SMART TOURISM RECOMMENDER SYSTEM

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Abstract: *Recommender systems are using in many different domains. We mainly focuses on the applications of tourisms A widely searched of the conferences since many years has been made. We provides a detailed and up-to-date survey of this field, considering the different kinds of ways, the and diversity of recommendation algorithms, the functionalities offered by these systems and their use of Artificial Intelligence techniques. Our survey also provides some guidelines for the tourism recommenders and suggests the most promising areas of work in this field for the upcoming years. For the access to easy and accurate information is the heart of our system, so in this era of the Internet information overload has become a common phenomenon and as such a serious issue for those searching for appropriate information. Furthermore, various researches have been carried out on how to get information on tourism website more effective. So smart intelligent tourism management system tries to overcome the gap by noting what a tourist perceives as relevant, in terms of connecting to tourism products in tourism websites. This study focuses mainly on content because it is seen as the major factor associated with an effective and smart website.*

Keywords - Smart Tourism Recommender System, Artificial Intelligence

1. INTRODUCTION:

The amount of information available on the internet and its number of users have experienced a huge increase in the past last decade. All this information may be particularly useful or necessary for those users who wishes to plan for visiting an unknown destination. Information about travel destination and their associated resources such as Accommodation, restaurant, Museums, Transports or events among other is commonly search for tourist in order to plan a trip. However list of possibilities offered by web search engines (or even specialized tourism sites) maybe vast .The growth of this long list of option is very complex and time consuming for tourist in order to select the one that fits better with their need. Modern tourists avoid fixers to make their own decisions about their trip, choose certain alternatives to perform booking and pay for their order

directly. Modern tourists are advanced not only by the desire to reduce costs, but also the realities of the information society in which the necessary information is available. Nowadays tourist trusts less in advertising brochures of travel agents, does not want to pay for expensive travel guides. At the planning stage of his journey tourist usually tends to make his own analysis for information on the of alternative travel routes. In adventure large information portals, online council feedback and comments of those who have visited this trip, photos and videos submitted are freely available. This main source of finding & distributing current, complete accurate traveling information is increasingly becoming a web space. Nowadays the actual problem is not the traditional multi filtering search of relevant information, but search into be person oriented, personalized, adapted to the individual needs of particular "sophisticated" users need information. User's searches request for urgent information resources in extended web environment occasionally is faced with the problem of selection (filtering) of useful data in this field

2. LITERATURE SURVEY:

Venkataiaha, Shardaa, and Ponnadaa (2008) It reports the design of two visualization systems (called discrete and continuous) for a tourism recommender and compare the interaction of the users in both cases. The former provides a high quantity of information in the screen at the same time, and it was determined that users needed too much time and effort to understand it. The latter aggregates all the information into a single video clip that combines the most easy media content, including text, photos, blogs and videos. The approach shown in Lee et al. (2009) is one of the firsts that Embeds Google Maps Services1 in their Web pages in order to plot the travel route on a map, so that tourists can follow the personalized support to enjoy cultural heritage and local food during their stay in City. Other Web-based recommender systems that display in a map.

The places scheduled to be visited in a single day are e-Tourism (Sebastià, Garcia, Onaindia, & Guzman, 2009), City Trip Planner (Vansteenwegen et al., 2010), Otium (Montejo-Ráez, Perea- Ortega, García-Cumbreras, & Martínez-Santiago, 2011) and EnoSig- Tur (Borràs et al., 2012a).

Some projects like (e.g. Ceccaroni et al., 2009; Garcia, Torre, & Linaza, 2013; Umanets et al., 2013; Vansteenwegen et al., 2010) have paid special attention to the to social functionalities that allow users to share material (pictures, comments, evaluations) and interact with other tourists. These things may be veryinteresting to help.

3. EXITING SYSTEMS:

There are many tourist applications and websites that provide facilities like places, accommodations etc. about several places. These systems only provide static information that is mostly already known and provide just numbers and directions to it .Systems working on tourist systems are: makemytrip.com: Created to empower the Indian traveler with instant booking and effective choices, the company began its journey in the US-India travel market. It aimed to offer a range of best value products and services along with cutting-edge technology that is dedicated for customer support. MakeMyTrip offers the broadest selection of travel products and services in India. MakeMyTrip is the dominant market leader with 47% marketshare.

Tripigator: Tired of paper travel guides and big maps that nobody understands, the founders of Tourist Eye began in 2009 with the objective to create a guide for mobile devices tailored to each person.

