INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

ISSN
INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.488

Social Media's Point of Interest for Travel Recommendation

Geetashri Mohan Gaikwad, Swati Joshi

PG Student, Department of Computer Science & Engineering, N B Navale Sinhgad College of Engineering,

Solapur, India

Professor, Department of Computer Science & Engineering, N B Navale Sinhgad College of Engineering,

Solapur, India

ABSTRACT: On web big data are increases in both industrial and research area such as health care, financial services and commercial recommendation. The personalized travel recommendation work on user's personal requirements, community-contributed photos and heterogeneous metadata related this photo. The existing system cannot work on the user's requirements and cannot automatically mine user travel interest. The personalized travel sequence map both users and routes textual descriptions to the topical package space to get user topical package model and route topical package model. We used the Facebook data to find out the user's point of interests. The POI of user is mined through Facebook data of user by Levenshtein distance algorithm.

KEYWORDS: Check-in, geo-tagged photos, GPS, social media, multimedia information retrieval, Online interest, Travel recommendation.

I. INTRODUCTION

Automatic travel recommendation is an important problem in research and industrial area. In general, travel recommendation, the basic drawback is the points of interests are not automatically mine. Moreover, provide only the famous route mining but without automatically mining user travel interest. Big media such as social media like Facebook, twitter, offers great opportunities to solution of many challenging problems, for instance, GPS estimation and travel recommendation. In the automatic travel recommendation, two main challenges are given, first is the recommended point of interest should be personalized to user interest means different users may prefer different types of POIs. Second challenge is important to recommend the sequential travel route rather than individual point of interest. In existing system, travel recommendation mining famous travel point of interest and routes are mainly four types of big social media such as GPS trajectory, check-in-data, geo tags and blogs. Therefore, this route planning cannot meet the user's personal requirements. Nevertheless, in personal travel recommendation recommends the POIs and routes by mining user travel records. Moreover, mine the point of interest using social media.

II. MOTIVATION

The general travel recommendation is not fulfilled the users requirements and not mined the point of interest. They provided famous routes but without automatically mining users travel interest. Therefore, we proposed the personal travel sequence recommendation for to fulfill the user's requirements and they mined automatically point of interest from social media. Here we have used the Facebook as a social media. We consider not only users topical interest but also the consumption capability and preference of visiting time and season. In addition, recommend the sequential travel routes.

III. REVIEW OF LITERATURE

1. 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 temporal influencesin time-aware POI recommendation. Advantage is real world dataset and the disadvantage is taken a more time[5].
2. This paper present 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 basic concept 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 advantage is reduced computation time. The disadvantage is in online system data should be not secured[6].

4. The basic concept is an author topic model-based collaborative filtering (ATCF) method is proposed to facilitate comprehensive points of interest (POIs) recommendations for social users. The advantage is similar travel topics are shared. The disadvantage is, dataset is small. Only textual information of geo-tagged is given[3].

5. The basic concept 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].

6. This paper proposed 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. In addition, disadvantage is Small dataset. Only famous city are included [1].

7. A path search system to facilitate tourists' trip planning, not only where to visit but also how to visit. The advantages is time consuming and the disadvantage is the given path is not given to all cities. Means the information is incomplete [8].

8. The basic concept 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. The advantage is specified time mentioned. The disadvantage time based analyzing location history [7].

