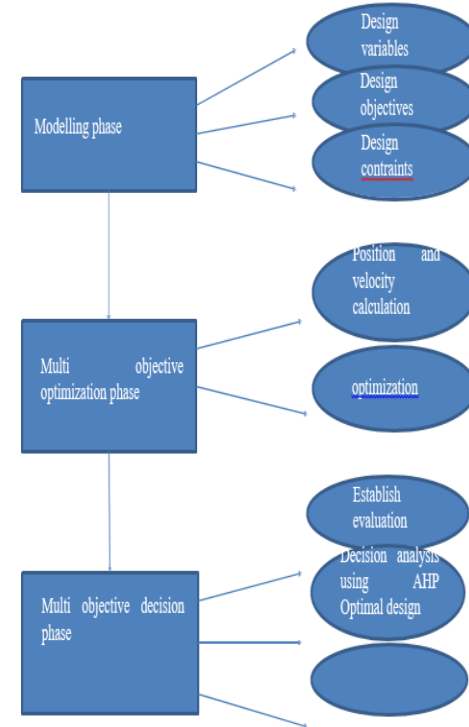
- Optimization particle swarms, which optimizes the use of the nature of the problem for the rebates.
- There is no movement of the particles from each of its best value.
- PSO metaheuristic it does not make assumptions about the very few problem.
- The space in which to move in accordance with the formula.
- What is the best known motion of the particles from the directors effectively the same situation very well known in the examination.
- He chose the suspension parameters can have a significant impact on the performance itself.
- Using PSO confer any of the skills we have to find their own circles, density, grouping the arts models, and given the data set. Microsoft SQL Server clustering management skills to perform the study for best results.

- The selection of the parameters of the suspension gives a good performance.
- Suspension settings can also be performed by the optimizer Optimization The goal is not to force any of the skills and breadth of its intensity.
- From the definition of the multitude of beasts and the mathematical sciences and to exchange information of a subset A can be shared by all the forces of particles of matter in which everyone.
- Use a swarm ring Logs

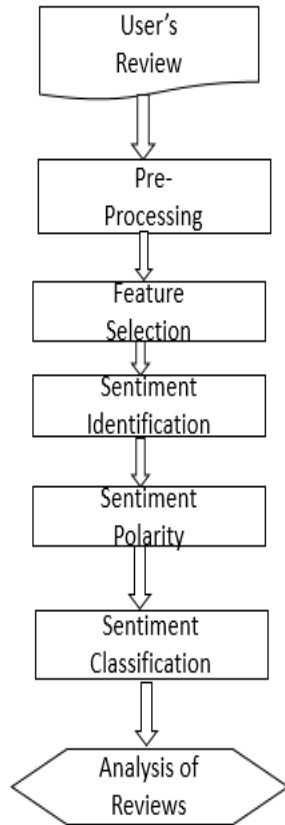
MODULES

- Collection of User’s Reviews
- Pre-Processing
- Feature Selection
- Sentiment Word Identification
- Sentiment Polarity Identification
- Sentiment Classification
- Analysis of Reviews

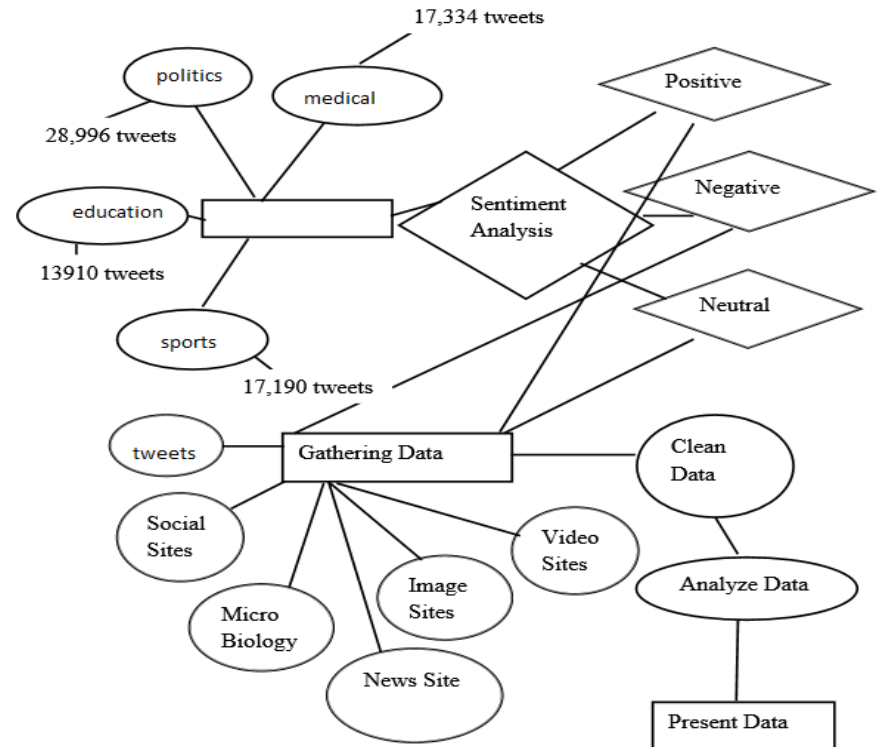
System architecture:



