

ADVERTISEMENT FEEDS BASED ON ONLINE USER'S MOOD ANALYSIS

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Abstract— The main objective of this paper is to increase the buying percentage of the online users. By analysing one's state of mind and displaying relevant advertisements will increase their interest in the product and thereby increase the buying percentage of the product. Social Media is a platform where many individuals express their feelings through words. By analysing these text contents and using stemming process, relevant advertisements will be displayed on the screen. If the user shows interest in the advertisement they can click on it, which will take them to the relevant link of the advertisement. This technique increases the percentage of sales of the product by displaying the right advertisement to the right person. The results show that the buying percentage increases by a minimum of 20% using this technique.

Keywords: Social Media, Mood Analysis, Advertisements, Buying Percentage.

I. INTRODUCTION

Mental health [1] is a level of psychological well-being or absence of mental illness. The psychological state of someone who is functioning at a satisfactory level of emotional and behavioural adjustment is considered to be a person with a stable mental health. Mental Health Analysis is the process of breaking the mental issues or mental illness into smaller parts in order to gain a better understanding of it. A Human brain has seven moods between which it keeps switching according to the situation or the environment they are present in. Social media are interactive computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. This is a paper that combines both mental health analysis and social media.

The technology used in the study is Stemming [2] technology. Stemming is a part of linguistic morphological which is used in reducing inflection. When an input data is entered by the user, the stemming process will take place between the tags provided for the advertisement and the keywords in the status. Accordingly the advertisement which relate to both the keyword and the tags are displayed on the screen for the easy access of the advertisement by the user.

The rest of the paper is organized as follows. Section II presents Literature Survey. Section III presents the proposed method. Section IV presents the system architecture. Section V presents the results and discussion. Section VI presents the concluding remarks.

II. LITERATURE SURVEY

The literature survey is presented below in a table 1 with the methodologies and its pros and cons.

METHODOLOGY	PROS	CONS
Deep convolution neural network [3]	F-1 measures for semantic classification	Cannot produce accuracy if it is not F-1
Psychomotor symptoms. [4]	Measures severity of moods.	Used in depression detection.
Lexicon based [5]	Language style is used to determine the mood	Low recall and high dependency on the quality
Fuzzy based [6]	Obtains simple solution rather than statistical issues	Unable to determine sentiment polarity of some statements
OCR technique [7]	Categorizes and stores the data in clipboard	No fixed output

Table 1. Literature Survey

III. METHOD

The major requirements for this paper is a platform to enter an input data and to display the advertisements, which is considered more often for a social media platform. These social media platforms are created with the computer languages HTML, CSS and JAVA. The usage of SQL is used for the storing of the data entered by the users.

The advertisements produced are also stored in a database for the stemming algorithm to take place. Stemming algorithm or Stemming Process or Stemming technique is a

process of reducing inflected or sometimes derived words to their word stem. There are several types of stemming algorithm but a traditional stemming algorithm is which that looks up the inflected form in a lookup table. The advantages of this approach are that it is simple, fast and easily handles exceptions. A lookup approach may use preliminary part of speech tagging to avoid over-stemming.

After the status updation of the user in the social medial platform, the keywords are collected from the data and a stemming process is being carried out in the database of the advertisements. After lookup tables are checked a default advertisement is displayed on the social media platform after the tags of the advertisements match with the keyword provided by the user. If more than one advertisements match up to the keywords of the status a default ad is displayed below which a link stating "Click Here" is displayed.

On clicking the link a new page opens. In that page we can visually see the list of advertisements that match up to the tag of the advertisement and the keywords of the status updated. The advertisements displayed on the screen lead to their respective links when clicked on them. When one clicks on the advertisement a new tab is open with the advertisements home page displayed on the screen.

IV. SYSTEM ARCHITECTURE

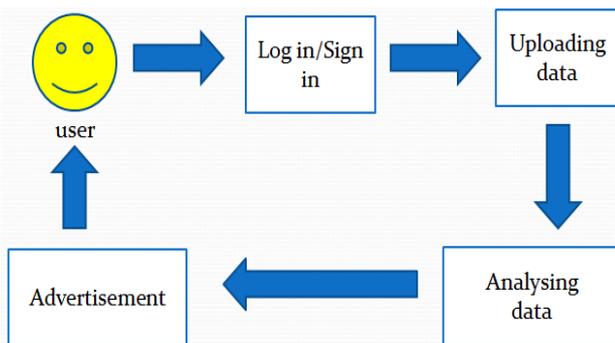


Figure 1. System Architecture

Figure 1 presents the system architecture. It shows the work flow or the process that takes place. Consider a user who has a social media account. If he wishes to use his account he accesses it by either creating an account or by logging in into the account. There are various activities that can be carried out in a social media platform as in playing games, chatting with friends and the most important feature of a social media is that the user can express his/her feelings, which is considered as uploading data. This uploaded data is called status. The status of an individual is always connected to the seven emotions all humans possess. Mostly the statuses uploaded by an individual is always meaningful and an expression of their feeling. These statuses are taken into consideration and an analysis is carried out. The stemming process selects relevant advertisements that match with the keywords in the status and are displayed on the social media platform.

