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ANALYSIS OF ACTORS' NETWORK AND RACIAL SENTIMENTS IN YOUTUBE COMMENTARY (INDONESIA U23 VS GUINEA U23 MATCH)

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ABSTRACT

This article aims to examine the dynamics of YouTube user interaction in the comment column during the football match between the Indonesian U23 National Team and Guinea U23, which took place on May 9, 2024, in Claire Fontaine, Paris. The issue is focused on how comments that appear within the network evoke a sense of ethnocentrism and how key actors influence the spread of racist comments. To approach this problem, a theoretical reference from Social Network Analysis (SNA) is used, which is used to map the network structure and identify the position of actors based on measures of centrality, such as degree, betweenness, closeness, and eigenvector centrality. Data was collected through commentary documentation from the RCTI+ YouTube channel and qualitatively analyzed with the help of @andri_siddhartagautamma and @nido2102, who play a central role in the distribution of information and facilitating the spread of racist comments. The dominant network structure is in the form of a wheel model, which shows the concentration of communication at several key nodes. This study recommends the development of a digital moderation system and the improvement of digital literacy as a strategic step to create a healthier and more inclusive discussion space on social media.

KEYWORDS *Social Network Analysis; Entrocentrism; Racist comments; Youtube*

INTRODUCTION

The phenomenon of racism has become a global problem that undermines various aspects of social life, including sports. Football, as the most popular sport with more than 3.5 billion fans worldwide (World Population Review, 2022), is often an arena for the manifestation of social conflict. Ironically, sports that ideally unite these differences are often tainted by racist acts stemming from ethnic, skin color, or cultural differences. In Indonesia, the issue of racism is increasingly complex with the emergence of ethnocentrism, which is the belief in the superiority of certain groups over other groups (Andreas Zick & Thomas Pettigrew, 2008). This phenomenon becomes even more alarming when translated into the form of racist comments on digital platforms such as YouTube, especially during important moments such as football matches.

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Indonesia, as a nation rich in ethnic, cultural, and religious diversity, has the principle of "Bhinneka Tunggal Ika," which teaches unity in diversity (Langingi et al., 2025a, 2025b). However, the implementation of this motto is not always successful. As expressed by Benedict Anderson (1983) in the concept of 'imagined community', Indonesia is a social construction that unites diversity into a national identity. Unfortunately, the contradiction between local and national identities often creates tensions that trigger discrimination, as experienced by Papuans (Mochtar Lubis, 1983) This tension is also reflected in online interactions, where racist comments show how ethnocentrism can affect people's mindsets.

In the context of football, UEFA data shows that between 2018 and 2022, there were 20 cases of racial discrimination, with 67% occurring in Europe's top leagues. Although this data comes from abroad, a similar case was also found in the match of the Indonesian U23 national team against Guinea U23. The racist comments that appear on the YouTube platform not only reflect the dynamics of online interactions, but also show how ethnocentrism is developing in the digital space (Permana, 2021).

Previous studies have addressed ethnocentrism and racism in a variety of contexts, but research mapping the main actors in the spread of racist comments on social media is still very limited. Some relevant research, such as a study (Rohimi, 2021) that analyzed social networks in the YouTube comment column, shows that key actors have a significant role in spreading certain narratives. However, this study has not highlighted the specific aspects of ethnocentrism (DeVito, 2022; Fu et al., 2020; Joviansyah et al., 2023).

This study seeks to fill this gap by examining the role of the main actors in the spread of racist comments during football matches, using the Social Network Analysis (SNA) approach. Social Network Analysis (SNA) is an effective method for mapping patterns of social interaction in digital networks. In this context, data crawling using chrome extension and analysis tools such as Rstudio and visualization using Gephi will be used to identify relationships between actors in the comment network on YouTube (Bakry & Kusmayadi, 2021; Damayanti et al., 2021). Crawlers using chrome extensions allow for the collection of big data from social media, while Gephi helps visualize social networks to uncover communication patterns and the roles of key actors (Marin & Wellman, 2011; Scott, 2011). With this approach, research can provide insight into how racist comments are formed and spread within social networks (Kydros et al., 2019; Mbaru & Barnes, 2017).

