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Travel Sequence Recommendation by Mining User Social Interest and Travelogs Data

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ABSTRACT: While, searching on web user want to get more accurate recommendation according to his interest.The rapid growth of online travel information imposes an increasing challenge for tourists who have to choose from a large number of travel packages to satisfy their personalized requirements. our approach is not only personalized to user's travel interest but also able to recommend a travel sequence rather than individual Points of Interest (POIs). Topical package space including representative tags, the distributions of cost, visiting time and visiting season of each topic, is mined to bridge the vocabulary gap between user travel preference and travel routes. We map both user's and routes' textual descriptions to the topical package space to get user topical package model and route topical package model (i.e., topical interest, cost, time and season).Here similar users collaborative filtering for recommendation can also apply .

KEYWORDS: Travel recommendation, Check-in, multimedia information retrieval, Online interest ,social media, Travelogues

I.INTRODUCTION

A personalized travel sequence recommendation system to facilitate comprehensive Points of Interest (POIs), topical interest, cost, time and season that are recommended to social media users . This work propose an learning algorithm calledTopical Package Model which learns users travel preferences from text descriptions associated with geo-tagged photos. Then optimized the top ranked famous travel sequences are recommended according to social similar users travel records. The rapid growth of cities has developed an increasing number of points of interest (POIs), e.g., restaurants, stores, hotels, providing us with more opportunities to experience life than ever before. Recommending points of interest (POIs) to a user according to the user's current location and past check-in activities . The final recommendation of POIs is derived by combining the predicted rating on content and the predicted rating on location of POITourism has become one of the world's largest industries. Furthermore, according to the forecast by the World Travel & Tourism council, the contribution of tourism to global GDP is expected to rise from 9.1% in 2011 to 9.6% by 2021. Indeed, with the advancement of time and the improvement of living standards, even an ordinary family can do extended travel very comfortably on a small budget. As a trend, more and more travel companies, such as Expedia, provide online services. However, the rapid growth of online travel information imposes an increasing challenge for tourists who have to choose from a large number of travel packages to satisfy their personalized requirements. On the other side, to get more business and profit, the

travel companies have to understand these preferences from different tourists and serve more attractive packages. Therefore, the demand for intelligent travel services, from both tourists and travel companies, is expected to increase dramatically. Since recommender systems have been successfully applied to enhance the quality of service for customers in a number of fields it is natural direction to develop recommender systems for personalized travel package recommendation.

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II. REVIEW OF LITERATURE

1. This paper Presents a personalized travel sequence recommendation system by learning topical package model from big multi-source social media: travelogues and community contributed photos. The advantages of this system are automatically mined user's and routes' travel topical preferences including the topical interest, cost, time and season. They recommended not only POIs but also travel sequence.
2. Proposed system worked on a novel query-dependent landmark ranking system based on heterogeneous travel information fusion to facilitate a smart travel guide. This system gets the initial ranking list of landmarks via text matching. The advantage is, maximize the satisfaction and minimize the information load. Less efficiency is a disadvantage of this paper[2].
3. The paper is an author topic model-based collaborative filtering (ATCF) method is proposed to facilitate comprehensive points of interest (POIs) recommendations for social users.The disadvantage is, dataset is small. Only textual information of geo-tagged is given[3].
4. System presents is content information on LBSNs with respect to POI properties, user interests, and sentiment indications. Model the three types of information under a unified POI recommendation framework with the consideration of their relationship to check-in actions. The advantage is, user behavior, and demonstrates its power to improve POI recommendation performance on LBSNs. And the disadvantage is contain only small dataset[4].
5. The system worked 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 temporal influencesin time-aware POI recommendation. The disadvantage is taken a more time[5].
6. Propose system is an unsupervised image GPS location estimation approach with hierarchical global feature clustering and local feature refinement. Consist of two parts: offline system and online system. The disadvantage is in online system data should be not secured [6].
7. System present is to mine user daily behavior based on a user's location history. Time- clustering-based behavior analyses (TCBA) are proposed to model each individual's location history and mine the regularity in daily activities[7].

