

ABSTRACT

The rapid development of information and communication technology helps the community, government, and companies exchange information without hindrance. Airlines, hotels can use this, and travel agents promote Indonesian tourism so that potential tourists can get information about Indonesian tourism by using tourism sector websites, one of them is Tripadvisor. As a forum with a lot of tourism information, Tripadvisor promotes or reviews tourist attractions. The case study taken in this Final Project is a Tripadvisor user review of the five most favorite beaches in Bali. There is Double Six Beach, Seminyak Beach, Nusa Dua Beach, Kelingking Beach, and Canggu Beach on the Tripadvisor website. As one of the marine tourism in Indonesia, Bali has beautiful panoramic beaches and was ranked as the best island in Asia in 2006 based on Tripadvisor ratings. Tourism managers in Bali can use the Tripadvisor website to evaluate, develop and promote the tourist attractions they manage, including Double Six Beach, Seminyak Beach, Nusa Dua Beach, Kelingking Beach, and Canggu Beach tours through user reviews of the managed tours. This final project will do sentiment analysis using the Recurrent Neural Network (RNN) architecture by making the five most favorite beaches in Bali as a parameter in the Tripadvisor website object. The analysis results decide how tourists' opinions of Double Six Beach, Seminyak Beach, Nusa Dua Beach, Kelingking Beach, and Canggu Beach are. Sentiment classification uses positive and negative labels. The Recurrent Neural Network (RNN) use produces a classification that can describe the sentiments of these beaches. Classification is carried out using a training and testing ratio of 80:20 because it has the highest accuracy compared to other ratios, namely 85% for Double Six Beach, 81% for Seminyak Beach, 89% for Nusa Dua Beach, 90% for Kelingking Beach, and 81 % for Canggu Beach. Prediction results from the classification are more likely to be positive labels. The ROC curves generated by each beach are in a true positive position, and the ROC curves in the "Fair Classification" and "Good classification" classifications with the AUC values between 0.71-0.87 so that the Recurrent Neural Network (RNN) can produce good accuracy. The Recurrent Neural Network (RNN) that has been created performs classification for sentiment analysis and measures the performance by calculating the value of precision, recall, F1-Score, macro average, and weight average on each beach classification result which is the object of research.

Keywords—Recurrent Neural Network (RNN), analysis sentiment, beach, Bali, Tripadvisor