

## **Pandemic Corona virus (Covid-19): Twitter Analysis as a Social Media Information Platform in Indonesia**

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### **ABSTRAK**

Media sosial Twitter sebagai sarana untuk memberikan informasi saat ini, selama pandemi Covid-19, informasi yang disampaikan oleh pemerintah dalam hal ini akun Twitter dari Departemen Kesehatan Republik Indonesia akan menjadi referensi publik. Penelitian ini menggunakan aplikasi teknologi Nvivo12 Plus untuk mendapatkan data. Studi ini mengungkapkan penggunaan media sosial Twitter tentang menyebarkan informasi media sosial di Twitter # COVID19, # Covid19Indonesia, dan akun Twitter dari Departemen Kesehatan Republik Indonesia. Metode kualitatif digunakan untuk menemukan model media sosial yang digunakan sebagai saluran komunikasi massa. Hasil data menunjukkan bahwa banyak kampanye media sosial yang intens membahas semua dampak virus corona (Covid-19), dan diskusi tentang penjualan masker dan hand sanitizer dengan harga yang relatif tinggi. Akun Twitter Kemenkes memberikan informasi terkait pencegahan dan memotivasi masyarakat untuk selalu menerapkan social distancing, physical distancing, pembatasan sosial berskala besar (PSBB), tinggal di rumah, tidak pulang kampung, tetap bersih, serta selalu cuci tangan pakai sabun dan hand sanitizer, dan gunakan masker.

**Kata Kunci: Coronavirus, Social Media, Twitter, Komunikasi**

### **ABSTRACT**

Social media Twitter as a means of providing information at this time, during the Covid-19 pandemic, the Government's announcement, in this case, the Twitter account from the Ministry of Health of the Republic of Indonesia, will become a public reference. This study uses the Nvivo12 Plus technology application to obtain data. This study reveals the use of social media Twitter about spreading social media information on Twitter with (hashtag) # COVID19, # Covid19Indonesia, and Twitter accounts from the Ministry of Health of the Republic of Indonesia. Qualitative methods are used to find a social media model that is used as a mass communication channel. The data results show that many intense social media campaigns discuss all the impacts of the Coronavirus (Covid-19) and discussions about selling masks and hand sanitizer at relatively high prices. The Ministry of Health's Twitter account provides information related to prevention and motivates the public always to implement social distancing, physical distancing, large-scale social distancing (PSBB), stay at home, don't return home, stay clean, and always wash their hands with soap and hand sanitizer, and use the face mask.

**Keyword: Coronavirus, Social Media, Twitter, Communication**

### **Introduction**

The current Coronavirus Pandemic (COVID-19) highlights the interconnectedness of today's global culture. Virtual communication has become

an essential source of misinformation, thanks to distancing social policies (Sharma et al., 2020). The discovery of a new virus caused by SARS CoV-2 called Corona Virus Disease or more popularly called

Covid-2019 ([Li et al., 2020](#)). Covid-2019 caused minor disruption in the respiratory system, lung infections, and death began in Wuhan, China, precisely in December 2019. World Health Organization (WHO) then set Coronavirus as a pandemic on March 11, 2020. Covid- 19 is of concern because it suppresses an increase in mass deaths. Based on WHO data as of April 29, 2020, the death rate from various countries in the world affected reached 208,112 fatalities ([WHO, 2020](#)).

In contrast, the Indonesian state death toll reached 773 fatalities ([Kemenkes, 2020](#)). Coronavirus (Covid-19), classified as a new virus, has an anxiety effect and is of concern to the world's population today. Transmission rates are so fast that they have spread to various countries, including Indonesia.

The transmission will continue if the community does not have access to adequate information. Therefore, the disclosure of information from authorized government agencies is essential. Because the presence of massive information can provide knowledge of the impact and prevention process to accelerate the termination of Coronavirus transmission (Covid-19). In the Indonesian context, the Ministry of Health (Kemenkes) of the Republic of Indonesia, as a representative of the Government, is responsible for

providing information to the public ([Chen et al., 2020](#)). The Government must act quickly to effectively and efficiently communicate crisis information to the public because failure to provide data makes citizens fearful, uncertain, and anxious. Involvement of citizens in the period during the crisis is significant, either in contributing or in giving correct information to the Government ([Venkatesh et al., 2017](#)).

