

Online Reviews Evaluation System for Higher Education Institution: An Aspect Based Sentiment Analysis Tool

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Abstract— The higher education opportunities have increased significantly over the past decade in Sri Lanka. Today's younger generation is keen to study and most of them opt for higher education. Choosing the right course at the right private institute is most challenging choice since there are so many options available. In order to find the right institute, students have to surf internet for the reviews and find user comments of particular institution from social network sites like Facebook, Twitter, Google plus and etc. This takes lot of time for reading the comments to understand whether that ratings are good or not on the particular institution. The key information a student wants to get from the review is: whether that institute is good, and what aspects received positive or negative opinions. This task is quite challenging because it is difficult for a human being to extract statistical aspect sentiment information from a massive set of online reviews. As a solution for this problem higher institution aspect based evaluation system which evaluates the institution by considering the reviews given by reviewers is suggested by this project. This system implementation is based on natural language processing. The outcome of this research project, is a system which retrieves review data from the social media networks and gives a rating to an institution by analyzing the sentiment value of the reviews and the features evaluated in them. Data gathering and analysis process of this project is made automated as possible and this can be accessed from anywhere, as the client application is developed as a web application.

Keywords—*Natural Language Processing (NLP), Data Mining, Aspect based Sentiment analysis, Online Reviews*

I. INTRODUCTION

With the arrival of social media networks, it has become a very popular communication tool among internet users in past few years. Mostly the younger

generation has a huge interaction on these social networks. According to the "Global Trends Report survey 2014" results, social media for universities has been among the most popular medium through which students share experiences and inspiration and also seek for information [1]. It is reasonable to assume that engagement of social media applications as part of university marketing could contribute to increased enrolment numbers and help prospective students to make better-informed decisions regarding their study choice and university selection [2].

Online opinionated texts (e.g. Reviews, Tweets) are important for customer decision making and constitute a source of valuable customer feedback that can help companies to measure satisfaction and improve their services [3]. An article on Business 2 Community (2015) shows that "Approximately 90 percent of consumers surveyed said that they read online reviews and 88 percent of them said that they trust the online reviews as much as personal recommendations". In other words, making a decision about a particular service whether to select them or not according to online reviews and ratings are recommended by users and business expert.

Today's younger generation is keener to study and most of them enter for higher education. However, Government universities have limited resources and only those who get the highest marks are able to attend to them. According to the research 70 percent of high school graduates in America entered some kind of a higher educational institution in 2009, the number of Sri Lankans entering public