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Social-mediated communication and network dynamics in online gambling discourse: a social network analysis of YouTube comments on "Indonesia Darurat Judi Online"

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The research explores the dynamics of interaction and information distribution regarding the issue of online gambling in Indonesia through social media network analysis in the comment section of a YouTube video titled "Indonesia Darurat Judi Online," uploaded by the tvOneNews.com channel. This research aims to identify critical actors, interaction patterns, and how information about online gambling is distributed among YouTube users. Drawing on social media network analysis (SNA), the study analyzes data collected from 3,673 unique user accounts and their corresponding comments and replies using CommuAnalytic.org and analyzed using Gephi software. The results showed 3,110 nodes and 424 edges with a diameter value of 2, density of 0, reciprocity of 0, and centralization of 0.00001, depicting a decentralized communication network with minimal and one-way interactions. Key actors like @wanwan6171 and @diditsamodra have significantly influenced this network. These findings affirm the critical role of social media in disseminating information and shaping public opinion on complex social issues such as online gambling. This study highlights the limitations of social-mediated communication in fostering meaningful discussions on complex issues like online gambling. While social media serves as a platform for opinion expression, the lack of interaction suggests that it functions more as a broadcast medium rather than a deliberative public sphere. These insights can help policymakers and social media platforms design strategies for more effective digital discourse and online gambling awareness campaigns.

KEYWORDS

communication network, online gambling, social-mediated communication, social network analysis, YouTube

Introduction

Indonesia, as a country with a large population and increasing internet penetration, faces significant challenges related to online gambling. The rise in online gambling crimes in Indonesia shows a global trend of increasing internet-based gambling activities. The development of social media and online gambling platforms are the main driving factors of this growth. Online gambling allows perpetrators to play anytime and anywhere with applications on their phones. In Indonesia, although efforts to eradicate online gambling sites have been made since 2018, new sites continue to emerge. The factors causing this increase

include internal factors such as individual intentions, traits, and emotional power, as well as external factors such as economic conditions, learned behaviors, and technological advancements (Adam, 2024). This development is supported by the internet and communication technology, which has evolved into what is now known as new media.

In addition to technological aspects, the social impact of online gambling is also a significant concern. Gambling always has adverse effects on society. Therefore, the public generally supports continuous, firm, and indiscriminate eradication of gambling to deter perpetrators and make them realize that gambling is a social disease (Jadidah et al., 2023). In the context of social-mediated communication (SMC), the ease of access provided by mobile devices and the internet allows users, including young people, to engage in online gambling anytime and anywhere. Social-mediated communication also facilitates disseminating information and promoting online gambling through social media and digital advertising (DiDomenico et al., 2020). The Indonesian Ministry of Communication and Information Technology reported that more than 846,047 online gambling sites were blocked between 2018 and July 2023 (Saptohutomo, 2023). Despite these efforts, more than 4 million online gambling sites remain active, indicating that government measures are still inadequate.

Online gambling offers various games, such as sports betting, virtual casinos, and online poker, all of which can be accessed with just a few clicks (Laras et al., 2024). This ease of access makes online gambling increasingly popular, especially among young people who are more accustomed to digital technology (Ihsanudin et al., 2023). Through social media and digital advertising, online gambling platforms often use aggressive promotions and attractive advertisements to attract new users (Sipayung and Handoyo, 2024). In addition, enticing features such as sign-up bonuses, free spins, and large jackpots further lure potential gamblers. The broad impact and reach of online gambling can be seen from the involvement of celebrities and influencers who promote these sites, as happened in an incident in Pandeglang, Banten, in September 2023 (Rivaldo, 2023). Local celebrities and influencers use their platforms to effectively reach a wider audience, increasing participation in online gambling activities.

Online gambling not only negatively impacts the perpetrators but also affects those around them. Close associates of online gambling perpetrators can suffer losses that impact their health and well-being. These losses vary depending on the type and closeness of the relationship with the gambler. Relationships that share finances and responsibilities are more likely to experience losses, especially spouses (current or former) and family members. These losses are strongly associated with high levels of stress and negative emotions. The impacts include various aspects of health and well-being, including psychological problems such as depression and anxiety, sleep disorders, and physical health issues such as high blood pressure and digestive problems (Tulloch et al., 2023). The Indonesian government has responded by declaring an emergency and making numerous arrests. However, the sophisticated and elusive nature of online gambling presents significant challenges for law enforcement.

There is a YouTube video titled “Indonesia Darurat Judi Online” that discusses the issue of online gambling. The video invites active discussion in the comment section, where users share opinions and information related to online gambling. Research by Lanisus shows that YouTube users form what is called a “mode of speech” in the comment

section, encompassing various ways users communicate and interact (Lanius, 2011). These comments often reflect a mix of viewers’ thoughts and feelings about the issue (Lee and Yoon, 2020). The comment section on YouTube often becomes an arena for active discussion, where users share opinions, information, and sometimes misinformation. In social media, the comment section is a modern public space where diverse views and information can be exchanged.

The video ‘Indonesia Darurat Judi Online’ received 3,673 comments, forming a social media network on the issue of online gambling. Users interacting with each other can form a social media network consisting of three main elements: actors, relationships, and types of relationships. Actors are social media accounts; relationships refer to interactions such as reply comments, and the type of relationship is the thematic connection between actors, such as discussions about elections versus cuisine or religion. Social media network analysis (SNA) is a method used to map and describe network structures in social media interactions. This context explains the relationships between actors (nodes) and relations (links). Nodes in social media networks are social media accounts, while links (edges) are the relationships between actors. In a graph, a link connects one actor to another, creating a complex network of individuals in social media (Eriyanto, 2021).

