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Efficient Method for finding Friends in Social Network using Linear Feedback Mechanism

S. Gomathy
M.E final year Computer Science and Engineering
Mahendra Engineering College (Autonomous)
Namakkal Dt.

Mrs.N.Radha,**M.E.,**,Asst.Professor,
Department of Computer Science & Engineering
Mahendra Engineering College (Autonomous)Namakkal

Abstract

Every day we are overwhelmed with many choices and options, the same recommendation systems have gained in popularity in providing suggestions. Today, each web application has its own recommendation system. While the recommendation systems for social networks differ from other types of system, because the items presented rational people rather than goods. Therefore, has to be considered "social" factor when making a recommendation. We as one of the most popular social networking sites, which is Facebook, as it offers impressive features. Here we will mainly recommending to focus with similar interests friend who discriminates among all existing where Facebook a friend of a friend approach social graph used to recommend a friend who may not be the most appropriate one user settings to friend selection real to reflect life. And Netflix, Foursquare recommend all the items on the focus. Friend book is a novel semantic-based friend recommends referral system for social networks based on their lifestyles rather than the social graph, the friends of the user. Friend book discovered lifestyles of users, measures the similarity of lifestyles between users when their lifestyles have a high similarity to friends recommends users. Users for daily life is like life modeled documents are extracted from the user lifestyles using the algorithm Latent Dirichlet Allocation; Similarity metric to measure the similarity of lifestyles between users, user impact in terms calculated to the lifestyles with a friend-matching diagram. integrated A linear feedback mechanism that utilizes user feedback to improve recommendation accuracy.

Keywords: friend book, activity recognition, weighted page rank algorithm.

1. INTRODUCTION

Social networks can be regarded as a milestone in Web history with the advancement in online social life. A social network is "a group of people (or organizations or other social units) connected by a series of social relationships, such as friendship, joint working or exchange of information."

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Fig 1: Social Networks

Social networking sites like Facebook (FB) focus on building and reflecting of social networks and

Relations between the Community, similar interests. Facebook showed tremendous changes in theway how people communicate and are connected together. And especially the friends based on previous existing relationships are recommended and select among them as friends as Facebook use of social link analysis under which power that already share common friends, and recommends symmetrical users as common friends, and connect people across the country. Which might not be appropriate to recommend, since it does not reflect user settings to friend selection in real life?Social networking sites have huge amount of data from users, according to the recent survey. Every single oneSocial networking site makes record of the activities of the user like his / her likes; which users love? Which users do? What is the user's hobby? Etc., and it has to understand the user behavior, one of the best example of focus we won could consider, Facebook in it.In our proposed method, we use incremental calculation of Page Rank can be implemented step by step (or) distributive for large developing graph. In addition, we propose a new algorithm, Weighted Page Rank algorithm, on popularity of pages of distributed based ranking score and we set threshold for each edge and it may represent the similarity relationship of friend-matching diagram. Friend book is a semantic-based friend referral system for social networks. Unlike the mechanisms friend leave Recommendation on social graphs into existing social networking services, Friend Book extracted lifestyles of user-centered data collected and recommend potential friends to users when they share similar lifestyles.

Challenges

- System to take user feedback into consideration to improve the accuracy of future recommendation.
- Becoming increasing infeasible when size of system becoming very large.
- In this paper, similarity threshold used for friend matching graph is fixed.

2. RELATED WORK

E. Miluzzo et al. [4] enables technology for mobile phone sensing to know about human behavior and context on mobile phones which uses combination of collaborative sensing and classification techniques. This is the first system that applies distributed machine learningtechniques and collaborative inference

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conceptsto mobilephones. To achieve better interference accuracy we areusing collaborative sensing. Machine learning techniquesspecifically designed to run directly on sensor enabledmobile phones. This paper is an automated approach toupdating models over time such that the classifiers arerobust to the variability in sensing conditions and settingscommon to mobile phones.

Advantages

- The classifiers are robust.
- The classifier methods are automated to update the models.
- Collaborative inference is implemented to achieve better accuracy.

