ISSN(Online): 2320-9801
ISSN (Print) : 2320-9798

International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijircce.com

Vol. 6, Issue 3, March 2018

Personalized Travel Recommendation System

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ABSTRACT: A travel recommendation system based on Facebook data extracted. The rapid growth of online travel informationimposes a growing challenge to tourists who have to choose from a large number of travel packages to meet their personalized needs. On the other hand, to get more business and profits, travel companies must understand these preferences of different tourists and offer more interesting packages. The proposed system is notonly personalized for users with travel interests, but can also recommend a travel sequence rather than individual Points of Interest (POIs). The thematic package consists of representative labels, cost distributions, visit time and visit season of each topic, is extracted to bridge the vocabulary gap between the user's travel preferences and travel routes. The system treats users and routes textual information to obtain the user's topical package model and directs the topical package model (eg, topic of interest, cost, time, and season). The proposed system reserves the userpackage. in that user you will get all the costs of the mining sites and you will see the route on the map from the user's current location. The user can add their own photos and travel stories in the system

KEYWORDS: Geo-tagged photos, Social media-Facebook API, Multimedia information retrieval. Online interest, Travel recommendation,

I. INTRODUCTION

In Facebook, Flick, Twitter media offers great opportunities to tackle many complex problems, for example, GPS estimates and travel tips. This data is not only useful for reliable POIs (points of interest), the extraction of travel routes, but also provides the best way to recommend POIs and personalized travel itineraries based on user interest. There are two main challenges for automatic travel recommendation. First, the recommended POIs must be tailored to the user's interest, as different users may prefer different types of POIs. Secondly, it is important to recommend a sequential travel route (ie aPOI sequence) rather than a single POI. For users, it is much more difficult and slow to plan the sequence of trips than the individual points of interest. Because the relationship between the places and the opening hours of the different points of interest should be considered. The existing studies on travel
recommendations that exploit the POIs and the famous travel routes mainly focus on four types of large social networks, GPS trajectory, geographical labels of registration data and blogs (travel articles).

II. EXISTING SYSTEM

Existing system on travel recommendation mining famous travel POIs and routes are mainly from four kinds of big social media, GPS trajectory, check-in data, geo-tags and blogs (travelogues. However, general travel route planning cannot well meet users' personal requirements. Personalized travel recommendation recommends the POIs and routes by mining user's travel records. The most famous method is location-based collaborative filtering (LCF). To LCF, similar social users are searched based on the location co-occurrence of previously visited POIs. Then POIs are ranked based on similar users' visiting records.

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III. MOTIVATION

Automatic travel recommendation is an important problem in both research and industry. There are two main challenges for automatic travel recommendation. First, the recommended POIs should be personalized to user interest since different users may prefer different types of POIs. Second, it is important to recommend a sequential travel route (i.e., a sequence of POIs) rather than individual POI. It is far more difficult and time consuming for users to plan travel sequence than individual POIs. For example, it may still not be a good recommendation if all the POIs recommended for one day are in four corners of the city, even though the user may be interested in all the individual POIs. general travel route planning cannot well meet users personal requirements. Personalized travel recommendation recommends the POIs and routes by mining users travel records.

IV. REVIEW OF LITERATURE

1.we propose a dynamic topic model (DTM) and matrix factorization (MF) based travel recommendation method. A DTM is used to obtain the temporally fine-grained topic distributions (i.e., implicit topic information) of users and locations. In addition, a large amount of explicit information is extracted from the metadata and visual contents of CCGPs, Check-ins, and POI categories datasets. The information is used to obtain user-user and location-location similarity information, which is imposed as two regularization terms to constraint MF[1].
2.We presents a probabilistic approach, which is highly motivated from a large-scale commercial mobile check-in data analysis, to ranking a list of sequential POI and POIs .The approach enables users to plan consecutive activities on the move[2].
3. In this paper, we focus on the problem of *time-aware POI recommendation*, which aims at recommending a list of POIs for a user to visit at a given time. To exploit both *geographical and temporalinfluences* in time-aware POI recommendation, we propose the Geographical-Temporal influences Aware Graph (GTAG) to model check-in records, geographical influence and temporal influence. For effective and efficient recommendation based on GTAG[3].
4. In this paper, an author topic model-based collaborative filtering (ATCF) method is proposed to facilitate comprehensive points of interest (POIs) recommendations for social users. In our approach, user preference topics, such as cultural, cityscape, or landmark, are extracted from the geo-tag constrained textual description of photos via the author topic model instead of only from the geo-tags(GPS locations)[4].
5. In this paper, to generate visual word groups by mean-shift clustering. To improve the retrieval performance, spatial constraint is utilized to code the relative position of visual words. We proposed to generate a position descriptor for each visual word and build fast indexing structure for visual word groups[5].
6. In this paper, we propose a data-driven framework to discover functional zones in a city. Specifically, we introduce the concept of latent activity trajectory (LAT), which captures socioeconomic activities conducted by citizens at different locations in a chronological order[6].
7. In this paper, we focus on sentimental attributes of location and propose a POI(Point-Of-Interest) Mining method. 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[7].
8. In this paper we present an approach for summarizing a collection of landmark images from diverse viewpoints[8].
9. This paper proposes an unsupervised image GPS location estimation approach with hierarchical global feature clustering and local feature refinement. It consists of two parts: an offline system and an online system[9].