Research with a social network analysis model conducted by Dhiraj Murthy and Sanjay Sharma titled “Visualizing YouTube’s Comment Space: Online Hostility as a Networked Phenomena” conducted an in-depth analysis of YouTube comment interactions, particularly those that are racist and antagonistic. Murthy and Sharma, using social network analysis and qualitative coding, found that online hostility is interwoven in complex interaction networks involving multiple videos. The results challenge the view that comments are merely individual incidents, showing that online hostility is part of broader, ongoing interactions (Murthy and Sharma, 2019). A journal article, “Network and Pattern Analysis of Online Gambling Service Providers on Twitter using Social Network Analysis,” by Bagas Dwi Santosa and colleagues, used Social Network Analysis to explore the network of online gambling service providers. The study reveals patterns of hashtag use and profiles in gambling promotion by identifying key accounts and analyzing relationships using metrics such as Degree Centrality and Betweenness Centrality. The results offer strategic insights for online gambling prevention, highlighting how these networks facilitate the spread of gambling content (Santosa et al., 2023).

Building on the foundation the two earlier studies laid, this article explores a topic of particular significance. This article aims to identify the main actors in the social network in the YouTube video comment section about online gambling, analyze interaction and communication patterns among users, and examine how information related to online gambling is distributed and received by the YouTube community. Using social network analysis tools such as Gephi and [Communalitic.org](https://communalitic.org), this research aims to provide essential insights into the role of social media in disseminating information about complex social issues such as online gambling. Additionally, the findings from this research can provide valuable input for policymakers in designing more effective strategies to address and reduce the negative impacts of online gambling in Indonesia.

This research not only contributes to the theoretical understanding of social-mediated communication patterns in public discourse but also offers practical implications for digital

policy-making. By identifying key actors and communication flows in YouTube comment threads, this study can assist public health campaigns, digital literacy programs, and content moderation initiatives in targeting misinformation or harmful content related to online gambling.

Communication network

With the rise of digital and social media platforms, communication and message dissemination dynamics have significantly transformed. As Manuel Castells argues, contemporary society is shaped by networked structures, where individuals interact and exchange meaning through interconnected systems of messages and texts (Castells, 2010). In reality, humans interact and communicate directly daily, forming a communication network consisting of several actors and relationships. Communication networks have a set of actors who have relationships with other actors in certain types of relationships (Hu et al., 2024). Actors in communication network can be people or individuals, institutions, companies, communities, countries, and others. Meanwhile, relations or links exist between actors and other actors in particular social structures (Jayawinangun et al., 2024). A communication network is formed when message flow occurs within a group of interconnected individuals with a set of actors or nodes and ties of a particular type (such as friendship) that connect them (Aryanto et al., 2024; Borgatti and Halgin, 2011).

In a communication network, there is a pattern of contact between communication partners created through sending and exchanging messages over time and space (Monge and Contractor, 2003). Communication networks are created through interactions and exchanges between individuals (actors) connected by diverse message flows and relationships within a group or organizational network structure (Tai et al., 2023). Communication networks in the context of social society are formed in every interpersonal relationship, such as in group networks such as friendship groups, professional groups, or hobby groups (Weidmann, 2015). Group communication networks are usually more fluid with a two-way message flow (dialogic), so the communication relations formed are symmetrical. Meanwhile, one-way message flows are typically formed in organizational communication networks, and asymmetrical communication relations are formed, however, it does not rule out symmetrical relations in an organizational communication network (Crossley et al., 2009; Rufaidah et al., 2020; Wasserman and Faust, 1994).

The advancement of technology and digital media has fundamentally transformed communication networks. The convergence of media—driven by the proliferation of internet-based technologies—has reshaped how individuals and communities engage with information and with each other. Today's communication networks extend beyond traditional organizational boundaries, encompassing diverse actors interacting across time and space through digitally mediated environments. These networks, particularly on social media platforms, reflect a shift from localized social interactions to globally connected, platform-enabled modes of communication (Jung, 2020). With the flow of communication messages mediated by communication technology (computers and the internet) and social media, the network and message flow form a more expansive network with global coverage, often referred to as a social network (Nugroho, 2020).

Social-mediated communication

The emergence of social media has provided a new color to the world of computer-mediated communication (CMC) because social media can provide synchronous and asynchronous interactions for its users. The main principle of CMC theory is communication through computers that enable a form of “socially produced space” called cyberspace. Along with developing information and communication technology that allows internet networks to be “embedded” into a mobile phone device, CMC has undergone several developments and changes (Rollings et al., 2024; Wilke et al., 2024). Communication that occurs on social media initially only exchanges messages and images asynchronously, as happened on Facebook, Instagram, Twitter, YouTube, and TikTok can provide real-time communication facilities in the form of written text, photos, and videos. Communication mediated by social media (social-mediated communication) is quite different from the initial concept of CMC because social media can provide forms, patterns, and flows of communication messages in an extensive and unlimited network relationship. Social Mediated Communication can be interpreted as communication that utilizes social media's functionality (features), both synchronously and asynchronously (Macafee et al., 2019).

While earlier theories of cyberspace celebrated the internet as a decentralized and participatory medium (Castells, 2010), recent scholarship urges a more critical view of social media platforms, such as YouTube. These platforms are no longer neutral spaces but are governed by infrastructures of algorithmic visibility, user data monetization, and corporate interest (Van Dijck et al., 2018; Nieborg and Poell, 2018). Rather than functioning as a purely “socially produced space,” YouTube acts as a platform society that shapes public discourse through opaque recommendation systems and attention economies. This reconceptualization is central to our analysis, as it positions YouTube not merely as a conduit for free expression but as a platform that structures, limits, and amplifies certain forms of discourse, including those related to online gambling.

