ABSTRAK

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Program Studi   : Teknik Informatika

Judul Laporan Skripsi : Perbandingan Klasifikasi Algoritma Naïve Bayes Classifier dan Support Vector Machine (SVM) terhadap Sentimen Analisis Event Piala AFC U-23 Tahun 2024 Pada Media Sosial Twitter (X).

Pembimbing   : Ir. Emil R. Kaburuan, Ph.D., IPM., ASEAN Eng.

Timnas U-23 Indonesia berhasil lolos masuk ke semifinal dalam ajang AFC U-23 di Qatar walaupun sempat gagal untuk meraih juara pertama melawan Uzbekistan dan juara ketiga melawan Irak. Di media sosial Twitter (x), pertandingan Indonesia di AFC U-23 sebagai debutan baru menjadi perbincangan hangat netizen Indonesia. Berbagai kalangan masyarakat mendukung lewat opini-opini mereka. Beberapa opini dari Masyarakat di Twitter (X) ini akan digunakan menjadi data penelitian analisis sentimen terhadap ajang AFC U-23. Penelitian ini menggunakan metode Naïve Bayes Classifier dan Support Vector Machine (SVM) yang diharapkan untuk Tingkat akurasi yang baik. Berdasarkan dari hasil penelitian yang didapati tingkat akurasi yang berbeda dari beberapa pembagian data set yang di bagi menjadi 3 (tiga) macam yaitu 80:20, 90:10 dan 75:25 untuk penggunaan Support Vector Machine menghasilkan tingkat akurasi lebih tinggi daripada metode Naïve Bayes Classifier dengan hasil akurasi di data (80:20) untuk Support Vector Machine mencapai akurasi 97.30% sedangkan untuk Naïve Bayes Classifier mencapai akurasi 95.14%. Untuk di data (90:10) pada metode Support Vector Machine mencapai 95.70% sedangkan untuk Naïve Bayes Classifier 93.55% dan pada data (75:25) untuk metode Support Vector Machine mendapatkan nilai akurasi 97.84% dan Naïve Bayes Classifier 96.67% dan menghasilkan sentimen analisis tergolong positif. Selain itu dari topik/kata kunci dataset AFC U-23, terjadi pemilahan kembali yang mana menghasilkan topik/kata kunci Indonesia, Semifinal dan Wasit dengan pembagian data 80:20, 90:10 dan 75:25.

Kata Kunci: Analisis Sentimen, Naïve Bayes Classifier, Support Vector Machine (SVM), Twitter (X), AFC U-23.

ABSTRACT

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Title   : Comparison of Naïve Bayes Classifier Algorithm and Support Vector Machine (SVM) Classification on Sentiment Analysis of the AFC U-23 Asian Cup 2024 Event on Twitter Social Media (X)

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The Indonesian U-23 National Team successfully qualified for the semifinals in the AFC U-23 event in Qatar even though it failed to win first place against Uzbekistan and third place against Iraq. On social media Twitter (x), Indonesia's match in the AFC U-23 as a new debutant became a hot topic of conversation among Indonesian netizens. Various groups of people support this idea through their opinions. Several opinions from the community on Twitter (X) will be used as research data for sentiment analysis of the AFC U-23 event. This study uses the Naïve Bayes Classifier and Support Vector Machine (SVM) methods which are expected to have a good level of accuracy. Based on the results of the study, different levels of accuracy were found from several divisions of the data set which were divided into 3 (three) types, namely 80:20, 90:10, and 75:25 for the use of Support Vector Machine producing a higher level of accuracy than the Naïve Bayes Classifier method with the results of accuracy in the data (80:20) for Support Vector Machine reaching an accuracy of 97.30% while for Naïve Bayes Classifier reaching an accuracy of 95.14%. For the data (90:10) on the Support Vector Machine method, they reached 95.70%. In contrast, for the Naïve Bayes Classifier, 93.55% and on the data (75:25) for the Support Vector Machine method obtained an accuracy value of 97.84% and the Naïve Bayes Classifier 96.67% and produced a positive sentiment analysis. In addition, from the topic/keyword of the AFC U-23 dataset, there was a re-sorting which produced the topic/keyword Indonesia, Semifinal, and Referee with a data division of 80:20, 90:10, and 75:25.

Keywords: Sentiment Analysis, Naïve Bayes Classifier, Support Vector Machine (SVM), Twitter (X), AFC U-23.