# Fake News Detection for Korean News Using Machine Learning Techniques

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**Abstract :** Fake news is defined as the news articles that are intentionally and verifiably false, and could mislead readers. Spread of fake news may provoke anxiety, chaos, fear, or irrational decisions of the public. Thus, detecting fake news and preventing its spread has become very important issue in our society. However, due to the huge amount of fake news produced every day, it is almost impossible to identify it by a human. Under this context, researchers have tried to develop automated fake news detection using machine learning techniques over the past years. But, there have been no prior studies proposed an automated fake news detection method for Korean news to our best knowledge. In this study, we aim to detect Korean fake news using text mining and machine learning techniques. Our proposed method consists of two steps. In the first step, the news contents to be analyzed is convert to quantified values using various text mining techniques (topic modeling, TF-IDF, and so on). After that, in step 2, classifiers are trained using the values produced in step 1. As the classifiers, machine learning techniques such as logistic regression, backpropagation network, support vector machine, and deep neural network can be applied. To validate the effectiveness of the proposed method, we collected about 200 short Korean news from Seoul National University's FactCheck. which provides with detailed analysis reports from 20 media outlets and links to source documents for each case. Using this dataset, we will identify which text features are important as well as which classifiers are effective in detecting Korean fake news.