Social media-mediated communication involves not only interpersonal communication but also group communication, public communication, and mass communication. When using social media, users do not just convey opinions, arguments, or ideas inter-personally but also involve the public globally. Social Mediated Communication (SMC) also involves nonverbal cues, such as voice intonation, facial expressions, gestures, and eye movements. Although considered almost representative of face-to-face communication, we cannot identify and interpret non-verbal cues in social media-mediated communication as we do when communicating face-to-face.

According to Rössler (2001), new media receives strong interest, positive expectations, and even euphoria with hopes for significant development (McQuail, 2010). new media receives strong interest, positive expectations, and even euphoria with hopes for significant development (Nugroho, 2020). Social Mediated Communication (SMC) is one example of this new media. SMC allows asynchronous interactions, bridging time and space constraints, making accessing various online gambling games easier with just a few clicks. Changes the dynamics of social communication, while Katz and Aakhus (2002) introduced the concept of “perpetual contact” through mobile devices (DiDomenico et al., 2020).

Data and methods

This research uses a social network analysis (SNA) methodology to examine interaction patterns and information distribution in the YouTube video comment section “Indonesia Darurat Judi Online.” Social media network analysis is the application of social network analysis methods to examine conversations on social media. Networks consist of two things: actors (also called nodes or vertices) and relations (also called links or edges) (Jovanica et al., 2022). Circles represent actors in network analysis, while a line represents relations. If actor A has a relationship with actor B, a line connects A and B. This principle applies to all forms of networks, including social media networks. Relations (links or edges) refer to relationships such as retweets and mentions. The number of relationships or links (links or edges) is not counted from how many followers a user has but from the conversations that occur (Eriyanto, 2021).

This study utilizes data collected from YouTube from September 9, 2023, to November 18, 2023. The data consists of active comment graphs over a certain period, obtained from the [Communalytic.org](https://communalytic.org) site, and used as a dataset for further analysis. Although the data collection spanned only from September to November 2023, this period coincided with heightened media and policy attention on online gambling in Indonesia. Such time-bound sampling is consistent with SNA practices that focus on capturing temporal bursts of networked discourse. Therefore, while the findings reflect a specific temporal context, they provide valid insight into peak-period communication dynamics.

The tools utilized in this research, Gephi and [Communalytic.org](https://communalytic.org), offer a plethora of features for visualizing and analyzing social network data. Gephi, an open-source software, is adept at importing, visualizing, spatially arranging, filtering, manipulating, and exporting various types of graphic networks and network analysis. It employs a 3D rendering engine to display large real-time networks, expediting exploration. Its flexible and multi-task architecture allows for seamless work with complex datasets and the generation of valuable visuals (Hussain et al., 2018). On the other hand, Communalytic is a research tool tailored to study online discourse. It can collect, analyze, and visualize data from various social media platforms. Moreover, Communalytics can automatically identify toxic and antisocial interactions, map shared interests, and detect signs of possible coordination among seemingly different actors in online discourse. The research instruments used in this study, including software and analytical tools specifically designed to collect, clean, analyze, and visualize social network data, have practical applications in understanding and managing online interactions. [Communalytic.org](https://communalytic.org) was used for data collection and retrieval, while Gephi was employed for social network visualization and analysis.

The network visualization utilized the Fruchterman-Reingold layout in Gephi, which is suitable for sparse networks. We used modularity class detection to identify community structures and ensured metric reliability by comparing centrality values across degree, eigenvector, and closeness measures. Degree distribution was also cross-checked with Gephi’s statistics panel to ensure internal consistency. As this is an exploratory study, statistical “accuracy” in a predictive sense is not directly applicable, but metric coherence confirms the robustness of the network patterns observed.

The data analysis process was carried out in several stages using [Communalytic.org](https://communalytic.org) and Gephi. The processed data is imported into

Gephi to visualize the social network. Each YouTube user comment is considered a node, and interactions (such as replies or likes) are considered edges. Several social network metrics were calculated to identify critical actors and interaction patterns, including degree centrality, betweenness centrality, and eigenvector centrality. Degree centrality measures an actor’s number of direct connections, indicating how much engagement a user has in the discussion. Betweenness centrality measures how often an actor is on the shortest path between two other actors, suggesting a crucial role in connecting various parts of the network. Eigenvector centrality measures an actor’s influence in the network based on direct connections and the quality of those connections. Additionally, algorithms like modularity were used to identify communities or groups in the network that interact more frequently with each other (Nurnafia, 2021).

Result and discussion

Communication network of online gambling

The analysis was conducted using [Communalytic.org](https://communalytic.org), and data was successfully retrieved from 3,673 unique user accounts who posted comments and replies on the YouTube video titled “Indonesia Darurat Judi Online.” These interactions—comprising comment threads and responses—form the basis of the communication network analyzed in this study. The network visualization shown in [Figure 1](#) illustrates the structure and distribution of these interactions, generated using the Gephi application with the Fruchterman-Reingold layout algorithm.

[Figure 2](#) shows the communication network visualization depicting the spread of comments on YouTube using the Gephi application with the Fruchterman Reingold layout. This visualization highlights the comment activity on the YouTube video ‘Indonesia Darurat Judi Online,’ revealing various opinions about the issue of online gambling. The spread and activity of this digital communication can be observed through the network structure as illustrated in the [Table 1](#).

[Table 1](#) shows that the overall actors (nodes) and links (edges) in the online gambling issue network in the ‘Indonesia Darurat Judi Online’ video have 3,110 nodes and 424 edges. Nodes depict actors’ positions in a network, while edges are their relationships. This data means 3,110 actors or accounts with relationships and interactions discuss the online gambling issue in the comment section, totaling 424 times. The network structure diameter is the farthest distance between one actor and another in a network (Wasserman and Faust, 1994; Eriyanto, 2021). In the online gambling issue comment network, the diameter has a value of 2, which means that a network with a lower diameter value indicates that it is easier for an actor to be reached by another actor in the network.

