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# The Communication Network of Online Prostitution in Twitter

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# Jaringan Komunikasi Prostitusi Daring di Twitter

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#### Abstract

Humans widely use Twitter for various communication purposes. One advancement in communication due to the inception of this technology is online prostitution, which enables Twitter users to quickly, openly, and vulgarly flirt. Prostitution is no longer a taboo in Eastern society. This study aims to obtain an overview of online prostitution communication networks on Twitter, using the Social Media Analysis method with Sentimentviz application. The results show that intact communication networks were formed between actors, irrespective of the limited number. Twitter accounts are used to promote commercial sex services by each actor through their timeline and hashtags such as #openbo, #realangel, #bispak, #bisyar. At the group level, some actors have a unique position to help service marketing by retweeting messages and functioning as pimps. As for ego-centered networks, most actors stand-alone without being associated with others in promoting commercial sex services.

Keywords: Communication networks; Online prostitution; Social media; Twitter

#### Abstrak

Twitter telah mengubah cara berkomunikasi, termasuk aktivitas prostitusi daring. Prostitusi daring membentuk jaringan komunikasi antar penggunanya di Twitter dengan mudah, terbuka, vulgar dan tanpa filter dan bukan sesuatu yang tabu bagi masyarakat Timur. Tujuan penelitian ini untuk mendapatkan gambaran tentang jaringan komunikasi prostitusi daring di Twitter. Metode yang digunakan adalah Analisis Media Sosial dengan aplikasi Sentimentviz. Hasil penelitian menemukan jaringan komunikasi utuh terbentuk antar aktor meski jumlahnya tidak banyak. Konten yang dipertukarkan hanya soal promosi jasa seks komersial melalui linimasa. Beberapa aktor saling terhubung secara tidak langsung dan tidak memiliki ikatan. Mereka hanya sama-sama menggunakan tagar yang telah umum dipakai oleh pelaku prostitusi daring seperti #openbo, #realangel, #bispak, dan #bisyar. Pada level kelompok, ada aktor-aktor yang memiliki posisi unik (mucikari) untuk membantu pemasaran jasa dengan melakukan retweet pesan-pesan aktor lainnya. Sedangkan untuk jaringan pribadi, kebanyakan aktor berdiri sendiri tanpa terkait dengan aktor lainnya (mucikari) dalam melakukan promosi jasa seks komersial.

Kata Kunci: Jaringan komunikasi; Media sosial; Prostitusi daring; Twitter

### Introduction

The rapid development of Information and Communication Technology (ICT) has contributed immensely to social and economic improvements, such as enhancing the quality of human life, education, productivity, business dealings, and many more. ICT changes the static work process to a more digital, mobile, and virtual procedure and boosts its application in various modern human activities.

The use of ICTs, such as the internet, is increasingly massive. According to a research titled "The Survey on the Use of Information and Communication Technology (ICT) and Its Implications on Socio-Cultural Aspects of the Society" carried out by Kominfo (2017), there was a rapid increase of the 45% of individuals that had access to the internet in the previous year. The percentage of internet users in 2015 reached 35.1%. This is higher than the figures realized in the past two years, which were approximately 19.6% and 22.2%. It was further discovered that most internet users created social networking sites for instant messaging, including chatting (Kominfo, 2015).

The increasing number of internet users is inseparable from the growing popularity of social media platforms such as Facebook, Twitter, Instagram, etc. This is evident in the survey carried out by APJII in collaboration with the University of Indonesia PusaKaKom, which surveyed 7,000 internet users from various provinces in Indonesia. The study's results stated that approximately 87.4% of the total respondents claimed to be fond of accessing social media platforms (Puskakom, 2015).

There are positive and negative attributes associated with the use of social media. A certain harmful activity is the operation of an online prostitution business. In recent years, the police have discovered that perpetrators use social media and instant messaging to carry out their activities. For example, Tata Chubby publicized themselves through their Twitter accounts. Subsequently, the pimp Robbie Abbas publicized Commercial Sex Workers (PSK) through BlackBerry Messenger (BBM). At the same time, DA exposed teenagers to online customers through BlackBerry Messenger, WhatsApp, and Facebook (Isnaeni, 2015). Results from the research strengthen the data carried out by Farley et al. (2014), which stated that the use of the internet boosts the spread of prostitution ads locally, regionally, and internationally and this starts with the creation of social networking sites, discussion forums, message boards, and online chat.

