

Sentiment Analysis of Sexual Violence on Twitter: Emotions, Public Perception, and Discourse

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Abstract

Sexual violence has captured the attention of many people these days. Not only because the numbers tend to increase during the Covid-19 pandemic but also because of the locus. The problem answered in this research is what Twitter users' sentiments are about sexual violence and what Fairclough's analysis of this is. The criteria for the data to be retrieved are tweets with filters: tweets with Indonesian, having the keyword "Sexual Violence," with upload from January 1, 2021, to December 31, 2021. The sexual violence data was analyzed sentiment to determine the response of Twitter users to the issue of sexual violence, which involved the use of Natural Language Processing. Methods to interpret emotions and topic modeling analysis with Machine Learning algorithms to keywords of sexual violence. Data analysis in this study uses the sentiment analysis method, namely the meaning of text with the rules of the netnographic approach, which was then sharpened by Fairclough's critical discourse analysis. Based on the data, the emotions of Twitter users are anger (31.1%), sadness (29.4%), happiness (18.6%), love (14.7%), and fear (6.2%). The polarity that reflects Twitter's attitude toward Sexual Violence appears in the word "Victim," while sentiment that reflects anger and fear appears in the word "Act(s)." It can be concluded that Twitter users empathize with victims who should get protection and attention. Sentiment analysis regarding sexual violence on Twitter not only reveals individual feelings and opinions but also reflects and influences the power structure and ideology in society. These findings reveal the importance and contribution of tweets on Twitter to stimulate social movement and support the formation of regulations that can provide security, especially for children and women.

Keywords

Sentiment Analysis, Violence, Sexual Violence, Twitter

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1. INTRODUCTION

Sexual violence occurs in various spheres of life, in private and public spaces. Homes and educational settings, which should be safe spaces for everyone, turn out to be locations where sexual violence occurs. Apparently, the house, which should be a safe space, does not provide that condition. The scope of education, which should also be a safe and comfortable space for every individual to develop their potential, is still not as expected. This indicates that the issue of sexual violence is a



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serious problem that poses a threat to everyone, especially those who are weak because of different power relations. Related to this, because of their weaker position, many women and children became victims in this incident.

Sexual violence is any act that degrades, insults, harasses, and attacks a person's body and reproductive function due to imbalances in power relations and gender, which results in or can result in psychological and physical suffering including those that interfere with a person's reproductive health and lose the opportunity to carry out education safely and optimally (<https://merdekadarikekerasan.kemdikbud.go.id/kekerasan-seksual> accessed June 20, 2022). According to *Komnas Perempuan* (2020), "inequality of power relations and gender" is a reported condition of misusing knowledge, economic and community acceptance resources, or social status to control victims.

Violence data shows that women tend to be in the position of victims. The weak position of women socially causes them to be in marginalized places, making them vulnerable to becoming victims of violence. In patriarchal ideology, women have an unequal (asymmetrical) position with men. Women will be valuable if they have an obedient character, are good at serving, are patient, and are loyal. These characters have the opportunity to teach or even require women to be silent when experiencing problems and suffering, including the violence they experience. Enduring suffering for the sake of family honor or the safety of their children is a common thing even for women to do. This contributes to the freezing of violence against women.

In the eleven years since 2008, the number of reported violence against women in Indonesia has increased. Based on annual records (*catahu*) of violence against women in 2019, there were 431,471 cases of violence against women. This figure increased by 693% from 2008, with only 54,425 cases. The figure is still an iceberg phenomenon. It is almost certain that the figure is still less than the actual figure (including unreported). In fact, for various reasons, there are still women who experience violence but do not report it. Meanwhile, the increase in reports also indicates an increase in awareness and courage of victims to come forward and begin to trust institutions that oversee the issue of violence against women.

Sexual violence occurs in various spheres of life, in the community, work, education, or other public spaces, even in private spaces (home). *Catahu* 2020 data states that the rampant violence against women has become a culture that is strengthened and normalized because of the lack of protection and security for women. *Komnas Perempuan* noted that sexual violence in educational settings has fluctuated in the last five years. In 2015, there were three reported cases of sexual violence in educational settings. This number became ten reports in 2016. Cases of sexual violence in educational settings again decreased to three reports in 2017. Cases of sexual violence in educational settings rose again to 15

reports in 2019. Meanwhile, there were 10 cases of sexual violence in the educational environment until August 2020.

Based on data from Komnas Perempuan (December 20, 2021), in the educational sphere, sexual violence can mainly be found occurring on campuses, Islamic boarding schools, and high schools. How ironic. The educational environment should offer a safe and comfortable environment for students to develop their potential knowledge, attitudes, and skills. Social relations that occur in this sphere should be colored by relationships that are loving and not threatening and frightening. Campuses are the educational environment that records the most cases of sexual violence. A total of 35% of cases occurred on campus, with women and students as victims. This means educational spaces are still vulnerable and not friendly for students, especially female students.

Various cases of sexual violence are just the tip of the iceberg. There are still many cases of sexual violence in educational settings that go unreported. Therefore, the government must sincerely prevent and handle sexual violence in the educational environment. This is related to eliminating discrimination against women and providing learning opportunities in a safe environment—Ministry of Education, Culture, Research, and Technology (Kemendikbud Ristek) has published rules for preventing and handling sexual violence in universities. This is contained in Permendikbud Ristek Number 30 of 2021 concerning the Prevention and Handling of Sexual Violence in Higher Education Environments, which has reaped the pros and cons.

In the private sphere, sexual violence takes many forms. Based on Catahu (2020), there are various forms of sexual violence in the private sphere. Incest (forced intercourse by people who are related by blood) turned out to be the highest, followed by rape, copulation, and sexual immorality. All these forms of sexual violence mark how the private sphere is not a safe space for women. This is also exacerbated by the advancement of the internet, which has also become a new space for sexual violence to occur. According to Komnas Perempuan records (2020), compared to 2018, the number of cyber-based violence cases increased from seven cases to 35 cases. Of course, this is closely related to the use of the internet, which, due to Covid-19 conditions, has become a demand and need for almost everyone to communicate and do business, school, and work. Cyber-based violence is a new pattern of internet violence, especially against women.

Sexual violence occurs in various spaces. Departing from this, it becomes interesting to learn how the phenomenon of sexual violence in the responses of netizens is expressed on social media. One of the media is Twitter. *Twitter* is a fairly good medium for obtaining data because the level of accuracy of the truth of opinion sentences (*tweets*) uploaded to *Twitter* is considered quite high if used to find out how people think about a topic (Ma'arif, 2018; Kumari & Kandukuri, 2019; Ramadhani, Sari, & Santoso, 2021; Keramatfar & Amirkhani, 2018). Twitter is also the 6th most accessed social media in Indonesia

and the 17th most visited website in Indonesia (<https://datareportal.com/reports/digital-2022-indonesia>; Riyanto, 2022). Twitter is a social media that has the fastest and most precise information dissemination from other social media (Auliasari et al., 2021). Muhammad, Maghfur, & Vautama (2022) suggest that *Twitter social media* suits the sentiment analysis process seen from writings on *Twitter social media* often called tweets. Twitter has become one of the free communication media and is vulnerable to verbal sexual harassment through tweets in Indonesia (Budiman, Zaatsiyah, Niswah, & Faizi, 2020).

