



A NOVEL APPROACH TOWARDS RECOMMENDATION SYSTEM BASED ON USAGE OF USER LIFESTYLE

M.Nagesh¹, N.Vijaya Sunder Sagar², M.Dileep Kumar³, B.Ramnivas⁴

^{1,3}Assistant Professor, Dept of CSE, Ashoka Institute of Engineering and Technology, Malkapur, Hyderabad, T.S, India

²Associate Professor & HOD, Dept of CSE, Ashoka Institute of Engineering and Technology, Malkapur, Hyderabad, T.S, India

⁴M.Tech Student, Dept of CSE, Ashoka Institute of Engineering and Technology, Malkapur, Hyderabad, T.S, India

ABSTRACT:

Smart phones will serve as effective means for sensing of daily routines from where life styles of people are discovered. Regardless of dominant sensing capabilities of smart phones, there are several challenges for extraction of user life styles and suggesting promising friends on basis of their similarities. Various other recommendation mechanisms are also been projected by researchers. We introduce a friend recommendation system which is semantic-based for social networks, that recommends friends to users on basis of their life styles rather than social graphs. The system will help out mobile phone users to find out their friends within an assured group as long as they share out related life styles. Our solution is motivated by modern advancements that are made in smart phones, which have turned into popular in people's lives. It is the first system of friend recommendation exploiting the data of user's life style that was discovered from the sensors of smart phone.

Keywords: *Smart phones, Friend recommendation, Social graphs, User, Social networks, Mobile phones.*

1. INTRODUCTION:

By the increased advances that are made in social networks, these services have offered innovative methods of making friends. The

existing services of social networking is suggesting of good friend to user. For the most part of these services depend on pre-existing user relationships to choose friend candidates. In our daily lives, there are

several activities, which might form important sequences that form our lives [1]. Earlier works that are made on probabilistic topic models within text mining treated documents as mixtures of topics likewise, our daily lives are treated as mixture of life styles. We present an efficient friend recommendation system which is semantic-based was proposed for social networks, that recommends friends to users on basis of their life styles rather than social graphs. The proposed friend recommendation system will help out mobile phone users to find out their friends within an assured group as long as they share out related life styles. Our projected solution is motivated by modern advancements that are made in smart phones, which have turned into popular in people's lives. The smart phones are equipped by means of embedded sensors and hence smart phone is no longer just a communication device, but moreover a dominant sensing platform from which can take out content-aware information. Proposed system will find out user life styles from user-centric sensor information, and measures the resemblance of life styles among users, and suggest friends if their life styles contain high resemblance [2][3]. This method is based on life styles that are

extracted from sensors on user smart phones, which is relatively different from the traditional methods of friend recommendation.

2. METHODOLOGY:

Recommendation systems that recommend items to users have turn out to be more and more popular in recent years. By the advancements that are made in social networking systems, friend recommendation has gained much attention. Existing friend recommendation within social networking systems will suggest friends to users if, consistent with their social relations, share some of the common friends. In our work an efficient friend recommendation system which is semantic-based was proposed for social networks, that recommends friends to users on basis of their life styles rather than social graphs. The proposed work is the first system of friend recommendation exploiting the data of user's life style that was discovered from the sensors of smart phone. The system will help out mobile phone users to find out their friends within an assured group as long as they share out related life styles. The existing systems of friend recommendation on the other hand, are considerably different from our work, since

we make use of latest sociology findings to suggest friends on basis of their similar life styles rather than social relations. By benefitting of sensor-rich smart phones, proposed friend recommendation system will find out user life styles from user-centric sensor information, and measures the resemblance of life styles among users, and suggest friends if their life styles contain high resemblance. Privacy is extremely important particularly for users who are responsive to information leakage. In proposed friend recommendation system design, we consider issue of privacy and existing system will offer two levels regarding privacy protection. Firstly, proposed friend recommendation system will protect user privacy at data level. Rather than uploading of raw data towards servers, proposed system will process raw data and classify them to activities in real-time. Secondly, proposed friend recommendation system will protect user privacy at life pattern level. Rather than telling related user life styles, Friend book will show recommendation scores of suggested friends with users. The proposed system will help out mobile phone users to find out their friends within an assured group as long as they share out related life styles [4]. The