III. SYSTEM ARCHITECTURE
PROPOSED SYSTEM ARCHITECTURE

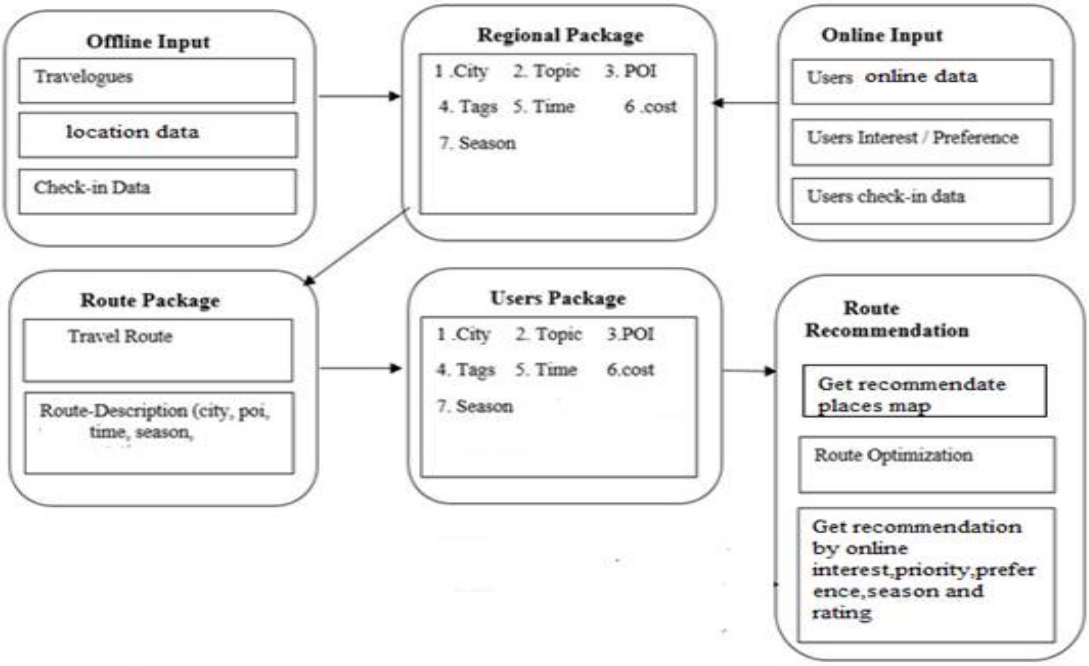

Fig.1: System architecture

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SYSTEM OVERVIEW-

Propose system will mine user's POI ,routesand travel topical preferences including the topical interest, cost, time and season. Admin 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 .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 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. According to user entered likes his offline preference is updated and again according to that user gets result. 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.

IV.ALGORITHM

1.AHOCORASICK ALGORITHM

Input:
1. Preference
2. Facebook data from token

Output. Location at which preference is present

Working: This algorithm will check users preference count in Facebook data.
Explanation: This is used to get POI mining from data which we get fromFacebook at the time of registration.

V.MATHEMATICAL MODEL

Notations:

1.User Topical Interest Distribution= $\alpha^{(U)}$
2. The summation of the all tag's distribution represents the topic distribution
$\alpha^{(U)} = [\in 1^{(U)}, \dots, \in 2^{(U)}, \dots, \in N^{(U)}]$
3. The user's topical interest towards $C_k = \in i^{(U)'}$
4. The number of different tags of the user= nU
5. The score of the i-th tag to the k-th topic= $X_{i,k,}$
6. POI's topical distribution =
$\alpha^{(P)} = [\in 1^{(P)}, \dots, \in k^{(P)}, \dots, \in N^{(P)}]$

Equation:

1. Sum the scores of all the tags of the user towards ck as:
$\in i^{(U)'} = \sum_{i=1}^{nU} Xi, k,$---------- [1]
2. The normalized topic score of the k-th topic, which is obtained as
$\in k^{(U)} = \in k^{(U)'} / \sum_{i=1}^{N} \in i^{(U)'}$---------- **[2]**
3. User's topical interest
$\alpha^{(U)} = [\in 1^{(U)}, \dots, \in 2^{(U)}, \dots, \in N^{(U)}]$---------- **[3]**

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VI.EXPERIMENTAL SETUP

POI by graph:-
Description:Admin view each user Preference for each preference by graph.

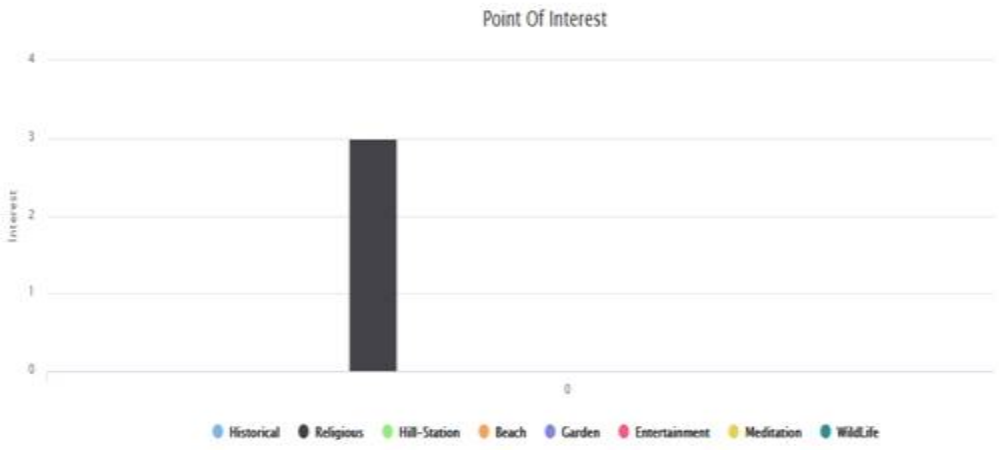

Fig 02: each user for each preference

Season graph:-
Description:Admin view season wise search for each month of each city.