V. PROPOSED SYSTEM

Propose the system automatically mined user's and routes' travel topical preferences including the topical interest, cost, time and season. Admin login to system and can add places for each place in city. He can view the user's details as well as each user's interest. User register to the system with its Facebook developer access token that used to get users Facebook data and from that we are mining user's preference by Aho-corasick algorithm .To generate Facebook token user have to create developer account. User can add travelogs detail and his community contributed photos. Travelogs details are used to get user preferred season for travelling .From dataset travelogs are mined to get time season cost for

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each place. When user enters the query to search places use get details according to his preference which is get at the time of registration. User can give rating, comment to each place. User can get optimized package according to his preference of similar user. User can view places recommendation by Rating, Online interest, Preference, activity, Season .He can view his package that contain best season, cost, preference package detail. User can view online interests package. User can view places on map. User can view multiple preferences package detail. User can view places on map.

ADVANTAGES :

1 It recommends places by mining user online point of interest and show package by mining user interest from Facebook data.

2 It also give recommendation using similar user interest and according to that gives recommendation to user.

3Applies filter on searching places.

VI. PROPOSED SYSTEM ARCHITECTURE

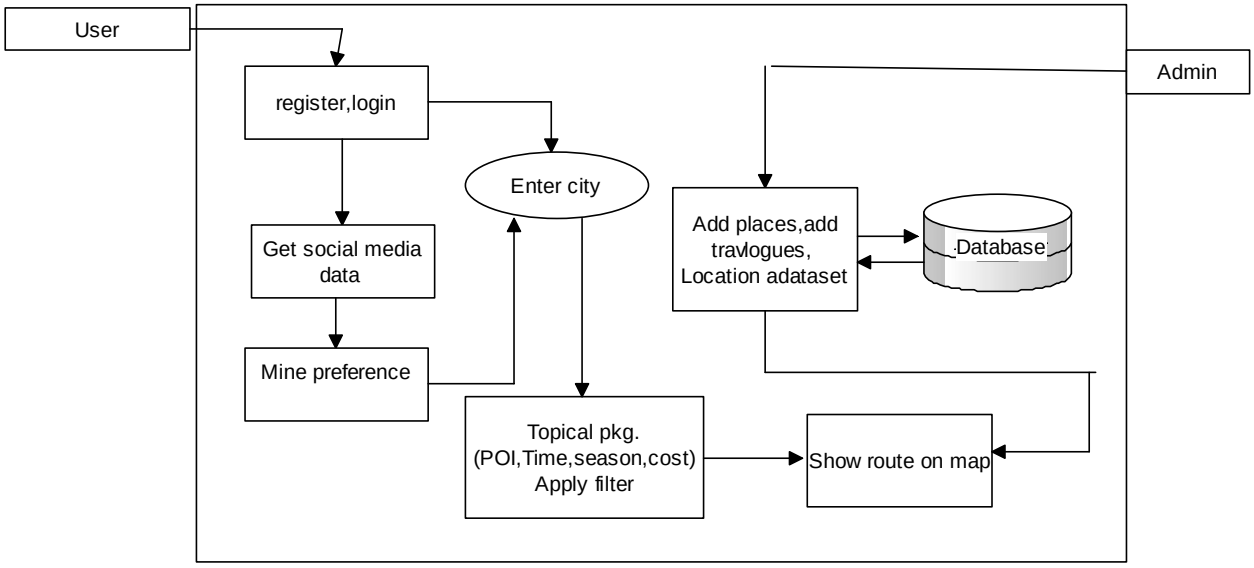

Fig.1: System architecture

VII. MATHEMATICAL MODEL

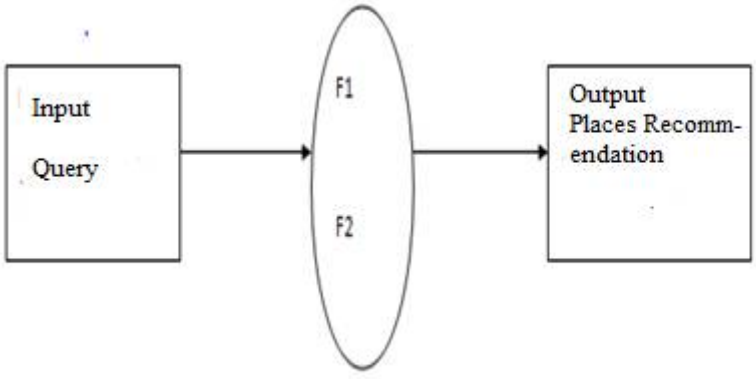

Fig2:Venn diagram

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Let us consider S as a system for automatically recommend places. S=INPUT:
Identify the inputs
F= f1, f2, f3 ....., fn— F as set of functions to execute commands. I= i1, i2, i3—I sets of inputs to the function set
O= o1, o2, o3.—O Set of outputs from the function sets, S= I, F, O
I = Query submitted by the user, i.e. query
Fme=fgmap, falgo
Fgmap=get route of location and return optimize route using Euclidean Distance.
O = Output of desired query, i.e. Places recommendation
F = Algorithm takefacebook data as input.Functions implemented to get the output, i.e. Aho-corasickalgorithm,POI Mining

VIII. CONCLUSION

