ABSTRAK

Judul	:	Analisis Sentimen Kaum Homoseksual Pada Media Sosial X (Twitter) Menggunakan Metode Klasifikasi Naïve Bayes Classifier (NBC), Support Vector Machine (SVM) Dan Decision Tree
Nama	:	Muhamad Akbar Ramadhan
Program Studi	:	Teknik Informatika

Di era globalisasi ini perkembangan teknologi dan komunikasi telah memberikan dampak dan perubahan bagi masyarakat. Kemunculan media sosial telah merubah cara berinteraksi, berkomunikasi dan mendapatkan informasi. X (Twitter) merupakan salah satu platform media sosial populer yang sering digunakan sebagai alat yang penting bagi gerakan sosial, seperti kampanye lingkungan, hak asasi manusia, dan keadilan sosial, termasuk membahas isu *Homoseksual*. Penelitian ini bertujuan untuk menganalisis sentimen tweet pengguna X (Twitter) terkait *Homoseksual* guna mengetahui perbandingan performa antara algoritma *Naïve Bayes Classifier, Support Vector Machine, dan Decision Tree* dalam mengklasifikasikan sentimen dari tiga kategori yaitu positif, negatif dan netral. Pengumpulan data tweet menggunakan metode crawling dan API yang disediakan oleh X (Twitter) sebagai akses masuk untuk mendapatkan data serta terdapat kata kunci yang digunakan diantaranya *Homoseksual, Lesbian, Biseksual, dan Kaum Sodom*. Data tweet yang digunakan sebanyak 10020 *tweet*, yang selanjutnya dibersihkan pada tahap *Pre-Processing* dan diberi label serta di validasi oleh pakar yang kredibel dalam memahami makna kata. Data yang telah diberi label akan digunakan untuk membangun model dan dilakukan pengujian algoritma. Dari hasil pengujian dapat disimpulkan bahwa algoritma *Support Vector Machine* mendapatkan hasil performa terbaik dengan hasil Akurasi 84.53%, Presisi 84.18%, Recall 84.53% dan F1-Score 80.58% lalu diikuti oleh *Naïve Bayes Classifier* dengan hasil Akurasi 82.29%, Presisi 80.12%, Recall 82.29%, dan F1-Score 75.02% dan *Decision Tree* dengan hasil Akurasi 77.41%, Presisi 76.66%, Recall 77.41% dan F1-Score 77.02%. Penelitian ini juga memberikan visualiasi wordcloud dan relasi kata yang dapat memberikan informasi terkait *Homoseksual*.

Kata Kunci	:	*Analisis Sentimen, Homoseksual, Naïve bayes Classifier, Support Vector Machine, Decision Tree*

ABSTRACT

Title	:	Homosexual Sentiment Analysis on Social Media X (Twitter) Using Naïve Bayes Classifier (NBC), Support Vector Machine (SVM) and Decision Tree Classification Methods
Name	:	Muhamad Akbar Ramadhan
Study Program	:	Computer Science

In this era of globalization, the development of technology and communication has had a significant impact and brought about changes in society. The emergence of social media has transformed the way people interact, communicate, and obtain information. X (Twitter) is one of the popular social media platforms often used as a crucial tool for social movements, such as environmental campaigns, human rights, and social justice, including discussions on the issue of Homosexuality. This research aims to analyze the sentiment of X (Twitter) users regarding Homosexuality to determine the performance comparison among the Naïve Bayes Classifier, Support Vector Machine, and Decision Tree algorithms in classifying sentiments into three categories: positive, negative, and neutral. Data collection of tweets was carried out using crawling methods and the API provided by X (Twitter) as an access point to obtain data, with specific keywords such as Homosexuality, Lesbian, Bisexual, and Sodomites. A total of 10,020 tweets were used for the analysis, which underwent preprocessing, labeling, and validation by credible experts to understand the meaning of words. The labeled data was then used to build models, and algorithm testing was performed. The results of the testing conclude that the Support Vector Machine algorithm achieved the best performance with an accuracy of 84.53%, precision of 84.18%, recall of 84.53%, and F1-Score of 80.58%. This was followed by the Naïve Bayes Classifier with an accuracy of 82.29%, precision of 80.12%, recall of 82.29%, and F1-Score of 75.02%, and the Decision Tree with an accuracy of 77.41%, precision of 76.66%, recall of 77.41%, and F1-Score of 77.02%. The research also provides word cloud visualization and word relationships that offer information related to Homosexuality.

Keywords	:	*Analisis Sentimen, Homoseksual, Naïve bayes Classifier, Support Vector Machine, Decision Tree*