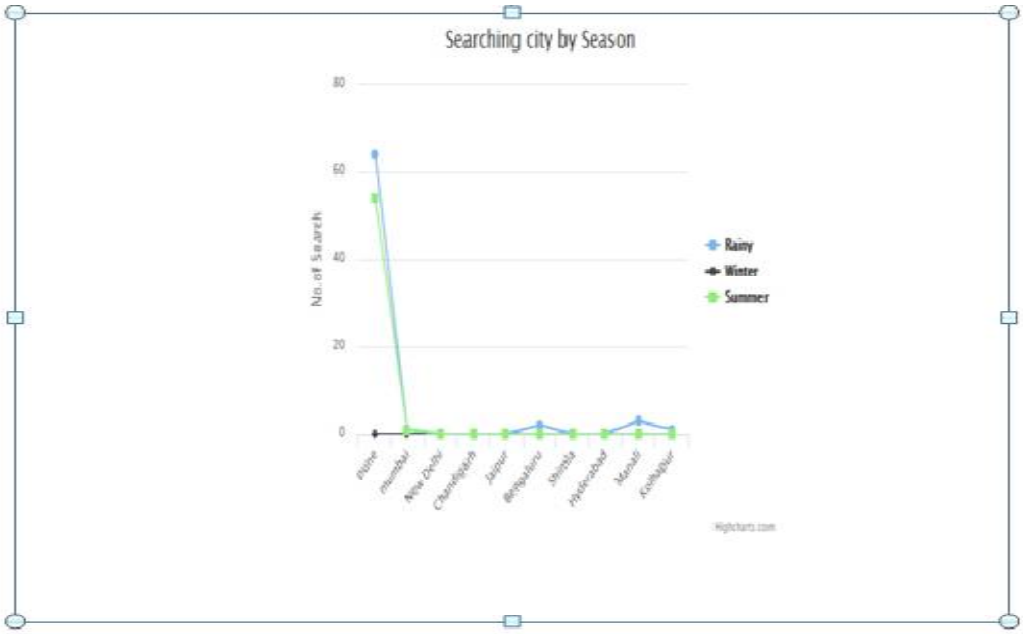

Fig.03;each city in particular season

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VII. CONCLUSION

This paper present the system that mine uses POI From Facebook and according to that places will recommend while recommending the places system create topical package of places that will show travelogues mined time season and cost of each places. User will book the package and view mined rank on map. User will get recommendation on basis of collaborative filtering. That will consider user's Poi and according to that POI similar user will find and on that basis places will recommend to user.

REFERENCES

[1] Shuhui Jiang, XuemingQian , Tao Mei and Yun Fu "Personalized Travel Sequence Recommendation on Multi- Source Big Social Media" in 2016.
[2] JungeShen, JialieShen, Tao Mei, and XinboGao," Landmark Reranking for Smart Travel Guide Systems by Combining and Analyzing Diverse Media" in 2016.
[3] Shuhui Jiang, XuemingQian, JialieShen, Yun Fu, and Tao Mei," Author Topic Model-Based Collaborative Filtering for Personalized POI Recommendations" in 2015.
[4] HuijiGao, Jiliang Tang, Xia Hu, and Huan Liu, "Content-Aware Point of Interest Recommendation on Location- Based Social Networks," in 2015.
[5] Quan Yuan, Gao Cong, Aixin Sun, "Graph-based Point-of-interest Recommendation with Geographical and Temporal Influences" in 2014
[6] Jing Li, XuemingQian, Yuan Yan Tang, Linjun Yang, and Tao Mei," GPS Estimation for Places of Interest From Social Users ' Uploaded Photos" in 2013.
[7] Yang Ji, Chunhong Zhang, ZhihaoZuo, Jing Chang," Mining User Daily Behavior Based on Location History" in 2012.
[8] Huagang Yin, Changhu Wang, Nenghai Yu, Lei Zhang," Trip Mining and Recommendation from Geo-tagged Photos" in 2012.
[9] H. Liu, T. Mei, J. Luo, H. Li, and S. Li, "Finding perfect rendezvous on the go: accurate mobile visual localization and its applications to routing," in Proceedings of the 20th ACM international conference on Multimedia. ACM, 2012, pp. 9–18.
[10] M. Clements, P. Serdyukov, A. de Vries, and M. Reinders, "Personalised travel recommendation based on location co-occurrence," arXiv preprint arXiv, 2011.[11]Y. Lyu, C.-Y. Chow, R. Wang, and V. C. Lee, "Using multi-criteria decision making for personalized point-of-interest recommendations," in Proceedings of SIGSPATIAL, November 04-07 2014, Dallas/ Fort Worth, TX, USA. ACM, 2014.
[12] X. Wang, M. Yu, L. Zhang, R. Cai, and W. Ma, "Argo: intelligent advertising by mining a user's interest from his photo collections," in Proceedings of the Third International Workshop on Data Mining and Audience Intelligence for Advertising. ACM, 2009, pp. 18–26.
[13] Q. Hao, R. Cai, C. Wang, R. Xiao, J. Yang, Y. Pang, and L. Zhang, "Equip tourists with knowledge mined from travelogues," in Proceedings of the 19th international conference on World wide web. ACM, 2010, pp. 401–410.