Improving Marketing Tactics by Predicting the Target Users in Social Networking Site

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Abstract: **Business can take benefit through social network marketing in order to cooperate with companies to achieve their goals. One of the most important advantages of Internet based application is creating an interactive contact between stakeholders that enable business to get feedback directly from their customers. In parallel companies can gain benefits through social marketing: they can achieve a better understanding of the customer needs and then they can build effective relationships with customers. For advertising campaigns and product development, discovering the appropriate target markets and audience is an important stage in the market research.**
This paper aims to focus on important works like, identifying the target users, designing of market strategy/plan, Building the marketing network (groups) & Statistical analysis of categories & also helps to extract interest of the user so that any related articles, posts or videos can be posted to that user to improvise the business. Target users have been found based on their shared information by using clustering technique.

Keywords: **Social Network, Advertising, Marketing, Clustering.**

1.   INTRODUCTION

Companies can gain benefits through using social network in their marketing, they can achieve a better understand of the customer needs & can build better relationship with customer. Internet has given us the ability to connect with people around the globe. Social media marketing is a key component of any successful business initiative.

In social media business entities can advertise their product based on the interest / taste of their customer. They even can get the feedback from their customer about their product. Through the social networking site(SNS), they can reach millions of the users, who access SNS. This helps the business entities to make market plan & know their product's target users(one who are interested in their products). Social networks provide the opportunity to talk with customers on a personal level, which is usually difficult to achieve or impossible through traditional channels like newspaper, television & films which are expensive, time consuming and through which we are not able to identify the key users. Marketing on social networking sites is not a substitute for traditional marketing. It is an additional channel with unique characteristics that can complement other marketing activities.

Taking the feedback from their customer, the business entities can improvise their business through improvising product quality, achieving customer requirements(needs), also they come to know the target users of their products. This create a good relationship between business entities & their customer & also customer gets the information on the new version, features, new updation of their interested items.

Hence this SNS application will predict the target/key users through their shared information in SNS & business entities going to display their product's advertisement in their target users wall. Therefore, as this target user gets the complete information about their interested items, they definitely comes forward to purchase the item which is in turn benefit for

business entities. Users also will be satisfied with the item that they purchase & business entities will also be successfully provide the items that is of user satisfaction & also they can improvise their business & profit.

2.   RELATED WORK

A. A System to Filter Unwanted Messages from OSN User Walls:

One fundamental issue in today On-line Social Networks (OSNs) is to give users the ability to control the messages posted on their own private space to avoid that unwanted content is displayed. Up to now OSNs provide little support to this requirement. To fill the gap, in this paper, we propose a system allowing OSN users to have a direct control on the messages posted on their walls. This is achieved through a flexible rule-based system, that allows users to customize the filtering criteria to be applied to their walls, and a Machine Learning based soft classifier automatically labeling messages in support of content-based filtering.

The System gives users the ability to control the messages posted on their own private space to avoid that unwanted content is displayed.

System is a web enabled application (online social networking application) which provides the key OSN service (content based filtering) for the users.

System provides an efficient mechanism to prevent unwanted messages on user walls in online social networking environment that is to provide content based filtering for the users to prevent undesired messages.

B.   Social Network in marketing (Social Media Marketing):

This paper intends to find how social software can be used to improve the marketing and to survey how social software can be used effectively in enterprises. The main focus would be on opportunities and risks in companies used social network in their marketing.

3.   PROBLEM DEFINITIONS

To improvise the business profit, business entities need to make the customers to move towards their product. The question is, how to make users to move towards our product? & how to find who are really interested in knowing our new products, versions, features….?. In this paper we have tried to come up with answers to these questions. For advertising campaigns and product development, discovering the appropriate target markets and audience is an important stage in the market research. Here, we are using Clustering Technique to boost up the advertising way towards identifying target users.

4.   METHODOLOGY/ ALGORITHM TO PREDICT THE TARGET USER

1. *Preprocessing:* It includes training of the system. In this application, from the posted data it is important to select the significant keywords that carry the meaning, and discard the words that do not contribute to distinguishing between the posts. Keywords are defined as a sequence of one or more words and provide a compact description of a post's content. Keywords are often used to define queries within information retrieval (IR) systems because they are easy to define, remember and share.

Example: Keywords like: Sports, Software, Smart Phone, Laptops, Quality, Offers…

2. *Extraction:* We are going to extract only the shared/posted information of the user from SNS warehouse based on the user Id. Hence this shared information is most important data for application to predict the target user.

