A Survey on Travel Based Application using Social Media

[1] Shanker Shalini [2] Dr.M.Sheerin Banu
[1] PG student, [2] Professor
[1][2] Department Of Computer Science And Engineering
RMD Engineering College - ChennaI

Abstract— **Big data provides analysis of large amount of dataset and accurate result can be obtained using this dataset analysis. When considering travel application many user opt for static travel planning without any now feature that incorporates in the application. Blindly they agree any travel plan that's been listed in the application. In this paper various analysis is done and survey is been done to make user friendly travel application so that user can specify their Point Of Interest (POI) and as such planning is done dynamically based on users location with the help of geo-tagging and collaborative filtering. We find here what are all recommendation system that can suitable to incur in the travel application with the help of geo-tagging and location based filtering. Thus to find user friendly travel based application this survey is done.**

Keywords: **geo-tagging, collaborative filtering ,Point Of Interest**

I. INTRODUCTION

Social Media recommendation is the most well-known approach, and is widely utilized in products, services and travel recommendations Location based collaborative filtering travel recommendation methods first mine POIs in a city which has been visited by social users using geo-tags or GPS trajectories. Then similar users are detected by calculating the location co-occurrences from users' travel history and past experience. Then similar users are detected by calculating the location co-occurrences from users' travel history. Finally, to similar users' visiting history.

Social Media recommendation approaches are effective and efficient, but suffer from the well- known "time complexity problem and cost satisfaction"[1] in recommendation systems, due to travel data being very sparse. In this circumstance, it makes accurate similar user identification very difficult if the user has only visited a small number of POIs.

The category topics are usually determined by the naive category information from recommended systems in Topic Model Method(TM). From the predetermined categories, it is convenient to calculate user preferences. Unfortunately, for rich photo sharing networks like Flickr, there is no such defined category information. Thus the naive topic-based recommendation approach cannot be utilized directly in travel recommendations.The problems are Static Travel Plans,Not supports personalized POI Recommendations, Category Information is undefined ,Static Datasets for POI[2].

In contrast to existing location based collaborative filtering methods, we learn users' travel preferences from the text descriptions associated with their shared photos on social media, instead of from GPS trajectories or check-in records. In addition, users' similarities are measured with author topic model instead of location co-occurrence.[2]Places are classified based on the geotag information, Number of Persons on the photo and can be later used with POI recommendation.[3]. In personalized travel recommendation system, we utilize users' topic preferences as the law for collaborative filtering instead of location co- occurrences. Dynamic travel plans are recommended to the user based on POI.The advantages of this format is to provide dynamic travel plans with sequence route, time complexity, travel route navigation.The technique that is used are location based collaborative filtering, geo tag extraction, query based technique.

II.ORGANISATION

The remainder of this survey is organized as follows. The section III demonstrates the literature survey of various Travel based applications using social media with Big Data with the methodologies used and its disadvantages, and the procedures to overcome the limitations. Section IV demonstrates the future enhancement of the paper. Lastly we draw a conclusion in section V.

III LITERATURE SURVEY

1.Graph-based point-of-interest recommendation with geographical and temporal influences 2014:

User check-in data availability are available in large Volume from location based social networks . Point-of-interest(POI) recommendation is one of such services, which is to recommend POIs that users have not visited before. [1]It has been observed that: (i) user will visit near-by places (ii) users tend to visit different places indifferent timeslots,and in the same times lot,users tend to periodically visit the same place. Collaborative filtering has been widely used for recommendation system.Thus point of interest is used via graph based process is used to retrieve the users interest

2.Trip mining and recommendation from geo- tagged 2012

Trip planning is very hard task were there are many criteria that need to be satisfied before planning the trip.[2In this paper geo tagged photo which are in the social media are retrieved and depending upon the user text file the comparison is made and finally the recommendation for thru the trip is given .substantial number of travel paths are minded from the crawled geo-tagged photos. After that, a search system is built to index and search the paths, and the Sparse Chamfer Distance is proposed to measure the similarity of two paths. [10]The search system supports various types of queries, including (1) a destination name, (2) a user-specified region on the map, (3) some user-preferred locations. Based on the search system, users can interact with the system by specifying a region or several interest points on the map to find paths.