In addition, communication is no longer limited by distance and time. It is effectively conveyed either directly or face to face through technological intermediaries (Castells, 2002). The technology also strengthens the online prostitution business by creating an accessible and unfiltered communication network between users on social media platforms such as Twitter. Twitter is one of the fastest-growing social media in Indonesia. The contents of the Twitter timeline are personal matters of a person sharing stories, opinions, activities, and more. One of the really interesting features of Twitter is the follower feature. This feature provides an idea that the account that has the most followers is perceived to have credibility, which affects certain attractiveness (Nurhadi, 2017)

These communication networks in Twitter are structured in such a manner that clients only need to select a hashtag # (hashtag) in the search engine such as #bisyar, #bispak, #Avail, #BO, #ST, #LT, #openbo #RealBO, #angel, and others, that publicize commercial sex services to reach out to them quickly. Furthermore, the names of cities are added to the hashtag, for instance, #openBOjaksel #Openbojkt #bispaksurabaya

#bisyaryogjakarta. It simply refers to active accounts in those cities.

This illustrates the fact that prostitution is no longer perceived as a taboo in eastern societies as it is openly practiced in public spaces such as social media. Therefore, this background prompts a thorough review of the online prostitution communication network on Twitter.

Numerous previous studies have been carried out on online prostitution. However, most of them only addressed the positive effect, and research on the issues of communication networks is lacking. A closely related study entitled "Utilization of New Media in Facilitating Communication and Transactions of Male Prostitutes" was carried out by Puspita (2015). The results showed two ways of identifying potential clients: non-verbal communication, which involves exchanging BlackBerry pins on Facebook, and through a third person intermediary, such as pimps or fellow male prostitutes. Prospective customers are identified through intensive communication on the new media. This study reviews the use of new media such as the BBM platform and Facebook by male prostitutes in carrying out their activities.

Arsanti (2017) carried out a study titled "The Use of Social Media as a Means of Online Prostitution", which was aimed to determine its extent in the city of Samarinda. It was discovered that the use of social media platforms displaced the conventional business type because the government shut down several places used for this activity. Besides, commercial sex workers also believe that it is a useful means of promoting their business.

Hughes (2004) carried out research entitled "Online Prostitution." It was reported that interacting with women on online sex dating sites causes a person to lose human empathy and empower perpetrators. Generally, such females are sexually exploited and abused and, in certain cases, experience worse situations than those in the sex industry. Furthermore, the use of the internet to publicize and deliver online prostitution is reported in this research. This new information technology increases the rate of sexual exploitation and harassment and exposes women and girls while maintaining the confidentiality of these men. It also led to an increase in the readiness of men to hurt these females and children.

The studies carried out by Hughes stated that social media facilitates the communication processes and patterns involved in online prostitution activities. On the contrary, this current research examines the structure of the communication network on Twitter. This focus distinguishes the current research from previous studies; therefore, it is a novelty.

Prostitution was derived from the Latin word 'pro-square' or 'pro-stauree', which is interpreted as the intention to commit adultery, fornication, or sexual immorality. It is also derived from the word 'immoral,' which means poor, unlucky, wretched, and ill-mannered. Prostitution is engaging in sexual activity in exchange for compensation, and females who mostly engage in such activities are referred to as prostitutes (Poerdarmita, 1984). It is also a trade transaction that involves the exchange of sexual relations with money or gifts (Kartono, 1997). According to a study carried out by Iwan Bloch (Soerjono D, 1997), it was stated that it is a form of sexual relations practiced outside of marriage, which involves payment for companionship and other sexual activities offered by the concerned persons.

Farley (2009) reported that prostitution's leading causes are gender discrimination, racism, and economic inequality in order to overcome particular life challenges irrespective of the fact that it leads to complex problems such as trafficking

and violence. Furthermore, dating sites are developed in an organized manner, enabling users to easily obtain information and carry out transactions.