Through *Twitter*, users can upload content as opinions, sentiments, and emoticons, which can be data to analyze a *trend* or certain topic. On Twitter, there are three main types of social links between two users: (1) following, a user has added another user to his friend's list; (2) retweeting, a user forwards a tweet from another user; and (3) mention, a user has included another user in his or her tweet (Zhao and Li, 2018). Thus, twitter is not only a place for sharing information but also a platform where public affections are expressed and exchanged, which influences how a person interacts with news and information, as well as how he participates in social and political movements (Papacharissi, 2015; Prasetya, Winarso, & Syahril, 2021).

Tweets are both influenced and influence individuals. Papacharissi (2015) shows affection is key in shaping public narratives and experiences on social media. Social media have a strategic role in shaping public perception of rape victims (Gravelin, Biernat, & Kerl, 2024). Marwick (2022) uses the concept of "context collapse" to uncover the phenomenon of various social contexts (such as family, friends, and co-workers) that are usually separated in real life into one on social media platforms such as Twitter and influence the way Twitter users interact and express themselves. Several studies (Basmehchi & Ignato, 2020; Omar & Javier, 2018; Wang, et al, 2016; Arda, 2014; Downing, 2008; Boyd & Ellison, 2008; Akpatsa, Lei, Li, et al., 2022; Chang, Yu Ng, Xu, et al., 2022) revealed that social media could be a force to stimulate a social movement or change. Social media has been used to build community relationships, challenge dominant narratives, and create social change (Canella, 2017). Information is collected, curated, and published by citizen journalists and simultaneously shared or consumed by thousands of citizens who give spontaneous feedback (Zafarani, Abbasi, & Liu, 2014). Through social media, issues can be disseminated to provide support or rejection towards the possibility of change.

The issue of sexual violence is a concern that requires urgent discussion and action. The formulation of the problem in this paper is: What is the sentiment of Twitter users towards the topic of sexual violence? Data from social media platform Twitter shows that sexual violence is still a troubling issue and requires serious attention at a time when the world is moving towards recovery after the Covid-19 pandemic in 2021. This paper uses sentiment analysis because, through Twitter, sentiment analysis in this period can obtain a real-time and in-depth picture of how Twitter users respond and

interact with the highly sensitive issue of sexual violence in the context of the global crisis when the Covid-19 pandemic is almost over.

What is sentiment analysis? Sentiment analysis is the computational study of people's opinions, sentiments, emotions, moods, and attitudes (Liu, 2020; Lei & Liu, 2021). This is an effort to make *opinion mining* (Rozi, 2012). The field of study that analyses people's opinions, sentiments, appraisals, attitudes, and emotions toward entities and their attributes expressed in written text (Liu, 2020). *Sentiment analysis* includes branches of *text mining*, *natural language processing*, and *artificial intelligence* that are carried out to obtain useful information or new knowledge by extracting, understanding, and processing text data automatically (Akbar, 2012; Pozzia, Fersinib, Messinab, & Liu, 2017; Lane, Howard, & Hapke, 2021). The most relevant technique for contemporary behavioral scientists is sentiment analysis, a subfield of NLP, which focuses on measuring the overall "sentiment" of verbal products (e.g., session transcripts, diary entries, and social media posts (Liu, 2020). Natural Language Processing can be used to describe linguistic products and use them to predict aspects of human behavior (Jurafsky & Martin, 2008). Natural Language Processing aims to extract useful information from social media data (Farzindar & Inkpen, 2020).

Using sentiment analysis, information that was originally unstructured about a topic can be transformed into more structured data. Sentiment analysis is also called *opinion mining*, which analyzes opinions, sentiments, behaviors, and feelings expressed in sentences (Habyba, Rahmawati, & Quarterly, 2021; Babax, 2023; Putri & Lhaksmana, 2023). This is more efficient and modern when analyzing human verbal behavior (Cero, Luo, & Falligant, 2024; Bailey et al., 2021).

The sentiment analysis process will determine a person's opinion of a topic or problem. Natural Language Processing is a part of computer science focused on using computers to understand computer language in a "natural" way, as humans do to understand the sentiments of text, speech, and responses to questions (Beysolow II, 2018). Two approaches can be used in this process: learning-based (approach using ML) and lexicon-based (lexical-based approach). This study was conducted using sentiment analysis using an ML approach to describe an up-to-date understanding of a person's views and reactions to the issue of sexual violence via twitter. The ML-Based approach uses algorithms to study patterns in text data and build models that can classify text into specific sentiment categories (Shwartz & David, 2014), such as positive (opinions that do not trigger or cause hostility, insults, debate or controversy in cyberspace) or negative (opinions that can trigger or cause hostility, insults, arguments or conflicts in cyberspace). The Lexicon-Based approach uses dictionaries or lists of words categorized into specific sentiment groups, such as words expressing happiness, sadness, anger, etc. When analysing text, the system matches the words present in the text with the sentiment dictionary to determine the overall sentiment of the text (Azahary, 2017).

Some studies on sentiment analysis of sexual violence on social media provide important insights into public perceptions of sexual violence. Social media serves as an important platform for advocacy, education, campaigns and dissemination of information about sexual violence, which can change public perceptions and increase awareness and support for victims, who tend to be passive and defensive elements (Lubis, Nisa, Dalimunthe, & Perangin-angin, 2022; Surendra, et. al. 2022). Several studies on social media analysis regarding regulations that are expected to overcome the problem of sexual violence have also been carried out (Hamidi, Bestari, Situmorang, & Rakhmawati, 2021). Generally, sentiment analysis studies explain how the author's opinions are organized according to the emotions displayed, which are then categorized into positive, neutral, or negative sentiment groups. This can be presented in the form of the word cloud. Regarding studies about sexual Harassment, negative sentiments are often dominated by anger and sadness, but there are also positive sentiments that highlight support and empathy (Doe, & Smith, 2020; Ningsih & Wijaya, 2020; Masruroh, et al, 2022; Lyu, Chow, & Hwang, 2020; Low, Keikhosrokiani & Asl, 2023).

Unlike the previous article, which revealed how the sentiment categories were generated and displayed in word clouds, this article offers a different advanced analysis. In order to have a deeper understanding of the sentiment, the results of this analysis are further explained using the theory of Critical Text Analysis from Norman Fairclough. Fairclough developed an approach to critical text analysis that combines language analysis with social analysis to understand how texts reflect and reproduce power relations in society. The main proposition in the theory of Text Analysis is that texts are not neutral, but are products of social practices related to power relations in society. "Discourse is not only words and sentences; it is larger language and language use units. We can also say that it is a form of social practice, in other words, in which people produce, understand, and interpret meanings" (Fairclough, 1992). "The language and discursive practices of powerful institutions and individuals contribute to creating and perpetuating unequal power relations in society" (Fairclough, 2001). Critical Discourse Analysis (CDA) involves analyzing language, social context, and social practices to understand how texts reflect and influence societal power structures (Fairclough, 1995). Through text analysis, it can be revealed how texts are used to strengthen or challenge existing power structures, as well as how texts reproduce and disseminate certain ideologies in society. News on social media's important issues can influence people's perceptions and attitudes (Nudiati et al., 2023).

Some of the main concepts in the theory of Text Analysis developed by Fairclough are (1) Critical Text Analysis. This concept emphasizes critical analysis of texts to reveal how language is used to produce and reproduce power relations in society. (2) Interaction between Texts, Social Practices, and Social Conditions. Complex interactions between texts, social practices (e.g., ways of communicating and interacting in society), and social conditions (e.g., power structures, ideologies, and values in

society) must be understood to understand the construction of meaning in texts and their implications. (3) The Ideological Dimension in the Text. Text analysis should focus on how certain ideologies are reflected in language, unlocking the diversity of ideologies contained in texts and how those ideologies influence the construction of meaning and the reproduction and dissemination of certain ideologies in society.

