Literature survey on an efficient method for finds Friends in Social Networks

N.Simhadri[1] & Mulaka Madhava Reddy[2]

[1]PG Scholar, Dept. of CSE, MLEC College Of Science And Technology ,Singarayakonda , A.P
[2]Asst Professor,Dept. of CSE, MLEC College Of Science And Technology , Singarayakonda , A.P.
Madhava4evel@gmail.com

Abstract:

Social networks have become an unlimited source of information, for that several applications have been proposed to mine information from social networks such as: recommender systems. The rapidity and scalability of such a recommender algorithm is as important as the actual logic behind the algorithm because such algorithms generally run over a "huge" graph and implementing these normally would probably take a lot of time for recommending items even if there is one user. The basic idea of recommendation system is to recommend items to users. In this paper various recommender systems are classified are discussed. This paper focuses on providing the overview about the various categories of recommendation techniques developed till now. This paper we present review on recommendation system for find friend on social networks.

Keywords: Recommendation system; social networks; friend; item; user

I. INTRODUCTION

The development of social networks from the Internet generated a major improvement in information spread. From data to search and from search to social interaction, users around the world are now more deeply involved with the Internet as user generated content undergoes perpetual growth and expansion. Through adoption of social networks, user generated content is far more accessible than before. A powerful aspect of social networks is the customization of user experiences.

Recommendation systems constitute a large role in providing quality customized user experiences. The main challenge in developing relevant friend recommendations is due to the dynamic nature of humans' perception of friendship, which constitutes a cause for heterogeneity in social networks [1], [2]. It is usual and frequent for humans to change their view of friendship. Further, this view varies from person to person in which a social network can undergo frequent and abrupt change over time even without the introduction of new nodes [4].Recommender systems help users to identify their interests and sets of choices by predicting the usefulness degree of an item or group of items to these users. They are defined as a special type of information filtering that gives information about which items might be interesting to users. The importance of contextual information has been recognized by researchers and practitioners in many disciplines including Ecommerce, personalized IR, ubiquitous and mobile computing, data mining, marketing and management. There are many existing e-commerce websites which have implemented recommendation systems successfully. We will discuss few website in our coming section that provides recommendation. Items are suggested by looking at the behavior of like-minded-users. Groups are formed of such users, and items preferred by such groups are recommended to the user, whose liking and behavior is similar to the group. In our model we have incorporated user preferences obtained from Social Networking Site. Social Networking sites are used intensively

from last decade. According to the current survey, Social Networking sites have the largest data set of users. Each social networking site notes/records each and every activity of user (like: what user likes? what user is doing? what is user's hobby? Etc). Social Networking site will prove to be largest domain in understanding the user behaviour. One of the best examples of social networking is FACEBOOK. According to current news FACEBOOK is trying to develop algorithm, to understand user behavior. Social Networking sites can help us in getting important information of users, such as age, gender, location, language, actives, likes etc. our model takes into account these parameters of the user to recommend books. Most of the friend suggestions mechanism relies on pre-existing user relationships to pick friend candidates. For example, Facebook relies on a social link analysis among those who already share common friends and recommends symmetrical users as potential friends. The rules to group people together include:

1) Habits or life style
2) Attitudes
3) Tastes
4) Moral standards
5) Economic level; and
6) People they already know.

Apparently, rule #3 and rule #6 are the mainstream factors considered by existing recommendation systems.

II. LITERATURE REVIEW

Twenty years ago, people typically made friends with others who live or work close to themselves, such as neighbours or colleagues. We call friends made through this traditional fashion as G-friends, which stands for geographical location-based friends because they are influenced by the geographical distances between each other. With the rapid advances in social networks, services such as Facebook, Twitter and Google+ have provided us revolutionary ways of making friends. According to Facebook statistics, a user has an average of 130 friends, perhaps larger than any other time in history According to these studies, the rules to group people together include: 1) habits or life style; 2) attitudes; 3) tastes; 4) moral standards; 5) economic level; and 6) people they already know. Apparently, rule #3 and rule #6 are the mainstream factors considered by existing recommendation systems. Rule #1, although probably the most intuitive, is not widely used because users' life styles are difficult, if not impossible, to capture through web actions. Rather, life styles are usually closely correlated with daily routines and activities. Therefore, if we could gather information on users' daily routines and activities, we can exploit rule #1 and recommend friends to people based on their similar life styles. This recommendation mechanism can be deployed as a standalone app on Smartphone's or as an add-on to existing social network frameworks. In both cases, Friendbook can help mobile phone users find friends either among strangers or within a certain group as long as they share similar life styles [15]. Recommendation systems that try to suggest items (e.g., music, movie, and books) to users have become more and more popular in recent years. For instance, Amazon [1] recommends items to a user based on items the user previously visited, and items that other users are looking at. Netflix [3] and Rotten Tomatoes [4] recommend movies to a user based on the user's previous ratings and watching habits. Recently, with the advance of social networking systems, friend recommendation has received a lot of attention. Generally speaking, existing friend recommendation in social networking systems, e.g., Facebook, LinkedIn and Twitter, recommend friends to users if, according to their social relations, they share common friends. Meanwhile, other recommendation mechanisms have also been proposed by researchers. For example, Bian and Holtzman [8] presented MatchMaker, a collaborative filtering friend recommendation system based on personality matching. Kwon and Kim [13] proposed a friend

recommendation method using physical and social context. However, the authors did not explain what the physical and social context is and how to obtain the information. Yu et al. [14] recommended geographically related friends in social network by combining GPS information and social network structure. Hsu et al. [12] studied the problem of link recommendation in weblogs and similar social networks, and proposed an approach based on collaborative recommendation using the link structure of a social network and content-based recommendation using mutual declared interests. Gou et al. [11] proposed a visual system, SFViz, to support users to explore and find friends interactively under the context of interest, and reported a case study using the system to explore the recommendation of friends based on people's tagging behaviors in a music community. These existing friend recommendation systems, however, are significantly different from our work, as we exploit recent sociology findings to recommend friends based on their similar life styles instead of social relations.