Subsequently, such practice involves individuals that play various roles. Prostitutes are the actions of women or men that trade their bodies, dignity, and personality in exchange for payment. Pimps are individuals that intentionally facilitate or encourage the occurrence of obscene acts (prostitution), thereby making a livelihood out of such activities (Nanik et al., 2013). The users are the people that directly or indirectly pay for the services rendered by a prostitute (Indarto, 2015).

Before using the internet, prostitution practice was carried out either by the roadside or in brothels. The new technology development made it easier for prostitutes, pimps, and service users to offer, negotiate, and exchange information online without physically meeting one another. Some internet-based platforms, including websites, are used to display photos, age, body posture, prices, telephone numbers, or device addresses utilized by service users to either contact the prostitutes directly or through pimps. Online media are frequently utilized for social networking and user interface, namely chat applications, voice, and video calls. The inception of smartphones led to increasing the utilization of these apps to practice online prostitution (Schrimshaw et al., 2016).

Presently, people are addicted to social media, particularly with the increasing number of features and instant messaging platforms such as Facebook, Twitter, Instagram, Line, Whatsapp. Boyd (2009) reported that social media is a collection of software that brings individuals and communities together by sharing certain content, communicating, and, in some instances, collaboration and play. It has the capability of user-generated content. This implies that the content is produced by users and not by the editors, as is the case in mass media institutions.

Social media also has certain features that other types of cyber media do not share, including network, information, archives, interactions, social simulations, and content by users. Furthermore, the other essential characteristic is networking, which is built from social structures such as the internet. Nevertheless, its organization is based on information technology and networks developed by users, which are mediated by technological devices (Castells, 2002).

In that case, network is defined as a series of relationships between social actors (Kadushin, 2004). There are two essential aspects of network analysis, namely actors such as individuals, organizations, countries, institutions, or companies (Scott, 2000), and the link between them. On the contrary, assuming there is no line between the actors, it simply means there are no relations between them (Eriyanto, 2014).

Eriyanto (2014) stated that a network is a series or group of actors (including people, organizations, institutions, and countries) related to a specific pattern. The communication network describes the relationship with each other as a social structure (Eriyanto, 2014; Hapsari, 2016).

This relationship is closely related to the actors' interaction, thereby causing every individual to communicate with each other. Therefore, this creates a pattern of relationships between them. Additionally, Monge (1987) stated that the communication process in the network analysis involves relationships, not attributes. A relationship is defined as the connection between two or more people, while a communication network is a structure built based on its link.

According to Eriyanto (2014), a network that consists of actors and relations (links) also has several elements as follows: 1) Components, some groupings of actors

that have at least one link in the network. Supposing that all three actors have a link, only one is perceived as an aspect of the component, 2) Click, an inflexible grouping compared to components. It marks the maximum relationship between actors, 3) Bridges, a connector between two separate groups in a network. Without it, they are divided into separate components, 4) Hubs, the actor with the most connections in the network (Golbeck, 2013), 5) Cut points, the actors that are the glue of the network. Their absence causes a separation, although it is similar to the bridge (Zhang, 2010). However, the difference is that the bridge links two actors, while the cut point refers only to the actor, and 6) Isolators, the actors that do not have any link with the others in the network.

Communication networks tend to develop rapidly and often experience changes. They are supported by an integration of computers and information technology, which boosts social, cultural, and economic processes in a collective system (Fulk, 1999). It causes actors to be interdependent, thereby creating bonds between them through digital technology. Furthermore, its speed builds mutual understanding, which leads to collective action (González-Bailón & Wang, 2016). Hernando Gonzales stated that communication networks are interactions that involve the mutual opinion and understanding of the leaders and followers on a certain topic occurring in a particular social system (Bakti et al., 2015). Communication network analysis has grown into an approach from research that studies human behavior based on a convergent model approach. Rogers and Kincaid emphasized that communication network analysis is to identify the structure of communication in a system, in which related data regarding communication flows is analyzed using several types of interpersonal relationships. The goal is to understand the general picture of human interaction in a system (Wadipalapa, 2017).

