

SURVEY OF PERSONALIZED TRAVEL SEQUENCE RECOMMENDATION ON MULTI SOURCE BIG SOCIAL MEDIA

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Abstract:

Few years ago there wasn't any social media and local guidance/travelogues guide to the tourist or travelers to give information about visited city or place. However currently a days we've ton of data offered within the variety of travel logs and community contributed photos and conjointly the heterogeneous information (e.g., tags, comments, location, and captured date) is with these photos, huge social media, specially the flourish of social media (e.g., Facebook, Flickr, Twitter, Google, etc.), using this data we are recommending traveller personalized travel sequence but it is big challenge for both research and industry. The motivation of this method is to review the currently existing travel recommendation systems, by considering different aspects like accuracy, personalized sequence, learning algorithms, budget of traveller and mapping cost for travel sequence recommended. We have studied and analyzed different travel sequence recommendation systems overview of these is given in this paper.

Keywords: POIs, Travel Recommendation, Geo tag, Latitude, Longitude, Information retrieval.

I. INTRODUCTION

Now a day's lot of information available in the form of travel catalog and community contributed photos and also the mixed data. This information is exploited by the travel recommender systems to provide suggestions to the user in effective manner. The travel recommender system employs artificial intelligence techniques to generate personalized recommendations to the user. A point of interest is may be a specific point location that somebody could notice helpful or fascinating. as an example, the purpose on the world represents the situation of the area Needle or some extent on Mars representing the situation of the mountain, mountain peak Mons. In existing system 1st travel recommendation is targeted on user topical interest not the opposite attributes (cost, season, time). It doesn't specialise in mining user travel interest. solely specialise in celebrated cities while notconsidering topical purpose of interest.

For focusing on cities one method is available called as Local Based Social Network (LBSN)[5] and Markov Chain[4]. Mostly this method is used for getting location from image. If we provide image, this whole image is scanned and give location of that image. Markov Chain is one of the algorithm, this algorithm gives route from source to destination using location extracted from image. They follow general approach. While implementing this algorithm there are some problems. To solve problem we preferred topical package model i.e. Author Topical Model (ATM)[2]. In topical package model automatically mine travel interest from two social media, other attribute and travelogues. It removes drawback of Location Based Collaborative[5] Filtering is removed by Author Topic Model Based Collaborative Filtering. This method is used for finding similarity between user package model and route package model. This method is also used for automatic route filtering.

In this system we provide route according to users personal point of interest. Day to day users click thousands of photos. These photos are uploaded on social media such as facebook, flicker, Google photos. Using this photos and related tags (Latitude , Longitude) we decide the users point of interest. We have downloaded datasets from (Tourpdia.com) websites. From that datasets we extract image location, tags (tags in the form of latitude and longitude) and this information is stored in database.

For uploading photos here one method is available called as Global Positioning System GPS[2]. Using these system images are shared on social media but location and time is not assigned only date is assigned. By using this date we extract season and location of that image. IM2GPS and SVM method is used for GPS estimation. But this two methods computational cost are high. So for that Global and local feature refinement method are used for GPS estimation. This method is convenient to use for user. For more accuracy of GPS Estimation inverted file structure and Bag of word also used.

In Topical package space mining, the comparison is done between route package and user package. User package is nothing but users information that entered by users and route package is contained all route information that already stored in database.

II. LITERATURE SURVEY

1. J.Li, X.Qian, Y.Y.Tang, L.Yng, and T.Mei, "GPS estimation for places of interest from social users uploaded photos",IEEE Trans. Multimedia, Vol.15,no.8,pp.2058-2071, Dec.2013

A paper has different methods as well as structures are used. In existing system for Global Positioning system(GPS) .This system used different methods such as IM2GPS,Support Vector Machine(SVM). IM2GPS is used for GPS estimation SVM is also used for GPS Estimation it classifiers using Bag-of-Word (BoW). But IM2GPS and SVM are Costly method its computational cost is more. IM2GPS is proposed by Hays and Efros. But now a day global and local feature refinement are used.[2] K-Nearest Neighbors(KNN) is used for ranking it in ascending order to improve GPS estimation accuracy.

Advantages:

- In existing system IM2GPS and SVM are Computational cost is more so that reduce computational cost we are used global and local feature refined clustering method.
- GPS also save time by providing traffic feed.
- Enhanced direction once your position has been found can calculate route again by providing destination.

