

Abstract

To increase the government's services to the citizen, hence the government get input from the citizen such as complain. The complain can be in form of letter, telephone, sms, etc. Customer Support System (CSS) was made by government to serve the complain from the citizen as its customer. Customer Support System (CSS) that we discussed is Customer Support System based on SMS in which the government get SMS complain from citizen, then each SMS that come will be classified in text classification and will be routed to the connected departement.

Boosting C4.5 algorithm is one of the classification method that will be implemented as sms classifier in this final task. C4.5 algorithm find the solution with growing the desicion tree. Boosting algorithm is an iterative procedure that try to increase the performance of base classifier which known as C4.5 in this final task by doing sampling distribution in each iteration where the data that hard to classify in previous iteration will occur in sampling distribution at the next iteration so the base classifier can classified them correctly.

This final task analyse performance of Boosting C4.5 algorithm in text classification and in non-text classification, analyse the influence of the number of iterations to the performance of Boosting C4.5 algorithm, and analyse the strength and weaknesses of Boosting C4.5 algorithm in text classification.

The result show that Boosting C4.5 algorithm has the same performance in text classifying compare to C4.5 without boosting. But in non-text classification the performance of Boosting C4.5 algorithm is better compare to C4.5 without Boosting. This because the number of iteration is more than one, then the records that hard to classify finally can be classified in any iteration. But in text classification only can do one iteration so that the rule that generated is the same with C4.5 algorithm without boosting. However, performance of Boosting C4.5 algorithm is better than the other classification method such as Naïve Bayes in text classification.

Keywords : C4.5, customer support system (CSS), boosting.