This research is also supported by the theory of ethnocentrism which explains how the belief in cultural superiority can trigger discrimination. In (Hybels and Weaver, 2016) identifies ethnocentrism as a basic belief that influences an individual's perception of other cultures. Meanwhile, Nanda and Warms (2005) emphasize that ethnocentrism does not only arise at the individual level but also operates collectively, especially in online interactions. This perspective is relevant in understanding how the patterns of interaction in racist comments reflect broader social dynamics.

In addition, the graph theory on which SNA is based provides a conceptual framework for analyzing the relationships between actors in social networks. In this theory, actors (nodes) are connected by relationships (edges) that describe their interactions (Nugraha et al., 2022; Priambodo & Arianto, 2022; Rachmad et al., 2024). Using metrics such as degree centrality, closeness centrality, and betweenness centrality, the study was able to identify the actors most influential in the spread of racist comments (Tsvetovat & Kouznetsov, 2011; (Zhang & Luo, 2017).

The objectives of this study are, first, to identify the main actors and patterns of interaction in racist comments during the match of the Indonesian U23 national team against Guinea U23 on YouTube; Second, analyzing the role of social media in strengthening or reducing digital ethnocentrism and third, providing data-driven recommendations to address hate speech in the digital space (Wahyuningsih & Prayoga, 2024).

Thus, this research is expected to make an important contribution to understanding the dynamics of ethnocentrism in the digital era. The results of this research are not only beneficial for academics interested in the study of ethnocentrism and social media, but can also serve as a basis for governments, non-governmental organizations, and social media platforms in designing policies to reduce hate speech and increase tolerance in Indonesia's digital society.

METHOD

This research used the paradigm of post-positivism, which allows the exploration of social phenomena through a quantitative approach with qualitative analysis. This paradigm supports objective data analysis while providing room for interpretation of social and cultural contexts. Thus, this study utilizes empirical data from digital platforms to understand the dynamics of social interaction in the digital space.

This type of research is exploratory descriptive, which aims to identify networks of actors in digital social networks that indicate the existence of racial sentiment. The main method used was Social Network Analysis (SNA), an analytical approach that allows mapping social networks based on the relationships between actors in a system. In the context of this study, SNA was applied to analyze a network of racist comments that appeared on YouTube during a football match between the Indonesian U23 and Guinea U23 national teams.

The subjects of the study were comments containing racist elements posted by YouTube users on the video of the match. The object of the research is the pattern of interaction and relationships between actors in social networks formed through these comments. This research is focused on identifying the main actors who play a role in spreading racist comments and analyzing the communication patterns that are formed. The research time includes the stages of data collection, data analysis, and interpretation of results. The research location was conducted virtually through the YouTube platform, where comment data was collected using Netlytic's social media analysis tool. The selection of YouTube as the location of the research is based on the popularity of this platform as a digital interaction space that is widely used by the Indonesian people.

The research instruments involve software such as Netlytics and Gephi. The crawler used is the chrome extension used to collect and filter comment data based on certain keywords that are relevant to the research theme. The collected comments are then analyzed using Gephi to visualize social networks. Gephi allows the identification of key actors based on centrality metrics such as degree centrality, betweenness centrality, closeness centrality, and eigenvector centrality. Sampling was conducted by purposive sampling, where relevant comments were selected based on specific criteria, such as containing words that reflected racism or ethnocentrism. This technique ensures that the analyzed data actually supports the research objective, which is to understand the interaction patterns and identify the main actors in digital social networks.