According to Kent & Taylor (1998), Dialogue communication is developed based on that organizations must use the internet to promote dialogic communication, namely by the exchange of negotiated ideas and opinions, where between parties in a relationship can be involved in giving and receiving transparent, honest based on ethics. Thus the organization must implement a communication strategy aimed at increasing stakeholder involvement, to achieve much better mutual understanding and get more excellent opportunities to communicate ([Gálvez-Rodríguez et al., 2018](#)). To find out the community's readiness for a service, the Government is obliged to provide what becomes the community's right. One of them is information, and public information disclosure is necessary. According to Yavuz and Welch that for testing managerial, organizational, and environmental factors associated with variations in the

transparency and interactivity of government website features (Firdaus, 2017).

Since social media is the principal source of knowledge for people around the world, disinformation has become highly important and difficult to curb. The Pew Research report shows that social media networks exceeded the printed newspaper in 2018 (Sharma et al., 2020). The pattern of social media use from *Karang Taruna Medan*, and BPK Ormas Oi Medan in Johor is divided into communication ethics and scam information classification (Mujahiddin, 2017). The use of technology, especially social media, has provided easy access to communicating information or providing information disclosure. Social media creates interactive information communication platforms for disaster preparedness, mitigation, response and recovery. Popular social media platforms: Facebook, YouTube, and Twitter have been used as communication channels between professional stakeholders and the general public (Tang et al., 2015).

Twitter is used in various ways to communicate and manage related risks including messages to provide official updates, encourage protective behavior, increase awareness, and guide public attention to reduce actions (Panagiotopoulos et al., 2016). The chatter

on Twitter's comments started with opinion leaders developing influence in any comments on discrimination against Uighur Muslims (Indainanto, 2020). It aims to recognize the goals and concerns of the community and can manage fear, confusion, and anxiety in society. With public communication, Governments will strive to raise public awareness about self-resilience and self-awareness in the face of the crisis, and increase the capacity of government agencies to be able to process crisis information and can determine what public services will be provided to the public (Chatfield & Reddick, 2018).

Explosive data available online as a result of the use of significant social media can be used as a source of data to predict the outcome of community interaction in cyberspace which makes public opinion (Budiharto & Meiliana, 2018). Users can post content such as text, images and short videos about any topic on Twitter. Data is captured on time, time zone, location, device, and other variables in addition to the posting content. Others may provide gender, user language, and demographic details about users such as age and gender to expand the necessary information. Indonesia ranks third in the world in the number of active Twitter users, with more than 20 million users. This wealth of data has great potential to provide real-time insights into public interests and concerns,

and for the Government to consider people as a whole's priorities, attitudes and behaviors ([Amin et al., 2018](#)).

Twitter Indonesia Country Industry Head, Dwi Adriansah, said that global Twitter daily users in 2019 increased by 21% year on year. But for Indonesia, this increase reached 3.5 times above the global figure. So that puts Indonesia in the top five in the whole world. Twitter becomes a platform for frequent information, from severe discussions to just asking for news ([Detik, 2020](#)). The development of Pandemic Covid-19 in Indonesia is now making the community thirst for information. They are looking for all information through social media, i.e. Twitter. The activities of the Twitter movement in Indonesia in presenting pandemic information, both actual and hoax, must be sorted. So that the people of Indonesia not eaten hoaxes and make panic of Indonesian society. The Indonesian Government must be firmly in filling the void of information or giving real information to the public through the Ministry of Health's Twitter account that uses hashtag Covid.

Work on the study of disinformation relating to the pandemic and appropriate health care but missing. Research on COVID-19 seeks to provide new perspectives and observations on social

media and disinformation related to the global crisis and pandemic. As such, this study will explore the intensity of using Twitter as a social media information platform in Indonesia during the Covid-19 pandemic through the Indonesian Ministry of Health Twitter account from October 2019 to April 27 2020. In the following section, we will discuss data collection, analysis and results, and future work.

