
Discourse “Ndasmu” on twitter after the 2024 Presidential Election Debate in Indonesia Topic Modeling and Sentiment Analysis

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Abstract

The purpose of this study is to examine the conversation that transpired on Twitter following the Indonesia 2024 presidential election debate, with particular attention on the phrase "Ndasmu." To better comprehend the speech patterns and attitudes that surface in online interactions, this research use topic modeling and sentiment analysis. The following Twitter data collection steps are part of this research methodology: To retrieve relevant tweets, use the Tweepy library to access the Twitter API. Access can only be obtained using a Twitter API key. Pre-processing Text: Eliminating superfluous characters, links, and mentions from the text data. Tokenizing text means breaking it up into individual words or phrases. eliminating stop words. Topic Modeling: Non-negative Matrix Factorization (NMF) or Latent Dirichlet Allocation (LDA) are two methods used for topic modeling. Two well-liked Python packages for topic modeling are Scikit-learn and Gensim. Sentiment analysis can be done with TextBlob or NLTK. While TextBlob makes things easier, NLTK offers more customization options. Visualization: Producing word clouds for subjects and sentiment distribution, among other visual representations of the data, requires the use of tools like Matplotlib or Seaborn. It is anticipated that the study's findings would provide light on the prevailing themes in the "Ndasmu" discourse and the attitudes that accompanied the presidential debates. These findings can help us comprehend the dynamics of public opinion and how individuals react to important political occasions like debates for the presidential nomination.

Keywords: *Topic Modelling; Sentiment Analysis; Discourse; Tweeter; president 2024.*

INTRODUCTION

Effective communication of heritage activities is seen as crucial, or in some cases even more important, than the heritage data itself in the big data era and the very social media-driven atmosphere of today (Maniou, 2021). Social media offers a lot of benefits, but it also has a lot of drawbacks. It can be challenging to tell if the subjective opinions of really attractive people make up the majority of the content on social media (Rohmiyati, 2018).

Following the 2024 Indonesian Presidential Debate, Twitter users engaged in lively debate on a variety of topics related to election results. One primary issue that surfaced was the importance of having a reliable modeler for evaluating student performance.

Twitter users have emphasized how crucial it is for traditional election models to take into consideration a number of variables, including public emotion, campaign tactics, and demography. Past studies, like the one that, have influenced these discussions. Furthermore, Twitter users have discussed how election modeling can be informed by the use of data-driven personas and social media analytics to comprehend the diversity and complexity of user ecosystems in web-based conversation. (Buckton et al., 2019)

Conversation Ndasmu A conversation created by Twitter users following the Indonesian presidential debate in 2024 may be found on twitter. The significance of precise modeling in forecasting election outcomes keeps coming up.

A comprehensive understanding of the challenges, public attitudes, social media platforms and subjects surrounding the use of telemedicine during the pandemic is the aim of this study. Sentiment analysis was conducted to determine whether the public viewed telemedicine positively, negatively, or neutrally (Altahmazi, 2020; Mccambridge et al., 2022; Minta et al., 2021)

Social Networ Analysis

One technique for looking at social networks and their structures is called social network analysis, or SNA. It entails examining the connections amongst individuals, groups, and organizations within a network in order to identify patterns of impact and interaction. SNA is applicable to a number of study fields, such as tourism, research for development, marine archaeology, and textsempirical literature studies. SNA has been employed in marine archaeology to comprehend the connections among the many players in the field (Aragon, 2023). It has been used to examine the social structure of narrative texts in textempirical literature studies (Aragon, 2023). Furthermore, SNA has been utilized to quantify the impact of blogs/vlogs, social networks, and advertising on travel intention in the tourist industry (Lumanau & Tunjungsari, 2022) as well as to uncover the relational mechanisms of research for development 3. As a result, SNA is a flexible technique that can offer insightful information about social phenomena and support decision-making across a range of domains (Apgar et al., 2023).

RESEARCH METHODS

One technique for looking at social networks and their structures is called social network analysis, or SNA. Through the analysis of narrative texts' social (Kartino et al., 2021; Sucipto & Alamsyah, 2016). This study used Twitter data with the Trending Topic "Ndasmu" from December 12–20, 2023, and Social Network Analysis. 1509 data were generated by the researchers during the data retrieval process. In order to manage and analyze the text data in the 1509 data, Wordji.org and Python tools are used to clean the data.