Disadvantage:

- If destination is not provided properly then it cannot give proper information about the places that customer wants.
 - GPS Estimation is only used in large cities because it is not used in small cities there might be single problem are occurred.
2. In that entitled "Author topic model based collaborative filtering for personalized POI recommendation" by author "S.Jiang ,X.Qian ,J.Shen ,Y.Fu, and T.Mei." by using method such as, Geo-Tags, Check-ins ,GPS trajectories and blogs[2].To solve "sparsity problem" in existing system this paper presented this idea. we are presented to facilitate comprehensive points of interest (POIs) recommendations for social users.

Advantages:

- Through Author topic model(ATM) , travel topics and a users topic preference can be elicited simultaneously.
- Without GPS record, similar user can still be mined accurately according to the similarity of users topic preferences.
- Remove sparsity problem the collaborative filtering method is used.

Disadvantages:

- The dataset is small only textual information of geo-tagged is given.
3. In that entitled "Probabilistic sequential POIs recommendation via check-in-data" by author "J.Sang, T.Mei, T.J.Sun, S.Li, and C.Xu" by using method Location based services, sequential POIs ranking, check-in record[3].The recommended POIs are not only relevant to user context (i.e., current location ,time, and check-in), but also personalized to his/her check-in history.

Advantages:

- Recommendation accuracy and location privacy.
- Lower bond of variety instead of sensitivity.
- High recommendation accuracy and strict location privacy.

Disadvantages

- Exploring higher-order category transition patterns by considering longer check-in sessions.
 - Considering more attribute of POI like price range, rating, comments, etc into recommendation.
 - Integrating more context for recommendation, e.g. weather, user status (walking, driving, etc).
4. In "where you wish to travel next: point of interest recommendation" by victimization "C.Cheng,H.Yang M.R.Lyu and I.King" by victimization methodology location primarily based Social Networks and factorisation personalised Andre Markov Chain. We have a tendency to think about the task of ordered personalised dish recommendation in LBSNs, that may be a lot of more durable task than common place personalised dish recommendation or predication to unravel this task, we have a tendency to observe to outstanding properties within the arrival sequence: personalised Markov Chain and region localization. Hence, we have a tendency to propose a completely unique matrix resolving methodology, specifically FPMCLR, to introduce the personalized Andre Markov Chain and also the localized regions.

Advantages

- This system help tourist to give the automatic path.
- Users would like to share their locations by checking-in points-of-interest (POIs).

Disadvantages

- In this system location category is not used.

III. CONCLUSIONS

In this survey paper we survey studied methods like Author Topical Model (ATM),Global Positioning System(GPS), Markov Chain, Collaborative Filtering Technique (CFM), Location Based Social Network(LBSN). From all these methods Author Topic Model Collaborative filtering (ATMCF) [3] method has more advantages in terms of accuracy considering user interest. This method is based on personalized travel recommendation system, This method utilize users topic preferences as the law for collaborative filtering instead of location co-occurrences. Even for the user with very sparse POI records, our ATCF can still mine more related resource than LCF to carry out travel recommendation. It is also used for finding the similarity ranking of the model. It ranks the routes as well as optimizes it.

DISCUSSION:

Method Name	Advantages	Disadvantages
Author Topic Model(ATM)	<ol style="list-style-type: none"> 1) Through Author topic model(ATM) , travel topics and a users topic preference can be elicited simultaneously. 2) Without GPS record, similar user can still be mined accurately according to the similarity of users topic preferences. 3) Remove sparsity problem the collaborative filtering method is used. 	<ol style="list-style-type: none"> 1) The dataset is small only textual information of geo-tagged is given.
Collaborative Filtering Technique	<ol style="list-style-type: none"> 1) Recommendation accuracy and location privacy. 2) Lower bond of variety instead of sensitivity. 3) High recommendation accuracy and strict location privacy. 	<ol style="list-style-type: none"> 1) Exploring higher-order category transition patterns by considering longer check-in sessions. 2) Considering more attribute of POI like price range, rating, comments, etc into recommendation. 3) Integrating more context for recommendation, e.g. weather, user status (walking, driving, etc).
Markov Chain and Location Based Social Networks(LBSN)	<ol style="list-style-type: none"> 1) This system help tourist to give the automatic path. 2) Users would like to share their locations by checking-in points-of-interest (POIs). 	<ol style="list-style-type: none"> 1) Location category is not used. 2) Which type of activities conducted is not mention.
IM2GPS and SVM	<ol style="list-style-type: none"> 1) IM2GPS and SVM are Computational cost is more so that reduce computational cost we are used global and local feature refined clustering method. 2) GPS also save time by providing traffic feed. 3) Enhanced direction once your position has been found can calculate route again by providing destination. 	<ol style="list-style-type: none"> 1) If destination is not provided properly then it cannot give proper information about the places that customer wants. 2) GPS Estimation is only used in large cities because it is not used in small cities there might be single problem are occurred.

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