

SENT-AL : SENTIMENT ANALYSIS FOR SRI LANKAN TELECOMMUNICATION COMPANIES

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Abstract

Telecommunication industry is one of the largest industries in a country. In the present, Almost every adult uses the services from telecommunication companies. In Sri Lanka, the key players of the telecommunication industry are, Dialog Axiata, Mobitel, Hutchison Lanka and Airtel Sri Lanka. Like in many other industries, customers are the backbone of this industry too. Therefore, customer satisfaction plays a major role in the industry, especially in this 21st century, also known as the digital age. Nowadays, social media can be considered as most practical and advantageous data source for the trend of analysis. Thus, this research project introduces a novel approach to measure customer satisfaction towards Sri Lankan telecommunication companies, which are currently using traditional methods such as post customer service feedback and random surveys to measure customer satisfaction. In this research, the customer satisfaction is measured and visualized by analyzing the sentiments of the reviews posted by customers on the official Twitter pages of Sri Lankan telecommunication companies, also the reviews are categorized into defined categories to give better insights to the company about their customers' impressions towards the company. A deep learning-based approach was applied to build this software solution. The introducing model is built by using a Recurrent Neural Network, which is Long Short-Term Memory, and it performs at an accuracy of 91%. This research study was conducted with the ultimate goal of providing a system for telecommunication companies in Sri Lanka to get a better perception of their customer satisfaction.

Keywords: Customer Satisfaction, Telecommunication, Sentiment Analyzing, Deep Learning, Sri Lankan.