V. RESULTS

The data entered in the platform is entered as a status which is examined by the stemming algorithm in the advertisement database. Figure shows such status of an individual who has mentioned about his/her liking for food.

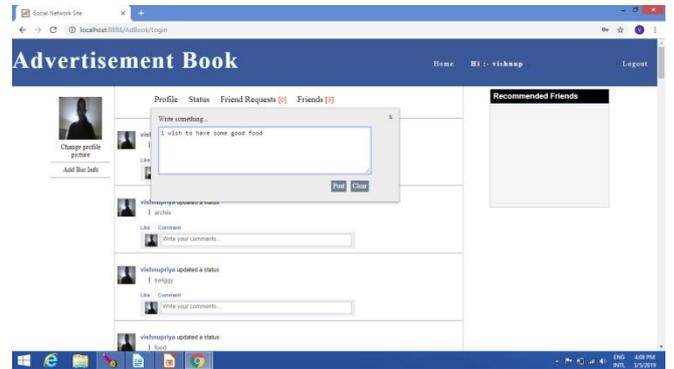


Figure 2. Status Updation

After the post is being posted on the platform the lookup starts and an output is displayed on the screen.

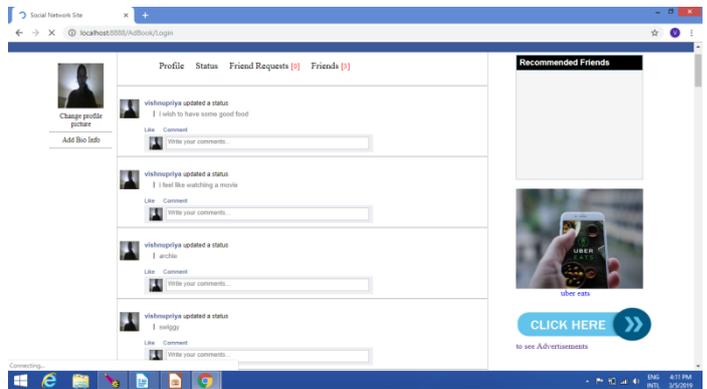


Figure 3. Displaying Advertisement

After which the user wishes to see more options so he clicks on the link provided below due to which he can see more options.



Figure 4. Displaying advertisements that match the tags

So, now after viewing the options the user selects and clicks on an advertisement which leads to the home page of the website.

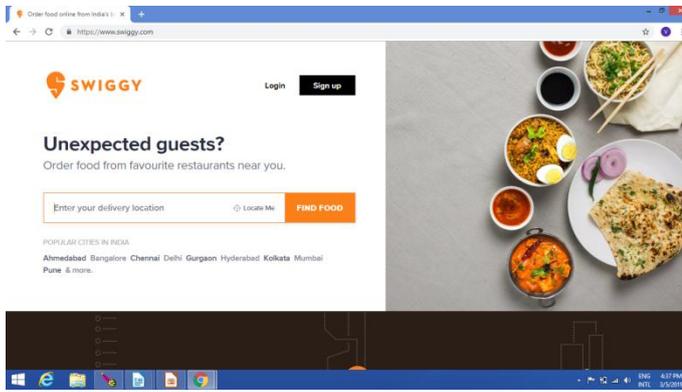


Figure 5. Display of relevant links

Now the user can place his order by entering the required data in the website shown on the screen.

The existing system of displaying advertisements does not have a format to display any advertisements. They are displayed at a random fashion which does not provide with a very good profitable outcome. But in this paper the percentage of buying will increase comparatively.

The only drawback is that, most of the cases the stemming process displays an advertisement but the exception is that at some cases as in the words that do not match with any of the tags in the lookup table a popup saying that there are no advertisements will be displayed on the screen.

VI. CONCLUSION

The aim of the paper is to increase the buying percent by displaying the advertisements to the right person at the right time. By analysing their given input data, an idea of what they would prefer to see can be figured out. Every person's idea changes for everyday as chance is the only thing that does not change. The human brain has seven mood swings to be specific and if by the knowledge of their mood advertisements are produced and there is a sure increase in the profit of the product or service for which the user chooses.

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