2. METHODS

The source of the data is tweets taken directly from Twitter. Data is retrieved using Twitter's Application Programming Interface (API). Data was taken using the keyword "sexual violence" in the period 1 January 2021 – 30 December 2022. The subjects of the study included users of their respective Twitter accounts who engaged in conversations related to sexual violence. The data was collected from Twitter, which is done by utilizing the Twitter API provided by Twitter. The criteria for the data to be taken are tweet data with filters as follows. (1) Tweets in Indonesian; (2) Have the keyword "Sexual Violence"; (3) Upload time from 1 January 2021 to 31 December 2021.

Before the data is analyzed, the datasets go through pre-processing data first. Tweet data that has been collected needs to be pre-processed to produce clean and structured data to provide more accurate sentiment classification results. The pre-processing stages of data carried out in this study include cleaning, tokenizing, filtering, and stemming processes. Cleaning Process is the first stage of text preprocessing performed to remove or remove any noise in the data. The cleaning process consists of several steps: (1) Remove punctuation or punctuation removal. In this step, only letters of the alphabet are accepted, while characters other than letters will be omitted. (2) Case folding converts the entire text to lowercase/lowercase. (3) Drop duplicates to eliminate duplicate tweet data or remove tweet spam. (4) Spelling correction, which is the correction of the spelling of words.

Once the tweet data is collected, it is stored in an SQLite-based database for further analysis. Two stages of data analysis are carried out in this paper, namely sentiment analysis regarding sexual violence based on data presented by Twitter. (2) Critical discourse analysis by Fairclough. The sexual violence data that has been obtained is carried out with sentiment analysis to know the response of Twitter users to the issue of sexual violence. Based on the datasets collected and pre-processed, the data is then analyzed using sentiment analysis and topic modelling to determine topics that affect the movement of sentiment levels. The stages of analysis carried out include: Sentiment Analysis, Topic Modelling, and Data Interpretation.

The sentiment analysis method is text mining. The process is carried out by analysing a person's comments in response to a sexual assault case through his/her Twitter. This sentiment analysis involves using NLP methods to interpret the author's emotions. The topic modelling stage is carried out to find

out the top topics that affect the level of public sentiment towards the topic of "sexual violence" that has been set. Analysis is done with ML algorithms. The ML-based approach classifies text using classification algorithms to group certain keywords that often come together to organize them into a topic.

Topic modelling is a statistical method for identifying key topics or hidden patterns in text data sets. The goal is to discover existing topic structures in text data without needing labels or manual annotation. This can identify dominant topics in text data and describe the distribution of words in each topic. At the data interpretation stage, a combination of sentiment analysis results and topic modelling is carried out—Analyse text mining to find word information that most often appears together and visualizes into a word cloud. The more often the words appear, the thicker and larger the font size used to display the word. Word Cloud visualizes a collection of words and gives them a more attractive appearance. To reach this stage, it is necessary to filter and clean data that has been done before, avoiding words that lack meaning and character that are considered outside the context of discussion. In reading the word cloud, qualitative analysis was carried out using data in the form of tweets submitted by the author in a study on sexual violence. 2) Critical discourse analysis (CDA), developed by Norman Fairclough, is an approach that combines social theory and linguistic analysis to examine how language is used in social practice. According to Fairclough, the stages in critical discourse analysis are as follows.

Firstly, description: textual analysis aims to identify and describe linguistic features in the text. At this stage, the tweet text about sexual violence, which has been analyzed previously, is analyzed. Focus on words such as "child," "victim," "perpetrator," and "RUU TPKS," as well as sentence structures that show the power relationship between the victim and the perpetrator. The steps are: 1) Word Analysis: Examining the choice of words (diction) used in the text. This includes looking at word frequency, connotation, and associations. 2) Sentence Analysis: Analyze sentence structure, grammar usage, and syntax. This includes identification of the agent (perpetrator), process (action), and patient (subject to the action). 3) Cohesion and Coherence: Assess how elements in the text are connected to form a coherent meaning. This includes analysis of pronouns, conjunctions, and other discourse markers.

Secondly, interpretation: discourse practice analysis aims to understand how texts are produced, distributed and consumed in certain social contexts. Analyzing the situational context of these tweets, namely in 2021, after the Covid-19 pandemic, and the socio-political context related to the discussion of the Draft Law on the Elimination of Sexual Violence. The steps are: 1) Situational Context: Assess how texts are produced and consumed, including who the authors and readers are, and their communication goals. 2) Intertextuality: Identifying references to other texts in the text being analyzed and how they

shape meaning. 3) Genre and Style: Identify the genre (type of text) and language style used and how they influence the interpretation of the text.

Thirdly, explanation: social analysis aims to explain the relationship between discourse practices and broader social structures. Explaining how these tweets reflect the ideologies of domination and power in society, and how they challenge or support existing social structures. For example, examine how the tweet criticizes the lack of legal protection for victims of sexual violence and demands concrete action from the government. The steps are: Ideological Analysis: Examines the ideologies underlying texts and how they reproduce or challenge social power and domination. Social Structure: Analyze how texts reflect and influence social structures, including power, politics, economics, and culture. Social Effects: Assess the social impact of the text, including how the text can influence the perceptions and actions of individuals and groups.

3. FINDINGS AND DISCUSSION

Sentiment analysis is the process of analyzing words to find out the emotional tone of the author. Emotions are closely related to sentiments. The strength of one's sentiment or opinion is typically connected with the intensity of certain emotions like sadness, anger, or happiness (Liu, 2012). The results of this analysis can be used to assess what is being liked and disliked, which can then be used to make decisions. Sentiment analysis is the process of analyzing digital text to determine whether the emotional tone of the message is positive or negative. Based on data and sentiment analysis carried out using the NLP method, the following is a description of the sentiments expressed by Twitter users regarding the issue of sexual violence.

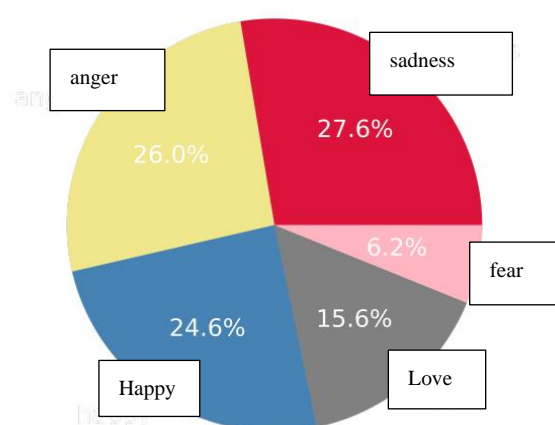


Figure 1: Distribution of Sentiments on Sexual Violence

Based on the data, negative sentiments include sadness, anger, and fear, accounting for 60.8% of overall conversations. Meanwhile, positive sentiments included happiness and love, which accounted for 40.2%. The data shows that responses to sexual violence on Twitter tend to be dominated by negative sentiments, with the majority of conversations reflecting feelings of sadness, anger, and fear. Nonetheless, it's important to remember that happiness and love are also present in those conversations. The predominance of negative sentiments, which include sadness, anger, and fear, reflects the complexity and seriousness of the issue of sexual violence, which can trigger strong emotional reactions from society. On the other hand, positive sentiment indicates the presence of hope, support, and compassion in conversations about the difficult topic of sexual violence.