Data collection was carried out in two stages. The first stage is the collection of comments using Netlytic, which automatically identifies and filters comments based on

predefined keywords. The second stage is the processing of comment data in the form of social network visualization using Gephi. This process allows for further analysis of the relationships between actors and the identification of communication patterns within social networks. The data analysis technique used is social network analysis (SNA), which utilizes graph theory to visualize and measure the relationships between actors in social networks. This analysis includes the calculation of centrality metrics to determine the most influential actors in the network. The analyzed data is then interpreted to understand the dynamics of the spread of racist comments and how these interaction patterns reflect ethnocentrism in the digital space. The results of this study are expected to provide a clear picture of how racist comments are formed and spread in digital social networks, as well as the role of key actors in the process. With a systematic and data-driven approach, this research seeks to make a significant contribution to understanding the dynamics of social interaction in the digital space, especially related to the issue of ethnocentrism and racism in Indonesia.

RESULTS AND DISCUSSION

System Level (Relationship Type)

Networks become platforms where users connect with each other, communicate, and exchange information. In this context, the network serves as a place to coordinate the flow of information between users, allowing them to strengthen their relationships (Bakry & Kusmayadi, 2021). In this study, social networks were formed based on users' shared interest in watching and discussing matches between the Indonesian U23 and Guinea U23 national teams through the YouTube application. In the context of a study that focuses on user interaction in YouTube comments during a football match between the Indonesian U23 and Guinea U23 national teams, it is very important to understand the structure and type of relationships in social networks that are formed This analysis was conducted to evaluate how the actors in the network in this case, the individuals who comment are connected to each other. Based on data and the concept of social networks, the network in this study is an example of a one-mode network. In a one-mode network, all nodes or actors in the network have the same type or type (Priambodo & Arianto, 2022). In this study, each node represents an individual, and all interactions that occur are between individuals, without any other institutions or objects being part of the network. This indicates that all actors are interacting in the same capacity, i.e. as users commenting on a YouTube video.

Figure 1. Sociogram on YouTube Comments
Source : Author, 2024 (Gephi 0.10)

From the analysis of text mining that has been carried out, it is revealed that the structure of the network can be described through a sociogram. This sociogram illustrates a complex network structure, consisting of 506 points (nodes) that are interconnected through 587 relationship lines (edges). The results of this sociogram show that interactions between users on the YouTube platform result in several groups or clusters of users. These clusters are formed based on the activity and frequency of interaction between users. The largest and most dominant clusters are centered on user accounts such as @andri_siddhartagautama, @nido2102, @arshavinchandra, @anugrahcanary, and @my008. They appear to be the center of activities in related discussions, showing them as the main influencers or liaisons in the network in discussions about the Indonesia U23 VS Guinea U23 National Team Match on the YouTube Application. In the context of the YouTube network, each user or actor (nodes) connects and forms a network pattern based on their common goals and interests, namely to follow and discuss the match of the Indonesian U23 National Team against Guinea U23. These relationships form discussion clusters that appear on the platform, where they interact with each other, share views, and express opinions, promoting participation and discussions related to the game.

The relationship formed on YouTube, such as in the context of a football match between the Indonesian U23 and Guinean national teams, is created through interactions that involve liking, commenting, and replying to other actors' comments. These activities not only increase the engagement and visibility of content on the platform, but also strengthen the relationship between users by creating spaces for dialogue and exchange of views. For example, when users give likes, they show appreciation or support for a particular content or view, while comments and replies allow users to engage in deeper discussions, explore different perspectives, and develop a common understanding. This interactive process supports the formation of social networks where users with similar interests can connect, discuss relevant issues, and build a community based on common

interests, increasing coherence and solidarity in discussions related to specific topics such as the soccer match (Nugraha et al., 2022).

The given network visualization shows a communication pattern very similar to the Wheel Structure as described by DeVito (2022), where several large nodes appear to be the main centers or hubs of the network. These large nodes act as important leaders or liaison, controlling the flow of information by receiving and transmitting messages to and from other members of the network. This pattern is effective in ensuring that information is delivered consistently and that directions from the center are followed properly. However, structures like this also limit the direct and active participation of more marginalized members because they have to rely on a center for cross-member communication. The large nodes that appear to be dominant in the network represent the main users who act as communication centers. They are not only active in issuing comments but also as a hub for communication flows, receiving and sending messages to many other users. While this structure allows for a fast and coordinated dissemination of information, it also risks damping the voices of less connected users. It can also be seen in Figure 2 that this wheel communication pattern has a low level of relationship between actors in the network. This is because each actor is only possible to connect with one central actor.