In July 2010 TouristEye launched its first version/Part to market, achieving a major impact on the media. They work to meet the needs of their users and learn from their suggestions of launching a second version of the product in August 2011 with a much clearer focus in the process of planning the trip, keeping the offline access to information from the mobile devices and letting the user to share his trip journey in real time with the people around them. In the currently existing systems, all the records and details are not kept perfectly because all the work is done manually, so keeping up to date details and records of the transportations, timings of bookings, seat availability for reservation, vehicles or rooms/hotels availability is not done. Amount of the overall trips are kept in documentations and the calculations done are manually which made lead to huge mistakes ,that makes User complicated Thus, such existing system is very time consuming and due to because of manual work sometimes lead to a great loss as well headache for users.

4. PROPOSED SYSTEMS:

The problem of the former recommender systems (e-tourism) was the problem of extracting useful knowledge data. If information about subject domain of finding solutions (recommendations) can be easily formalized and unified to form an array of data, the meaning of the reasons for the decisions made by the user, his wishes and a possible compromise on the decision in a knowledge space is quite problematic to formalize. The functioning of the first recommender systems was based on two assumptions:

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The functioning of the first recommender systems was based on two assumptions:

—   A single user in person provides the system with necessary information with the necessary degree of confidence for developing better recommendations.

—   User certainly follows the recommendations, provided by the system, even if it has only selective similarities to the selecting criteria or personal preferences have changed.

User needs information for making decision at a time when he himself/herself lacks information and knowledge for decision in subject area. To get knowledge of the user preferences for selection criteria in recommender systems of the previous generation user must have to held survey. In addition, the recommender systems of the previous generation systems did not consider the critical circumstances a tourist faces in his travel. And these are no less important factor in decision making, including changing weather, unplanned expenses or costs , etc. can make it difficult or even impossible to follow a chosen recommendation item (the one that just a day ago seemed to be a perfect choice). Effective solution for these problems of up to date and suitable recommendations can be given by a new class of e-tourism recommender systems, which contributed to the appearance of intelligent decision support technologies.

5. CHALLENGES:

There are many challenges in this field of recommendation systems here we are explaining some of them: Algorithms scalability with big and real-world database, As the research in the development of recommendation system is growing largely in now a days, a major issue comes into existence is how to implement recommendation techniques in real world

systems and how to solve the problem of large and dynamic datasets. Sometimes an algorithm works well when tested offline on small dataset but becomes inefficient or inappropriate when used on large real world datasets.

Dedicated recommendation systems: Dedicated recommendation systems generate recommendations automatically without clearly asked. A recommendation system can become dedicated or aggressive if it detects understands requests hence can predict not only know what to recommend but when and how to push recommendations

Privacy protecting recommender systems: Recommendation systems extract/uses user data to generate personal recommendations. Therefore, there is a need to protect this user data or information from unauthorized access. Distributed recommender systems that operate in open networks: Majority of recommendation system follows client-server architecture which can suffer from all problems of centralized systems. Cloud computing can provide opportunity to use more flexible models or systems for better recommendation systems.

Diversity of the items recommended to a target user: User will get/receive better recommendations if there is wide range in the items included. There are many situations or circumstances when user wants to explore the items. So there is a need to define the type of the range and how to combines goal with accurate recommendations.

6. CONCLUSION:

Recommendation systems proved themselves to be a best solution for handling problem of the information overload or overwhelming nature. They help in making decisions by quality time and energy. Future work will focus on enhancement of the existing methods or techniques and algorithms used so that the recommendation systems predictions and recommendations quality can be enhanced.

REFERENCES:

1.Artemenko O. 2015 Dynamic characteristics of perspective touristic information technologies / Olga Artemenko, Natalya Kunanec, Volodymyr Pasichnyk, Valeriya Savchuk // Econtechmod an international quarterly journal, No. 4, Vol. 4, pp. 107–118.

2.Bin R. 2014 Research on Tourism Service Intelligent Recommendation System Based on Apriori-MD Algorithm / Rao Bin // Applied Mechanics and Materials, Vols. 651–653, pp. 1642–1646. © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMM.651 -653.1642

3.Borras J. 2014 Intelligent tourism recommender systems: A survey / J. Borras, A. Moreno, A. Valls // Expert Systems with Applications, Vol. 41, pp. 7370–7389.