The following network structure involves density and reciprocity. Density with a value of 0 indicates that communication among network members is deficient. A low-density network is characterized by minimal member interaction. The closer it gets to the number 1, the closer the interaction among members. Therefore, a density value of 0 indicates that almost no actor is directly connected to other actors in the network. This value shows that although many actors are discussing this issue, they need to interact with each other or engage in intense discussions. These findings—particularly the zero reciprocity and low

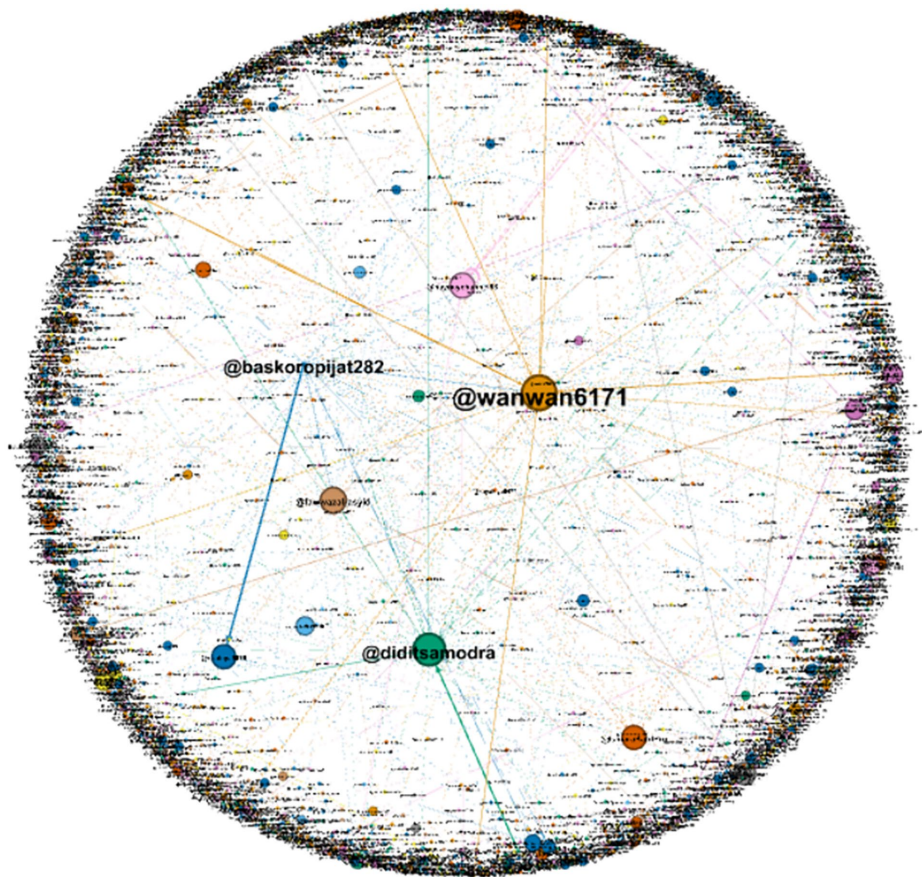


FIGURE 1
Visualization of degree centrality in the 'Indonesia Darurat Judi Online' comment network. Source: Process Result with Gephi 0.10 (2024).

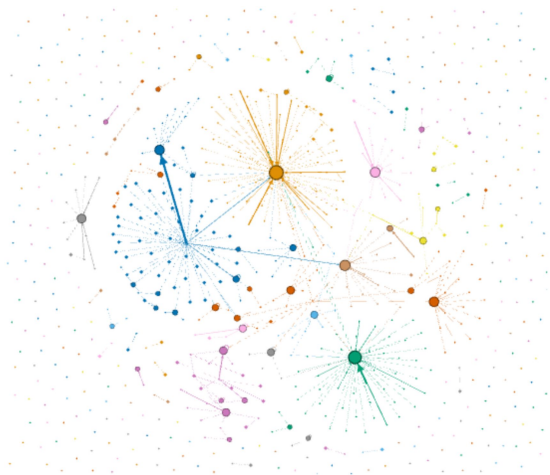


FIGURE 2
Visualization of communication network. Source: Process Result with Gephi 0.10 (2024).

density—must be interpreted in light of YouTube’s interface design and affordances. Unlike platforms such as Twitter or Reddit, YouTube comment sections are not optimized for reciprocal exchange or threaded dialogue (Byun et al., 2023); the infrastructure prioritizes visibility over

TABLE 1 Table data of communication network.

Analys	Data
Size	Nodes: 3110 Edges: 424
Diameter	2
Density	0
Reciprocity	0
Centralization	0.00001
Modularity	0.827

Source: Process Result with Gephi 0.10 (2024).

interaction, creating a fragmented and mostly monologic communication space. In line with Rauchfleisch and Kaiser (2020) and Röchert et al. (2020), user interactions in this context reflect individualized expressions rather than sustained discussion. The absence of structural reciprocity does not imply a failure of communication. However, it reveals how YouTube’s design limits interactive deliberation, aligning with its role as a broadcast platform rather than a dialogic one.

The reciprocity network structure describes the two-way relationships that occur among members or actors (nodes) in the network (Eriyanto, 2021; Isa and Himelboim, 2018). Reciprocity also has a value of 0, which indicates that communication in this network is one-way without reciprocal interactions among actors. This means

that comments or replies given by one actor are not responded to by another actor. In other words, there are many comments that are just one-way opinions or statements without actual dialogues among users. This can be an indication that the discussion about the online gambling issue in this video is more about personal opinions rather than interactive debates or discussions.