Data flow diagram:



ER DIAGRAM



Description of architecture:

- A collection software and hardware through the process of defining
- The framework components and interfaces to establish what are called "system architecture".
- There are three levels of the system architecture of the PSO algorithm
- This face is composed of time
- 2. 3 a multi-objective itself. A multi-objective plan
- For the first time in recent centuries suspension system architecture and algorithm.
- At this time, we design variables, some very deceiving and forced to define the scope of the process itself.
- The second is a very multi-objective in place to calculate the time and speed parameters that are defined at 1 time.
- Then, we have to reduce the iterative process to optimize the parameters of the incremental value of the speed of the situation.
- The third time is the time for a multi-policy objective of the trial was to establish where the parameter values rebates.
- We analyze the design process through analysis hierarchy (AHP).

- Finally, an optimal design we implement the values of rebates
- Soccer calculated using a position and speed values 2.

CONCLUSION

In this work proposed to use the Twitter API using the tool to the R open source. The Twitter tweets are collected and give rise to a preprocessing tool for this task. A tool as open source in a text mining to analyze streaming data from social media such as Facebook and Twitter, etc. There are a variety of management lexicons, and other unsupervised doth not come near, one dictionary is based on the analysis of the modes of which are of use must be the mind and of the bodies. Lot of different datasets available for review, product reviews, Spinions NBC, etc. In this method, opinion and seventy calculated by counting positive and negative signal hashtag tweets of a neutral opinion of predicting certain outcomes. From the above analysis of the different analysis #hashtags sense, the industry people, then of the opinion that the state can find.

REFERENCES

- [1] J. Serrano-Guerrero et al., "A google wave-based fuzzy recommender system to disseminate information in University Digital Libraries 2.0," *Information Sciences*, Vol. 181, no.9, pp. 1503-1516, May. 2011.
- [2] Z. Zhang et al., "A hybrid fuzzy-based personalized recommender system for telecom products/services," *Information Sciences*, Vol. 235, pp. 117-129, Jun. 2013
- [3] Z.B. Sun et al., "Recommender systems based on social networks," *Journal of Systems and Software*, Vol. 99, pp. 109-119, Jan. 2015
- [4] X.L. Zheng et al., "A Hybrid Trust-Based Recommender System for Online Communities of Practice," *IEEE Transactions on Learning Technologies*, Vol. 8 no. 4, pp. 345-356. Apr. 2015.
- [5] L.O. Colombo-Mendoza et al., "RecomMetz: A context-aware knowledge-based mobile recommender system for movie showtimes," *Expert Systems with Applications*, Vol. 42, no. 3, pp. 1202-1222, Feb. 2015.
- [6] G.M.L. Sarne, "A novel hybrid approach improving effectiveness of recommender systems," *Journal of Intelligent Information Systems*, Vol. 44, no. 3, pp. 397-414, Jun. 2015.
- [7] A. Tejada-Lorente et al., "REFORE: A recommender system for researchers based on bibliometrics," *Applied Soft Computing*, Vol. 30, pp. 778-791, May 2015.
- [8] R. Baraglia et al., "A peer-to-peer recommender system for self-emerging user communities based on gossip overlays," *Journal of Computer and System Sciences*, Vol. 79, no. 2, pp. 291-308, Mar 2013.
- [9] F. Sanchez et al., "Social and Content Hybrid Image Recommender System for Mobile Social Networks," *Mobile Networks & Applications*, Vol. 17, no. 6, pp. 782-795, Dec. 2012.
- [10] W. Hussein et al., "A Personalized Recommender System Based on a Hybrid Model," *Journal of Universal Computer Science*, Vol. 19, no.15, pp. 2224-2240, Sep. 2013.
- [11] M. Tavakolifard and K.C. Almeroth, "Social Computing: An Intersection of Recommender Systems, Trust/Reputation Systems, and Social Networks," *IEEE Network*, Vol. 26, no. 4, pp. 53-58, Jul-Aug 2012.