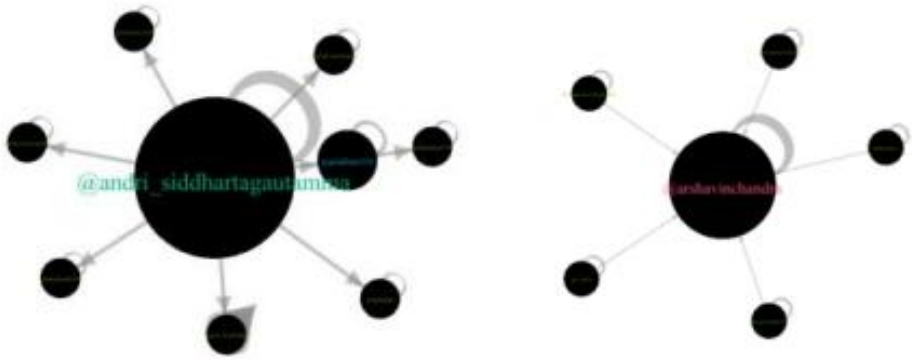

Figure 2. Wheel Communication Pattern
Source : Author, 2024 (Gephi 0.10)

In this study, an asymmetrical pattern of communication was identified on the YouTube comment network, where some actors or users acted as the center of discussion, receiving many comments from other users but often providing no feedback.

This communication pattern is effective for the rapid and focused dissemination of information because it directs attention to several key actors that regulate the flow of information. The advantages of this pattern include the efficiency of quickly spreading important or popular messages to a wide audience. However, the drawbacks of this asymmetrical communication pattern include over-reliance on central actors. If central actors are unresponsive or less active, the communication process can be hampered, which reduces opportunities for healthy and dynamic dialogue between users. In the context of the U23 Indonesia vs Guinea national team football match, this has the potential to reduce the quality of the discussion because not all perspectives or responses get feedback (Abdurachman & Affan, 2019; Aisyah et al., 2022; Tutukansa, 2022).

In this study, the next focus of analysis is on the direction of relationships in the network. According to Bakry & Kusmayadi (2021), relationships in networks can be divided into two types: direct relationships and indirect relationships. Direct relationships

are characterized by a clear direction in the relationship, where there are actors who play the role of senders and receivers of messages. In contrast, indirect relationships do not have a specific relationship direction, and all actors in the relationship have an equal role. In the context of this study, the dominance of direct relationships is clearly visible, where actors at the center of the cluster usually act as messengers, while other actors around them function as recipients of messages. This phenomenon illustrates how information is disseminated and received in networks, with several key actors playing a crucial role in the dissemination of content (Gelovani et al., 2025; Ritonga et al., 2024; Wilson II et al., 2012).

Actor Level (Centrality)

Network centrality is analyzed using the Social Network Analysis (SNA) methodology, which focuses on social relations between actors or nodes. In accordance with the principles set by Wasserman and Faust (1994), SNA is used to explore how relationships between individuals determine the structure of social networks. To measure centrality in the context of racist comments on the football match, this analysis used three scales of measuring actor centrality: degree centrality, closeness centrality, and betweenness centrality. Degree centrality measures how often an actor communicates in a network, which reflects how active the actor is in the discussion. Closeness centrality assesses how quickly an actor can access or disseminate information across a network, indicating the actor's ability to reach other actors efficiently. While betweenness centrality highlights actors who serve as bridges in communication between other groups of actors, providing an idea of the role of actors in controlling the flow of information. By applying these measurements, the study aims to identify key actors that play a significant role in the spread or prevention of racist comments during matches, as well as understand how communication patterns and interactions within networks contribute to the presence and distribution of racist content. It helps in understanding the social dynamics and patterns of interaction that may influence or encourage racist behavior online