Furthermore, we will look at what words make up these sentiments in the word Cloud to understand more about Sentiment towards sexual assault as follows. First, *Word Cloud Sadness*. Grief reflects empathy and sympathy for the victim. If you look closely, *this Sadness word cloud* includes elements: child, victim, woman, person, and sexual.



Figure 2: *Word Cloud Sadness* on Sexual Violence

"Sadness" is described as emotions characterized by the loss of love. This loss of love causes girls (some of the victims are boys) to be positioned as victims of sexual abuse. Children, especially girls, in the phenomenon of sexual violence tend to be victims. According to the word cloud Sadness, "*Anak* (Child)" is the most mentioned word by Twitter users. Concern for children who are victims of sexual violence, for example, is expressed through the sentence, "In Bandung 14-year-old teenagers are raped and used as sex slaves, repeated sexual violence against children signals 'emergency'." Another Twitter user said, "The case of sexual violence against a 14-year-old woman in Bandung, West Java, is a red flag. This means that the state must immediately prepare a definite protection set for every citizen." "The case

of sexual violence against a 14-year-old woman in Bandung, West Java, is a red flag, so that the state immediately prepares a definite protection device for every citizen." "14-year-old raped and used as sex slaves in Bandung, repeated child sexual violence signals 'emergency': The high rate of sexual violence against children has proven that the government and society have failed to develop." "Children 15-16 years old have their lives destroyed by demons in human form." "It is really sad to see crime news getting weirder daily. Again, cases of sexual violence are committed by perpetrators from various circles of education, law enforcement, and so on. The victims are average minors." "Indonesia is an emergency of sexual violence against children." "At crazy times, yes, a little child is sacrificed, O God." "It breaks my heart."

Victims suffer greatly from sexual violence. "This is why the pro-choice looks more at his condition, if he is a victim of sexual assault or exposed to health, okay, this. Think about not just aborting the problem. No, do you think it has no health impact on the girl? Just look at it in the future, there must be a disease." "This rich thing is the most horrifying thing when it happens." "The trauma is lifelong." "Semarang Young Woman Becomes Victim of Stepfather's Sexual Violence for 7 Years While Living in Jakarta" "Wow, this is really bad; I have committed sexual violence, and I am still infected with HIV/AIDS." Being a victim of sexual violence in Indonesia is unlucky. It's as unlucky as it's to be human. Being raped, not resisting, making reports, said to enjoy. Raped and traumatized for life, the perpetrator was only sentenced to a few years. Raped, resisted, even imprisoned."

The suffering experienced by victims of sexual violence can be prolonged throughout their lives. In other words, the sexual violence experienced by the victim can have an impact on the stories they tell throughout their life. So much sexual assault happened in 2021, so it's very expressive to talk on Twitter about the case. "Sexual violence is an extraordinary crime. And we must not remain silent about sexual crimes rooted in Mother Earth," The sexual violence that occurred so much in 2021 made a Twitter user express, "Everyone would agree if we call 2021 a year with a sexual violence emergency. This is marked by the number of cases of sexual violence that are constantly revealed, both offline and victims speak up through social media." Another Twitter user wrote, "Seeing so much sexual violence, 2021 is called the year of intoxication." "Almost every day, there are news of cases of sexual harassment, violence, and rape. It's this crazy." "Living in a Sexual Violence Emergency Country." "Indonesia is a sexual violence emergency." "I want to cry every time I read the news of sexual abuse or violence. Suddenly, my heart hurts so much. How come humans like this are not exhausted." Discussions about victims of sexual violence are not only physical problems but also psychological ones whose endings cannot be easily guessed and resolved.

The future of the victim is not easy and painful due to the sexual violence she received. 2021 is seen as a year full of violence, so it feels like a year of emergency violence and feels terrible. Child

victims, especially girls, are very likely to experience trauma throughout their lives. Phrases like "Girls who are victims of sexual harassment/violence how about onions???" "Children 15-16 years old have their lives destroyed by demons in human form," and "Traumatized for life" reflect awareness of the traumatic and prolonged impact of sexual violence on victims. This shows the importance and need for better support and protection for victims of sexual violence in society. Twitter users also expressed empathy and sympathy for victims of sexual violence. These sentences express concern for the suffering of victims and the desire to provide adequate support and protection for them.

Second, *Word Cloud Anger*. If grief reflects empathy and sympathy for the victim, then anger indicates dissatisfaction and disappointment with the circumstances or abuser. The word elements in *Word Cloud Anger* are Law(s), design, party, victim, and woman. Anger is something in the way. Therefore, Anger becomes energy to solve obstacles. A draft law that can guarantee protection to victims, especially women, should be an option for the party (prosperous justice-PKS) to fight for. Therefore, passing and supporting the enactment of laws that can protect victims is an important struggle. It can be argued that bills/laws are necessary to ensure a safe life. Because of this, plans for legislation that were delayed for a long time to be passed attracted anger. This is seen as one of the reasons that makes sexual violence "easy and free" to occur.

Anger



Figure 3 *Word Cloud Anger on Sexual Violence*

Based on the analysis of data packaged in the word "Anger," the three main words that can be found are "*Undang* (Enactment), *Rancangan* (Enactment Draft), and "*Partai* (Party)." Generally, it can be stated that legal draft are late or obstructed in passing. This involves the legislative body. Therefore, the role of the party is very important. Victims of sexual violence are increasing and lack protection. The call for outrage and protection was echoed on Twitter with the phrase, "Protect Citizens from Threats

of Sexual Violence." "The rise of sexual violence cases involving underage girls has infuriated the National Commission on Violence Against Women." "Survivors of Sexual Violence Need Advocacy and Assistance." Nudiati et.al. (2023) revealed that most victims received positive responses and support after they revealed the violence they experienced via Twitter, but not all of them proceeded legally. The law is expected to be a solution to the occurrence of violence; therefore, Twitter users urge that the law regulating the prevention of sexual violence be immediately passed by the House of Representatives (DPR).

Regarding the Sexual Violence Crime Bill (TPKS), it can be seen that many sentences express anger and dissatisfaction with the handling of the issue of sexual violence in Indonesia. Most of the sentences show disappointment with the inaction in passing the TPKS bill, which is considered a very important step in law enforcement against sexual violence. There were also expressions of distrust of politicians who opposed the bill's passage, claiming they feared they would be caught if the bill was passed. In addition, there were also expressions of anger over the delay in passing the TPKS bill, which was considered a measure that worsened the ongoing sexual violence emergency.

Some sentences even strongly condemn perpetrators of sexual violence and politicians who are considered indifferent to the fate of victims, stating that they deserve strict sanctions. These sentences illustrate that Twitter users' anger is not only against sexual violence but also against the inaccuracy and failure of the system in dealing with this problem seriously and effectively. This analysis provides important insights into the need for more responsive and equitable legal reform and practices to protect victims of sexual violence and uphold justice in Indonesia.

Angry sentiments were expressed because the sexual violence law was not immediately passed into regulations that would provide protection to victims and punish perpetrators. Their extraordinary crimes make them ineligible for remission in their sentences. Perpetrators of sexual violence became the subject of discussion. They came under fire, "Perpetrators of sexual violence (rape, fornication, etc.) and corruptors do not deserve remission, especially since judges rarely give maximum sentences."