The last network structure involves centralization and modularity. Centralization is the level of network concentration on a particular actor (node). A network is considered centralized if one dominant actor becomes the center with all actors (nodes) in the network connected to that actor. The centralization network found a value of 0.00001, indicating that information in this network flows more freely among many participants without being centralized on one dominant actor. This decentralized network structure shows that no single account has complete control or dominance over the flow of information. Instead, all actors have an equal opportunity to express their opinions. These findings indicate that the issue discussed in this video attracts the attention of many different users, each contributing their views without one central figure dominating the conversation.

Modularity measures the number of communities or groups present in the network (Eriyanto, 2021). A high modularity value of 0.827 indicates the presence of groups or clusters in the network where there are dominant actors in each group. High modularity shows that this network is divided into several communities or subgroups with strong internal connections but little interaction with other subgroups. This means that there are several discussion groups formed around specific topics within the online gambling issue, with each group having different focuses or perspectives. These groups could consist of users with similar views or interests in certain aspects of the issue, forming small communities that discuss more intensively among themselves.

Unlike other online debates where specific influencers or high-profile accounts control the discourse, the online gambling discussion appears to be crowdsourced, with many users contributing independently, suggesting that opinions on online gambling are formed individually rather than through a collective movement led by a single authority. This finding aligns with Manuel Castells' (2010) theory of network society, which argues that digital platforms create horizontally structured conversations rather than hierarchical ones. These findings suggest that while YouTube provides a platform for expression, it does not necessarily create an interactive public sphere for meaningful dialogue about online gambling. The conversation remains fragmented, passive, and non-reciprocal, highlighting the limitations of social-mediated communication in fostering deliberative discourse.

While this study focused on network topology, incorporating content-level features such as sentiment orientation, influential phrasing, and topic modeling would enrich the findings. For instance, identifying whether influential actors spread moral panic, humor, or technical information could help differentiate types of influence. Future studies may employ natural language processing (NLP) tools in conjunction with social network analysis (SNA) to uncover complex patterns of meaning and persuasion.

Influential actors in online gambling discussion

The actors involved in the communication network in the 'Indonesia Darurat Judi Online' comment section on YouTube can

be identified through centrality measurements. Determining key or influential actors can be done through 4 indicators: (1) Degree Centrality, (2) Closeness Centrality, (3) Betweenness Centrality, and (4) Eigenvector Centrality. Degree Centrality is related to the popularity of social media accounts. Actors (social media accounts) with high degree centrality mean that the account is popular. In social media, this relationship can take various forms, including replies (Eriyanto, 2021). Nodes with high Degree Centrality are considered significant because they have many connections that can influence the flow of information in the network. In-Degree Centrality shows popularity or acceptance in the network, while Out-Degree Centrality shows activity or influence in the conversation (Freeman, 1978). Actors with high out-degree centrality values are active users on YouTube who actively post comments on every user's comment.

According to Figure 1, the account @wanwan6171 has the highest Degree Centrality with a total of 77, entirely consisting of in-degree, indicating that this account receives many replies or mentions from other users, indicating high popularity. This account plays an important role as an information hub in the network due to the high number of interactions received. This indicates that the opinions or comments given by the account @wanwan6171 are considered important or interesting by many other users, prompting them to respond or mention this account in their replies. On the other hand, the account @baskoropijat282 has the second highest Degree Centrality with a total of 55, but all these connections are out-degree. This shows that the account is very active in interacting with other users through replies or mentions, even though it does not receive many interactions back. This account can be considered as a highly active actor in distributing information or participating in discussions. The high activity of this account indicates that this user has many opinions or questions to convey to other users, even though these interactions do not always result in replies. This account functions as a discussion driver, often initiating conversations or responding to other people's comments.

The account @diditsamodra with a Degree Centrality value of 54, all of which are in-degree, is also very popular and often becomes the center of attention in discussions. Like @wanwan6171, this account plays a key role as the main recipient of interactions in the network. The popularity of this account shows that its comments attract a lot of attention from other users who feel compelled to respond or mention this account in their replies. This indicates that the account @diditsamodra has a significant influence in this network, with many other users interested in what this account has to say. The accounts @fawwazalrasyid and @IsmaraKahfPro, each with Degree Centrality values of 21 and 18, also show similar patterns with dominance in in-degree, indicating that they receive quite a lot of interactions from other users, although not as much as @wanwan6171 or @diditsamodra. These two accounts also show significant levels of popularity in the network, although not as much as the two main accounts mentioned earlier. They act as information receivers that attract a number of other users, showing that their comments are influential enough to draw attention and responses from others.

Closeness Centrality measures an actor's closeness in the network with all other actors. Actors with high values can reach other actors with minimal steps, allowing efficient information dissemination (Eriyanto, 2021). In this research, according to Figure 3, the account

