Course Evaluation Using Natural Language Processing

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ABSTRACT

The rise of Massive Online Open Courses (MOOCs) has prompted students to explore online learning, underscoring the need to enhance traditional education's engagement and effectiveness. This paper explores the application of machine learning to improve feedback systems in education, focusing on analyzing student engagement and feedback. This study highlights the importance of adapting formal education to the evolving educational landscape through machine learning, giving students a voice in shaping their learning experiences.

INTRODUCTION

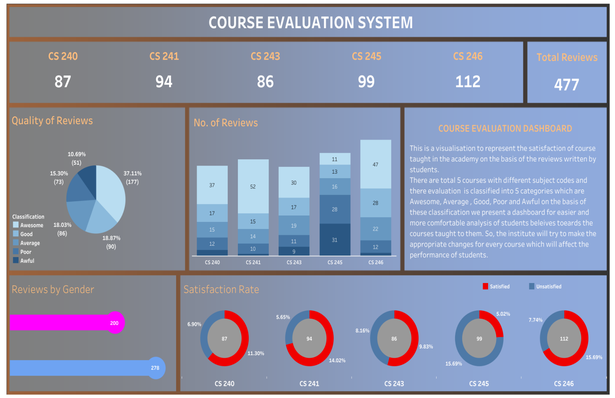
Making university classes and lectures more engaging and inclusive is an essential task. Regular feedback evaluation comes into action when management and students interact openly. Traditional feedback systems expect students to rate the faculty using numbers and courses based on specific questions. However, people tend to communicate better in natural language instead of pictorial and numerical ratings. The shift of feedback evaluation from hard copies to online forms while taking into consideration all the stakeholders and their perspectives is an exhaustive need of every university. Consequently, the application of natural language processing (NLP) on students' feedback and engagement makes course evaluation more efficient.

OBJECTIVES

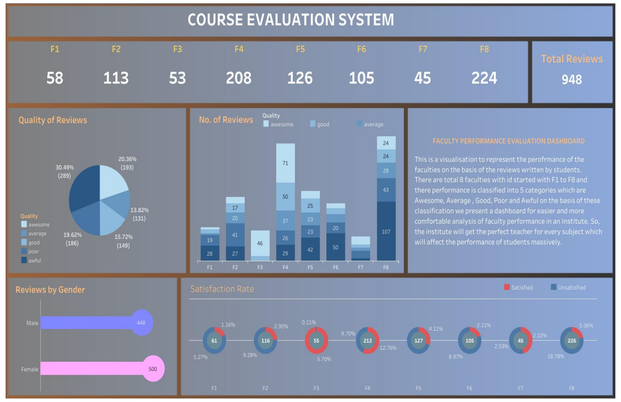
•To evaluate course effectiveness by analyzing student reviews in natural language.
•To build a robust web application for processing course feedback and to identify areas of success and areas of improvement.
•To collect feedback and reviews from verified course-takers while maintaining anonymity.
•To analyze feedback using natural language processing and to evaluate course content & its delivery.
•To make university classes more interactive, inclusive and engaging, thereby making them effective for the students.
•To evaluate the course educator's performance through student's feedback as well as their individual performance throughout the course.

FEATURES

- Interactive and user-friendly.
- Easy to use and simplifies manual work.
- It minimizes the document related work.
- Provides accurate information about courses and faculties.
- Management can update the faculties according to the reviews



a) Evaluation of Courses



b) Evaluation of Faculties

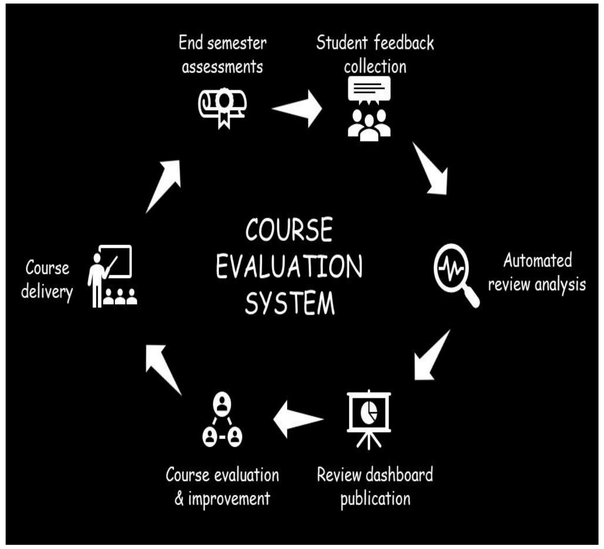
HOW IT WORKS?

- Phase-1:

The first phase of the project would be data collection. In this phase we would develop a website and host it. After this the website link would be shared to most of the students of college where they have to write rating and review about the course and teacher correspondingly. They also have to share their result of that semester and overall CGPA so that we can judge the importance of that feedback.

- Phase-2:

The second phase of the project would be model training based on the basis of data collected on phase one to train a machine learning model that will analyze the sentiment of students towards a particular subject or teacher. Now this website will be available for every student where they can write reviews and get suggestions about elective subjects and faculties. These sentiments will be used further to show the students about any particular subject which will help them in selecting the elective subject and can also be used by management staff to get reviews of students about any faculty anonymously.



CONCLUSION

Feedbacks are an essential part of daily life and when it comes to the educational courses, it becomes a life saver for the students. Our web application will evaluate the course based on the reviews received from the students who have completed the course. So, it will be a reliable website where students considering the courses for the following semester can critically get opinions to choose a course or not.
It will also evaluate the performance of an educator based on how much positive feedback he/she has received and how well their students have performed in the course. So, the institute will get a perfect teacher for that course.

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