Several selected expressions such as dog, criminals, savage, and ward demon are used to express the anger of Twitter users towards perpetrators of sexual violence. In society, using these words is considered bad because it equates humans with animals. Some sentences expressing anger towards perpetrators of sexual assault can be found in twitter online conversations. Statements expressing disapproval of the granting of remission to perpetrators of sexual violence, as well as disappointment with sentences that are often not maximal, express dissatisfaction with the law. The law is considered less strict against sex offenders. Furthermore, the second sentence expresses anger at the dismissive attitude of the seriousness of sexual violence cases. This highlights the incomprehension and insensitivity towards victims of sexual violence that can have an impact on the inappropriate handling

of these cases.

The picture reveals that public anger against perpetrators of sexual violence is also reflected in various expressions that strongly condemn the barbaric acts committed by perpetrators. For example, the phrase "Devil is a bitch!" "Savage," "Foolish," "Brainless," "Dog," "Devil," "Savage," "Predator," and "May the Torment of the Hereafter" were stated in tweets to express deep outrage at the barbarity of sexual assault perpetrators. Another phrase demands strict action and severe punishment against perpetrators of sexual violence as a form of justice for victims. Thus, it can be concluded that the sentiment of anger towards perpetrators of sexual violence reflects the demand for firmer and fairer law enforcement, as well as concern for the fate of victims who suffer and experience prolonged impacts due to these crimes. This angry sentiment also occurred because legal regulations were not immediately passed to ensure legal certainty in punishing perpetrators, creating a sense of security for society and not causing victims of sexual violence.

Word Cloud Happy

Happy describes emotions about life going well. Word Cloud Happy, stated by Twitter users related to sexual violence, is happy. Happy is featured in the elements of the words: “*Korban* (victim),” “*Anak* (child),” “*campus*,” “*Pencegahan* (prevention),” and “*Penanganan* (handling).” Happiness reflects the effort to find hope or solutions in the face of this difficult issue and support and solidarity between individuals in society.



Figure 4 *Word Cloud Happy* on Sexual Violence

It would be all the elements of the word are in it each one in its own structure, never all



Sentences that show defense for victims of violence, for example, are expressed with the phrase, "For all survivors of sexual violence. Relax, you are not alone. I'm not alone." Another statement that shows partiality for victims of sexual violence put forward by twitter users is a sentence that shows good wishes for victims is widely put forward.

Word Cloud Fear

Fear describes the emotions associated with taking risks. This is the smallest sentiment. The word elements that can be found in this word cloud are “*Undang-Undang (Act)*”, “*Pendidikan (Education)*,” “*Rancangan (design)*,” “*Anak (children)*,” and “*Perempuan (women)*.” The law regulating the design of violence prevention in education guarantees girls a safe place in education.

Fear



Figure 6 *Word Cloud Happy* on Sexual Violence

Schools have not been safe places when it comes to sexual violence. "KPAI: Sexual Violence Against Indonesian Students Mostly Occurs in Religious Schools." Similarly, he tweeted, "There is more sexual violence happening where it should be fear of hell torment!" Written on Twitter to immediately pass a law to prevent sexual violence, "Sexual Violence is Increasingly Rife, Puan Ensures the Legislative to Complete the TPKS Bill." In order to prevent and treat sexual violence, education is expected to be a good place to raise awareness of sexual violence. Awareness of the risk of sexual violence needs to be part of the school curriculum. The sentence written on Twitter related to the curriculum, "The religious moderation curriculum is claimed to prevent or reduce three sins in the world of education. Namely intolerance, bullying, and sexual violence. So, what is the implementation of this curriculum like in the campus world?" This law is very important to create, because it relates to opportunities and the safety and comfort of girls in learning. In a broader context, this is related to the fulfilment of human rights in learning and gender mainstreaming in education. Although it seems that there remain doubts in twitter

users about the effectiveness in handling cases of sexual violence, especially against women. "Will be Equality-Based Regulation to Overcome Women's Sexual Violence Meaningful?" The tweets expressed hope but still doubt.

If you pay attention, the first word elements in each category are child, invite, child, victim, invite. These words are the sentiments that get the most appearance. It can be interpreted that the main concern of twitter users towards sexual violence is children. In the phenomenon of sexual violence, as supported by previous study data, children tend to become victims of sexual violence. Why did they become victims? Of course, it is because of his weak position. Power relations between victims and perpetrators are power relations that are unequal, asymmetric, or unequal. The feeling of fear, helplessness that exists in the victim is an emotion that can be played by the abuser, so that he will be able to commit the violent act. The victim is less likely to dare to speak out about the experience of violence.

On the other hand, the hope of a legal instrument that can be a guarantee and certainty when sexual violence occurs is seen as a solution to the problem of sexual violence, related to providing guarantees for children's security during the learning process or living their lives in private spaces, communities, and public spaces. Safety is needed by every child so that they can grow well. Related to that, it is believed that the rule of law is important in protecting children and providing security in the environment where children grow, learn, and develop. As in the study by (Maemunah, Istighosah, Wahyuni, & Suyatmi (2021); Virra, Andreswari, & Hasibuan (2019), they support the Indonesian sexual violation bill as a tool to protect children from sexual violence.

The key words that appeared in tweets related to sexual violence were "victim", "child", "perpetrator", and "TPKS Bill". Through this identification, it can be understood how these concepts are connected and arranged in discourse, as well as how the structure of the text affects people's understanding of the issue of sexual violence. Most of the victims of perpetrators of sexual violence are children, and this is likely to happen because the bill related to sexual violence do not immediately get ratified and enforced. The debate has focused more on victim protection, punishment of perpetrators, or the passage of new regulations.

Based on the analysis of negative sentiments that arise related to sexual violence as described, the following can be stated. Firstly, children as suffering of victims. This research highlights that children are often the primary focus of attention in discussions about sexual violence on Twitter. This emphasizes the need for stronger protection and policies focusing on children as the most vulnerable group. The sentiments of sadness and anger that emerged on Twitter reflected a sense of empathy and sympathy for victims of sexual violence. Twitter users expressed concern and feelings of sadness towards the suffering experienced by victims, especially children and women who were victimized. In addition, love sentiments were also conveyed that depicted empathy, support, and solidarity with victims of

sexual violence. There are expressions of emotional support and good wishes for the healing and recovery of the victim. This research may encourage policymakers to accelerate the ratification and implementation of laws that specifically protect children from sexual violence.

Secondly, strengthening solidarity and emotional support. This research shows that social media serves as an important platform to demonstrate solidarity and emotional support for victims of sexual violence. This could inspire a broader and more structured public awareness campaign, using social media as a key tool to build community support and provide psychological support to victims.

Thirdly, failure or lack of protection and law enforcement. The outrageous expression also highlighted the system's failure to provide adequate protection for victims of sexual violence as well as in upholding justice. The large number of cases of sexual violence that occur and the lack of firm action against perpetrators reflect dissatisfaction with the handling of such cases by the government and legal institutions. many Twitter users expressed disappointment with the protection and law enforcement system, emphasizing the need for deeper legal reform. Although in some cases, there are small Twitter users who express hope and optimism regarding efforts to prevent and address sexual violence. This places additional pressure on governments and legal institutions to increase their effectiveness and responsibility in dealing with cases of sexual violence.

Angry sentiments were also followed by demands for concrete action, such as the passage of laws regulating the prevention and enforcement of sexual violence, as well as stricter punishments for perpetrators of sexual violence. Twitter users demand a more active and effective response from governments and legal agencies in addressing the issue. They ask concrete action, such as passing a sexual violence prevention law, provides policymakers with a roadmap of what steps society can expect. It could also spur new legislative initiatives and encourage stakeholders to act more quickly and decisively in addressing the issue of sexual violence. The form of them are providing legal certainty through the ratification and enactment of laws or rules on the prevention of sexual violence, victim protection, and strict punishment of perpetrators of sexual violence.