Tabel 1. Research Profile and Set

No.	Aktor	Degree	Closeness Centrality	Betweenness Centrality	Eigenvector Centrality
1	@andri_siddhartagautamma	9	0.888888	0.0	0.050155
2	@nido2102	7	0.0	0.0	1.0
3	@arshavinchandra	7	0.0	0.0	0.801933
4	@anugrahcanary	7	0.0	0.0	0.801933
5	@my008	7	0.0	0.0	0.801933

Source : Research Results 2024

Based on the data obtained and processed from the profile and centrality tables, it reveals the important role of several accounts in interaction on YouTube during the match. This data is particularly relevant to understanding how racist comments can be spread or debated in online communities. @andri_siddhartagautamma actors, with the highest degree of centrality values, show significant liveliness in interaction, making them important in influencing opinion or directing conversations. His many direct connections, although they did not act as a bridge between groups, suggest that he was a source or amplifier of racist comments or responses to them.

@nido2102 actor has a very high eigenvector centrality (1.0) even though its closeness and betweenness centrality are low. It signifies that while @nido2102 don't

have many direct connections or don't work connecting sub-groups, these accounts are heavily connected to several other important actors. This can indicate that comments or content posted by @nido2102 tend to have a big influence due to connections with other key actors. Other actors @arshavinchandra, @anugrahcanary, and @my008 exhibit similar patterns of high but low activity in connecting different groups, which may indicate they are active participants in discussions but not as mediators. Their high engagement and strong connections with influential actors indicate that they play a significant role in reinforcing certain narratives or views, including those related to racial issues.

The centrality analysis conducted provides broad insights into how racist comments can be spread through interactions between users. Accounts such as @andri_siddhartagautamma, which have a high degree of centrality, show how active these accounts are in initiating or participating in discussions, making them central to the dissemination of information and its potential, racist comments. Although it does not act as a liaison between groups, its activeness significantly affects the direction of discussion. On the other hand, @nido2102, despite having low betweenness and closeness centrality, and having a high eigenvector centrality, shows that it interacts with other key actors, thus strengthening its influence even though it is not directly connected to many users. This suggests that the influence in the network can come not only from the number of connections but also from the quality of those connections. Accounts such as @arshavinchandra, @anugrahcanary, and @my008 also play an important role in a similar way, supporting the dissemination of certain views or comments through their influential networks. This analysis shows how the dynamics of interaction between users can facilitate the spread of racist content, providing new insights into how certain narratives are influenced in online discussions.

CONCLUSION

Based on the results of the research, the results of this research have provided insight into the dynamics of interaction in YouTube comments on football matches between the Indonesian U23 and Guinea U23 national teams. Through the use of Social Network Analysis (SNA), the study managed to identify how the main actors in the comment network affect the spread and reception of racist comments. It was revealed that the dominant network structure is the wheel model, in which several key actors serve as communication centers, significantly influencing the direction of discussion and the dissemination of content, including racist content. The centrality of certain actors such as @andri_siddhartagautamma and @nido2102 shows their important role in the network, both as initiators of discussion and as liaisons between other actors, albeit with different degrees of connectivity. In addition, the study emphasizes how digital platforms like YouTube not only allow for intense interaction but also have negative sides, such as the spread of racism.

The recommendations that can be given for YouTube and the social media platform as a whole when it comes to content management and user interaction. First, YouTube and similar platforms should develop more efficient algorithms to automatically find and moderate racist comments and hate speech. This can involve the use of artificial intelligence and more advanced pattern recognition technologies to understand details and context in digital communication. Second, improving digital education for users is also very important. This education must include knowledge about the negative impact of hate speech and the importance of maintaining communication ethics in the digital

space. In addition, this study is still limited in data, because there are only about 600 total comments so the data collected is not on a large scale.

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