## **Methodology**

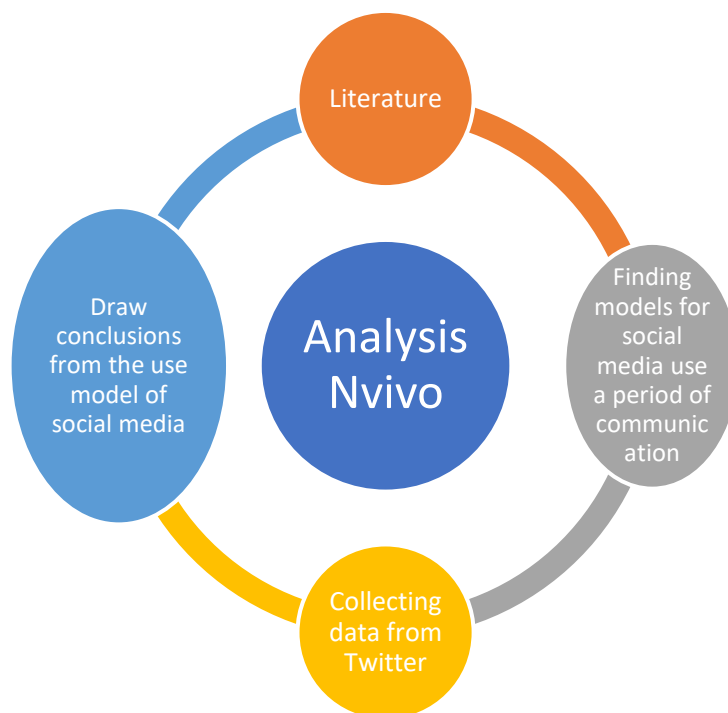
A worldwide epidemic broke out in Wuhan, Hubei Province, China in December 2019. Known and unconfirmed new events in the field of world health. This condition is an acute respiratory illness caused by a new type of Coronavirus. The World Health Organization (WHO) changed its name for this disease on February 11 2020, COVID-19. Due to its status as a global pandemic and a significant threat to human life and health, this study takes the COVID-19 crisis as one event. The number of confirmed COVID-19 cases was 332,930 worldwide, with more than 190 countries/regions/regions affected, according to a study published by WHO on March 23 2020. The death toll has reached 14,500.

The first case of COVID 19, which appeared in Indonesia on March 2 2020. The number of positive COVID-19 cases

has continued to increase since the first case was announced. Even as early as April 2020, COVID-19 had reached 1,677 positive cases. Patients who recovered as many as 103 and 157 other patients died, too. Of course, since the first case was in early March, the figure is considered relatively rising. Corona entered Indonesia for at least a month, but there were over a thousand positive patients.

The study used a qualitative research method and went through five stages: Literature study, finding models in the use of social media to communicate, collecting data from Twitter, Nvivo 12 Plus analysis, drawing conclusions from social media usage models. The research flow is displayed as follows:

**Figure 1. Research Process**



The data in this study were collected through the literature review method, the taking of news documents and trending social media on Twitter # Covid19, # Covid19Indonesia, and the Twitter account of the Ministry of Health of the Republic of Indonesia through the Ncapture Nvivo 12 Plus stage, then analysis through the Nvivo

12 Plus software which intended to analyze internet-based qualitative data, encode data, test validity and reliability, and visualize the results of data analysis. Nvivo 12 Plus analysis is used to analyze qualitative data to produce more professional results (AlYahmady & Al Abri, 2013). This research focuses on how the intensity of

activities using Twitter during the corona pandemic in Indonesia in disseminating information for the coronavirus pandemic (Covid-19). A total of 19,334 Twitter users with hashtags (# Covid19), (# Covid19Indonesia), and (#Kemenkes) this data was taken from October 2019 to April 27, 2020.

