# A System for Suggestion of friends for Social Networks

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**ABSTRACT**

*A System for suggestion of friends for Social Networks which uses the lifestyle of user to suggest friends. Many social networking sites recommends the friends, items, books for e.g. Facebook suggest the friends based on social relationship those who share common friends. System uses the lifestyle of user to recommend friend instead of social graph. The lifestyle of user can be determined from the user details such as hobbies, job profile. Based on the same lifestyle between the users the friend matching graph is drawn. The friend matching graph is generated in tabular form. The algorithm helps in the recommendation of the friend based on recommendation score for each user recommendation score is being calculated. System analyze friend matching graph to find out which users can be recommended. System also allows user to give response about recommended friends.*

**Keywords**: - *friend recommendation, social network, Text mining.*

## 1. INTRODUCTION

There are various social networking sites available for suggesting items and they suggest the items that are more popular. For e.g. Facebook suggest the friends based on social relationship those who share common friends. This may be not appropriate approach to recommend a friend. The existing recommender system considers a factor such as taste and people already they know to recommend a friend.

Most of the system considers factors habit, attitude, taste, moral standards, and economic level of people already they know for suggestion. Proposed system recommends the friend based on their lifestyle. If we can find out the lifestyle and activity performed of user, then it will be very useful for recommendation. Major part of system consists of lifestyle extraction, friend matching graph generation, friend recommendation, and feedback control. Lifestyle and activity of the user is being considered for recommending friend. The system is to be developed which will be easily embed into the different application where recommendation is based on lifestyle.

## 2. LITERATURE SURVEY

Farrahi and Gatica-Perez [2] find out the location (where that person is) and proximity (with whom that person is) and based on that they discover the daily routine of the people by using LDA model. Probability based method helps to discover the patterns in people's lives from given data, and this can be used to find out daily life and location of user. Some of the activity discovered using this approach are working from 11-5pm with 2-3 persons. Advantages and disadvantages of this approach are stated below:

- ✓ Advantages

- It helps to find user's location if we know time of day and with whom that user is interacting and the day of the week, also if we have phone call and SMS data of that user.

✓ Disadvantages

- There is disadvantage of Bluetooth which detect the devices with whom the user is not interacting.

Hsu et al. [3] have consider interests of user in different aspect, personal details about user, and whatever that user post on page all the history about post in a user information page for each in order to provide suggestions. After that based on common interests the suggestion was done. It considers the personal vocabulary in the algorithm.

T. Huynh and M. Fritz[4] proposed method to determine daily routines which probabilistic combination of activity patterns. They have used the topic model to find out the daily activity of the user. Some of the routine discovered using this method is office doing office work, driving a car. Also sensors can be used to discover the activity of the user.

D.M Blei[5]In this latent Dirichlet allocation(LDA) is being explained. LDA is a probabilistic model which is used in text mining. It consists of Document which is then mixture of topics and topic which is collection of words. In this firstly we need to decide the topic. If we know the topic, then the worlds with the probability are assigned to the topic. For e.g. in LDA suppose topic is Cat related then the it will have words with their probabilities such as milk, kitten, meow.

SoundSense [6] used the method to determine sound types such as music, voice and from that they determine the sound events. It may also consider different sound types.

There are many systems that suggest items to users. Some of the system are:

Amazon suggests the item based on time and day when the user purchase that item. It also suggests items based on the interest of user and items the other users visited. Recommendation changes regularly based on number of factors such as when u purchase, new item, changes in interest of customer. Amazon also allows to us add item that we are interested in to Wish List.

Netflix suggests the movies to the user based on the rating. It also suggests the movies to user based on there watching habits. Now the market is changing from television users to movie goers. Netflix it makes easy to watch movies and TV episodes on our computer. It considers factors such as popularity and title of the movie to suggest.

Some of social networking site such Facebook, Twitter, LinkedIn suggest the friend based on social relationship those who share common friends and those who have common connection. LinkedIn is mostly used by professionals and job seekers. Twitter recommends the account that you are most relevant to, it also helps to find people who are talking about the things you care about. One of the social networking site E-bay it uses the feature of item to suggest the items. Item can have many features.

## 3. CONCLUSION

A System for Suggestion of Friends for Social Networks uses lifestyle of user to suggest friend. This is different from many recommendation mechanisms. Proposed system uses Lifestyle and activity of the user for friend suggestion. If we can find out the lifestyle and activity performed of user, then it will be very useful for recommendation. Based on the same lifestyle friend matching graph in generated in tabular form for each user. Also the algorithm helps in efficiently recommending the friends. In algorithm the score is calculated for each user. The system suggests list of user those who having the highest score. The user can also give feedback about suggested friends from which we can understand the satisfaction of user.

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