K. Farrahi et al. [3] investigate probabilistic topic models as unsupervised machine learning tools for largescalesocio-geographicactivitymining.Theyproposeamethodologybasedon LatentDirichletAlgorithm(LDA)forthediscoveryof dominantlocationroutines.In thispapertheyusedtwoProbalisticModelnamelyMulti-LevelTopicModelandPairwise–DistanceTopicModel.First theyproposeaMulti-LevelTopicModelasa methodtoincorporatemultipletimedurationsequencesintoaprobabilisticGenerativetopicmodel.Andthenthey propose thePairwise-DistanceTopicModelas anapproachto addresstheproblemofmodelinglongdurationactivitieswithtopics.Overall,thisthesisaddressesInvestigationsprincipledonmathematicalmodelsandmultipletypesof mobilephonesensordata areperformedto minereallifehumanactivitiesinlarge-scalescenarios.

Advantages

- Used for computing large scale data.
- Removes the need for coarse time-slot.

T. Huynh *et al.* [2] develop an unsupervisedmethodology based on two differing probabilistic topicmodels and apply them to the daily life. They haveproposed a method to represent location sequences, and incorporated this into the LDA and ATM topic models.The resulting distributions of words for latent topics, aswell as topics given days, and topics given users, re-vealhidden structure of routines which use to perform varyingtasks, including finding users or groups of users thatdisplay given routines, and determining times.

Advantages

- Used to compute large amount of data easily.

KatayounFarrahi*et al.* [5] proposed a method torecognize daily routines as a probabilistic combination ofactivity patterns. The use of topic

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models enables theautomatic discovery of patterns in a user's daily routine.They report experimental results that show the ability ofthe approach to model and recognize daily routines without user. The conclusion of this paper, the approachused is highly appealing for the field of activityrecognition. To overcome this, they used a techniquenamely unsupervised techniques such as clustering.

Advantages

- Recognizes the daily routines without userannotation.
- Enables scalability to long term recordings ofactivities.

Wenpu Xinget al. [6] present with the rapidgrowth of the Web, users get easily lost in the rich hyperstructure. Therefore, finding the content of the Web andretrieving the users' interests and needs from theirbehavior have become increasingly important. In thispaper, Web Mining is used to categorize users and pagesby analyzing the users' behavior, the content of the pages,and the order of the URLs that tend to be accessed inorder. Two Page Ranking Algorithm is used namely HITSand Page Rank. Both algorithms treat all links equallywhen distributing rank scores. Weighted Page Rankalgorithm is used to improve the performance. The resultsof this simulation show that Weighted Page Rankperforms better than the conventional Page Rankalgorithm in terms of returning larger number of relevant pages to a given query.

Advantages

- Better performance than traditional Page Rank algorithm.
- Identifies a large number of relevant pages for a given query.
- Rank scores are based on the popularity of the pages.

3. SYSTEM DESIGN

This architecture describes how we use incremental calculation of Pagerank, can be implemented gradually distributing for large developing graph. In addition, we propose a new algorithm, Weighted Page Rank algorithm, on popularity of pages of distributed based ranking score and we set threshold for each edge and it may represent the similarity relationship of friend matching diagram.

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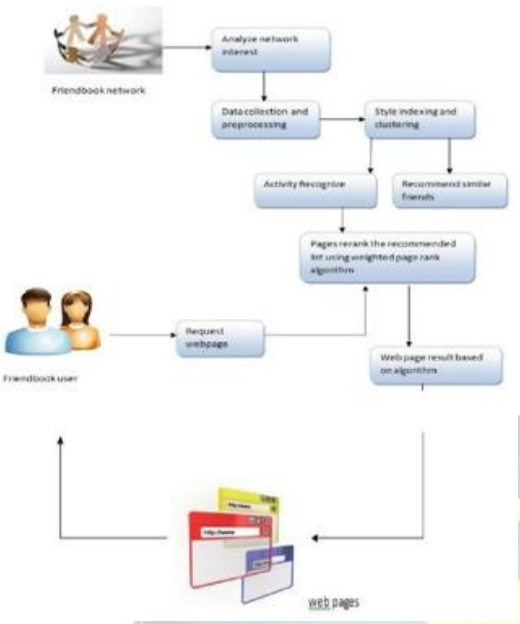