3. *Filtering*: It includes Tokenization & Cleaning function. Filtering is done based on the list of stop words & keywords. Most frequently used words in English are useless in Information Retrieval(IR) & text mining, such words are 'Stop Words' – which carries no information & keywords which are meaningful words in Information retrieval & text mining.

Examples: Stop Words: above, after, again, because, between, can, can't, here, …

4. *Clustering:* Clustering is the process of making a group of abstract object into classes of similar objects. Here, we are going to use Constraint- based Clustering Method. In this method, the clustering is performed by the incorporation of user or application-oriented constraints. A constraint refers to the user expectation or the properties of desired clustering results.

Constraints provide us with an interactive way of communication with the clustering process. Constraints can be specified by the user or the application requirement.

5. *Identification of Target users:* Based on the shared information the users who are interested in related categories like Sports, Electronic items, Entertainment, Clothing, Jewellery etc.. are identified. The process involves the extraction of users who shared the post in that categories & prepare the database of users interested in each category.

6. *Design of Market Strategy:* Based on the target user's shared information, the marketing plan is design & the business entities going to display/post the advertisement on those user's walls.
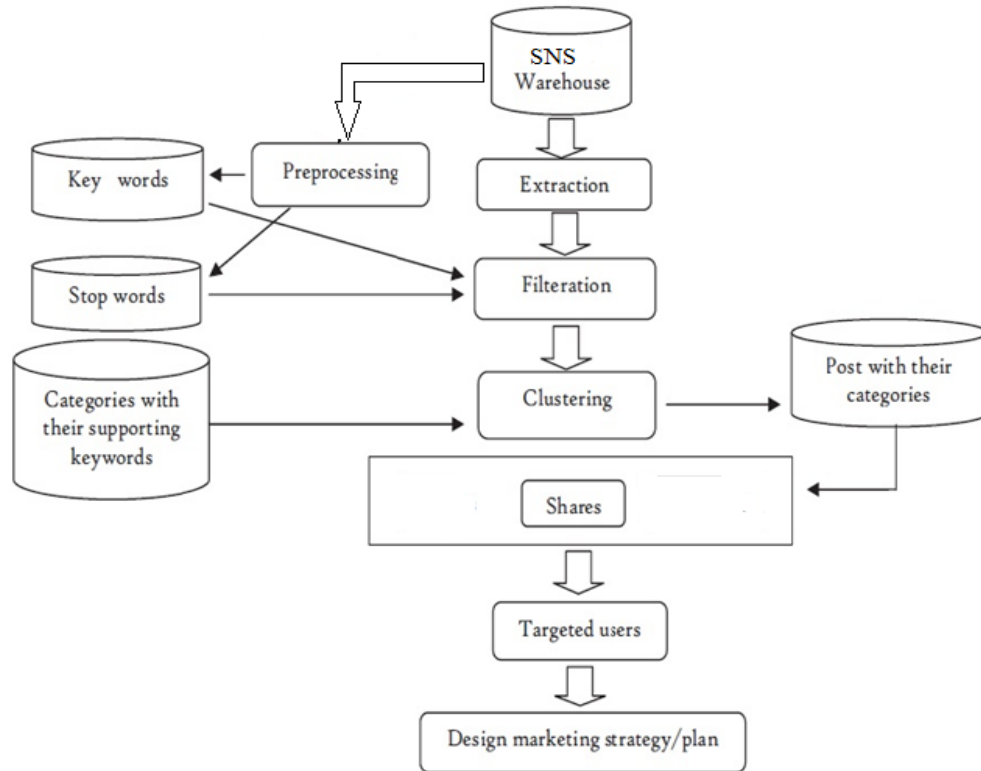

Fig.1.   Proposed System

Fig 1. Methodology to predict target user

5.   RESULT

Based on the number of count of the shared information of the user on particular business category, the Clustering Technique(Constraint based method) will categories the user as the target user of that category. Hence business entities will get this information & they are going to display the Adv post on such user wall.

6.   CONCLUSION AND FUTURE WORK

Social networking is also a suitable framework for core activities in marketing on the Internet. One of the key success factors of marketing in social networking site is understanding the interest of all users & based on it publishing the required information as per their tastes is an important factor. In this paper we have worked on finding out the target users by analyzing their interests, taste in particular brand or area. And produce the categories of their interests by tracking their activities which includes shared information in social networking site. We have used Clustering Technique to identify the target users. This technique organizes items into groups based on similarity criteria.

In this paper we focus on the Text/Keywords information of shared messages in order to identify the target users. In future, we can also consider the Photos & Videos information to identify the target user.

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