

ABSTRAK

Fenomena *childfree* menjadi topik perbincangan yang luas diberbagai negara seiring dengan menurunnya tingkat kelahiran secara signifikan, yang berdampak pada struktur demografi dan nilai-nilai sosial di berbagai negara. Media sosial menjadi ruang utama bagi masyarakat untuk mengekspresikan pandangannya terkait isu ini, namun perbedaan variasi bahasa dan budaya menciptakan variasi sentimen yang beragam untuk dianalisis karena volume data yang besar. Penelitian ini bertujuan untuk mengeksplorasi perbandingan persepsi masyarakat di Indonesia dan Amerika Serikat terhadap *childfree* di *platform X* dengan menerapkan analisis sentimen berbasis *BERT-base Multilingual*. Metode yang digunakan mencakup pengumpulan data, klasifikasi ke dalam tiga kategori sentimen (positif, negatif, netral), dan pengujian dengan pembagian data 80:10:10. Hasil menunjukkan model berhasil diterapkan dengan performa akurasi 85,50%, *Precision* 81,67%, *Recall* 77,44%, dan *F1-score* 79,52% dalam menganalisis konteks dwibahasa. Dari 9.202 tweet yang dianalisis, terdapat perbedaan signifikan dalam distribusi sentimen: Indonesia didominasi sentimen negatif (90,68%), sedangkan Amerika Serikat memiliki distribusi lebih seimbang (negatif 41,97%, positif 28,25%, netral 29,78%), sehingga mencerminkan kontras pandangan kultural terhadap keputusan *childfree*.

Kata Kunci: Analisis Sentimen, *BERT-base Multilingual*, *Childfree*, Media Sosial X, NLP

ABSTRACT

The childfree phenomenon has become a widely discussed topic in various countries, coinciding with a significant decline in birth rates, which impacts demographic structures and social values worldwide. Social media serves as the primary space for individuals to express their views on this issue. However, linguistic and cultural variations create diverse sentiment patterns that require analysis due to the large volume of data. This study aims to explore the comparative perceptions of society in Indonesia and the United States regarding childfree discussions on platform X by implementing sentiment analysis using BERT-base Multilingual. The methodology includes data collection, classification into three sentiment categories (positive, negative, neutral), and testing with an 80:10:10 data split. The results indicate that the model was successfully applied, achieving an accuracy of 85.50%, Precision of 81.67%, Recall of 77.44%, and an F1-score of 79.52% in analyzing bilingual contexts. Among the 9.202 tweets analyzed, significant differences were observed in sentiment distribution: Indonesia was dominated by negative sentiment 90,68%), while the United States exhibited a more balanced distribution (negative 41,97%, positive 28,25%, neutral 29,78%), reflecting contrasting cultural perspectives on the decision to be childfree.

Keywords: Sentiment Analysis, BERT-base Multilingual, Childfree, Social Media X, NLP