proposed recommendation system will make use of global positioning system location information to assist users to discover friends within some distance. To protect user privacy, region surrounding precise location is uploaded to system. When a user will make use of proposed friend recommendation system, they will identify distance of friends earlier than recommendation thus, only friends containing similarity with user within particular distance will be recommended as friends.

3. AN OVERVIEW OF PROPOSED SYSTEM:

While several works were done for activity recognition by means of smart phones, there is comparatively minute works on detection of daily routines by means of smart phones. The smart phones are equipped by embedded sensors and hence smart phone is no longer just a communication device. A friend recommendation system was proposed for social networks, that recommends friends to users on basis of their life styles rather than social graphs. Proposed recommendation system will find out user life styles from user centric sensor

information, and measures the resemblance of life styles among users, and suggest friends if their life styles contain high resemblance. Our solution is motivated by modern advancements that are made in smart phones. It is the first system of friend recommendation exploiting the data of user's life style that was discovered from the sensors of smart phone. Life styles as well as activities are reflections of everyday live at two various levels. By benefitting of latest developments in text mining, we model users as life documents, as well as activities as words. The probabilistic topic representation will discover probabilities of fundamental topics and consequently, we implement probabilistic topic representation to find out probabilities of concealed life styles from life documents. In the models of probabilistic topic, frequency of vocabulary is mainly significant, since different words frequency will describe their information entropy variances. As raw data that is collected on smart phones are noisy, we initially make use a median filter by sliding windows to filter out outliers of noisy data [5]. To get better recognition accurateness, features extracted to distinguish the data subsequent to pre-processing. The cluster centroids are distributed towards smart

phones and each of it might separately distinguish activities based on minimum distance rule and upload activity sequence rather than raw data to server. Proposed system will protect user privacy at data level and will process raw data and classify them to activities in real-time. Proposed recommendation system will protects user privacy at life pattern level [6]. Friend recommendation means is based on life styles that are extracted from sensors on user smart phones, which is relatively different from the traditional methods of friend recommendation.

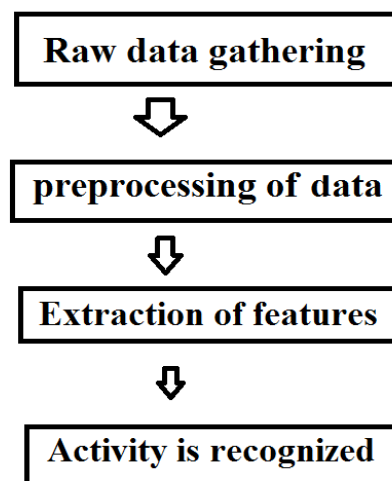


Fig1: Activity recognition.

4. CONCLUSION:

The smart phones are equipped by means of embedded sensors and hence smart phone is no longer just a communication device, but

moreover a dominant sensing platform from which can take out content-aware information. Existing friend recommendation within social networking systems will suggest friends to users if, consistent with their social relations, share some of the common friends. We present friend recommendation system which is semantic-based for social networks, that recommends friends to users on basis of their life styles rather than social graphs. The friend recommendation system will assist mobile phone users to find out their friends within an assured group as long as they share out related life styles. We utilize latest sociology findings to suggest friends on basis of their similar life styles rather than social relations. Our solution is motivated by modern advancements that are made in smart phones, which have turned into popular in people's lives. The projected work is the initial friend recommendation system exploiting the data of user's life style that was discovered from the sensors of smart phone. Friend recommendation method that was proposed in our work is based on life styles that are extracted from sensors on user smart phones, which is relatively different from the traditional methods of friend recommendation.

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