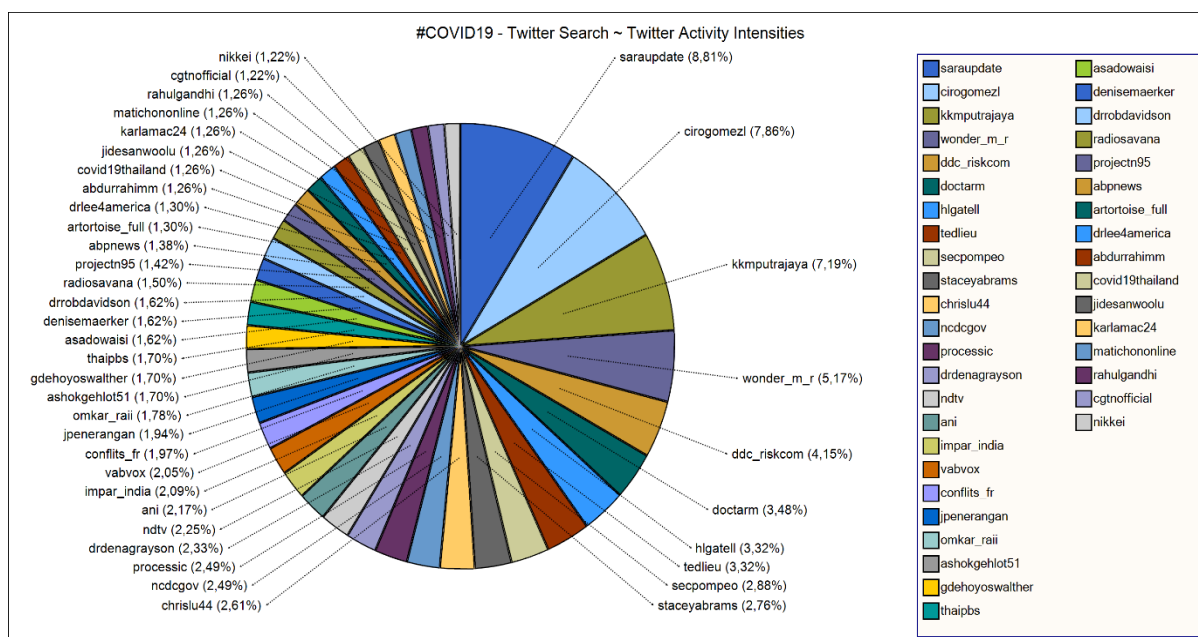
## Results And Discussion

With its user's social media can be elementary to participate, share and create content including blogs, social networks, forums and the virtual world. Blogs, social

networks and wikis are the forms of social media most often used by people throughout the world. Social media is online media that supports social interaction and social media using web-based technology that can turn communication into an interactive dialogue (Lubis, 2018).

This social media is the latest development of new internet-based web technologies that make it easy for all users to be able to communicate, participate in various forms of online networking, and can disseminate their content. (Kerafa & Komalasari, 2018).

**Figure 2. Analysis of Twitter #Covid19**



Source: Ncapture Twitter Fitur Chart Nvivo 12 Plus, 2020

Based on the picture above shows the intensity of activity # Covid19 conditions April 28, 2020, throughout the world in social media Twitter. It can be seen that Coronavirus (covid-19) is a reasonable

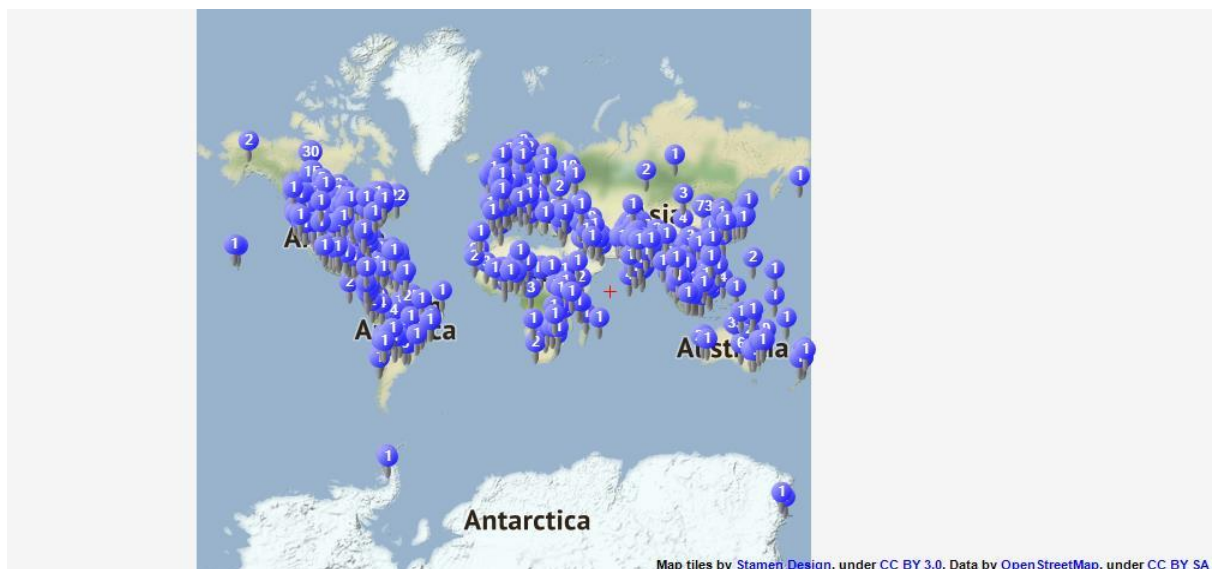
concern in various parts of the world. Then # Covid19 is also trending in Twitter users in Indonesia. With Twitter user activity across the Country by 12,500 tweets, the level of activity on social media is 99.97%



