Mining Teachers Enlightenment using online forum Discussion Data and Student Feedback-A Proposed Work

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Abstract: An Education system fully relies on the teaching quality of the teachers for the betterment of the students. Educational organization usually tries to judge the quality of the teacher by taking the feedback of the teacher from the students which is generally paper based. Students do no give the accurate feedback because they feel afraid that if our identity is revealed in front of the teacher she will misbehave with them in a very rude manner so they generally don't give accurate feedback about the teacher what they actually feel. So a system is designed which will take online feedback from the students as well as there is teacher to student and teacher to teacher interaction through online forum from which the teacher personality is classified through the feedback given from the student and from their participation in the forum into the predefined category on which further the opinion mining is done which is shown in the form of score as well as graphically and they can also register the complaints about the teacher.

I. INTRODUCTION

Students technical life totally relies on their academic performance which is fully dependent on the quality of the teaching done by the teachers. To monitor this after every academic year an educational organization designs a paper based feedback form which consist of predefined categories such as good, very good, poor and so on and the student need to tick the option for the specified question which is then evaluated manually for each and every question of each student which is time consuming as well as student do not have freedom to write the feedback in the text format

what they actually feel. So to overcome this problem we have designed a system which will ask students to write the feedback for the teachers which will then be classified into predefined categories. With this there will be also an online forum in which the student and teachers both can participate. There are two types of participation in forum first is teacher to student discussion and second is teacher to teacher discussion. In teacher to student discussion a teacher as well as student can post the question and then the student and teacher both can give the answer. For both of them there is a comment option through which a student can write a comment on the answer given by teacher as well as he or she can give rating to the answer specified by the teacher and this same thing can be done from teachers side for the answers given by the student now by taking the feedback from the students and from the comments the teacher is classified into predefined category which enlighten his or her nature and in teacher to teacher discussion only teachers can participate and their comments or answers is classified into predefined categories to predict the personality of the teacher.

II. PROBLEM ANALYSIS

In the existing system a feedback is a way through we can judge a human personality. In an educational organization it is very important to know the personality of a teacher which can be improvised further for the betterment of the students to enhance their career. An education organization does the same thing but it do so through papers based forms. Students are told to fill the form which has certain questions and the student need to give the answers in the predefined options category such as poor, very

poor, good, very good and so on. With this process firstly a student does not give the feedback accurately because he feel afraid that if his identity is revealed then the teacher will behave rudely with them and secondly a student is not allowed freely to register the feedback because of predefined options and questions he cannot write freely about the teacher what he actually feels.

So a new system is designed which takes feedback from the system in the text format as well as there is online discussion forum which provides a certain interaction between the students and the teacher and their interaction will also be considered to classify a teacher personality. the personality of a teacher is classified through two ways one is through student to teacher discussion with feedback given from the student and second through teacher to teacher discussion so that a personality of a teacher can be fully judged through to different scenarios such as how he behaves with student and how he behave with teacher so that an admin can take a proper decision regarding the teacher as well as he can monitor the teacher for the betterment of the student and can take appropriate action.

III.   WORKING OF THE SYSTEM

There will be three users in the system such as admin, student and teacher.

The front end control and working of the system:
The admin has full control over the system. Firstly an admin will register the teachers and the user id and password will be mailed to the teacher through which he can login and participate in the forum and a provision to change the password is also given to the system. Similarly an student need to do the registration by his own and the admin will either accept the registration or he will decline the registration of the student depending on the criteria of their educational institution. Once the teachers are registered for the system they can freely participate in the online forum discussion.

The students can directly register the feedback for the teacher by selecting the name of the teacher and can write the feedback which will be stored in the database. Then a student can register the complaints about the teacher. The complaint will be directly visible to the admin thus providing the complete security to the student to register their complaint and feedback freely without any fear of their names to be revealed. Then the student can participate in the forum in three ways firstly he can post a question for the discussion in the forum on which a student and teacher can answer and also can comment on the answer. Second he can directly write a comment on the answer given by the student or teacher and thirdly he can rate the answers given by the student or teacher there are 5 stars and he can rate accordingly.

A teacher can participate in the forum of teacher to teacher and teacher to student discussion where he can post a question for the discussion, can give the comment to the answer and rate the answers.