Digital network technology is the backbone of social media. It permits flexible and adaptive networks due to their capacity to decentralize the performance of autonomous compound networks and coordinate all decentralized activities into the common goal of decision making. Social networking sites are based on global networks selected according to their specific programs and are simultaneously used for communication. Irrespective of the fact that it is common in the entire world, some individuals are not involved. However, everyone is affected by the logic and stringent relationships in the global networks of social organizations (Van Dijk, 2012)

According to Marsden (Eriyanto, 2014), the analysis of communication networks is divided into two, namely, complete and egocentric networks. The difference between these two types depends on the analysis of focusing on one or several actors (nodes) and accounting for them. All actors in the entire network are observed and analyzed by determining their level, closeness, intermediate, and eigenvector centralities. The analyzed system consists of size, density, reciprocity, diameter, and distance. Conversely, egocentric networks tend to observe one or several actors (Eriyanto, 2014).

The concepts and theories that have been discussed are described in the framework of this study as follows:

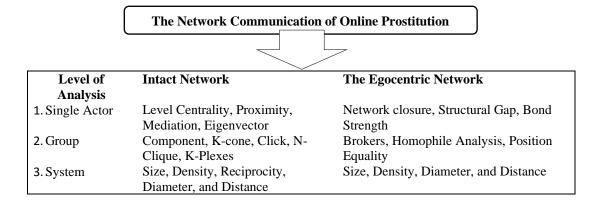


Figure 1. Research Framework (Source: Network Communication, Eriyanto, 2014

Figure 1 is an online prostitution communication network. The analysis levels consist of three parts: a single actor, group, and system examined under intact and egocentered communication networks.

## Methodology

This study uses the Social Media Analysis (SMA) method. SMA, according to Fan & Gordon; Zeng, Chen, Lusch, & Li (in Andryani et al., 2019), is a tool that acts in developing and evaluating information tools and frameworks for collecting, evaluating, analyzing, concluding, and visualizing social media data. Meanwhile, Gartner Research defines SMA as the process of looking deeply at, analyzing, measuring, and predicting digital interactions, relationships, topics, ideas, or content on social media. SMA aims to analyze and synthesize social media data to provide information functionally for stakeholders. The SMA process requires three steps: capture, understand, and present (Andryani et al., 2019).

The data crawling tool (data collection technique) used in this study was the Sensimentviz application. Meanwhile, the social media studied was Twitter which is the medium with the most online prostitution accounts. The keywords used to collect data were #openbo and #openbobandung. The data in this research were collected in June 2020.

The data analysis method is data that has been crawled and presented in the form of images, graphics, and texts by Sentimentviz, then grouped according to research needs to answer research questions. The data that has been selected were then analyzed descriptively by connecting the research findings with theories, concepts, other research, and data from various scientific references. The aim is to strengthen the discussion of the results of this study.

### **Results and Discussion**

The Sentimenviz application tools were used to map the communication network usually utilized by online prostitution actors in promoting their commercial sex services via Twitter.

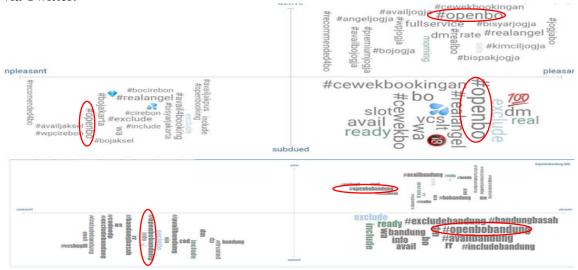


Figure 2. Tag cloud visualization for hashtags#openbo and #openbobandung (source: Data is processed from the Sentimenviz application, 2020)

Fig. 2 shows that the keywords #openbo and #openbobandung have larger font sizes than the other hashtags. It means that they are frequently used for publicity on Twitter compared to other hashtags namely #cewekbookingan, #realangel, #bo, #cewekbo, #bandungbasah #availbandung, #kimciljogja, #bojogja #bisyarjakarta #availjakarta, #wpcirebon, etc.