There is also an emphasis on the need to raise awareness and education about sexual violence in the community, especially in educational settings. Twitter users strongly condemned acts of sexual violence in schools and other educational institutions and demanded serious handling of such cases. Some twitter users express hope, they believe that with effective prevention and handling efforts, victims of sexual violence, especially children in educational environments, can learn safely and comfortably, and get the right treatment if they have been victims of sexual violence. This is expected to be realized when a law on sexual violence has been passed.

By understanding these themes, we can explore the priorities and interests underlying discussions about sexual violence in the public sphere. Tweets about sexual violence show that the

values that should be brought to life in life are anti-sexual violence values, in which there is mutual respect and promoting the values of justice. One of the institutions often mentioned in tweets is the House of Representatives the, party that rejected the passage of the law on sexual violence. This shows that structurally, there are still "intentions" that are not the same in policy making. The difference in views on the content of the law in defining the term "sexual violence" is a reason to delay the passage of the law, even though factually the incidence of sexual violence is common and concerning. The hope of a strong legal instrument for a safe life and a faster response from the authorities has not yet come true (Sari & Prasetyo, 2021; Ningsih, R., & Wijaya, 2020; Anwar & Sari, 2020)

Tweets highlighting how sexual violence is often trivialized or left unpunished or appeals to power holders show disappointment with their handling of the issue of sexual violence. It is understood that the slow or weak handling of sexual violence is also related to the reproduction of ideologies and values that support and justify domination and oppression. Therefore, the expression through Twitter conveyed can move others to speak out to express defences of victims and ask power holders to immediately act strategically in preventing and solving the problem of sexual violence and protecting victims, and in the long term break the reproduction of ideologies that support domination and oppression. Sentiment analysis of sexual violence on Twitter not only reveals individual feelings and opinions, but also reflects and influences power structures and ideologies in society. Related to sentiment analysis regarding sexual violence, opinions via social media can influence and shape opinions. Discursive practices through social media such as Twitter enable the formation and dissemination of discourse that challenges existing power structures and promotes social change.

Norman Fairclough's critical discourse theory focuses on three dimensions of analysis: texts (written and spoken texts), discursive practices (Text Production and Distribution), and social practices. To understand more deeply the analytical sentiment that has been stated previously, you can see table below.

No	Dimensi	Deskripsi
1	Text	Text Discription: The results of data analysis show that the dominant key words in the text in discussions about sexual violence on Twitter are: "victim", "child", "perpetrator", and "RUU TPKS." These words show that the main concerns of Twitter users are the protection of children as victims of sexual violence, criticism of perpetrators, and demands for the passage of related laws.
2	Textual Analysis	Word Choice: Words such as "victim," "child," and "perpetrator" reflect concern for vulnerable individuals and perpetrators of

		<p>violence. This shows empathy and solidarity towards the victim and condemnation of the perpetrator.</p> <ol style="list-style-type: none"> 1) Sentence Structure: Sentences expressing support for victims or criticism of perpetrators are often emotional and imperative, reflecting the urgency and intensity of Twitter users' feelings. 2) Key Themes: Themes such as legal protection, justice, and the need for public education and awareness about sexual violence emerged consistently.
3	Discursive Practices 1)Text Production and Distribution:	<ol style="list-style-type: none"> 1) Twitter Users as Text Producers: Twitter users produce these texts as tweets to express their opinions, feelings, and demands. 2) Distribution Through Social Media: The Twitter platform allows for rapid and widespread distribution of messages, creating greater reach for discussions about sexual violence.
	2)Text Consumption	<ol style="list-style-type: none"> 1) Text Readers: Readers are the general public, activists, and policymakers who use this information to understand issues and possibly act on the information obtained. 2) Response and Engagement: Retweets, likes, and comments indicate a user's level of engagement and interaction with the topic, showing their support or criticism of sexual violence.
4	Social Practices: 1) Social and Cultural Context	<ol style="list-style-type: none"> 1. Social Context: Sexual violence is a highly sensitive and urgent social issue, especially in the post-pandemic context when attention to health and safety issues is increasing. 2. Cultural Context: Discussions about sexual violence in Indonesia are often influenced by cultural norms, moral values, and power structures that exist in society.
	2) Ideology Criticism	<ol style="list-style-type: none"> 1. Criticism of the Legal System and Protection: Criticism of the legal system and lack of protection reflects dissatisfaction with existing power structures and demands for systemic change. 2. Reproduction of Ideology: Discussions on Twitter show how ideologies about justice, human rights and child protection continue to be reproduced and questioned in society.

Table 1 Fairclough's analysis of sexual violence sentiment via Twitter

By using Fairclough's critical discourse theory, it can be concluded that sentiment analysis regarding sexual violence on Twitter reveals individual feelings and opinions and reflects and influences the power structure and ideology in society. Fairclough's analysis of theory opens up a deep understanding of how positive sentiments such as happiness and love are expressed in the context of sexual violence. Happiness is reflected in efforts to find hope or solutions in the face of this difficult issue and support and solidarity between individuals in society. Through the lens of critical discourse analysis, we can see how happiness and love are expressed in response to the suffering of victims and efforts to provide emotional support, as well as highlight hope for a better future, where prevention and protection measures against sexual violence can be implemented more effectively.

Twitter users do not always embody their discourse of thoughts and attitudes in concrete actions. Of course, not all news is passed on to others in social media. Papacharissi (2015) emphasizes that although affection can influence feelings and understanding of an issue, it does not always result in active involvement or change in concrete actions. Gómez (2018) analysed the motivation behind users sharing news on social media and the role of emotions in the process motivated by psychological factors related to users and the content of messages. Through social media, emotional transmission and virality of content (i.e. memes) are essential in content production and circulation that fills emotional public spaces (Rosas and Puche, 2018). This is where the power of sentiment comes into play in influencing others through tweets expressed, including policy makers. As stated, expressions of disappointment and pressure on the legislative body to pass regulations that will protect victims of sexual violence and punishment to perpetrators are part of the social power built through Twitter. Ultimately, it's important to understand the role of affection in social media and consider how affection can translate into concrete action and real social change.

Even though what is expressed on Twitter is not always followed by real action, opinions built through Twitter can influence readers' thoughts to become a greater force to urge power holders to take certain actions. Twitter social media plays a role in forming public solidarity and shows that this platform can voice disappointment and support that emphasizes special aspects related to children as the main victims. Twitter is also active in building public solidarity and showing that this platform can be used for awareness campaigns and support for victims, demanding change and concrete action regarding sexual violence, expressing disappointment in law enforcement, urging concrete action that is expected by society, such as passing laws, as well as cultural change through education and increasing awareness of anti-sexual violence. This research introduces a new perspective by revealing the dominance of child protection concerns in public discussions about sexual violence on social media, which has not been widely addressed in previous research.

4. CONCLUSION

The sentiment analysis expressed visually in Word Cloud illustrates the sentiment of twitter users towards the issue of sexual violence that is noticed in this paper. This included emotions of sadness, anger, happiness, love, and fear based on the ideology of anti-sexual violence. Moreover, the dominance of negative sentiments highlights the importance of partiality, empathy, and protection of victims of sexual violence, as well as strict action against perpetrators of sexual violence. In an emergency of sexual violence that occurs, law enforcement should be carried out. There are demands for serious and thorough handling of this issue and efforts to raise awareness, education, and protection for victims. The positive sentiment offers hope that better changes are still possible in addressing sexual violence and creating a safe and comfortable environment, especially for children and women in the education sphere.