III. PROPOSED WORK

The proposed design will be present FriendSeeker, a new recommendation system for social networks, which suggests friends to users based on their life styles instead of social graphs. FriendSeeker discovers life styles of users from user-centric sensor data, personal interest and measures the relationship of life styles between users, and suggest friends to users if their life styles have high match. The proposed design will develop a general friend recommendation system by using Latent Dirichlet Allocation (LDA) algorithm and friends suggest will be given to the user. Then propose a similarity metric to determine the similarity of life styles between users, and compute users' impact in terms of life styles with a friend-matching graph. Upon receiving a request, FriendSeeker returns a list of people with maximum recommendation scores to the query user. Finally the proposed designs will

implement on the Android-based System or Smartphone's. The results will show that the recommendations accurately return the preferences of users in choosing friends. We take the base architecture from the paper [15] as the System Architecture is shown in fig.1 for the proposed Work.
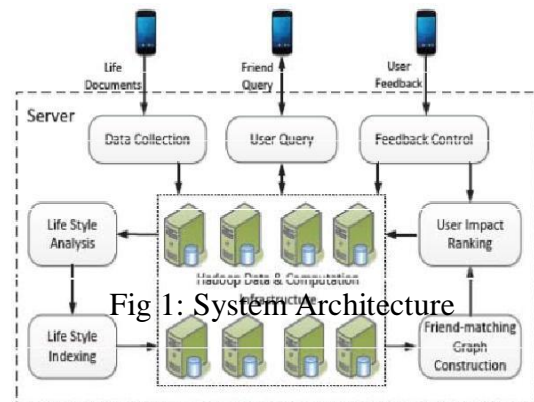

Fig 1: System Architecture

IV. CONCLUSION

This paper focuses on providing the overview about the various recommendation techniques developed or proposed till now. Various categories in which recommendation algorithms can be classified are discussed above. Also various open source graph processing platforms are discussed in detail.

References

[1] Amazon, http://www.amazon.com/

[2] Facebook statistics, http://www.digitalbuzzblog.com/facebook-statistics-stats-facts-2011/.

[3] Netfix, https://signup.netflix.com/.

[4] Rottentomatoes, http://www.rottentomatoes.com/.

[5] G. R. Arce, "Nonlinear Signal Processing: A Statistical Approach", John Wiley & Sons, 2005.

[6] B. Bahmani, A. Chowdhury, and A. Goel, "Fast incremental and personalized pagerank", Proc. of VLDB Endowment, volume 4, pages 173-184, 2010.

[7] J. Biagioni, T. Gerlich, T. Merrifield,

and J. Eriksson, "EasyTracker: Automatic Transit Tracking, Mapping, and Arrival Time Prediction Using Smartphone's", Proc. of SenSys, pages 68-81, 2011.

[8] L. Bian and H. Holtzman, "Online friend recommendation through personality matching and collaborative filtering", Proc. of UBICOMM, pages 230-235, 2011.

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

[10] D. M. Blei, A. Y. Ng, and M. I. Jordan," Latent Dirichlet Allocation", Journal of Machine Learning Research, 3:993-1022, 2003.

[11] L. Gou, F. You, J. Guo, L.Wu, and X. L. Zhang, "Sfviz: Interestbased friends exploration and recommendation in social networks", Proc. of VINCI, page 15, 2011.

[12] W. H. Hsu, A. King, M. Paradesi, T. Pydimarri, and T. Weninger, "Collaborative and structural recommendation of friends using weblog-based social network analysis", Proc. of AAAI Spring Symposium Series, 2006.

[13] J. Kwon and S. Kim,"Friend recommendation method using physical and social context", International Journal of Computer Science and Network Security, 10(11):116-120, 2010.

[14] X. Yu, A. Pan, L.-A. Tang, Z. Li, and J. Han,"Geo-friends recommendation in gps-based cyber-physical social network", Proc. Of ASONAM, pages 361-368, 2011.

[15] Zhibo Wang, Jilong Liao, Qing Cao,Hairong Qi, and Zhi Wang, "Friendbook: A Semantic-based Friend Recommendation System for Social Networks", IEEE Transactions on Mobile Computing.

Student Profile:

N.Simhadri

Received B.Tech in Computer Science and Engineering from the Prakasam Engineering college affiliated to the Jawaharlal Nehru technological university kakinada, in 2008, and pursing M. Tech in Computer Science and Engineering from MLEC affiliated to the Jawaharlal Nehru technological university Kakinada in 2015, respectively.

Guide Profile:

MulakalaMadhava ReddyMCA&M.Tech

He is Working as asst.prof in **MalineniLakshmaiah Engineering College,**Singarayakonda , A.P.

He has 7years of experience as asst.Prof in **MalineniLakshmaiah Engineering College, ,**

Madhava4evel@gmail.com