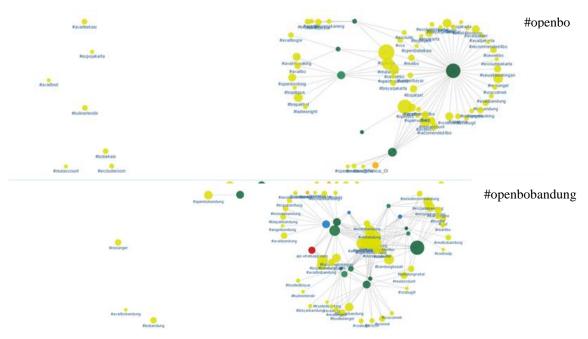


Figure 3. Online prostitution network with hashtag #openbo and #openbobandung (source: Data is processed from the Sentimenviz application, 2020)

Fig. 3 shows that online prostitution actors often use the hashtag #openbo (which means open booking out or sex services that are ordered depending on the desires of the customer). In addition, other hashtags such as #cewekbo #AVAILBO #availvcs #vcstrusted #vcs\_berbayar #AvailJaksel #bisyar #RECOMMENDED4BO #BisyarJakarta #jilboob #excludejakarta #bojakarta #availJakarta #availJakarta etc are also used.

Any hashtag that includes the name of a region such as #openbobandung, tend to generate traffic. According to Fig. 3, the #openbobandung hashtag is also used by online prostitution actors, as well as #availbandung, #bobandung, #availbobandung, #bisyarbandung, #OPENBOBandung, #BObdg, #cewekbookingan, #bandungbokingan #Bobdg, #cewekbookingan, #bandungbokingan #BandungBirahi, #wpbandung, #bisyarbandung, #bisyarbandung, #OPENBOBandung, #bisyarbandung, #bobdg, #bewekbookingan, #bandungbokingan #BandungBirahi, #wpbandung, #angelbandung #vcsreal, #availbandung, #bbdar etcetera.

The analysis of a single actor in a network shows that the degree of centrality is relatively low when there are few. However, centrality is defined as a star or any famous person in the group, and it is evident in the massive nodes of the network. This study shows that built-up centrality involves local relations between individuals in the system.

In the #openbo, acertain actor with an account named @ gitasyakilla02 is the centrality (star) and is connected to eight other actors with the following accounts @ Ayulest49717533, Vanya210, @TikadewiD, Realang41493530, @TikadewiD, Arnold07390785, @dewiputrisn, Ayulest49717533, **@** Arnold07390785, @dewiputrisn, @Gadisyakandand Realang41493530, @Accounts17178997. The #openbobandung, has one actor at the center with the account @ TiaraPu13812058 and is connected to two other actors namely @ BellaMelani13 and @AvailBdgReal.

The centrality of the communication network is the intimacy among actors. However, in the case of online prostitution, not all actors in the network are connected or closely linked to each other. Some actors with the following accounts @cintabunga, @allenabobdg, @febryuningsih are not connected to the others. On the other hand, accounts such as @deraBDG relate with @ Kekew37670817 and @Andy7802071014 because they are quite close.

The task of @Kekew37670817 serves as evidence while @Andy7802071014 retweets (help market) the commercial sex publicity messages on the Twitter timeline from @deraBDG account. It also includes a central intermediary, where the two actors have a mediating account @deraBDG. This shows that each of them is important (eigenvector) to the other actors in the communication network.

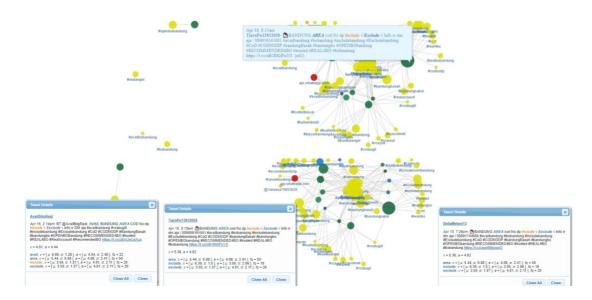


Figure 4. Level centrality in online prostitution tissue with the #openbobandung hashtag (source: Data is processed from the Sentimenviz application, 2020)

