ABSTRAK

Analisis sentimen *Ulasan* game *Mobile Legends* di *Google Play Store* menggunakan algoritma *SVM* merupakan proses menganalisa, memahami dan mengklasifikasikan suatu penilaian yang dikeluarkan pengguna terhadap aplikasi game mobile legends. Data penelitian ini diambil dari website *Google Play Store* menggunakan teknik *scraping web*, pada *ulasan* game mobile legends. Data yang diambil yaitu data teks *ulasan* dengan jumlah 5000 *ulasan* berbahasa indonesia. Kemudian, data masuk ke tahap *preprocessing*, setelah itu masuk ke proses pelabelan *Vader Lexicon,* kemudian dilakukan pembobotan kata, lalu setelah pembobotan kata, data akan diklasifikasi menggunakan algoritma SVM. Pengujian data menggunakan kombinasi dari pembagian data *training* dan data *testing*, dan juga pengujian menggunakan sistem *k-fold cross-validation, confusion matrix*. Pada pengujian untuk mencari akurasi terbaik, kernel *linear* menggunakan nilai k-fold = 10 dan nilai parameter C = 10 diperoleh hasil rata-rata akurasi sebesar 77.51%, *precision* sebesar 79.80%, dan *recall* sebesar 74.82%. pada kernel *polynomial* menggunakan menggunakan nilai *k-fold* = 10, parameter C = 40, dan *gamma* = *scale*, dan *degree* = 2 diperoleh diperoleh rata-rata hasil akurasi sebesar 75.44%, *precision* sebesar 75.39%, dan *recall* sebesar 76.92%. Hasil pengujian terbaik berdasarkan akurasi tertinggi terdapat pada kernel *rbf* menggunakan nilai *k-fold* = 10, parameter C = 5, dan *gamma* = 1 diperoleh rata-rata hasil akurasi sebesar 77.54%, *precision* sebesar 79.81%, dan *recall* sebesar 74.99%.

Kata kunci : *Game, Ulasan, Klasifikasi, Mobile Legends, Support Vector Machine, analisis sentimen, Confusion Matrix*

ABSTRACT

Sentiment analysis Mobile Legends game reviews on the Google Play Store using the SVM algorithm are the process of analyzing, understanding, and classifying an assessment issued by users of the mobile legends game application. The research data was taken from the Google Play Store website using web scraping techniques, in reviews of mobile legends games. The data taken is review text data with a total of 5000 Indonesian language reviews. Then, the data enters the preprocessing stage, and after that, it enters the Vader Lexicon labeling process, then the words are weighted, then after the words are weighted, the data will be classified using the SVM algorithm. Data testing uses a combination of the distribution of training data and data testing, and also tests using the k-fold cross-validation system, and confusion matrix. In testing to find the best accuracy, the linear kernel uses a k-fold value = 10 and a parameter value C = 10 to obtain an average accuracy of 77.51%, a precision of 79.80%, and a recall of 74.82%. on the polynomial kernel using k-fold = 10, parameter C = 40, and gamma = scale, and degree = 2 obtained an average accuracy of 75.44%, precision of 75.39%, and recall of 76.92%. The best test results based on the highest accuracy were found in the RBF kernel using k-fold = 10, parameter C = 5, and gamma = 1, obtained an average accuracy of 77.54%, precision of 79.81%, and recall of 74.99%.

Keywords : *Game, Review, Classification, Mobile Legends, Support Vector Machine, sentiment analysis, Confusion Matrix*