with Covid19 hashtag. As for various discussions relating to covid, as conducted by the @Crofrogzz account, it is argued that in the heat of the covid-19 pandemic, many protests by medical personnel continued due to lack of supplies, this was a part of the way they demonstrated in several hospitals. Mexico is the Country with the fewest co-19 tests, according to the OECD; for every thousand population, 0.4 tests are carried out. Iceland and Luxembourg are the countries with the most tests among their citizens. The value obtained from the @Cirogomezl account is 7.86%. While the Twitter account named @Sundarpichai stated that starting May 29 Youtube will hold a 10-day digital film festival along

with more than 20 international film festivals to help raise funds for co-19 relief efforts. From the State of Cuba with the Twitter account @RosaMariaPaya conveyed their insight that they (covid-19) wanted to kill us, seven days without water, lack of food, sick children, and many who were desperate from the women. In Indonesia alone, the @SEACoronavirus Twitter account states that Indonesia hopes to return to normal in July according to the Government's co-19 task force. Still, University of Queensland professor Ian Mackay has questioned this assessment and believes Indonesia needs to improve testing before making such statements.

**Figure 3. Analysis of Twitter #Covid19**



Source: Ncapture Twitter Fitur Map Nvivo 12 Plus, 2020

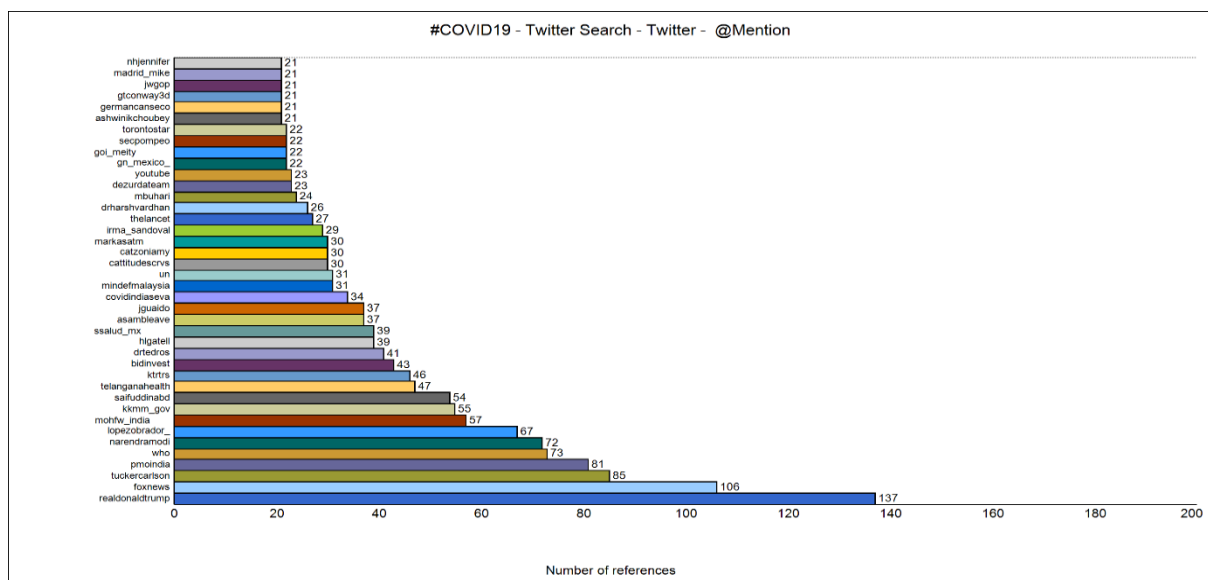
Figure 3 above shows the spread of Twitter users to Coronavirus # Covid19 in various countries. Social media users also made # Covid19 the highest-intensity