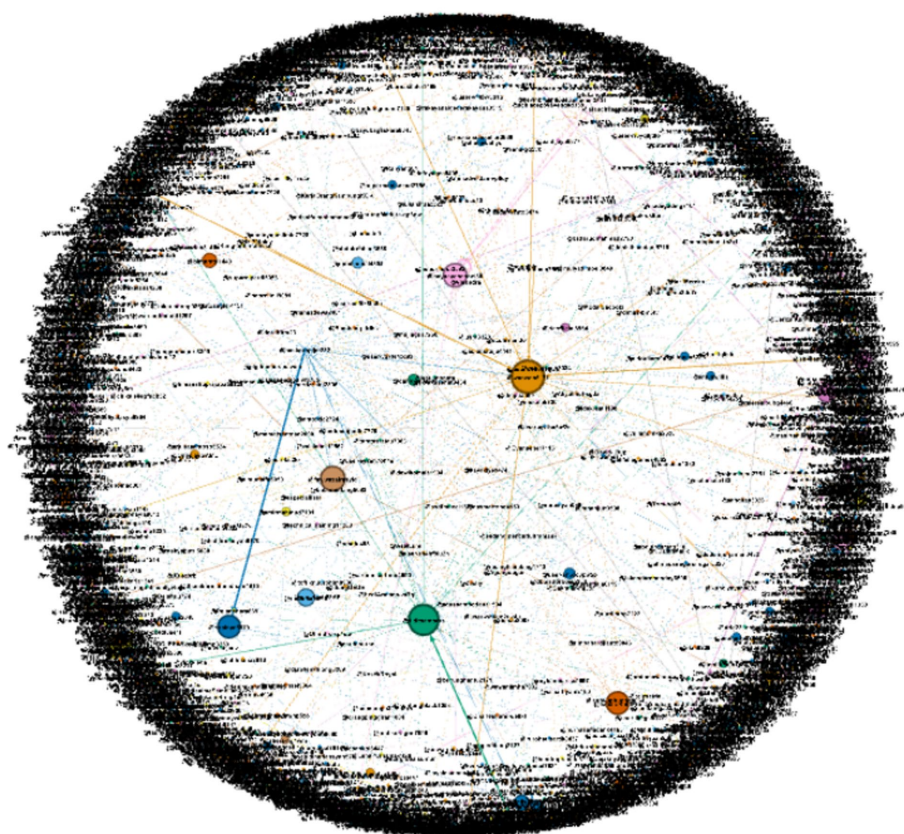


FIGURE 3

Visualization of closeness centrality in the 'Indonesia Darurat Judi Online' comment network. Source: Process Result with Gephi 0.10 (2024).

@baskoropijat282 has the highest Closeness Centrality (0.95082), placing it in a strategic position for efficient information dissemination. This aligns with the high activity of this account in interacting with other users. This strategic position allows the account @baskoropijat282 to be an effective information dissemination center, reaching many actors quickly. This means that this account can reach many other users with fewer steps, allowing faster and broader information dissemination in the network.

Conversely, the accounts @wanwan6171, @diditsamodra, @fawwazalrasyid, and @IsmaraKahfPro have Closeness Centrality values of 0.0. Although popular, they are not in a strategic position for fast and broad information dissemination. Their popularity does not necessarily make them efficient information dissemination centers as they may need more steps to reach other actors in the network. This shows that although they often become the main recipients of interactions, they are not in an optimal position to quickly spread information across the network.

Betweenness Centrality measures an actor's role in connecting other actors in the network. Actors with high values become key connectors ensuring efficient information flow (Eriyanto, 2021). However, the analysis results on the communication network of the 'Indonesia Darurat Judi Online' video comment section according to Figure 4, show that the Betweenness Centrality value for all accounts is 0. This means that no account plays an important role as an intermediary; all accounts operate independently without dependence on a particular account as a connector. This indicates

a decentralized network structure where each account functions independently in their interactions and communications. This decentralized structure depicts that no single account has significant power or influence in connecting various actors in the network. All accounts function autonomously, communicating directly with each other without going through a particular intermediary.

The network visualization employed the Fruchterman-Reingold layout in Gephi, which is suitable for sparse networks. We used modularity class detection to identify community structures and ensured metric reliability by comparing centrality values across degree, eigenvector, and closeness measures. Degree distribution was also cross-checked with Gephi's statistics panel to ensure internal consistency. As this is an exploratory study, statistical "accuracy" in a predictive sense is not directly applicable, but metric coherence confirms the robustness of the network patterns observed.

Eigenvector Centrality measures an actor's influence in the network by considering the quality and quantity of their connections. Actors with high eigenvector values are connected to important actors, showing that the quality of connections is crucial (Eriyanto, 2021). In the analysis of the 'Indonesia Darurat Judi Online' video comment network, like depict in Figure 5, the account @wanwan6171 has the highest eigenvector value of 1.0, indicating many connections with important nodes, making it very influential. Connections with important nodes show that the account @wanwan6171 is not only popular but also connected to other actors with significant influence

