ABSTRACT

Measurement paradigm of prosperity level of one country by Gross National Product (GNP) now has been shifted by Gross National Happiness paradigm. The essence of GNH are peacefulness and happiness of each person, also security and sovereignty of the nation. Recently, Bandung became the first city in Indonesia to adopt the innovation of happiness index people enhancement. Bandung government hoping that this innovation can be used as a review to make Bandung City comfortably inhabited and improve the value of Bandung City. This study will analyze tweets from Twitter on a regular basis, to the parameters of happiness by the Badan Pusat Statistik (BPS) Bandung using ontology approach.

This research is divided into six stages. The first stage is crawling Twitter dataset from Bandung City and labeled data. The second stage is preprocessing which includes data cleaning, case folding, tokenizing, stopword removal, and lemmatization. The third stage is the grouping of opinion based on ontologies which have been constructed. The fourth stage is the ontology construction based on happiness index parameters of BPS Bandung. The fifth stage is sentiment analysis to classify the opinions into positive and negative opinion. The sixth stage is happiness index calculations per predetermined parameters.

This research results that happiness index score of Bandung people is 55.50% from actual data and 52.22% from predicted data by system. This score can be used as one of tools in deciding goverment policy of Bandung.