

ADVERTISEMENT MANAGEMENT IN SOCIAL NETWORK BASED ON USER INFORMATION

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Abstract:

An advertisement company can serve their ads depends on every user interest. They provide the ads depends on User profile and him/her activity in social Network by collecting data from user activities. The purpose of collecting user data is to provide them ads regarding their preferences and characteristics. Their preferences can be defined either by their choice or their user profile updates. Their characteristics can be defined by their profile data such as educational qualification, age, Location, blood group, interests or their hobbies. These data can be collected and stored in the form of dataset and can be used in the future for providing them web services. Existing social network gives unnecessary advertisements which are not related to user requirement. This will distract the concentration of users and leads to wastage of time.

Keywords: *Advertisement, profile Analysis, user data*

1. INTRODUCTION

A social network is a social structure made up of a set of social actors (such as individuals or organizations). The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures. The study of these structures uses social network analysis to identify local and global patterns, locate influential entities, and examine network dynamics. Social network is a website on the Internet that brings people together in a central location to talk, share ideas and interests, or make new friends. This type of collaboration and sharing of data is often referred to as social media. Social networks and the analysis of them is an inherently interdisciplinary academic field which emerged from social statistics and graph theory. The goal of this work is to obtain a method for eliciting user personality without asking the user to fulfil a specific questionnaire. The approach consists of analyzing the user behavior

While interacting with a social network and detecting the parameters or combination of parameters that best describe the user personality. A reference framework must be defined in order to describe user personality. In other words, there is a need for a model of personality that describes its structure. Once a personality model has been chosen,

interaction data from those users whose personality is known is needed. In this way, patterns of behavior related to certain personality features can be mined. Social networking website you can begin to socialize. This socialization may include reading the profile pages of other members and possibly even contacting them. Another one of those benefits includes diversity because the internet gives individuals from all around the world access to social networking sites.

2. RELATED WORK

A. Social media is a phenomenon that has drawn a lot of attention both to companies and individuals interacting on the networking landscape[1]. The rapid growth of social networking that has been observed over the last four to five years is indicative of its entry into mainstream culture and its integration into the daily lives of many people. In parallel with this, there has also been considerable media coverage of the growth of social networking, its potential positive outcomes and concerns about the way that some people are engaging with it[1]. Social networking sites offer people new and varied ways to communicate via the internet. This can be on a one-to-one basis (much like an email), or in a more public way such as a comment posted for all to see.

B. Recent approaches in advertisement marketing include focus on building relationship with the customer, along with business or industrial marketing which focuses on an organization or institution and social marketing which focuses on benefits to society[7]. New forms of advertisement marketing makes use of the internet and are therefore referred to as online marketing, search engine marketing, desktop advertising or affiliate marketing[5]. It attempts to perfect the segmentation strategy used in traditional marketing. It targets its audience more precisely, and is sometimes called personalized marketing or one-to-one marketing.

C. Recent trends have shown that social networking sites can drive advertising revenue by encouraging the density of social ties or boosting the level of friendship or social connections between users[3]. According to findings, more connected users prompt increases in visitation and browsing on the site, which helps stimulate online advertising revenue growth.

2.1 Advertisement via Social Networking

Social networks are also at the core of something called "social media marketing." This is a way of marketing products through social media sites like social networks, blogs, widgets and other social websites[3]. If you run your own business, or if you just sell a few odds and ends on eBay every once in a while, having a social network presence can help out. Advertising simply put is telling and selling the product. Advertising Management though is a complex process of employing various media to sell a product or service[2]. This process begins quite early from the marketing research and encompasses the media campaigns that help sell the product. Without an effective advertising management process in place, the media campaigns are not that fruitful and the whole marketing process goes for a toss. Hence, companies that believe in an effective advertising management process are always a step ahead in terms of selling their goods and services.

3. PRELIMINARIES

The system that proposed has a vast difference between all existing systems. Majority of the additional features which will be implemented have an added advantage over all the shortcomings of existing social networking sites. The major objective behind collaborating the concepts of social networking and advertisement management was to include the best interests of both. Social networking mainly focuses on the newly found lifestyle and habit of networking online with common interests and hobbies, with people of same tastes. Joining all that with advertisement leads to more sharpened and narrow projection of ads towards its users.