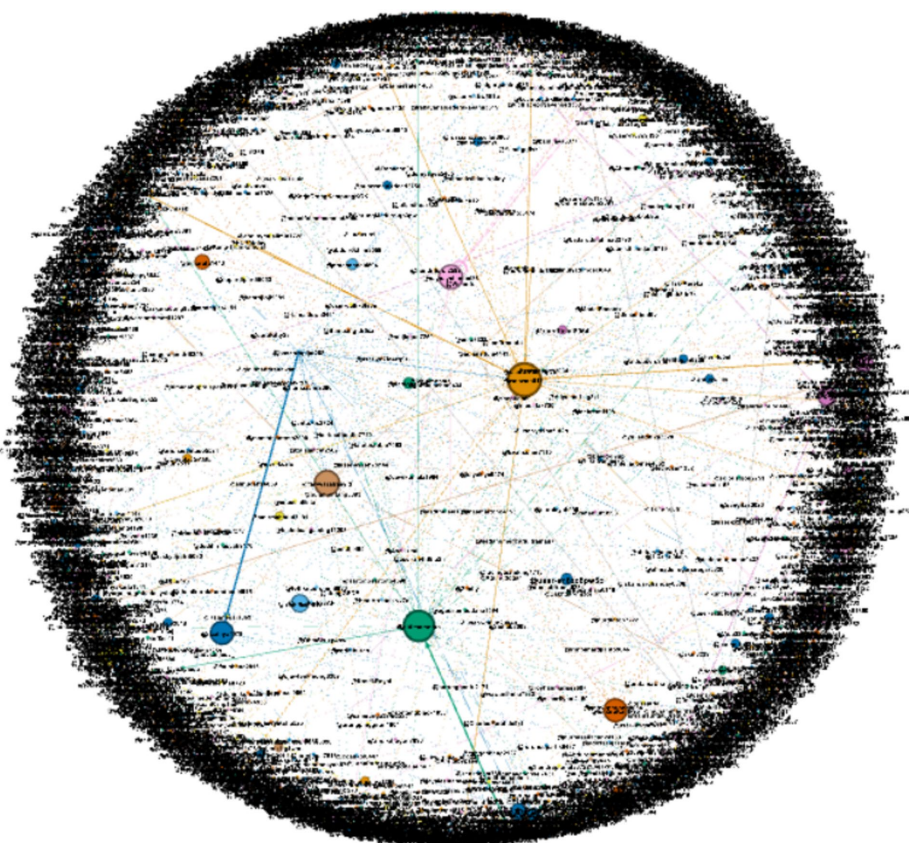


FIGURE 4
Visualization of betweenness centrality in the 'Indonesia Darurat Judi Online' comment network. Source: Process Result with Gephi 0.10 (2024).

in the network. This makes it one of the main actors that can influence the flow of information in the network.

The account @diditsamodra, with a value of 0.631962, also shows significant influence, although not as much as @wanwan6171. Although @diditsamodra's eigenvector value is lower, this account still has important connections in the network, making it one of the influential actors. Conversely, the account @baskoropijat282 has a value of 0.0, indicating that its connections are not with influential nodes. Although this account is very active and in a strategic position to disseminate information, its connections with other actors are not as strong in terms of influence. The accounts @fawwazalrasyid and @IsmaraKahfPro, with values of 0.274474 and 0.210654 respectively, have some connections with influential nodes but not as much as @wanwan6171 or @diditsamodra. These accounts have considerable influence but not as much as the two main accounts previously mentioned. They still play a role in information dissemination, although not as strong as actors with higher eigenvector values.

Based on the analysis of centrality measures, accounts such as @wanwan6171 and @diditsamodra emerge as key actors due to their high degree and eigenvector centrality scores, reflecting their popularity and visibility among other influential users. These users function as hubs in the network, receiving substantial attention from other commenters. In contrast, @baskoropijat282 occupies a structurally strategic position with the highest closeness centrality,

enabling efficient access to different network parts despite receiving fewer direct interactions. Notably, no account exhibits high betweenness centrality, indicating the absence of gatekeepers or intermediaries and underscoring the decentralized nature of the communication network. While Castells' theory of network society emphasizes horizontal and participatory digital communication, our findings reveal a more fragmented pattern. Although some accounts—particularly those with high in-degree—attract significant visibility, the interaction remains largely non-reciprocal and broadcast-oriented. This structure aligns with prior research on YouTube's comment architecture, centralizing attention without facilitating sustained dialogue or deliberation (Castells, 2010).

To further understand the nature of engagement, we examined the content of interactions surrounding the most prominent accounts. Comments directed at @wanwan6171 and @diditsamodra tend to reflect surface-level engagement—such as expressions of agreement, emotional reactions, or short replies—rather than critical debate or extended discussion. For example, a reply to @wanwan6171's comment stating "*Jangan kasih ampun, ini merusak generasi muda!*" (Do not give them any mercy, this is ruining the younger generation!) received multiple affirming responses such as "*Betul bang, setuju!*" (Yes, Dude, I agree) and "*Parah emang, harus diberantas!*" (It's awful, it must be eradicated!). Similarly, @diditsamodra posted "*Miris banget negara nggak bisa kontrol judi online*" (It's so sad that the State cannot control online gambling), which prompted replies like "*Iya, pemerintah tutup*