The findings of this sentiment analysis highlight the importance of child protection, solidarity and emotional support for victims, criticism of the failures of the legal system, encouragement for concrete action, increased awareness and education about sexual violence, as well as the role of social media in empowering victims and shaping public discourse, providing practical recommendations for policymakers and activists in making positive changes in society. Discursive practices through social media such as Twitter enable the formation and dissemination of discourse that challenges existing power structures and encourages social change regarding sexual violence. Societal views and responses to sexual violence illustrate how social media platforms can be tools for building awareness and driving social change.

This analysis provides valuable insights for stakeholders in designing more effective intervention strategies, supporting victims, and preventing the occurrence of sexual violence in the community. By using Fairclough's critical discourse theory, it can be concluded that sentiment analysis regarding sexual violence on Twitter reveals individual feelings and opinions and reflects and influences the power structure and ideology in society. Based on the findings of this research, it can be recommended to increase research on the effectiveness of law, education, and psychological support in preventing and treating sexual violence to build policies that are evidence-based and responsive to victims' needs.

REFERENCES

- Akbari, M. I. H. A. D., Astri Novianty, and Casi Setianingsih. (2012). Sentiment Analysis Using Learning Vector Quantization Method. *e-Proceedings of Engineering*, Vol.4, No.2 August 2017. Telkom University, 2283-2291.
- Akpatsa, S.K., Lei, H., Li, X., et al. (2022). Evaluating public sentiments of covid-19 vaccine tweets using machine learning techniques. *Informatica* 46 (2022) 69–75.
- Arda, B. (2014). The medium of the Gezi movement in Turkey: viral pictures as a tool of resistance. APSA 2014 Annual Meeting paper, at <https://ssrn.com/abstract=2453044>. Accessed 18 February

- 2022.
- Assuja, M.A. and S. Saniati. (2016) "Tweet Sentiment Analysis Using Backpropagation Neural Network," *Journal of Technoinfo*, vol. 10, no. 2, 2016, doi: 10.33365/jti.v10i2.20. 23-28.
- Auliasari, K., Prasetya, R. P., & Industri, F. T. (2021). Analisis Sentiment Cyberbullying pada Sosial Media Twitter Menggunakan Metode Support Vector Machine. 5(2), 548–556.
- Azhar, Yufiz. (2017) "Lexicon Learning Based Method for Identifying Indonesian Opinion Tweets," *National Journal of Informatics Engineering Education*, Vol. 6, No. 3, 237-243
- Babax, M.B. (2023). Emotion analysis of user reactions to online news. *Information Discovery and Delivery* volume 51/2: 179–193;
- Bailey, J.D., Baker, J. C., Rzeszutek, M.J. & Lanovaz, M.J. (2021). Machine learning for supplementing behavioral assessment. *Perspectives on Behavior Science* (2021) 44:605–619.
- Basmechi, Farinaz and Gabe Ignatow, Gabe. (2021). Forming an affective public online: Aggressive posts and comments in the My Stealthy Freedom movement. *First Monday*, Volume 26, Number 3 - 1 March 2021, <https://firstmonday.org/ojs/index.php/fm/article/download/11471/10078>. doi: <http://dx.doi.org/10.5210/fm.v26i3.11471>
- Beysolow II, Taweh. (2022). *Applied Natural Language Processing with Python. Implementing Machine Learning and Deep Learning Algorithms for Natural Language Processing*. California: Apress.
- Boyd, D., & Ellison, N. (2008). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13, 210-230. <http://dx.doi.org/10.1111/j.1083-6101.2007.00393.x>
- Budiman, K., Zaatsiyah, N., Niswah, U., and Faizi, F.M.N. (2020). Analysis of Sexual Harassment Tweet Sentiment on Twitter in Indonesia using Naïve Bayes Method through National Institute of Standard and Technology Digital Forensic Acquisition Approach. *Journal of Advances in Information Systems and Technology* 2(2) ISSN 2714-9714, October 2020, 21-30
- Canella, G. (2017). Social movement documentary practices: Digital storytelling, social media and organizing. *Digital Creativity*, vol. 28 no. 1, 24–37. doi: <https://doi.org/10.1080/14626268.2017.1289227>.
- Cero, I., Luo, J. and Falligant, J. M. (2024). Lexicon-based sentiment analysis in behavioral research. *Perspectives on Behavior Science* (2024) 47:283–310. <https://doi.org/10.1007/s40614-023-00394-x>.
- Chang, V., Yu Ng, C. Xu, Q.A., et al (2022). How do people view covid-19 vaccines: analyses on tweets about covid-19 vaccines using natural language processing and sentiment analysis. *Journal of Global Information Management* Volume 30 Issue 10, 1-29.
- Downing, J. (2008). Social movement theories and alternative media: an evaluation and critique. *Communication, Culture & Critique*, vol. 1, no. 1, 40–50. doi: <https://doi.org/10.1111/j.1753-9137.2007.00005.x>, accessed 8 February 2021.
- Fairclough, N. (1992). *Discourse and Social Change*. Cambridge: Polity Press.
- Fairclough, N. (1995). *Critical Discourse Analysis: The Critical Study of Language*. London: Longman.
- Fairclough, N. (2001). *Language and Power*. London: Longman.
- Farzindar, A.A. and Inkpen, D. (2020). *Natural Language Processing for Social Media*. Third Edition. New York. Morgan and Claypool Publisher.
- Gómez, A. D. (2018). Audience as medium: motivations and emotions in news sharing. *International Journal of Communication* 12(2018), 2133–2152.
- Gravelin, C. R., Biernat, M., & Kerl, E. (2024). Assessing the Impact of Media on Blaming the Victim of Acquaintance Rape. *Psychology of Women Quarterly*, 48(2), 209-231. <https://doi.org/10.1177/03616843231220960>
- Habyba, A. N., Rahmawati, N. and Quarterly SD. (2021). Student Sentiment Analysis for Improving Affective Design of Classrooms Department of Industrial Engineering, Trisakti University. *Journal of Industrial Systems Engineering* Volume 10 No 1 - April 2021. doi: <https://doi.org/10.26593/jrsi.v10i1.4319>. 27-34.
- Hamidi, G.H., Bestari, F.A, Situmorang, A., and Rakhmawati, N.A. (2021). Sentiment Analysis on the