- The user's personality is detected without interrupting the users work..
- The data are collected without rising questionnaires to the user.
- Instead, the data are collected from their activities from the social network and then stored in the database.
- Finally, it is mined then Advertisements regarding user's preferences can be posted.

3.1 Collecting user data:

The purpose of collecting user data is to provide them ads regarding their preferences and characteristics. Their preferences can be defined either by their choice or their updates. Their characteristics can be defined by their profile data such as their education qualification, age, location, blood group, interests or their hobbies. These data can be collected and stored in the form of dataset and can be used in the future for providing them web services.

When the user registers to our social network, they are insisted to provide their information such as age, blood group and their interests. These data are used to provide them ads. The user data can also be in the form of their likes and status uploaded. Their likes to specific posts can be counted and based on their priority posts or ads can be provided. Their status can also be saved as datasets to provide them posts regarding their status

3.2 Creating the user data:

The user data from their profile and activities are collected and stored in the database which is then generated automatically into an xml file. This xml file is used as a dataset. With this profile dataset, classifiers for hospital, job offers, educational related ads are posted to user's profile. And with their status, likes and posts ads regarding tourisms, hotel management and e-commerce.

3.3 Classifiers creation:

Based on the request from other websites classifiers can be created by the admin. Classifiers such as tourism, hotel management, hospitals blood requirements, job offers, educational related programs, e-commerce services and e-business advertisements are created and stored in the database.

3.4 Word analysis:

These classifiers are posted to the user's profile to provide them web services. These ads are categorized to these specific users with the help of their status, likes and profile data. The process of categorization is done by the use of word analysis algorithm.

3.5 Methods and features:

Sentiment analysis can be grouped into four main categories: keyword spotting, lexical affinity, statistical methods, and concept-level techniques. Keyword spotting classifies text by affect categories based on the presence of unambiguous affect words such as happy, sad, afraid, and bored. Lexical affinity not only detects obvious affect words, it also assigns arbitrary words a probable "affinity" to particular emotions.

Open source software tools deploy machine learning, statistics, and natural language processing techniques to automate sentiment analysis on large collections of texts, including web pages, online news, internet discussion groups, online reviews, web blogs, and social media. Knowledge-based systems, instead, make use of publicly available resources, e.g., WorldNet-Affect, SentiWordNet, and SenticNet, to extract the semantic and affective information associated with natural language concepts. Sentiment Analysis can also be performed on visual content i.e. images and videos. One of the first approach in this direction is Sandbank utilizing an adjective noun pair representation of visual content. A human analysis component is required in sentiment analysis, as automated systems are not able to analyze historical tendencies of the individual commenter, or the platform and are often classified incorrectly in their expressed

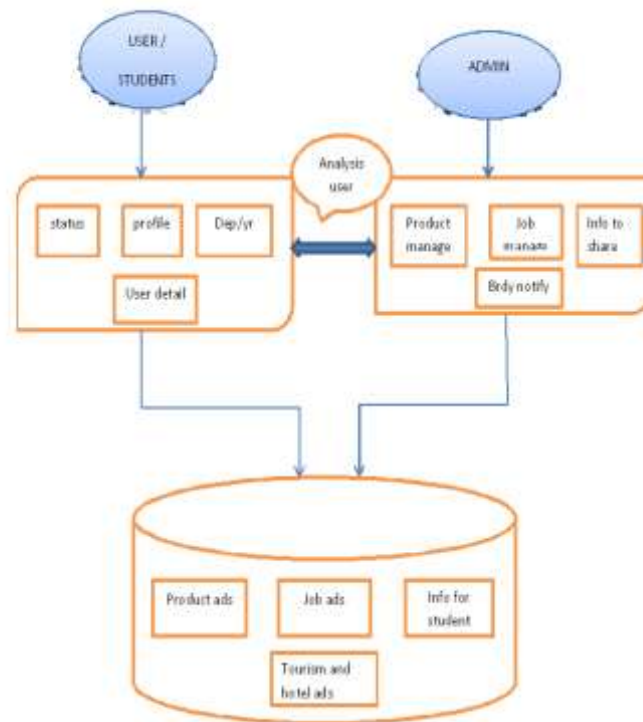
3.6 Mining:

From the advertisements created, each advertisement is assigned with an id(identity). These advertisements are stored in the database and converted into a dataset. By using for each statement in php, we can insert the ad's id into the array. The status of the user is analyzed using the word analysis algorithm and the specific keyword is found which is then store in a separate string. The array and the string are then compared using mining, and then regarding ads are posted from the ad dataset using the advertisement id.

