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Abstract

Nowadays, many machine learning algorithms are evolving. It is a very difficult task to select a particular algorithm for a specific problem. A multi-perspective analysis of the given input data has to be performed to select a particular algorithm. In this study a case study has been taken for selecting an algorithm for the classification of news articles. Multi-perspective analysis is performed on the data using various machine learning algorithms namely Random Forest Classifier, Decision tree, AdaBoostClassifier, SVM with Linear SVC and SVM with NuSVC. For the multi perspective analysis, features from the dataset are extracted and standard metrics are used. The metrics used are Kappa, Accuracy, F-measure, Recall, and Precision. For the BBC news standard dataset, SVM Linear SVC proves to be effective because its classification rate is 96% and false positive rate is 0.75%.

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Index Terms

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Keywords

Machine Learning, Multi Perspective analysis, Classification, Document Analysis