This big data system employs the streaming technique to record discussions in near real time using Twitter's API (Applications Programming Interface). In this study, a quantitative technique is employed. The ability of the quantitative approach to generalize about real-world social phenomena is one of its traits. The study's big data system, Python Google Lab, collects data from Twitter by using the streaming approach to record discussions in near real time using Twitter's API (Applications Programming Interface) (Bashith et al., 2021).

RESULTS AND DISCUSSION

Discourse Modelling

In the Ndasmu Discourse after the 2024 Presidential Election debate, Prabowo is the presidential candidate who uttered the phrase Ndasmu, in discourse.

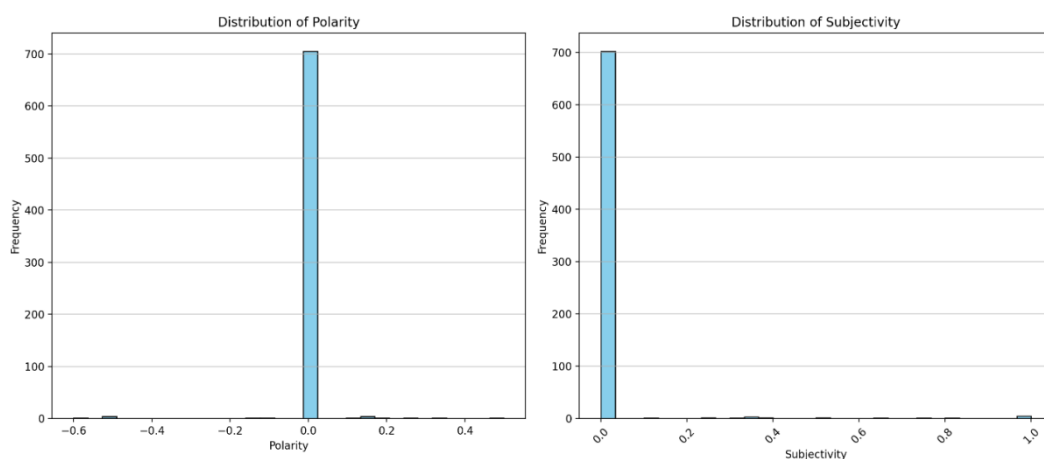


Figure 1: Distribution Of Polarity And Subjectivity
Source: Researcher's Processed Results By Python

DataFrame now includes polarity and subjectivity scores for each text entry. The histogram visualises the distribution of these scores across the data set. The polarity score indicates the sentiment of the text, ranging from negative (-1.0) to positive (+1.0), while the subjectivity score indicates how subjective or objective the text is, ranging from objective (0.0) to subjective (1.0).

From the data above, it shows that the sentiment of the text shows more positive words, compared to negative, this concludes that the discourse arising in the sentiment analysis is very positive.

In the data Discourse labelling for the entire dataset has now been completed. The labels are applied to identify the type of discourse featured in the text, such as narrative, expository, descriptive, or argumentative.