Classification:
The students will register the feedback. After the registration firstly the feedback is checked for negative words such as if the words such as not bad is included in the feedback then it will be converted into positive such as good that is the antonyms are taken so that we get the feedback accurately. After the checking of the negative words the check for unused or bad words are done which should not be considered in the feedback of any system. A database of such words are designed which is checked in each and every word of the feedback if the word matches from the word in the database that word is not considered to calculate the feedback.
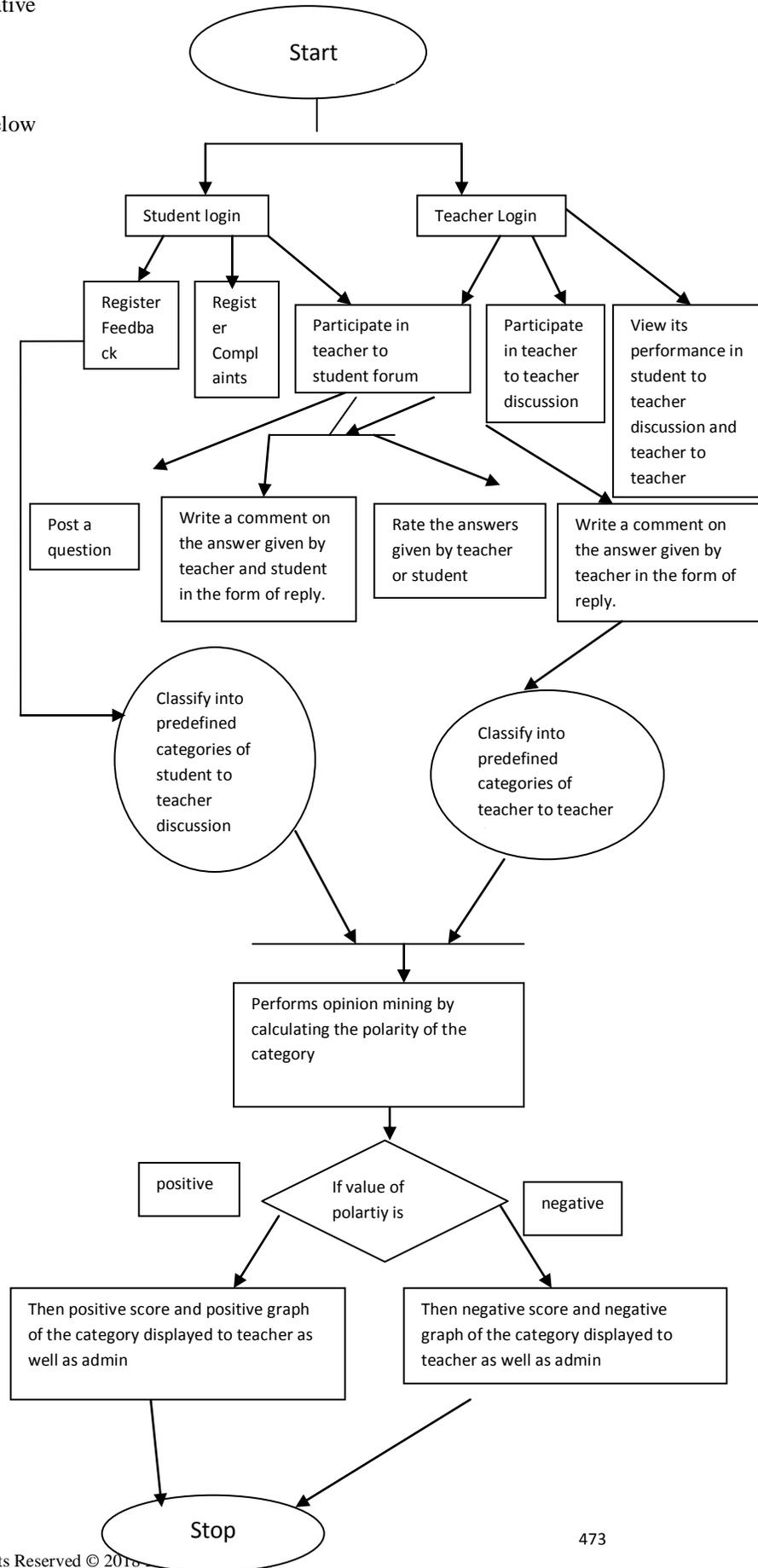
The system is using Nave Bayes Classification algorithm to mine and classify the data into the predefined categories. The categories which are written in the system is personality, knowledge, communication skill,language proficiency, teaching ability, explanation skill and nature.

Since the system is using nayes bayes classification algorithm it follows the same principle that is is first calculates the probability of each and every word calculates the probability of the word and then classifies into the predefined category and then it does the opinion mining and finds the polarity of the category by calculating the probability of each and every word and then taking the average of the polarity. If the polarity is greater is positive than it will show the score in positive form and then it will

be shown in the graphical form and if it is negative then it will show in negative part of the graph.

IV.   FLOW DIAGRAM

The detail working of the system is shown below through the diagram.

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                              ┌─────────┐
                              │  Start  │
                              └─────────┘
                                   │
                    ┌──────────────┴──────────────┐
              ┌───────────┐                 ┌─────────────┐
              │Student login│               │Teacher Login│
              └───────────┘                 └─────────────┘
```

Start

Student login

Teacher Login

Register Feedback

Register Complaints

Participate in teacher to student forum

Participate in teacher to teacher discussion

View its performance in student to teacher discussion and teacher to teacher

Post a question

Write a comment on the answer given by teacher and student in the form of reply.

Rate the answers given by teacher or student

Write a comment on the answer given by teacher in the form of reply.

Classify into predefined categories of student to teacher discussion

Classify into predefined categories of teacher to teacher

Performs opinion mining by calculating the polarity of the category

If value of polartiy is

positive

negative

Then positive score and positive graph of the category displayed to teacher as well as admin

Then negative score and negative graph of the category displayed to teacher as well as admin

Stop

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V.   CONCLUSION

The system is designed to enlighten the personality of the student by classifying the feedbacks into the predefined category by using nave bayes algorithm and then the opinion mining is done into positive personality or negative personality by calculating the polarity. If value of polarity is positive then the feedback is classified into positive personality of the system and if the value of the polarity of the feedback is negative then it will classify into negative personality of the feedback and then the personality of the teacher is classified graphically . the system is very useful to calculate the feedback of the teachers through comment form which freely allows students to enter their feedback without any predefined options and there is no fear of the revealing of the identity because directly feedbacks are classified. The system is time saving and is very useful in the educational institute to monitor the personality of the teacher for the improvement of the students in their technical career.

VI.   REFERENCES

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