3.POI recommendation through cross region collaborative filtering 2016

Point of interest that can be recommended according to users current location and past check- in. Here the issue is users POI cannot be predicted if she checks- in to new places which they have not visited previously..Thus the collaborative filtering to detect the places that is nearest to visit according to their check in details [3]. To address this issue, we distinguish the user preferences on the content of POIs from the user preferences on the POIs themselves. The former is long term and is independent of where POIs are located, and the latter is short term and is constrained by the proximity of the location of the POI and the user's current location. This distinction motivates a location-independent modeling of user's content preferences of POIs, and a location-aware modeling of user's location preferences of POIs.[11]

4.Schedule a rich sentimental travel via sentimental POI miningand recommendation 2016

Mining the point of interest which can be used to maintain two things. The one is users interest can be deeply understood. The other one is to deeply mine the user travel process. Here they focus on sentimental attributes of location and propose a POI (Point-Of-Interest) Mining method[4]. Firstly, we use SPM (Sentiment-based POI Mining) algorithm to mine the POIs (Points-Of-Interest) with obvious sentimental attributes, and then recommend the POIs to users by using SPR (Sentiment-based POI Recommendation) algorithm. We conduct a series of experiments in Sina Weibo datasets .[15]

5.Landmark summarization with diverse viewpoints 2015

This paper tells us about the land mark retrieval which gives comprehensive description about the landmark of users. So the approach for giving a accurate collection of landmark image. [5]Then grouping of images and retrieving it in diverse point with the help of the text Description Second, we model the relative viewpoint of each image within the VA based on the spatial layout of distinctive descriptors of a landmark. Third, we express the relative viewpoint of an image with a 4-D viewpoint vector, including horizontal, vertical, scale, and rotation.At last concluding on landmark inpoints of view point.[13]

6.Using multi-criteria decision making for personalized point of interest recommendation 2014

Location-based business review (LBBR) sites (e.g., Yelp) provide us a possibility to recommend new points of interest (POIs) for users. To this end, we propose a new personalized POI recommendation framework using Multi-Criteria Decision Making (MCDM). [6]Firstly, preference models are built for the user's geographical, category, and attribute preferences. Then, an MCDM-based recommendation framework is designed to iteratively combine the user's preferences on the three criteria and select the top-N POIs as a recommendation list. Experimental results show that our framework not only outperforms the state-of- theart POI recommendation techniques, but also provides a better trade-off mechanism for MCDM than the weighted sum approach[9].

7. Image location estimation by salientregion matching 2015

In this paper the image that we take and the image locations are widely used in many application scenario for geo-tagged images. [7]So the images which are already geo tagged we estimate their locations then we use spatial

informationwords to improve image location estimation. To improve the retrieval performance, spatial constraint is utilized to code the relative position of visual words[10]. We proposed to generate a position descriptor for each visual word and build fast indexing structure for visual word groups.

8.Generating location overviews with images and tags by mining user-generated travelogues 2009

Automatically generating location overviews in the form of both visual and textual descriptions is highly desired for online services such as travel planning, to provide attractive and comprehensive outlines of travel destinations[8]. Actually, user-generated content (e.g., travelogues) on the Web provides abundant information to various aspects (e.g., landmarks, styles, activities) of most locations in the world. To leverage the experience shared by Web users, in this paper we propose a location overview generation approach, which first mines location-representative tags from travelogues and then uses such tags to retrieve web images[15]. The learnt tags and retrieved images are finally presented via a novel user interface which provides an informative overview for a given location. Experimental results based on 23,756 travelogues and evaluation over 20 locations show promising results on both travelogue mining an location overview generation.

IV FUTURE ENCHANCEMENT

Here we enhance the survey by developing a dynamic travel plan with images that develops aa feature were the travel plans can be made dynamically provided the process is been submitting the social media images applying geo-tagging on it . The other enhancement is to make dataset more dynamic and that can be analysed very easily which helps to make big predications and decisions.

V CONCLUSION

As compared with various we can develop application of travel based that can retrieve geo- tagging from social media.Thus the personalized travel plans are generated for the user based on POI travel recommendations of the user using personalized travel sequence Recommendation on Multi-Source Big Social Media.

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