Fig 2: System Architecture

4. PROPOSED WORK

Our proposed system is the problem of calculating large amount of data and scalability. In our proposed method, we use incremental calculation of Page Rank, (or) distributed be implemented gradually for large developing graph. In addition, we propose a new algorithm, Weighted Page Rank algorithm, on popularity of pages of distributed based ranking score and we set threshold for each edge and it may represent the similarity relationship of friend-matching diagram. We have also implemented efficiently to ensure Hex Converter the password of the user. Friend book gives a list of people with the highest scores recommendation to the query user. Finally integrated friend book a feedback mechanism to improve the recommendation accuracy.

5.METHOD

a) Life style modeling

Lifestyles and activities are reflections of daily life at two different levels, which may be on daily lifetreated as a mixture of lifestyles and lifestyles as a mixture of activities. This is analogous to the handling of documents as an ensemble of themes and topics as an ensemble of words. By using the latest developments in the field of text mining, we model the daily lives of users and situations, lifestyles as themes and activities than words.

b) Activity recognition

We first need to classify the activities of the user or to recognize. Lifestyles are reflected in the rule as a mixture of motion activities with different probability. Generally, there are two mainstream approaches: supervised learning and unsupervised learning. In both approaches, sophisticated techniques have been developed and tested. In practice, the number of activities in the analysis is concerned unpredictable and it is difficult to collect a large amount of ground truth data for each activity, makes the supervised learning algorithms unsuitable for our system. Therefore, we use unsupervised learning approaches to identify activities. Here we take the popular K-means for grouping data in

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cluster-clustering algorithm, each cluster represents an activity. Note that motion detection is not the main concern of our work. Other more complicated clustering algorithms can be used safely. We choose K-means for its simplicity and effectiveness.

c) Friend matching graph construction

To the relationships between users that characterize in this section, we propose the friend-matching curve that represent the similarity between their lifestyles and how. Affect other people in the image Based on the friend-matching chart, we can obtain a user reflects affinity, how likely is that user can be selected as one other network friend of the user. We define a new similarity metric, the similarity between two lifestyle measure vectors. Based on the similarity metric, we can model the relationships between users in real life as a friend matching graph. The friend-matching graph has been constructed to reflect lifestyle relationships between users.

d) User impact ranking

The impact ranking means to establish friendships in the network a user's ability. Once the ranking of a user is obtained, it provides guidelines for those who received the recommendation list, how to choose friends. However, the self-ranking should be independent from the query user. The ranking depends only on the graph structure of the friend-matching graph that contains two aspects: 1) as the edges are connected; 2) how much weight, there is at each edge. This can be achieved using Weighted Page Rank algorithm.

6. EXPERIMENTAL RESULTS

Fig 3: Home Screen

Fig 4:Similar Friend List

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Fig 5: Search Image

7. CONCLUSION

In our existing system, we have implemented the Pagerank algorithm for displaying web pages on user interest. The major disadvantage of friend book is to calculate its inability large amount of data. In our proposed method, we use incremental calculation of Page Rank, (or) distributed be implemented gradually for large developing graph. In addition, we propose a new algorithm, Weighted Page Rank algorithm, on popularity of pages of distributed based ranking score and we set threshold for each edge and it may represent the similarity relationship of friend-matching diagram.

8.FUTURE WORK

In the future, Fisher-Yates chaotic can shuffling the friend book user identity from public or malicious attacker and iterative reweighting of least squares (across) is to prevent rapid solvers are used to smooth the target function and minimized by alternating the variables Update and their weights.

9. REFERENCES

[1] Prem Melville and VikasSindhwani,Recommendation Systems, In Encyclopedia ofMachine Learning, Claude Sammut and GeoffreyWebb (Eds), Springer, 2010 Chapter No: 00338, Pg829-838

[2] W. H. Hsu, A. King, M. Paradesi, T. Pydimarri, andT. Weninger. Collaborative and structuralrecommendation of friends using weblog-basedsocial network analysis. Proc.Of AAAI SpringSymposium Series, 2006.