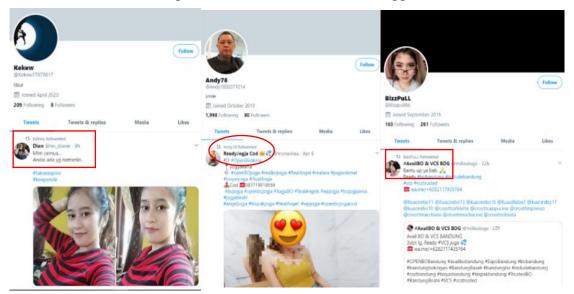


Figure 5: The centrality of closeness, mediation, and eigenvector in online prostitution communication networks (source: Data is processed from the Sentimenviz application, 2020)

The results showed that the component or grouping of actors in the entire network had at least one link in both the #openbo and #openbobandung. Generally, there is a connection between nodes (actors), which form 7-core, 3-core, 2-core, 1-core, and 0-core (connecting 8, 4, 3, 2, and 0 actors) in one group. For example, in Fig. 6, the actor with the account @Andy7802071014 has a direct connection with @ givani\_015 (1-core). This means that the maximum relations of the actors mark certain clicks.

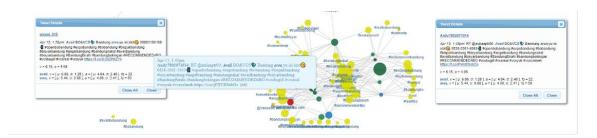


Figure 6: Level of group analysis with intact (1-core) network (source: Data is processed from the Sentimenviz application, 2020)

The level of analysis in the system includes size, density, reciprocity, diameter, and distance. It was discovered that the total size of the individual network contains a maximum of seven actors. A similar incident occurred at the density level, which shows that each group has a less dense network despite reciprocating the responses between actors such as those with the following accounts @deraBDG, @Kekew37670817, and @Andy7802071014. In addition, the distance between actors is relatively close to a particular network, as detected in the reciprocal relation process.

Meanwhile, in the review, the level of individual analysis based on ego-centered networks, closures, or a few actors (individuals) that were indirectly interconnected was discovered. In the case of online prostitution, several of them contact each other by clicking on the same hashtag used in publicizing commercial sex services. It was also detected that they have ties with other actors (structure gap). However, some accounts are stand-alone actors, such as @cintabunga, @allenabobdg, and @febryuningsih. Several single actors cloned their accounts into one network, for example, @InccesItsme account, as shown in Fig. 7.

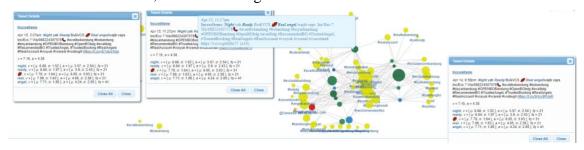


Figure 7. Network closure (egocentric network) in online prostitution networks (source: Data is processed from the Sentimenviz application, 2020)

In accordance with the group analysis level on egocentric networks, account names @Kekew37670817, @Andy7802071014, @justretweet, and @bizzpull66 exhibit unique stance when interacting with the other actors. Their job is to renew accounts that promote commercial sex services. It is also referred to as a broker. On the contrary, actors involved in an online prostitution group have a certain degree of similarity. The account name @gitasyakilla02 interacted with some others, namely @Ayulest49717533, @TikadewiD, and @dewiputrisn. All the actors in this group are females within 24 - 28 years, with an average height of approximately 162-168cm, a relative weight of 50-56 kg, and an average bra size of 36b-42b. They also have a common stance in publicizing commercial sex services on Twitter.

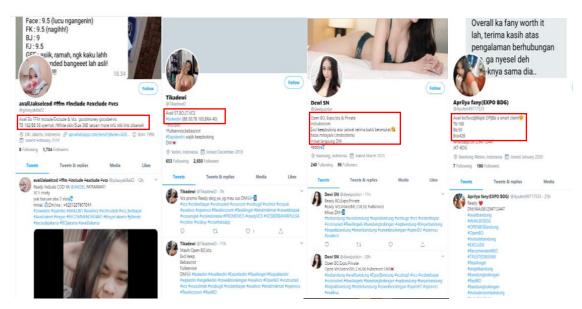


Figure 8: The level of group analysis on egocentric networks in online prostitution (source: Data is processed from the Sentimenviz application, 2020)

The egocentric network has a certain level of analysis based on the size, density, diameter, and distance between the actors. It was discovered that its size is not as much as the entire network. This relates to the closure or few actors (individuals) indirectly interconnected, which causes the size and density to be comparatively small. The diameter and distance are also relatively further apart because they are not linked to the following accounts @febryuningsih, @cintabunga, and @allenabobdg.

According to the study, Twitter is indeed the most effective platform for promoting commercial sex services. Its usage in Indonesia continues to increase regardless of the positive and negative impacts, such as the rise of pornographic content. The motives for using Twitter also vary, including friendship, maintaining popularity, expanding influence, shaping public opinion, and personal branding (Widiastuti, 2017).

This problem is worrisome because Twitter service is not included in the pornography category, permitting everyone to view X-rated images circulating on the platform. According to Hadiyat (2017), computers are equipped with internet content filtering features. In addition, Twitter does not have any special features to block pornographic content on its services, compared to Facebook and YouTube (Maulana. A, 2015).

Apart from the negative impact, social media also has some positive effects, namely networking. Castells (2002) stated that its network is built from social structures generated from the internet and are mostly operated based on information technology. Technological devices mediate this network via the internet. Networks can also be viewed as a property that is interdependent, specific, changes in their attributes, and property that changes connections with other networks and their members in the environment where the network is located (Wardyaningrum, 2016).

Farley et al. (2014) reported that historically, the use of the internet is beneficial for the online prostitution trade. In addition, social media platforms make it easier for these activities to be advertised locally, regionally, and internationally with the creation of discussion forums and online chats delivered by sex perpetrators and pimps. It is also used as a medium for human trafficking. The internet and computer technology have been exploited by such businesses offering sex to men globally (Blevins & Holt, 2009).

Furthermore, the role of actors in communication activities is also crucial. Rogers and Kincaid (1981) stated that radial personal networks have a low degree of integration and are open to the environment as it was discovered in this study that the entire online prostitution communication networks showed relatively few centralities among actors. This is because this research only reviewed the online prostitution communication network, namely #openbo and #openbobandung, which only consist of few actors. However, there are numerous online prostitution accounts as well as operational areas such as Bandung, Jakarta, Bogor, Bekasi, etc. It means that these practices are privately extended via a communication network.

Irrespective of the fact that there is an existent 'star' related to a few actors, most of the accounts publicize commercial sex services. These actors mostly have male profiles, and their job is to retweet the accounts of commercial sex service providers. Besides, they also play an essential role that mutually benefits other actors. Mudiarta (2017) stated that relationships are formed based on trust. It also develops when there is a sense of mutual knowledge, information, reminders, and assistance in overcoming a problem. The communication network is a social dimension focused on the bonding aspect of the relationship between people or groups.

Based on the analysis level, the results from this study also show that grouping of actors to form at least one link led to the direct connection between them. In the online prostitution communication network, clicks were used to mark the maximum relations between the actors. According to Homans Scott (2000), the connection between actors in a network is based on the existence of a relationship and transactions. Consequently, human interaction is an economic transaction because people tend to maximize rewards and minimize costs, therefore developing a strong and intimate relationship between actors causing them to provide information about themselves.

This study further stated that the maximum size of an online prostitution network consists of one to seven actors referred to as hubs, and they have the most connections in the network (Golbeck, 2013). Some relationships have reciprocal responses, while a relatively close distance exists between actors.

These showed that the communication network has a size related to the number of members, which is one of its characteristics. A more cohesive relationship exists between actors in smaller networks than larger ones. The density of a communication network also shows the intensity of the interaction between members. Members of a particular network tend to interact with one another, assuming the density is high. Conversely, when the density is low, it implies there is no existing relationship between them. Besides, it is also caused by uneven interactions or the focus on several actors (Eriyanto, 2014).

