Emotion Analysis on Students database: A Predictive Approach

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Abstract- *In the new era of artificial intelligence emotional analysis will be an add on feature for the existing default database programs which have been used widely. This feature enables the capability to analyse emotional and sentimental characteristics from the database. The main idea is to detect the emotions of the given data to predict its reaction or to do some other specified actions. Emotions can be majorly categorized into 3 namely positive, negative and neutral. Using this the analyser could produce results or predictions to the users*

***Keywords*-** Emotions , analysis , database , analyser , programs

I. INTRODUCTION

Detecting emotions from documents or databases may be a little tough job but it will be very much essential for the improvisation of the advanced database programs. Not all the words in a document or a database contains emotions and sentiments as they are professional or default keywords. Only some of the words can be detected and through that statistics we could make predictions , assumptions and even sometimes we could exactly detect the upcoming result. The basic steps in an emotion analyser is to feed the normal words of emotions such as happy, angry , sad , fear and then the synonyms of these words should also be added to the analyser

1. SPOTTING KEYWORDS:

The basic emotional words have some other words with the same synonyms. For example the word happy is similar to joy, even though there is change of words the meaning or the extract of the words are similar. These words should be listed and added under the basic keywords so that the analyser could easily find that these words relate to the certain emotions. This is the first feed which we are giving to the analyser so that the very basic linked words should not get collapsed with the other emotions. This helps to spot the keywords easily . The analyser could understand occurrences of these words comes under the branch of the specific emotions and then it processes the required information as the exact result with maximum accuracy. It is important to make the algorithm clear and without perplexities as we want the analyser to produce the results without any errors. So it is notable that the basic information of the algorithm is to be strong

2. AUTO SUGGESTION FEATURE :

The analyser will detect the emotions using the keywords easily without any fail as we have provided the algorithm. But when it comes to sentences or databases without any keywords there is a incapability of detection. For example if a sentence says "hurray! I won the singing competition" will be detected but a sentence which says "I won the singing competition" will not be detected. So the data provided for the analyser should be more specific if we want the results to be highly accurate. The algorithm which we have provided for the keywords is only the base for detection. So the algorithm must be in a detailed manner so that even the missing keywords can be predicted easily.

So that if a sentence is missing with a emotional word the analyser will detect it and shows the corresponding word and asks the user if they want to add it or not. This auto suggestion feature will show the suggestions to the user and will wait for them to take a decision whether they want the emotion word to be added or not. If the user chooses not to add auto suggested words by the analyser then the default sentence will be added to the database or the document. If the user chooses to accept the auto suggested words then the words will be added to the existing data. This is the concept of auto suggestion feature .

3. ONTOLOGY OF EMOTIONS:

In 2001, W. Gerrod Parrot [2], wrote a book named "Emotions in Social Psychology", in the book he explained the emotion system and classified human beings emotions through an emotion hierarchy in six classes in a primary level which are Joy, Love, Fear, Sadness, Anger and Surprise. Certain other words also fall in tertiary and secondary levels. This emotion word hierarchy is converted into ontology.
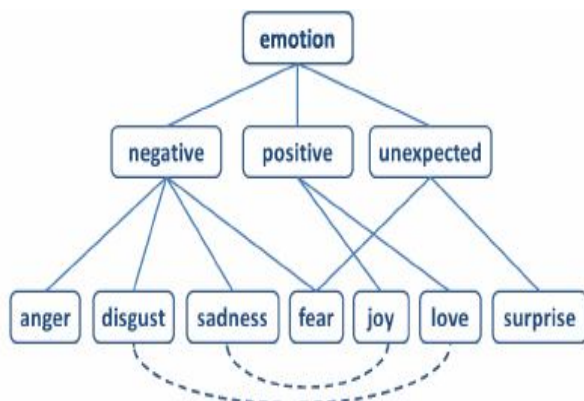
Ontology has class and subclasses which makes the algorithm stronger and make the analyser to understand the concept of emotions. This is the next stage of basic feed to the analyser which we are providing to it. Depth is required in a ontology structure to have the results exactly. These are said to be the concept of ontology of emotions.

4. ADVANTAGES AND APPLICATIONS:

This emotional identifiers has a great future for the upcoming database programs. With the help of the results we can predict the results with an maximum accuracy. For example if a database contains hobbies of students who are studying in a school and their personal information it is easy to predict their upcoming careers so that the specified student could recognize his own strength and plans to work on it.

With the help of this database feature we can stop suicides when we could detect the emotions of a person by predicting he would or she would act like this so that we can try to help and save her. This will be a very advanced feature to be added upon the database system and give a great attraction to the database users. This feature can be applied in various sectors as mentioned above and will provide advantages to the people who are using it.

5. CONCLUSIONS

In the era of advanced computer technology, databases and the text documents are the most commonly used by people to communicate with one another. Thus emotion detections and sentimental predictions should be focused as a very important feature. In this paper, existing research of emotion detection based on textual data is surveyed and limitations of existing methods are reviewed. System architecture is proposed to improve detection capabilities and perform the task efficiently. Proposed system is based on keyword spotting technique as well as having rich features of ontology. Not all the limitations of existing methods are overcome by this architecture but use of ontology improves the detection capability by applying semantic approach.

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