- Ratification of Penghapusan Kekerasan Seksual Bill on Twitter. *Jurnal Teknik Informatika dan Sistem Informasi*. Volume 7 Nomor 3 Desember 2021, 655-665.
<https://algorit.ma/blog/sentiment-analysis-adalah-2022/> retrieved 20 May 2022.
<https://datareportal.com/reports/digital-2022-indonesia> 20 May 2022.
<https://monkeylearn.com/blog/word-cloud-sentiment-analysis/> Visualize Sentiment Analysis with Word Clouds. 20 Mei 2022.
- Jurafsky, D., and Martin, J. (2008). *Speech and language processing* (2nd ed.). Prentice Hall.
- Katz, E., Blumler, J. G., and Gurevitch, M. (1973). *Uses and Gratifications Research*. *Public Opinion Quarterly*, 37(4), 509-523.
- Keramatfar, A. dan Amirkhani, H. (2019). Bibliometrics of sentiment analysis literature. *Journal of Information Science* 2019, Vol. 45(1) 3–15. DOI: 10.1177/0165551518761013
- Komnas Perempuan. (2021). *Pandemic: Surge in Sexual Violence, Cyberviolence, Child Marriage, and Limited Handling in the Middle of Covid-19. Record of Violence against Women in 2020*.
- Kumari, N., and Kandukuri, P. (2019). Dynamic data analysis and decision-making on Twitter data. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Volume-9 Issue-1, November 2019, 4010-4015.
- Kurniawan, Danang, and Sutan, A.J. (2021). Penggunaan sosial media dalam menyebarkan program vaksinasi covid-19 di Indonesia. *Jurnal Kebijakan Publik*, Volume 12, Nomor 1, Maret 2021, 1-62.
- Lane, H., Howard, C., and Hapke, H.M. (2021). *Natural language processing in action understanding, analyzing, and generating text with Python*. New York. Manning Shelter Island.
- Lei, L. dan Liu, D. (2021). *Conducting sentiment analysis*. New York: Cambridge Press.
- Liu, B. (2012). *Exploring Sentiment Analysis: A Cross-Disciplinary Review*. *Data Mining and Knowledge Discovery*, vol 1, no. 1, 1-25.
- Liu, B. (2012). *Sentiment Analysis and Opinion Mining*. New York. Morgan & Claypool Publishers.
- Liu, B. (2020). *Sentiment Analysis: Mining Opinions, Sentiments, and Emotions*. Second Edition. New York: Cambridge University Press.
- Low, H.Q., Keikhosrokiani, P., and Asl, M.P. (2024). Decoding violence against women: analyzing harassment in Middle Eastern literature with machine learning and sentiment analysis. *Humanities and Social Sciences Communications* (2024) 11:497: 1-18.
<https://doi.org/10.1057/s41599-024-02908-7>.
- Lubis, K., Nisa, I.C., Dalimunthe, P. D., Perangin-angin, A. Br. (2022). Empathy Gap in Social Media Comments for Sexual Harassment Victim. *International Journal: Tradition and Modernity of Humanity*, vol 2, no 2: 26-38.
- Lyu, Y.W., Chow, J.C., and Hwang, J. (2020). Exploring public attitudes of child abuse in mainland China: A sentiment analysis of China's social media Weibo. *Children and Youth Services Review* 116 (2020) 105250: 1-10.
- Ma'arif, M.R. (2018) "Content Analysis of Twitter User Interaction during the First 100 Days of the New DKI Jakarta Government Using Text Mining," *Pekomnas Journal*, Vol. 3 No. 2, 137-142.
- Maemunah, M., Istighosah, M., Wahyuni, S.N., and Suyatmi. (2021). The implementation of sentiment analysis on the Indonesian sexual violation bill using the Naïve Bayes algorithm. *Proceedings of The International Conference on Information Technology and Digital Applications 2021 (ICITDA 2021)*. Volume 2508, Issue 1. 9 March 2023. Yogyakarta, Indonesia.
- Marwick, A. E., & Boyd, D. (2011). I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), 114–133.
<https://doi.org/10.1177/1461444810365313>.
- Masruroh, S.U., Utami, D. Z. A., Khairani, D., Azhari, M., Helmi, M.I., and Putri, R.A. (2022). "Sentiment Analysis on Twitter towards the Ratification of a Bill on the Elimination of Sexual Violence in Indonesia using Machine Learning," 2022 10th International Conference on Cyber and IT Service Management (CITSM), Yogyakarta, Indonesia, 2022, pp. 1-5, doi: 10.1109/CITSM56380.2022.9935863.

- Muhammad, Fahri, Nana Mulyana Maghfur, and Apriade Voutama (2022). "Sentiment Analysis Dataset on COVID-19 Variant News: Kumpulan Data Analisis Sentimen pada Berita Varian COVID-19", *Systematics Journal*, vol. 4, no. 1, Maret, 382–391.
- Nudiati, D., Sardin, Nurwahidah, A., Nurrohmah, A., Pamungka, B.H., Jati, M.L. (2023). Content Analysis of Sexual Violence News on Twitter. *The Journal of Society and Media*, April 2023, Vol. 7(1) 114-132. DOI: 10.26740/jsm.v7n1: 114-132.
- Papacharissi, Zizi. (2015). *Affective Publics: Sentiment, Technology, and Politics*, New York, NY: Oxford University Press.
- Pozzia, F.A., Fersinib, E. Messinab, E. Liu, B. (2017). "Challenges of sentiment analysis in social networks: an overview." *Sentiment Analysis in Social Networks*. Editors: Federico Alberto Pozzi, Elisabetta Fersini, Enza Messina, and Bing Liu. New York. Elsevier. 1-13.
- Prasetya, Y.N., Winarso, D., and Syahril. (2021). Penerapan lexicon based untuk analisis sentimen pada twiter terhadap isu Covid-19. *JURNAL FASILKOM*. Volume 11 No.2, Agustus 2021: 97-103.
- Putri, M.R. and Lhaksmana, K. M. (2023). Analisis Sentimen Terhadap Tweet Pelecehan Seksual dengan Perbandingan Metode Term Weighting Menggunakan Klasifikasi SVM terhadap Tagar Permendikbud30. *e-Proceeding of Engineering*: Vol.10, No.2 April 2023. ISSN: 2355-9365: 1724-1731.
- Ramadhani, T., and Sari, Y.A., and Santoso, E., (2021). Analisis sentimen masyarakat indonesia terhadap covid-19 pada media sosial twitter menggunakan metode naïve bayes. *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, Vol. 5, No. 12, Desember 2021: 5680-5686.
- Riyanto, A. D. (2022). Hootsuite (We are Social): Indonesian Digital Report 2021. https://andi.link/hootsuite-we-are-social-indonesian-digital-report-2022/google_vignette, accessed 8 February 2021.
- Rosas, O.V. and Puche, J.S. (2018). News media and the emotional public sphere. *International Journal of Communication* 12(2018), 2031–2039.
- Rozi, Imam Fahrur, Sholeh Hadi Pramono, and Erfan Achmad Dahlan. (2012) "Implementation of Opinion Mining (Sentiment Analysis) for Public Opinion Data Extraction in Higher Education," *EECCIS Journal*, vol. 6, 37-43.
- Shwartz, S.S. and David, S. B. (2014). *Understanding machine learning from theory to algorithms*. New York. Cambridge University Press.
- Surendra, Mr., Pramod J., Punith G., Rahul R., and Vishal D. (2022). Analysis Tweets using Machine Learning for Women's Safety. *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)* Volume 2, Issue 2, March 2022: 716-719. DOI: 10.48175/568 716
- Virra, K., Andreswari, R. and M. A. Hasibuan, M.A. (2019) "Sentiment Analysis of Social Media Users Using Naïve Bayes, Decision Tree, Random Forest Algorithm: A Case Study of Draft Law on the Elimination of Sexual Violence (RUU PKS)," 2019 International Conference on Sustainable Engineering and Creative Computing (ICSECC), Bandung, Indonesia, 2019, pp. 239-244, doi: 10.1109/ICSECC.2019.8907228.
- Wang, R., Liu, W., and Gao, S. (2016). Hashtags and information virality in networked social movement: Examining hashtag co-occurrence patterns," *Online Information Review*, 40(7), 850–866. doi: <https://doi.org/10.1108/OIR-12-2015-0378>, accessed 8 February 2021.
- Zafarani, R., Abbasi, M.A., and Liu, H. (2014). *Social media mining: an introduction*. New York: Cambridge University Press.
- Zhao, X. and Li, C. (2018). *Deep learning in social computing*. Deng, L. and Liu, Y. (editors) *Deep Learning in Natural Language Processing*. Singapore. Springer. 255-288.