3.7 Posting ads:

The ads are posted on to the user's profile and to their home page. The ads stored in the database are opted according to the user's preference. This is done by getting the key words from the user's status which they post on their profile. The keyword is got from the user's status and compared with the list of ads in the database. Then, the ad that matches the correct preference is posted in the user's profile. The other way the ad is posted, is by getting the information about the user. The user is asked to put in their personal information during their registration process. These information about the user is again matched with the ads in the database and the preferred ad is posted on to their profile.

4. SYSTEM ARCHITECTURE:



4.1 Admin module:

A. Admin classifiers:

In this module admin will create the advertisement. The advertisement is created based on different categories like job, blood group, tourist places, qualification, hotels and gift shop around the user location. These advertisements are created and uploaded by the Administrator, which includes its title and description. It will be stored in the database which will be displayed in the user page according to the user activities.

B. Monitor user activity:

In this module all the activities of the user will be monitored by the admin. Registered user can update their status and personal information on their profile. These activities of the user will be monitored by admin and then, stored in the database.

C. Post announcement:

In this module the admin will be displaying the advertisement to the user's profile. The advertisements will be based on the personal details which the user provided during the time of registration and based on the status of the users. The advertisements will be posted on the user's profile based on the birthday and on their status.

4.2 User module:

Profile registration:

In this module the user will be registering them self for the interaction between the people around the world with the help of the social network. While registering the details like their age, qualification, cities, birthday are also collected. All the collected information from the user will be stored in the database and from that it will be converting into the dataset.

4.3 Profile advertisement:

The profile advertisement is the ads that are posted to the user's profile. The specialty of this ads posting is that, even when the user did not perform any activities the ads are posted to the users to provide them web services.

These ads are posted by matching the user's information and the ads in the database. The user's information is got from them when they register into the social network. user friends upcoming birthday will be displayed based on that gift shops around the users location will be displayed. Thus, these ads are presented to the user's profile.

5. RESULT ANALYSIS

This proposed system aims to integrate the benefits of online social networking with optimized advertisement management. Thus, the social network ADS SOCIAL has been created from which the users data are collected in an unobtrusive way and then stored into the database. Then, it is mined and finally regarding ads are posted onto the user's page.

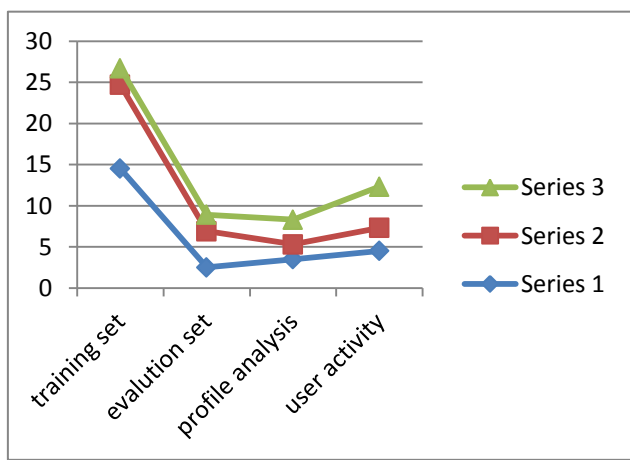


Table 1

Data Statistics

Topics(keywords)	Analysis range
Training set	15
Evaluation set	25
Profile analysis	30

5. CONCLUSION

In general, posting unnecessary advertisement in user profile which is not related to user interest is not good way to manage the marketing technique via ads. So, we implemented the social network system which concentrates on better way of marketing and also targeting people's need rather than posting unnecessary ads and all.

In Ads social network ,the user data is obtained in the discreet way without disturbing the user and is converted into the large dataset .The mining technique is used in that dataset which will be converted into the useful format. Based on the user preferences advertisement will be posted in the user page. Advertisement will be based on jobs, tourist place, hotels, requirement in the hospital and also users friends upcoming birthday will be viewed and gift shop around user city will be posted.

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