Activity Prediction using Truval Method in Mobile Social Network
Vikas Godse¹ Sagar Suryawanshi² Prashant Nachan³ Devyani Mahajan⁴ Prof.Nikhil V. Kapade⁵
¹,²,³,⁴,⁵Department of Computer Engineering
K.V.N. Naik Institute of Engineering Education & Research

Abstract—Now a days current trend of online social network is turning towards mobile. Mobile social networks directly reflect our real social life, therefore are an important source to analyze, understand the underlying dynamics of human behaviors (activities). In this report, we are going to study the problems of activity prediction in mobile social networks. We propose a series of observations in two real mobile social network and then propose a method, Truval in activity prediction based on a dynamic factor-graph model for modeling and predicting user activities. An equivalent algorithm based on mean field is presented to efficiently learn the proposed method. We are going to deploy a total system to collect users day to day activity, behaviors and validate the proposed method on two combines mobile datasets. Shows that the proposed ACTPred model using Truval method can achieve better performance than baseline methods.

Key words: Model Learning, Dynamic Factor Graph Model, Online Social Network

I. INTRODUCTION

We are going to study the activity prediction problem in mobile social networks. Truval, based on a dynamic factor-graph model for modeling and predicting users’ activities. We are going to deploying a real system to collect users’ mobility behaviors and validate the two datasets of mobile in proposed method. Mobile social networks offer the unique advantage of allow users to find and connect via mobile phones at real time. It includes pattern analysis aspects like (1) attributes correlation: how the attributes of user correlate with his activity status; (2) temporal correlation: how the user’s current activity correlates with activity in recent past activities; (3) social correlation: how a user’s activity correlates with activities of his friends. In online social networks (OSNs), to evaluate trust from one user to another indirectly connected user, the trust evidence in the trusted paths (i.e., paths building through intermediate trustful users) should be an carefully treated. Some paths may overlap with each other, apart to a unique challenge of path dependence, i.e., how to aggregate the trust values of multiple dependent trusted paths. OSNs carry the characteristic of high clustering, which makes the path dependence phenomenon common. Another target is trust decay via propagation, i.e., how to propagate trust along a trusted path, considering the possible decay in every node. We find the similarity between trust propagation and network flow, and also convert a trust evaluation task with path dependence and trust decay into a GFT problem. We propose a modified flow-based trust evaluation scheme GFTrust, pointing path dependence using network flow, and model trust decay with the leakage associated with each node. With real mobile social network data sets of Epinions and Advogato, analyze that GFTrust can predict trust in OSNs with a high accuracy also verify its preferable properties. To be trusting is to be fooled from time to time; to be suspicious live in the torment. People facing the trust issues every day in real life. The trust mechanism is a tool used to facilitate decision making in different applications. This report copes with the setting in which a source s is interested in a single target d which can be a person, or a product/service in online social networks (OSNs). Some users have predefined opinions about to estimate whether or not she would like d, based on the aggregate opinions of others. In real life, might first consult her friends for their recommendations. In turn, the friends, if they do not have their opinion so consult their friends, and so on. Based on the cumulative feedbacks receives, she can form her own subject related opinion. The trust evaluation system aims to providing a similar process to produce high-quality trust prediction for users.

II. COMPARATIVE STUDY

A. Prediction of Activity [1]
In [1], Gong et.al. has used ACTPred, SVM-Simple, SVM-Net Method to solve Prediction Of Activity problem. It has Existing methods that partition the dynamic Data into different timestamps would not work well. Activity recognition do not consider the problem in the mobile social networks issues.

B. Indicating the Interests of Community Members [2]
In [2], Wang et.al. has used k-medoids, Clustering method to solve Indicating the interests of community members problem. It has Community detection approaches are based on structural features, but the structural information of online social networks is often sparse and weak issues.
III. CONCLUSION

In this paper, we have to study a novel problem of activity prediction in mobile social networks. We have to propose a method, called ACTPred, for modeling and predicting users’ activities in the social network. We have to present a series of observation and propose a factor graph model to formalize the discovered intuitions in a unified model. For model learning, we employ a Mean Field algorithm to obtain an approximate solution. We can say that on two real social networks demonstrate that the proposed approach can accurately predict users’ activities and obtains a clear improvement.