[3] Zhibo Wang, Jilong Liao, Qing Cao, Hairong Qi, andZhi Wang, “Friendbook: A Semantic-based FriendRecommendation System for Social Networks”IEEETRANSACTIONS ON MOBILE COMPUTING,VOL. 13, NO. 99, MAY2014

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[4] J. Kwon and S. Kim. Friend recommendation methodusing physical and social context. InternationalJournal of Computer Science and Network Security,10(11):116-120, 2010.

[5] D. M. Blei, A. Y. Ng, and M. I. Jordan. LatentDirichlet Allocation. Journal of Machine LearningResearch, 3:993- 1022, 2003.

[6] L. Bian and H. Holtzman.Online friendrecommendation through personality matching andcollaborative filtering. Proc. of UBICOMM, pages230-235, 2011.

[7] K. Farrahi and D. Gatica-Perez.Probabilistic miningof sociogeographic routines from mobile phone data.Selected Topics in Signal Processing, IEEE Journalof, 4(4):746-755, 2010.

[8] K. Farrahi and D. Gatica-Perez.Discovering Routinesfrom Largescale Human Locations using ProbabilisticTopic Models.ACM Transactions on IntelligentSystems and Technology (TIST), 2(1), 2011.

[9] L. Gou, F. You, J. Guo, L. Wu, and X. L. Zhang.Sfviz: Interestbasedfriends exploration andrecommendation in social networks. Proc. of VINCI,page 15, 2011.

[10] L. Bian and H. Holtzman. 2011. Online friend recommendation through personality matching andcollaborative filtering. Proc. of UBICOMM, pp. 230235.

[11] T. Huynh, M. Fritz and B. Schiel. 2008. Discovery of Activity Patterns using Topic Models. Proc. of UbiComp.

[12] K. Farrahi and D. Gatica-Perez. 2010. Probabilistic mining of socio-geographic routines from mobilephone data. Selected Topics in Signal Processing,IEEE Journal of, Vol. 4, No. 4, pp. 746-755.

[13] E. Miluzzo, C. T. Cornelius, A. Ramaswamy, T. Choudhury, Z. Liu and A. T. Campbell. 2010. DarwinPhones: the Evolution of Sensing and Inference onMobile Phones. Proc. of MobiSys, pp. 5-20.

[14] Wenpu Xing and Ali Ghorbani, Faculty of Computer Science, University of New Brunswick, Fredericton,NB, E3B 5A3, Canada, on Weighted PageRank.

[15] B. A. Frigyik, A. Kapila, and M. R. Gupta.Introductionto the dirichlet distribution and related processes.Department of Electrical Engineering, University ofWashignton, UWEETR-2010-0006, 2010.

[16] A. Giddens. Modernity and Self-identity: Self andSociety in the late Modern Age. Stanford UnivPr, 1991.

[17] L. Gou, F. You, J. Guo, L.Wu, and X. L. Zhang.Sfviz:Interestbasedfriends exploration and recommendation insocial networks. Proc. of VINCI, page 15, 2011.

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[18] W. H. Hsu, A. King, M. Paradesi, T. Pydimarri, andT. Weninger.Collaborative and structural recommendationoffriendsusingweblog-basedsocialnetworkanalysis.Proc. of AAAISpring Symposium Series, 2006.

[19] G. R. Arce. Nonlinear Signal Processing: A StatisticalApproach.John Wiley & Sons, 2005.

[20] B. Bahmani, A. Chowdhury, and A. Goel.Fast incrementalandpersonalized pagerank.Proc. of VLDB Endowment,volume 4, pages173-184, 2010.

[21] J. Biagioni, T. Gerlich, T. Merrifield, and J. Eriksson.EasyTracker: Automatic Transit Tracking, Mapping, andArrival Time Prediction Using Smartphones. Proc. OfSenSys, pages 68-81, 2011.

[22] L. Bian and H. Holtzman.Online friend recommendationthrough personality matching and collaborative filtering.Proc. of UBICOMM, pages 230-235, 2011.

[23] C. M. Bishop. Pattern recognition and machine learning.Springer New York,2006.