In this proposed system personalized recommendation for the travel sequence system by learning the regional social network package model. Here the system will undermine users and routes with current preferences that include regional interests, cities, current interests, costs, time and season. We havePOI Places and travel sequence and travel preferences, activity and online interests of the user at the same time.It also Provide a map of the travel route sequence. We have extracted the positions based on the similarity between the user's past history. Finally, the travel sequence map is provided by the current location. The user adds his photos and travel stories in the system to store data securely.

REFERENCES

1) A Dynamic Topic Model and Matrix Factorization based Travel Recommendation Method Exploiting Ubiquitous Data ZhenxingXu, Ling Chen, Yimeng Dai, and GencaiChen,Year 2017
2.J. Sang, T. Mei, and C. Sun, J.T.andXu, "Probabilistic sequential pois recommendation via check-in data," in Proceedings of ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems. ACM, 2012.
3) Q. Yuan, G. Cong, and A. Sun, "Graph-based point-of-interest recommendation with geographical and temporal influences," in Proceedings of the 23rd ACM International Conference on Information and Knowledge Management. ACM, 2014, pp. 659–668.
4) S. Jiang, X. Qian, J. Shen, Y. Fu, and T. Mei, "Author topic model based collaborative filtering for personalized poi recommendation," IEEE Transactions on Multimedia, vol. 17, no. 6, pp. 907–918, 2015.
5) X. Qian, Y. Zhao, and J. Han, "Image location estimation by salient region matching," IEEE Transactions on Image Processing, vol. 24, no. 11, pp. 4348–4358, 2015
6) N. J. Yuan, Y. Zheng, X. Xie, Y. Wang, K. Zheng, and H. Xiong, "Discovering urban functional zones using latent activity trajectories," IEEE Trans. Knowl. Data Eng., vol. 27, no. 3, pp. 712–725, 2015.[Online].
7) P. Lou, G. Zhao, X. Qian, H. Wang, and X. Hou, "Schedule a rich sentimental travel via sentimental poi mining and recommendation," in Proceedings of the 20th ACM international conference on Multimedia Big Data, 2016.
8) X. Qian, Y. Xue, X. Yang, Y. Y. Tang, X. Hou, and T. Mei, "Landmark summarization with diverse viewpoints," IEEE Transactions on Circuits and Systems for Video Technology, vol. 25, no. 11, pp. 1857–1869, 2015.
9) J. Li, X. Qian, Y. Y. Tang, L. Yang, and T. Mei, "Gps estimation for places of interest from social users' uploaded photos," IEEE Transactions on Multimedia, vol. 15, no. 8, pp. 2058–2071, 2013.
10) Q. Hao, R. Cai, X. Wang, J. Yang, Y. Pang, and L. Zhang, "Generating location overviews with images and tags by mining user generated travelogues," in Proceedings of the 17th ACM international conference on Multimedia. ACM, 2009, pp. 801–804.