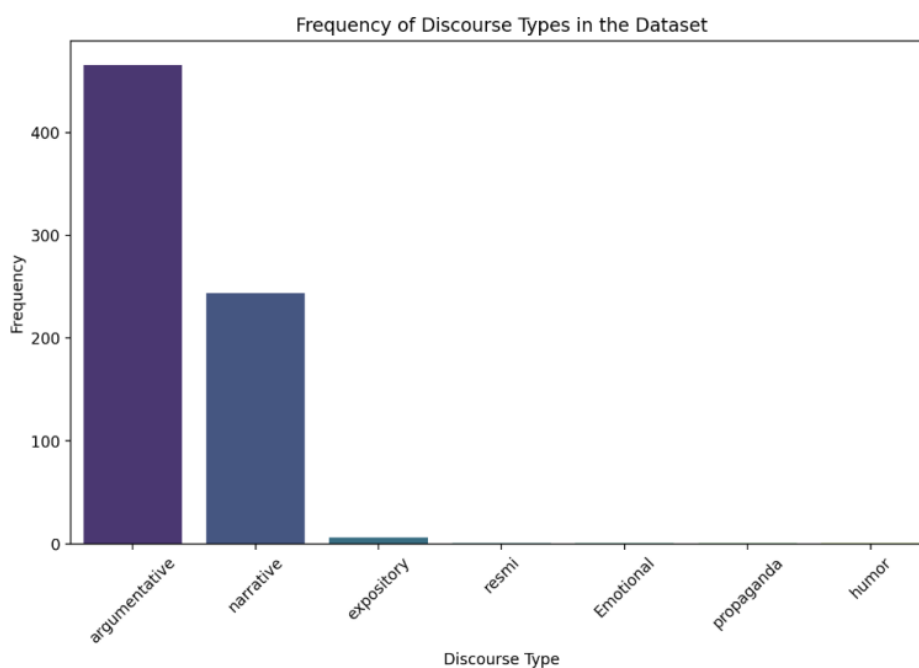


Figure 2: Frequency Of Discourse Types In The Dataset

Source: Researcher's Processed Results By Python

The discourse arising on twitter social media is the most emphasised discourse: argumentative The number of occurrences: 466 can be seen in the diagram above.

WordCloud

Whereas the Word cloud visualises the most commonly used words in the data set, with larger fonts indicating a higher frequency of occurrence. This provides a quick way to identify key themes or terms that stand out in text data.

In WordCloud in figure 3, it shows the word "YukJadiJubirAmin" Shows there is a hashtag that shows resistance in the discourse "Ndasmu".

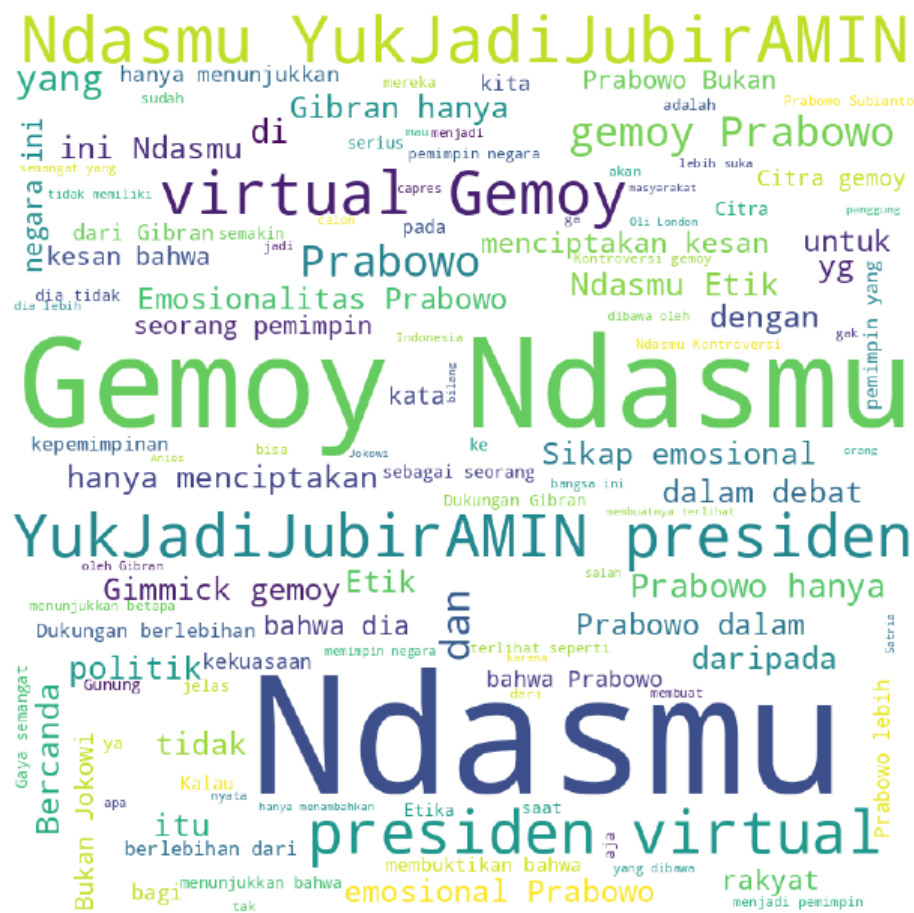


Figure 3: WordCloud
Source: Researcher's Processed Results By Python

Topic Modeling (LDA)

The vectorized text data consists of 722 documents and 595 features (unique words). Now, let's proceed to perform Latent Dirichlet Allocation (LDA) for topic modeling.