IV. SYSTEM OVERVIEW

Propose system, the system automatically mined user's and routes' 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 Levenshtein Distance Algorithm .User can add travelogues detail and his community contributed photos. travelogues details are used to get user preferred season for travelling . 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, and preference package detail. User can view online interests package. User can view places on map. User can view multiple preferences package detail.
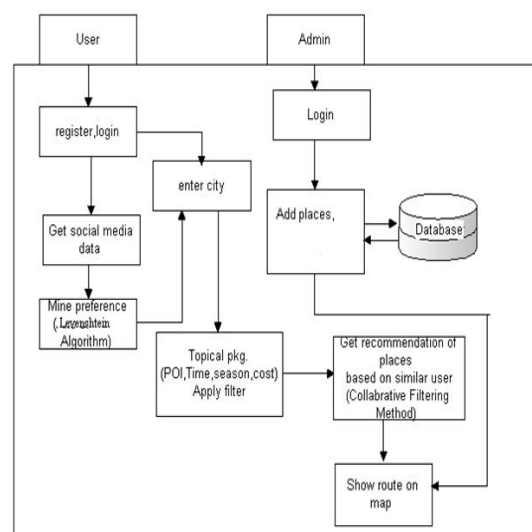
SYSTEM ARCHITECTURE

Fig. 01 System architecture

A. *Mathematical Model*

Set Theory
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
O = Output of desired query, i.e. Places recommendation
F = Functions implemented to get the output, i.e. Lavenstine Distance Algorithm, POI Mining.

B. *Algorithms*

V. LEVENSHTEIN DISTANCE ALGORITHM

This is used to get POI mining from data which we get from Facebook at the Time of registration.
Input.
1. Text string x = a1 for matching
2. Data from Face book
3. Distance to match string x in Facebook data
Processing: System will get POI as string and will match that string in Facebook data
According to specified distance.
Output: no. of time matched string with Face book data

VI. RESULT AND DISCUSSIONS

Here we used online data set of Facebook for each user using facebook API.Uselocatin dataset and travelogues dataset. Places will be added by
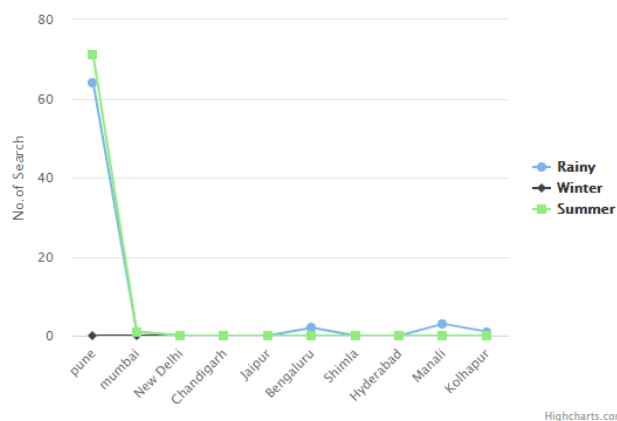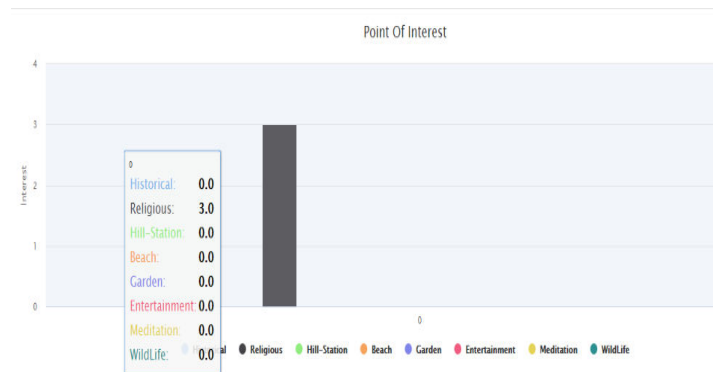

Fig.02: Result Season Wise

Fig.03: Result POI(Point of Interested)

VII. CONCLUSION

This paper proposed that the TPM system for the travel sequence recommendation from big social media. The advantages of this system are automatically mined users and route travel topical package and recommended not only POIs but also travel sequence. User can rate and comment the places. Top ranked places are also displayed to user. Mined routes are display on map and user is able to book package of recommended places of city.

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.

INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor:
7.488

ISSN
INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

निस्केयर
NISCAIR

INTERNATIONAL JOURNAL
OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING