



The Communication Pattern of Online Prostitution Business that Violates Intellectual Property Rights

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ABSTRACT

Over the past few decades, sophistication in intellectual property rights (IPR) violations has increasingly exceeded the limit. The offenders are trying to outsmart the development of a legitimate business model to facilitate online trade. The ease with which potential customers search for Commercial Sex Workers (CSW) using the MiChat application has been one of the misused social media, which violated the trust and safety feelings of online citizens. The authorities are eradicating the miChat Application as a means of online prostitution in Indonesia. This study deconstructs the law enforcement decision and looks at the committed violation from the IPR's perspective. This study portrays IPR violations that have been blatantly committed in Bogor City. Even this online prostitution business already has certain patterns and communication networks to facilitate CSW to get income. The circular pattern happens during negotiations before the meeting stage. The wheel pattern exists in the group of prostitutes who use help from pimps. The self-employed and the transvestite group use all channels in the communication network. This Application is designed to benefit from IPR violations because, from the management of MiChat, there is no effort to stop this online prostitution practice. IPR violation activities carried out by MiChat are within the control of its managers so that law enforcement can be applied through criminal complaints or other law enforcement mechanisms.

Keywords: *communication network, communication pattern, intellectual property rights, MiChat, online prostitution.*

1. INTRODUCTION

Over the past few decades, sophistication in intellectual property rights (IPR) violations has increasingly exceeded the limit. The offenders are trying to outsmart the development of a legitimate business model to facilitate online trade. Legal online business models that have won customers' hearts by utilizing digital technology are perverted by illegal business practices, solely seeking profit. A report from EUIPO (European Intellectual Property Office) in 2016 observed various online business models that infringe on intellectual property rights (IPR). This paper analyzes 25 business models, but five were

included in the darknet [1], one of which will be further discussed in this research, namely the online prostitution business through social media. This research is part of an effort to describe a complete map of the illegal online business model through the MiChat application. It also provides policymakers, civil societies, and private businesses with a better understanding of the various communication patterns and networks formed to anticipate the challenges of larger-scale online intellectual property rights (IPR) violations in the future.

| Darknet Hidden Services | |
|-------------------------|---|
| Canvas 11 | A. Darknet TOR Hidden Service User Account Shop B. Darknet TOR Hidden Service User Account Shop Vendor |
| Canvas 12 | Darknet TOR Hidden Service E-book Library |
| Canvas 13 | Darknet TOR Hidden Service Marketing Weapons and Firearms |
| Canvas 14 | A. Darknet TOR Hidden Service Marketplace for Goods and Services B. Vendor on Darknet TOR Hidden Service Marketplaces Marketing Storage Media Preloaded with Digital Content |
| Canvas 15 | Darknet TOR Hidden Service Marketplace For Protected or Sensitive Information |

Figure 1. Darknet hidden services (EUIPO, 2016)

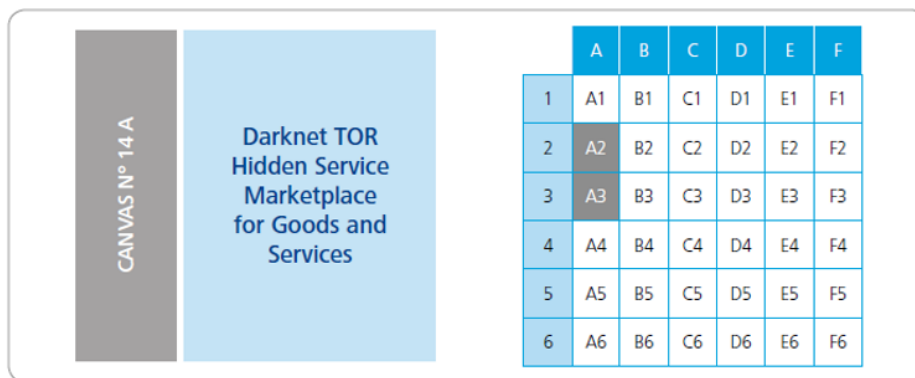
EUIPO (figure 1) explains that the business model of online prostitution, as done today through the MiChat application, is included in the category 14 business model. This is called darknet hidden services consist of a hidden service marketplace for goods and services, as well as a marketplace for storage media preloaded with digital content. This business model has been booming, so it is categorized as a unique business model (canvas 14). In such a model, all sales of products and services infringing on the website's intellectual property rights are controlled by vendors and third parties through social media networks.

Lately, law enforcement against violations occurring online must be treated the same as offline violations. So illegal online activities get the same severe punishment as offline punishment format [2]. Like law enforcement against hate speech and fake news on social networks, online prostitution also has a number of challenges. As a public policy maker, the government increasingly relies on online content regulations made by social media users. The government needs to involve private agencies, related agencies, and the police to solve the problem of illegal online prostitution that rides on social media using their respective approaches. Different strategies complementing traditional law enforcement

mechanisms in Indonesia must be compared and analyzed periodically by considering fundamental human rights, which are as simple as socializing through social media.

Nowadays, it is almost impossible not to use social media to share content that becomes part of human lives. Many social media, such as Facebook, Instagram, Twitter, Line, Whatsapp, MiChat, and others, are used to send messages in the form of writing, images, sounds, files, videos, and even *video calls* to ease their users. Living in modern times like this, we can not run away from the influence of technology. It has greatly benefited us in education, business, communication, and entertainment.

Figure 2 below shows the situation of darknets controlled by vendors or third parties in social media. Social media presence allows users to expand themselves more widely, especially those who are active on social media. But for those involved in the darknet, such as online prostitution, many continually *updated* features, such as comments, status updates, notes, and various facilities, could be controlled by a third party, such as pimps. Though social media offers freedom of opinion, the freedom of sharing should be handled wisely by social media users.



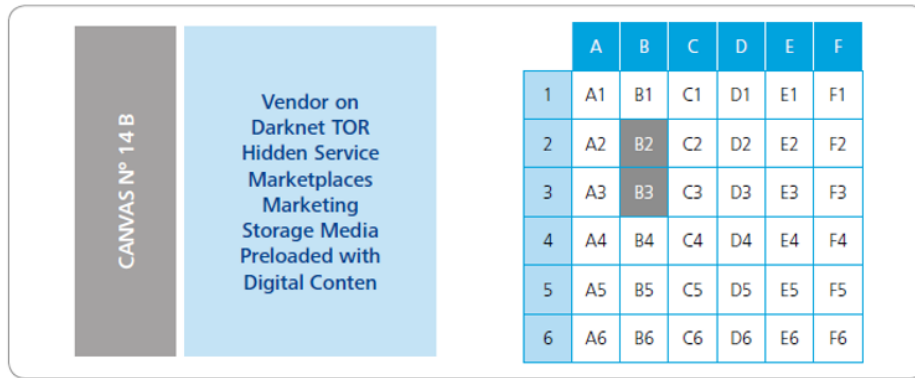


Figure 2. Specific digital platforms and infringing activity are indicated with a grey background.

Caption:

A2 = Internet site controlled by infringer, physical or virtual product marketing

A3 = Internet site controller by the infringer, digital content sharing

B2 = Third-party marketplace, physical or virtual product marketing

B3 = Third-party marketplace, digital content sharing

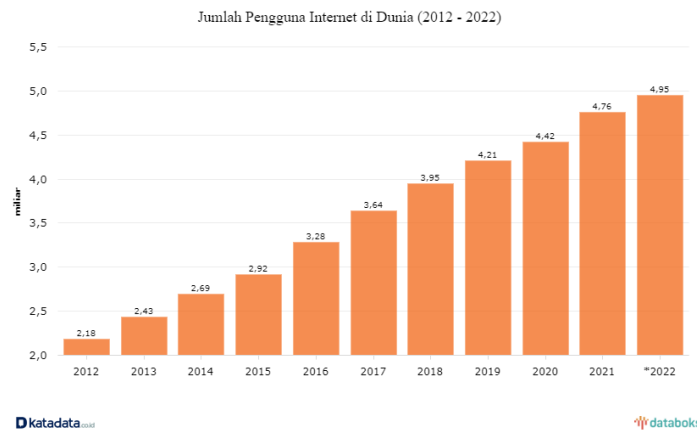


Figure 3. Number of internet users in the world (source <https://databoks.katadata.co.id/>)

The data report in figure 3 shows that there were 4.95 billion internet users as of January 2022 in the world. This number increased by 4% from 4.76 billion people in January 2021. As of January 2022, internet users in Indonesia reached 204.7 million. This number covers 73.7% of Indonesia's total population. This condition allows darknet businesses to use social media because it can significantly facilitate prostitutes to do their business by reducing costs to a minimum [3]. As of the second quarter of 2008, 75% of internet surfers used social media, which rose significantly from 56% in 2007. The growth is not limited to teenagers, now much older people increasingly using social media as joiners, spectators, and critics [4].

None of the technology-enabled media convey body language and has the massive potential for misinterpretation. Social media performs vague communication because of the lack of planning, unclarified assumptions, semantic distortion, poorly

expressed messages, communication barriers in international environments, poor listening, premature evaluation, impersonal communication, distrust, fear, the short period for adjustment to change and information overload [5]. This leads to effective communication to solve this problem. The paradigm can change rapidly every day in a globalized and connected world. Piracy which is impossible to eradicate is forced to become one of the bases of a new business model based on diffusion, not a utopia [6]. The high number of internet users increases the undeniable crime businesses. In Indonesia, prostitution is considered a crime, and the move of prostitution using social media also changes its motives and models.

The phenomenon of Commercial Sex Workers (CSW) has long occurred in Indonesian and can not be separated from the pros and cons; this is undoubtedly inevitable. (Ratu dan Mamosey 2020:2). The number

of CSW in Indonesia is due to many enthusiasts or consumers wanting to meet their biological needs. Initially, the CSW used to peddle themselves on the street coloring glittering nightlife around Bogor Palace in search of customers. After getting customers, they will go to a hotel on Pajajaran Street or Wisma on Veterans Street; CSW will return to the former location to peddle itself (again) after serving its customers.

Reporting from pojoksatu.Id, The Pamong Praja Police Unit (Satpol PP) of Bogor City claimed to be confused with the existence of a perverted hotel that has rooms underground; this room is used explicitly by Commercial Sex Workers (CSW) to serve its customers. According to Kasatpol PP Bogor City, Eko Prabowo at that time "CSW waiting for the place is increasingly diverse. They are scattered through all the streets of Pajajaran, Taman Topi, Bubulak Terminal, Tajur Highway, in front of Salak Hotel, Malls, Hospitals, and hotels." Prostitution that occurs is difficult to overcome because the perpetrator camouflages themselves as a visitor or hotel guest.

The phenomenon of online prostitution in cyberspace makes social media become a link between Commercial Sex Workers (CSW) and prospective customers. CSW and its customers benefit greatly because social media provides more accessible and safer access to negotiations between the two. (Ratu dan Mamosey 2020:3). The transaction of prostitution from conventional to online is indeed very practical for service users and CSW who sell these services. With the existence of social media, prospective customers do not need to bother looking to localization places or contacting third parties such as pimps. In other applications, such as Twitter, some actors help market this service by retweeting messages and functioning like pimps [8]. One social media that prostitution perpetrators often use is the MiChat application.

Figure 4 below shows a feature available on the MiChat application. People can search for someone within a certain radius and display the CSW profile making it easier for prospective customers to find a CSW that suits their needs. This feature allows prospective customers to communicate directly and personally with the CSW. MiChat Application was originally a free instant messaging app created to connect people with family or friends. MiChat can detect contacts stored on smartphones and be added to the friend list. It is equipped with an ID to make it easier to add contacts and with the "nearby people" feature so that it can bring us together with people around us. In 2018, the MiChat app was one of the most downloaded free messaging apps available on iOS and Android devices.

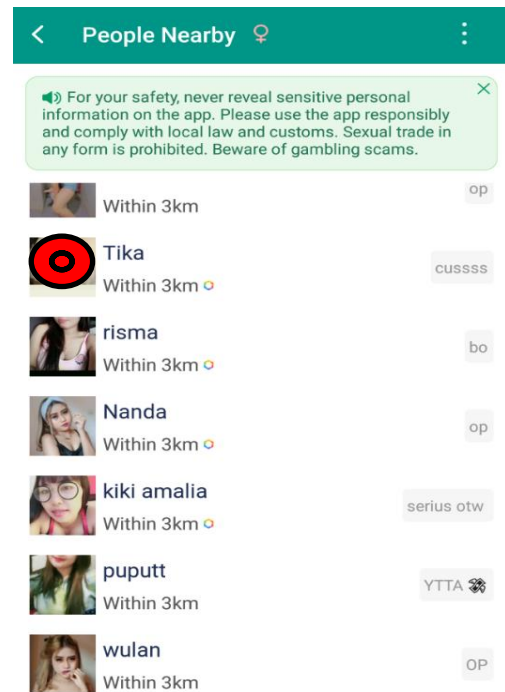


Figure 4. The screenshot features people nearby on the MiChat application

Why do prostitutes still use the MiChat app recklessly while the Bogor City Governor agreed to block and close the suspicious online accounts? Online prostitution cases cannot be separated from private places, especially hotels and apartments, often used as locations for prostitution practices. Bogor City Police dismantled the practice of online prostitution in an apartment in Bogor City, officers secured pimps who were teenagers and room providers in the apartment. Police also secured evidence in the form of cash, mobile phones containing transaction conversations using the MiChat app, and a plastic wrap of red wine-type liquor (Republika.co.id). This research reveals the CSW's communication pattern using the MiChat application that can help the government to map out persuasive steps to take control of this illegal online business. This research also reveals the communication network of online prostitution perpetrators. The pattern and network of online prostitution can help authorities to eradicate prostitution activities in Bogor City.

1.1. MiChat Application

MiChat is a free messaging app with regular features that are easy to understand. This Application is not only to send information to family and friends, but MiChat can also help its users find new friends and people around while expanding their social network. In April 2018 the MiChat app was launched and in October MiChat was already being the top five free conversation app on the google play store in Indonesia. MiChat is one the software to send complimentary messages to connect with others. To use the MiChat application, users only need a mobile

number and location to verify the code sent by MiChat. According to Gunadi (2020), There are advantages and disadvantages to the MiChat app. Advantages of MiChat such as:

1. It's easy to find or add new friends around.
2. Provides a valuable message tree to increase the reach of social networks throughout Indonesia.
3. Users can add friends through groups in trending chat.
4. Users can share statuses easily.

The disadvantages are:

1. The MiChat app is widely abused as an online prostitution medium.
2. Children widely use the MiChat app.

MiChat has many features provided to simplify and meet the needs of its users, such as the following:

1. *People Nearby*

People Nearby is one of the features that are pretty interesting for MiChat users because by using it, users can be facilitated to find new friends around based on a certain radius and can directly start a conversation on the *Greetings* page.

2. *People, You Might Know*

People You Might Know is a feature that can find a list of other MiChat users who are friends of a friend. Users can also add friend contacts to expand their relationships with *strangers in this feature*.

3. *Message Tree*

Message Tree is a feature that allows MiChat users to store text or voice messages in a virtual tree, and other users can retrieve those messages at random. When users retrieve a message from a virtual tree, they can continue the conversation and add it as friends when interested.

4. *People Match*

People Match is a feature that can pair people who like each other, thus reducing the possibility of rejection. There are two icons to make it easier for users to find friends, users can choose a red "cross" icon if they user does not like it, and users can choose a green "love" icon if the user likes it.

1.2. *Commercial Sex Workers (CSW)*

Commercial Sex Workers (CSW) are part of extramarital sex activities characterized by the sexual satisfaction of various people involving men, women, and half men, half women commonly referred to as *shemale* for money and used as a source of income. Commercial Sex workers (CSW) is job in meeting the needs of themselves and their families to maintain survival. The crush of family economic problems often results in the sexual exploitation of children to earn money to meet the family's daily needs [10]. In addition to economic factors, lifestyle factors also influence the decision to become a prostitute because it is considered more accessible to make money [11].

One of the factors that cause a person to become a prostitute is terrible social relationships that are not well-controlled and supervised by their parents or other influential people, which leads to bad decisions. The second factor is personality, the kind of personality with a strong desire and drives to be satisfied by sexual activities (Huda &Suhadi, 2020:851).

1.3. *Communication Pattern and Network*

Communication patterns are identical to the communication process because communication patterns are a series of activities to convey messages received by the message recipient to generate feedback. Patterns, models, shapes, and parts closely related to the communication process will be formed in the communication process. Communication patterns are defined as a relationship between two or more people in the exchange of messages or information appropriately so that the message or information can be understood. Communication patterns are divided into three types, namely (1) one-way communication patterns, (2) two-way communication patterns, and (3) multi-directional communication patterns.

4 communication processes fall into the category of communication patterns, namely, (1) primary communication patterns, which are the process of communication of the mind by communicators to communicants using verbal and nonverbal symbols. (2) Secondary communication pattern is the process of conveying messages by communicators to communicants using tools or means as a medium. (3) Linear communication patterns contain a straight meaning traveling from one point to another straightly, which means the delivery of a message by the communicator to the communicant as a terminal point. (4) Circular communication patterns are round, round, or roving; in the process of circular communication, the occurrence of feedback, namely the occurrence of flow from the communicant to the communicator, is a determinant of communication success.

A communication network is a channel used to forward messages from one person to another; this

communication network can be seen from two perspectives. First, according to the resources, a small group will develop communication patterns that combine several communication network structures. These communication networks became standard communication systems used by groups and sent messages from one person to another. Second, this communication network can be viewed as a formal organizational structure created by the organization as a means of communication.

2. METHODOLOGY

This research uses a qualitative descriptive method to describe in detail online prostitution activities. The research was conducted in Bogor City, West Java, from July 2021 until March 2022. The subjects of this study were online prostitution perpetrators who use the MiChat application. The data collection techniques were done by observation, interview, and documentation. A source triangulation was chosen to test the credibility of data by checking the data obtained from several sources. Even though nowadays automated methods allow for a more comprehensive investigation of online communities, traditional approach method such as this study is still recommended when dealing with sensitive issues such as online prostitution [13]. There are six informants who are online prostitution perpetrators using the MiChat application consisting of one pimp, three prostitutes, and two transvestites. Here are the informant's profiles:

1. Ohang (pseudonym) is a 24-year-old man who works as a CSW intermediary with customers since 2018 (key informant).
2. NS is a 22-year-old CSW whose promotion is aided by pimping through the MiChat app. (informant).
3. SM is a 25-year-old online CSW using MiChat who previously worked at a biliary&karaoke entertainment venue and was once a conventional CSW (informant).
4. EL is a 19-year-old woman who works as an online CSW on the MiChat app. Currently, EL is studying undergraduate education at one of the campuses in Bogor City. (informant).
5. Indri, aka Indra, is a 25-year-old transvestite; {he decided to become a transvestite because he often hangs out with friends of the opposite sex and wants to change his lifestyle to a woman. Just like others, Indri also uses the MiChat app to search for customers (informants).
6. Angelina Wati aka Nurdin a 27-year-old transvestite, Angel decided to become a transvestite because of disappointment with the problems of romance and chose to become a transvestite to serve the lust of men who like

transvestites through the MiChat application (informant).

3. RESULTS AND DISCUSSION

3.1. *Use of MiChat Application as a Means of Online Prostitution*

Using various smartphone devices in communicating between CSW and prospective customers demonstrates the characteristics of *computer-mediated communication* (CMC) theory. The use of CMC theory is growing along with the variety of diverse virtual groups, and the characteristics of each group can enrich this theory. At the beginning of the development of CMC theory, it was limited to text that occurred in the online world. Nowadays, along with the development of communication technology, it is carried out with more varieties, such as oral or visual communication, following the demand of the users. CSW takes advantage of these technological advances by including visual communication through photos and uploaded videos. The existence of online prostitution is helpful as a connecting media chosen by prostitution perpetrators who do not want to bother coming to the localization or CSW place, so the MiChat application becomes functional as a medium to find and provide information about CSW in Bogor City.

Prostitution perpetrators use the MiChat application as a means of online prostitution as well as the communication process that occurs in the real world. There are two or more individuals who exchange messages that begin with one individual with the role of a sender (communicator) to initiate communication and one individual who acts as a recipient of messages (communicant). MiChat Application is widely misused and is very helpful for online prostitution activities. Unlike transvestite informants Indri and Angel, they prefer to stop peddling themselves on the roadside and use the MiChat application only to fill the void when waiting for customers. The process of using the MiChat app is straightforward, namely charging smartphone numbers, profile photos, and names and writing codes in the "*about*" column to give a signal to customers. There is a difference if CSW is using help from pimps because they should provide information to the pimps. Some CSW's MiChat accounts are managed by pimps.

Soon as the registration stage is complete, the MiChat account is ready to be used. Customers can search for CSW through *the people nearby* feature and can choose a CSW account that is located around the customer's location based on gender and age. In *the people nearby* feature, customers can also see the code used by CSW, such as "open BO" [14] and CSW account posts in the form of photos, videos, or testimonials to send signals to the customers. Prostitution perpetrators also often promote other

MiChat application users. This is done in hopes of getting customers faster. It is not difficult to use and search CSW in the MiChat app because many CSW accounts are online. The following information is the mechanism of CSW in undergoing online prostitution activities:

a) Transaction Stage

The transaction between prospective customers and CSW on the MiChat application is the first step for CSW to provide services to customers in running a prostitution business. This stage of interaction between the CSW and the customer occurs in the negotiation process. CSW allows customers to agree upon price, place, and time. At the transaction stage, there is a difference between prospective customers and CSW who use and does not use help from pimps. CSW who uses pimping assistance does not directly handle the negotiation process with customers because pimps manage CSW's account, so CSW only focuses on providing their services. The reason why CSW chooses to use pimping assistance is that many customers are not severe, and CSW feels lazy to respond to messages coming from unserious customers. CSWs who use the help of pimps still use the MiChat application when there are only a few customers.

b) Meeting Stage

The meeting stage between the CSW and the customer depends on the agreement built at the transaction stage. The meeting can take place at the CSW (*include*) or following the customer's wishes (*exclude*), and the payment system can be done directly after receiving services from the CSW or before the meeting by the previous agreement that has been made. At this stage of the meeting, including or *excluding* allows cancellation by the customer. This is because the customer feels it does not match the CSW or considers the photos on each CSW's MiChat account irrelevant. Of course, it is no longer strange, considering the sophistication of today's technology can change a person's photo to be more enjoyable just by using filters on specific applications.

c) Sex Services

Sex services offered by the CSW that use MiChat are generally sex. However, in terms of online prostitution, many types of sex categories can be offered, such as *Video Call Sex* (VCS), *Phone Sex* (PS), and the sale of personal content, such as the current hot case, namely the *case of exhibitions*. This is CSW's strategy to provide services to customers and earn money. Sex services can last between 3 to 6 hours, or for a short duration only once the game is as agreed upon at the transaction stage. Before CSW and customers have sex, most

customers ask about the CSW's personal life; this is done to dilute the atmosphere.

d) After Sex

After the stage of sex, service is completed, CSW often receives an invitation to just a regular date without any plus-plus elements in it. CSW also often consumes antibiotics; the use of these antibiotics is considered to prevent infectious diseases caused by intercourse. According to some informants, there are also fake accounts or hode (men pretending to be women using someone's identity) that are used to cheat, although those who use real accounts but not with real names, they use to maintain their own identity and security.

3.2. Communication Patterns Conducted by CSW In Using MiChat Application

The first communication pattern performed by the CSW using the MiChat application was a combination of primary and secondary communication patterns. The process of conveying thoughts by CSW to customers using verbal and nonverbal symbols in the form of photo and video uploads with *captions* on the CSW MiChat account. The use of tools or means as a medium to convey messages or information is the MiChat app itself.

The written language is a verbal symbol in the delivery of messages using codes such as "BO" that CSWs usually write in the "*about*" column and *captions* written on each photo or uploaded video to indicate that the account provides sex services. In addition to verbal messages in the form of language, there are also nonverbal messages, namely, photos and uploaded a video. These photos and videos also display sexy poses by showing body shapes that are a selling point for CSW to attract customers, such as the results of interviews with previous informants on the MiChat application. Not only photos and videos; CSW also uploads testimonials from previous customers to reassure the next customer. The combination of verbal and nonverbal symbols makes this communication pattern more effective. Figure 5 below *screenshot* of the CSW account on the MiChat app. The red sign means that CSW is not available for service.

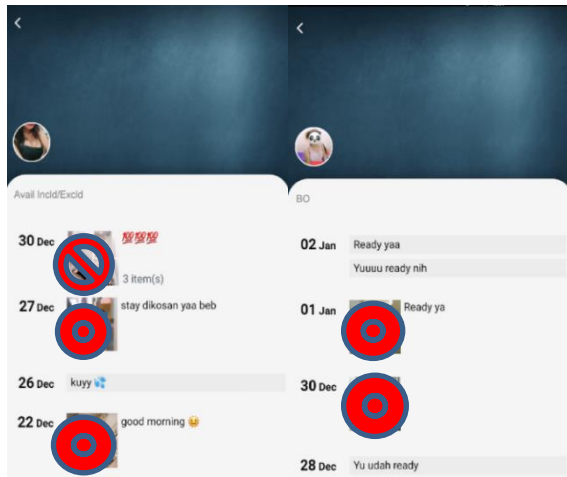


Figure 5. MiChat CSW account

The second communication pattern carried out by the CSW using the MiChat application is the circular communication pattern. CSW and customers can send messages to each other on the conversation menu, which makes this communication effective because it is both ways, and *feedback* occurs. Before the customer decides to use the CSW service of his choice, it is a good idea to ask her to send a current photo beforehand to prevent fraud and disappointments at the meeting stage because she did not meet the expectations. The CSW that voluntarily sends photos before the transaction will start the transaction. The photo in question is not vulgar but simply an ordinary one to compare with the MiChat applications.

3.3. Online Prostitution Communication Network

For CSW that uses pimping assistance, communication is carried out through coordination. Pimps perform the negotiation stage with customers and arrange meetings so that CSW only provides services to customers because pimps manage CSW MiChat accounts. Coordination is also carried out between CSW and pimps if CSW cannot serve customers. The group has no clear rules, and no one leads the group, pimping only as a link between the CSW and customers through the MiChat app. CSW, which uses the help from pimps, is still trying to get customers when there are only a few by managing its own MiChat account. CSW will also re-coordinate with pimps if they get customers. This group's communication network has been running well following Devito's theory that communication networks are channels used to transmit messages from one person to another. This can be seen in the coordination of each CSW with pimps in case of customer cancellations that occur at the meeting stage.

Pimps will act directly when they receive information that there has been a cancellation made by the customer and will coordinate with other CSWs

willing to serve the customer at a moment's note. CSW will offer other CSW services to customers through the prior coordination that has been done with the pimp. Pimps are not directly involved with customers; pimps only work behind the scenes to monitor the movements of the CSW. In this prostitution practice, pimps will get some money for a living and get services from the CSW for free, but that is only if the pimp manages to get customers for CSW. Pimps also often increase the price of CSW to get more benefits. From the interviews with the CSW group using pimping services, the structure of the communication network in this group is the structure of the wheel communication network, as in the figure below.

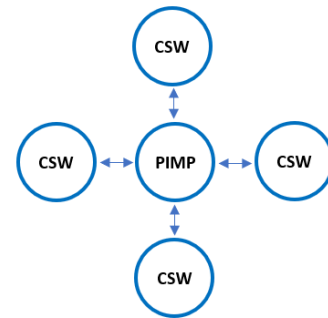


Figure 6. CSW Group Communication Network Using Pimping Assistance

Figure 6 explains the structure of the CSW group's communication network that uses the help of wheel-shaped pimps. Pimps send and receive messages from CSWs in this prostitution practice. The CSW communication network runs its prostitution practices without the help of pimps, and coordination runs smoothly in carrying out tasks with other CSW friends. CSW practices this policy to find customers through the MiChat app and will coordinate with other CSWs when one of them gets a customer or cancels during a customer meeting. CSW also often offers the services of their friends to customers if the customer comes with his friend. CSW group that works alone, the structure of the communication network is a network of all channels, as shown in figure 7 below:

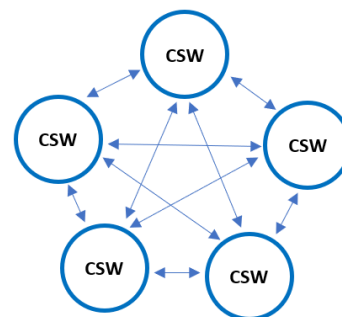


Figure 7. The Working CSW Group Communication Network

Figure 7 explains the self-working CSW group communication network structure that takes the form of all channels. This group does not have a leader; everyone occupies the same position as a CSW. Every CSW in this circular communication network has the same authority or power and can communicate with every other member. In a transvestite communication network, coordination also runs smoothly in working with other transvestites. Some transvestites always coordinate with other transvestites when getting inappropriate offers from customers.

Coordination carried out by transvestites is the same as what's done by CSW, to pass out customers to other transvestites should there be cancellation. Not all transvestites coordinate with others if they get a low customer offer. Transvestites often ignore the customer and do not coordinate with other transvestites considering that the price offered does not attract other transvestite fellows. The transvestite group has no rules to carry out their work, they only refer to their own desires. The structure of transvestite communication networks is the same as the self-working CSW group, the 'all channels' communication networks, such as below:

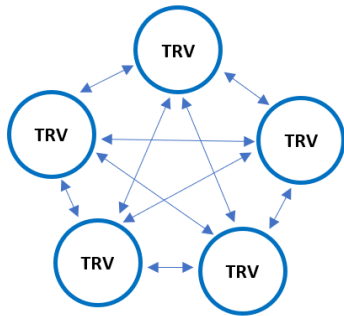


Figure 8. Transvestite (TRV) Group Communication Network Structure

Figure 8 illustrates the communication network structure of transvestite groups in the form of all channels. This group has no leader; all transvestites occupy the same position. Every transvestite can communicate with one another. To control prostitution activities, efforts can be made by the police in coordination with the Regional Government, Social Services, Health Services, and the Civil Service Police Unit (Satpol PP) by carrying out routine patrol activities to places of alleged prostitution activities. In handling cases of prostitution activities, the police have a special section to deal with it, namely the PPA unit because it relates to women and children.

According to the police, the factors that affect women plunged into prostitution are caused by economic, cultural, and personal factors. The police also implemented Law No. 21 of 2007 on combating non-criminal trafficking in persons, imprisonment, and fines following applicable laws; the sanctions apply to pimps because they are the traffickers. CSW who

already have an official partner on the basis of marriage either male or a female, can be charged with the clause of adultery contained in Clause 284 of the Criminal Code. Vice versa, if the male or female customer already has an official partner based on marriage, the charge also applies only if there is any complaint from the legal spouse. If there is no complaint, they can not be considered to have been committing any criminal acts. Customers using underaged CSWs (below 18 years old) can be charged with Child Protection Act clause, and the underaged CSW will be handled by the Social Service to be given counseling guidance [15]. Online prostitution in Indonesia is a crime of human trafficking, its sanctions are already regulated by law [16][17].

The migration of prostitution as an online business is a pattern that occurs globally that relies on network methods. There are differences in the structural patterns of migration networks of sex workers compared to the migrations of the general population. [18]. In the United States, eradicating online prostitution through technology, criminalization, and legal and religious approaches worsens the vulnerability of sex workers. The eradication of the online prostitution business leads sex workers to find customers on the streets again and become increasingly vulnerable to the security of third parties, namely pimps. [19]. Another study found no difference in attitudes among male consumers in the prostitution market about gender equality in the workplace and at home. This means all customers have a more egalitarian attitude towards the role of women in deciding to choose a job as a sex worker. The study also found that masculinity and gender role attitudes affect the patterns of male demand for paid sex. [20].

The occurrence of cultural change in the digital era is inevitable, especially when it comes to the rapid growth of the sex business. The business are including cyber dating and hookup culture, erotica, pornographic websites, videogames, web camming, hidden cams, online voyeurism, sex workers' platform, websites, and forums, digitally engineered sex, the dark side of the net such as cyberbullying, online pedophilia, revenge, and porn [21]. The emergence of social media brings a breath of fresh air of advanced technologies, but it also destroys people's social life. Netiquette is an internet moral regulation for netizens to communicate positively. This regulation can potentially push down the number of hate speech, hoax issues, cyberbullying, insults, online fraud, digital sexual crimes, child trafficking, online prostitution, and various other cyber crimes [22]. There have been efforts to establish a "good moral police" unit who are intensively patrolling suspected prostitution places such as boarding houses, massage parlors, and hotels [23]. An effort is also the closure of prostitution localization [24], but this does not resolve the intellectual property rights violations experienced

by the founder of the MiChat application in Indonesia. So we can say that law enforcement for online prostitution in Indonesia is still weak because it does not solve this problem completely.

On the other hand, there are studies about various digital forensic analyses of MiChat being used as an online prostitution application, this can be treated as evidence for law enforcement. So instead of being a victim of intellectual property rights violation, the MiChat application has now proven to be a tool that enables online prostitution to run smoothly [25]. This study proves that online prostitution using the MiChat application still occurs during the covid-19 pandemic.

3.4. *The Relationship between Intellectual Property Rights Violation and Traditional Cyber Crime*

The study's main finding is that the MiChat business model is taking advantage of Intellectual Property Rights (IPR) violations to commit traditional cyber crimes. MiChat app IPR form of violation is a combination between a traditional cybercrime and the use of advanced technology to obtain a user's personal data and other valuable information. It can be observed that the online prostitution business model carried out by the MiChat app is considered to violate IPR based on the generally accepted legal online business model. CSW is a 'product' managed by pimps and considered a 'third-party market.'

4. CONCLUSION

Some conclusions can be drawn from the study, such as:

1. CSW using the MiChat application, performs all three communication patterns: primary, secondary, and circular. The primary and secondary patterns are shown through CSW photos and video uploads on the MiChat app. The circular pattern is shown through the negotiation process between the communicator and communicant before the meeting stage; it is a two-way communication.
2. Prostitutes who use the help from pimps perform a wheel-type communication network because the pimp sends and receives messages from the CSW. A self-employed CSW group and transvestites perform an "all channels" type communication network because no one is leading the group; everybody is in the same position. The CSW can send and receive messages from fellow CSWs without any hierarchy.
3. The MiChat online prostitution business model has violated IPR because of its Application, which initially aimed to increase friendship networks, and is now being misused as a means of online prostitution. The business model is different from the model that does not violate IPR. Violations are

committed because the operator claims to be a legally valid 'product' provider while the 'product' violates IPR. Sometimes the deceptive nature of this business model has to do with typical fraudulent activities. Like the MiChat application, IPR violations are carried out entirely blatantly, but many register as users.

4. Darknet business model like the MiChat app is currently growing. This Application is designed to benefit from IPR violations because, from the management of MiChat, there is no effort to stop this online prostitution practice. This business derives its income from the number of registered users. The more users, the more attractive it is for third parties to introduce their brands on this app.
5. IPR violation activities carried out by MiChat are within the control of its managers so that law enforcement can be applied through criminal complaints or other law enforcement mechanisms. Vendors who register as users often hide their identities using privacy protection services or providing fake contact details on the MiChat app. This condition hinders efforts to eradicate IPR violations. The credibility of the MiChat operator at this point clearly distinguishes itself from other business operators who do not violate it.

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