- Topic #0: ndasmu di pake kalo satu biar dan bersama emang busuk

- Topic #1: yel jawa trend tengah utk terbaru id sdh kandidat masyarakat
- Topic #2: ndasmu bercanda itu yg etik gemoy kata di gunung dan
- Topic #3: prabowo debat emosional sikap dalam seperti terlihat membuatnya yang gimmick
- Topic #4: ndasmu prabowo gemoy presiden virtual yukjadijubiramin hanya yang pemimpin bahwa

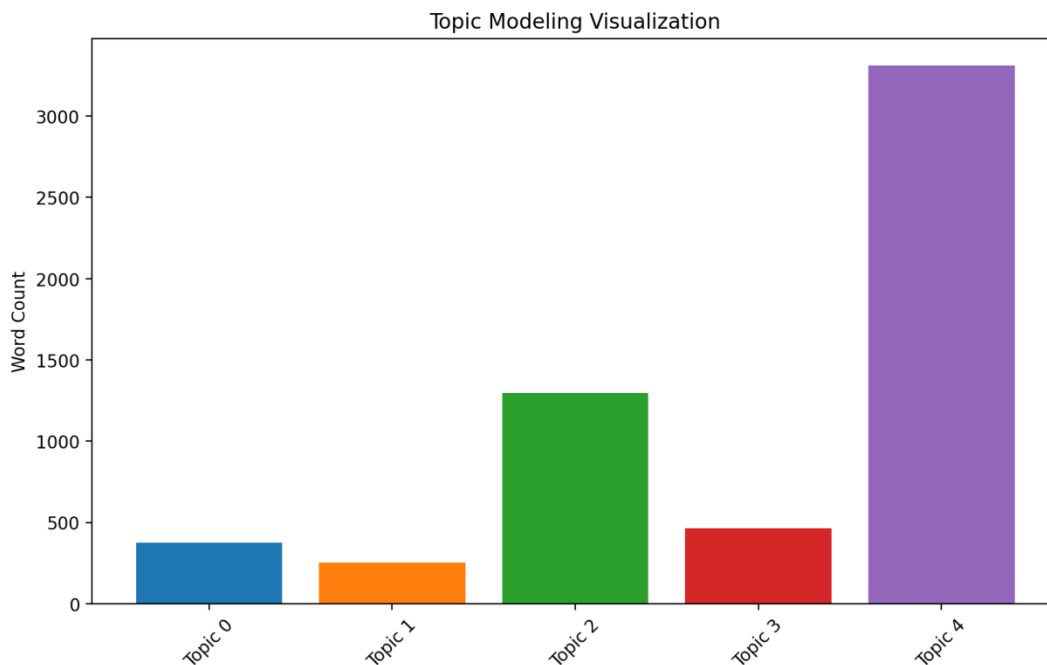


Figure 4 :Topic Modeling

Source: Researcher's Processed Results By Python

The LDA model has identified 5 topics in the text data. Each topic is represented by a set of keywords that are most relevant to that topic. These keywords can help us understand the main themes present in the dataset. If you need further analysis or a more detailed interpretation of this topic, let me know.

CONCLUSIONS AND RECOMMENDATIONS

This study uses topic modeling and sentiment analysis techniques to investigate the "Ndasmu" discourse on Twitter following the Indonesia 2024 presidential election debate. The analysis's findings offer a thorough knowledge of the attitudes and discourse patterns that surfaced in the online community following the significant political development.

The identification of "Ndasmu" phrases linked to particular themes, derived from topic modeling, offers valuable insights into the primary discourse focus. This discovery can shed light on the topics that, in relation to the presidential election, received the greatest popular attention.

Sentiment research sheds more light on the public's reactions to the presidential debates. Assessing the public's reaction to the candidates' arguments and exchange of ideas is made easier by having a clear understanding of the positive, negative, and neutral moods.

All things considered, this study significantly advances our knowledge of the dynamics of public opinion in the context of Indonesian politics on social media, especially Twitter. Relevant parties, such as political analysts, candidates, and academics, can utilize the findings to inform better choices and approaches to handling shifting public sentiment and shifting dynamics during the presidential election season.

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