At the individual level, a closure was discovered on the communication network centered on ego. Some actors are indirectly interconnected because they use a similar hashtag and do not have ties with the others. This is consistent with the outcome of research carried out by Hadiyat (2017), which stated that the communication pattern of online prostitution on Twitter is based on hashtags (#). The application of these signs on social media is to filter the content, therefore ignoring irrelevant information. It makes it easier to identify the necessary information in dense traffic. Online prostitutes on Twitter also take advantage of these hashtag features such as #avail #bisyar #bispak, and #openBO to publicize their services. Aligning with the location, the hashtag is usually followed by the name of the city where the perpetrators are located, for example, #angelsolo #bojakbar #bisyarbandung and others.

It was further reported that there are stand-alone actors in a network. They are usually referred to as isolators, which means that they are not linked to the other actors in the network. They independently publicize commercial sex services through Twitter. Hadiyat (2017) reported that some of these actors use social media to promote their services because they do not depend on pimps that reduce their fees and downsize their chains of businesses. Moreover, social media needs to be privately used because it is not limited by space and time. Thus, this makes it easier for independent commercial sex workers to contact customers, therefore causing these activities to be extensive and complex. They also freely determine when to receive orders or customers, types of clients to be served, or the genre of pornography they need displaying (Ormeari, 2018)

Although there are stand-alone actors at the group level, some others have a unique stance of marketing commercial sex services such as retweeting. They also function as brokers or act as pimps. Boyd et al. (2011) reported that escort agents, brothels, and nude clubs advertised through websites, chat rooms, and other virtual media allow pimps to trade women for sex. Farley et al. (2014) stated that publicity, exchange of information, and negotiations occur in the new media, while prostitution activities continue to take place face to face. This is similar to the results of this study, which stated that the communication network that permits commercial sex services occurs on Twitter. In contrast, they communicate with their customers privately through direct messaging (DM), Whatapp (WA), BBM, Line, MiChat, etc. Twitter is also considered a medium with a unique feature that allows messages (images, videos) to be published directly to the public in seconds. This Twitter characteristic with a high level of actuality makes Twitter stand out from other social media (Arisanty et al., 2020).

Meanwhile, in terms of interaction, the results show that actors in egocentric networks have certain similarities in terms of gender, height, weight, bra-size, etc. Certain pieces of information are found on the accounts of Twitter users. Schrimshaw et al. (2016) stated that actors involved in the practice of online prostitution display certain data such as photos, age, body posture, prices, and telephone numbers or addresses of devices that are used to contact the prostitutes by service users; besides, they are also reached through pimps directly.

These actors also have a similar stance in the practice of online prostitution. They are individuals that publicize sex services. This closely relates to the research carried out by Rogers (2003), which reported that individuals in closed communication networks are homophile; however, they are less open to their environment. Locking tissue naturally grows inward. Such systems are inferior networks that tend to capture new information from the environment (Rogers, 2003). This is consistent with the results of this study, which stated that there are stand-alone actors in online prostitution networks. The use of hashtags is commonly used by online prostitutes to promote their services.

# Conclusion

The purpose of this study is to have an insight into online prostitution on Twitter. It was concluded that complete communication networks are formed between actors, although in relatively small amounts. An existent star associates with other actors irrespective of the fact that some do not have close relations. Groupings of at least one link in a network that directly connects the actors are also developed. The medium-sized network consists of at least a minimum of one and a maximum of seven actors, although it does not have a maximum density level. The contents are only used to publicize

commercial sex services by each actor through their timeline on Twitter.

Egocentric networks, at the individual level, consist of a closure. Some actors stand-alone, which means they do not associate with others in promoting commercial sex services. They are not dependent on pimps because pimps intend to reduce their business chain. On the contrary, some actors are indirectly connected or do not have ties with the others; instead, they use the same hashtag commonly used by online prostitutes, such as #openbo, #realangel, #bispak, #bisyar, etc. At the group level, some of them market commercial sex services by retweeting other actors' messages. They are also referred to as brokers (pimps). The network's size at the system level is not as much as the entire communication networks. This is because it consists of only a few indirectly related actors due to their relatively small size and density.

This study recommends blocking accounts used to publicize these practices by the government because communication in the online prostitution network is relatively open and vulgar. The frequently used hashtags to prevent this network from expanding also needs to be blocked. The government needs to collaborate with Twitter social media platform providers. Further research on online prostitution needs to be carried out by creating a comprehensive network mapping application in the future.

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