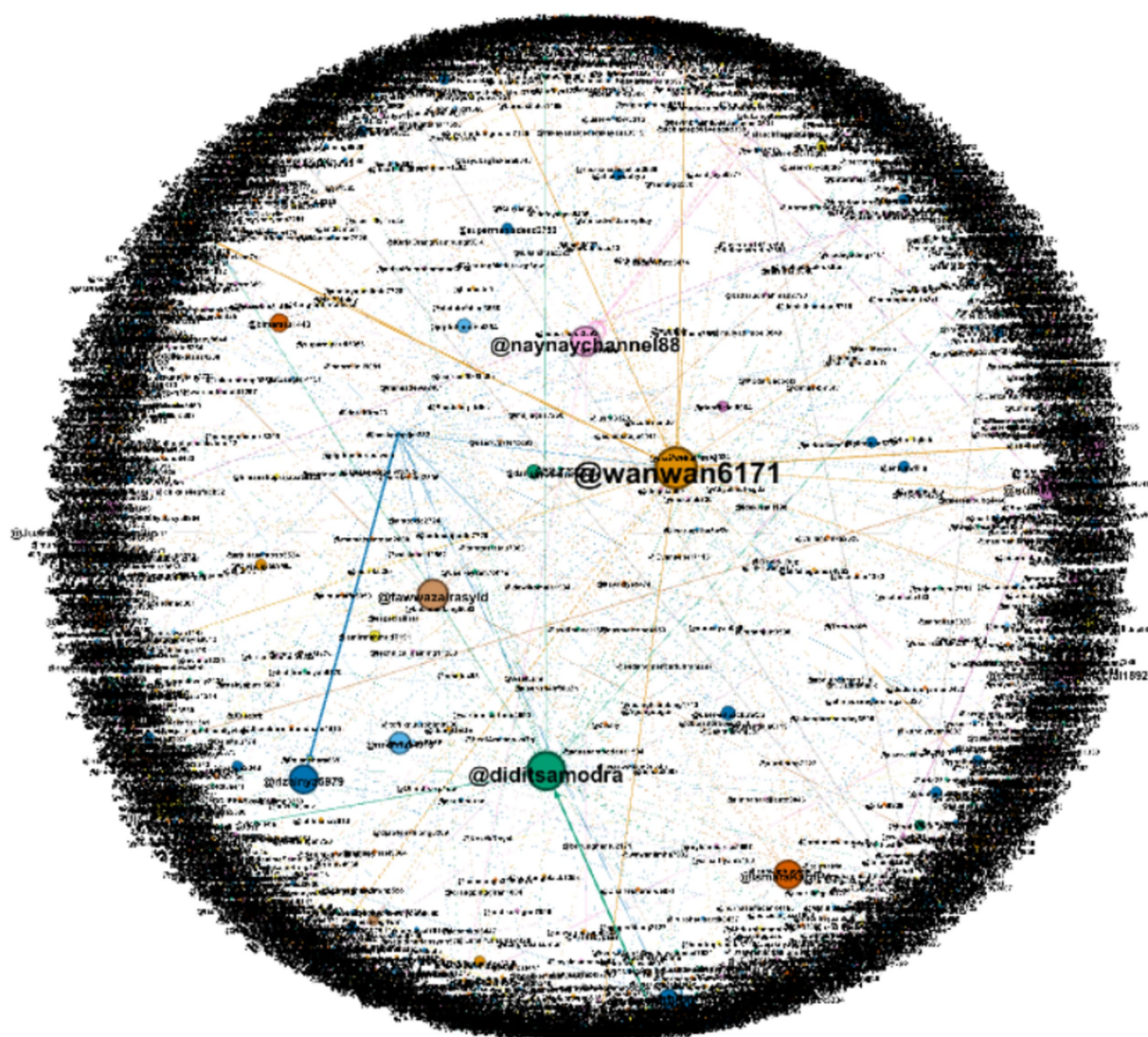


FIGURE 5

Visualization of eigenvector centrality in the 'Indonesia Darurat Judi Online' comment network. Source: Process Result with Gephi 0.10 (2024).

mata!" (Yes, the government is turning a blind eye!) and "*Benar, harusnya ada tindakan tegas.*" ("That's right, there should be strict measures.") However, in both cases, there was no further elaboration or reciprocal discussion between users, including the original posters.

This suggests that while these accounts serve as focal points for expressing shared sentiment or outrage, they do not facilitate dialogic exchange. Their centrality is driven more by emotional resonance and attention-attracting statements than by fostering meaningful or reflective conversation. As a result, even though the comment section offers a space for public discourse on online gambling, it primarily operates in a fragmented and reactive mode—more akin to a digital noticeboard than a deliberative forum. This interpretation is supported by the notion that YouTube's algorithm and comment architecture reinforce attention centralization without fostering reciprocal engagement (Röchert et al., 2020).

Thus, accounts @wanwan6171, @diditsamodra, and @baskoropijat282 can be considered the most influential actors in this network, playing crucial roles in the dynamics and information dissemination in the comment section of the 'Indonesia Darurat Judi Online' video. These accounts have various strengths and roles in the network, from being information hubs to being discussion drivers and efficient information disseminators. This analysis shows how various centrality indicators can be used to understand the roles and influences of actors in communication networks and how these network structures affect information flow and discussion dynamics. In summary, the online gambling debate in the YouTube comment section aligns with the characteristics of loosely connected, low-engagement communication networks in social media-mediated discussions. This suggests that while social networks provide a space for public discourse, they do not necessarily encourage deliberative engagement on critical issues like online gambling.

Conclusion

The issue of online gambling in Indonesia has become a major concern on social media, especially on the YouTube platform. The video titled “Indonesia Darurat Judi Online” uploaded by the [tvOneNews.com](https://www.youtube.com/channel/UCvOneNews) YouTube channel managed to attract 3,673 users to comment and discuss. The comment section of the video became a virtual public space where users expressed views and information related to the issue of online gambling, creating a dynamic communication network. One of the key findings in the study is that while there is a high volume of individual comments, engagement remains low, meaning users express their opinions but do not actively interact with others, which raises questions about the effectiveness of social-mediated communication in fostering dialogue. Social-mediated communication theory suggests that YouTube’s comment section functions more as a space for broadcasting opinions than a space for interaction. Our conclusions are grounded in empirical SNA metrics: a diameter of 2, density of 0, and reciprocity of 0, indicating fragmented and unidirectional discourse. These patterns validate our claim that YouTube functions more as a message board than an interactive discussion platform in this context. While not predictive, the findings offer structural insights into how online gambling discourse unfolds in social media environments. The one-way nature of communication aligns with selective exposure theory, where users engage with content that reinforces their existing beliefs rather than engaging in debate.

Based on these findings, we conclude that information spreads widely but lacks deep engagement, creating a passive audience rather than an interactive discussion. A few key actors influence discourse, but engagement remains decentralized and fragmented. YouTube’s comment section functions as an asynchronous message board rather than a real-time discussion platform. These findings highlight the strengths and weaknesses of social-mediated communication. While it can facilitate opinion-sharing, it does not necessarily foster meaningful dialogue on complex issues like online gambling. The urgency of this issue is reflected in the discussion patterns formed, where the communication network in the comment section of the “Indonesia Darurat Judi Online” video encourages YouTube users to opine on the negative impacts of online gambling and spread related information more widely. These findings affirm the importance of social media in influencing public opinion and spreading information about complex social issues such as online gambling in Indonesia.

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Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

CN: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Supervision, Writing – original draft, Writing – review & editing. JA: Conceptualization, Investigation, Methodology, Resources, Software, Validation, Visualization, Writing – original draft.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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