conversation on Twitter. Most in any country still report cases of co-19 through social media Twitter, using hashtag covid19. Twitter accounts in various parts

of the Country make statements, on Indonesia's own Twitter account stating that the Indonesian economy can enter a recession and experience a recovery that is far longer than Southeast Asian countries the handling of the co-19 pandemic government remains slow and amateur, economists have warned. The mishandling of deaths in Indonesia caused by covid-19 reminds me of Wuhan at the beginning of the pandemic. Thousands of deaths are not well recorded due to lack of capacity to cope with the increasing number of cases, as for some reminders during the pandemic. Foreigners living in Indonesia are encouraged to comply with Indonesian

regulations on Covid-19. There are many complaints about governance in Indonesia. Corruption and incapacity come to mind. From the State of Australia is one having another level of success that has destroyed the curve through massive testing. More than 500 thousand were tested with a positivity rate of only 1.3%. This shows that various public health measures implemented are beneficial in limiting the spread of this disease. Covid-19 has stopped the Brazilian economy, but illegal mining and deforestation are developing, and criminal groups are taking advantage of the lack of security from law enforcement officials.

**Figure 4. Analysis of Twitter #Covid19 by @Mention**



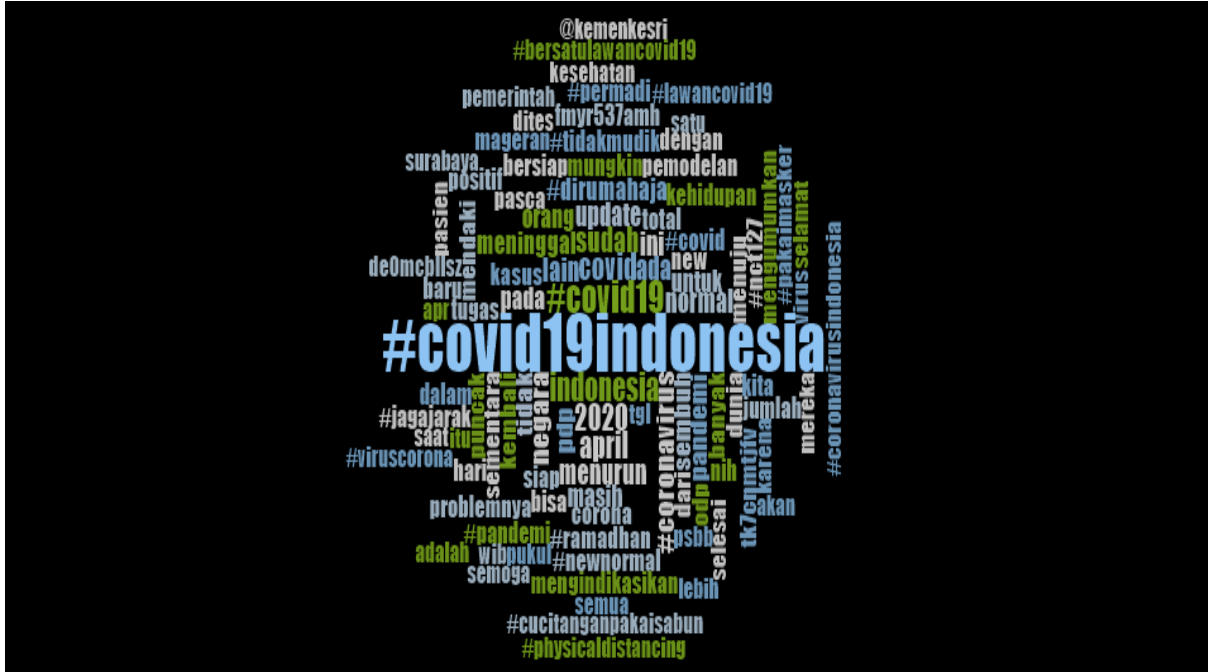
Source: Capture Twitter Fitur Word Frequency Nvivo 12 Plus, 2020

Based on the above image analysis shows that hashtag #Covid19 on Twitter's social media platform in various parts of the world mentions Realdonaldtrump as the most

account mention of Twitter users. Mention of 137 shows that Donald Trump, as president of the United States can provide information in tackling the Covid-19. But

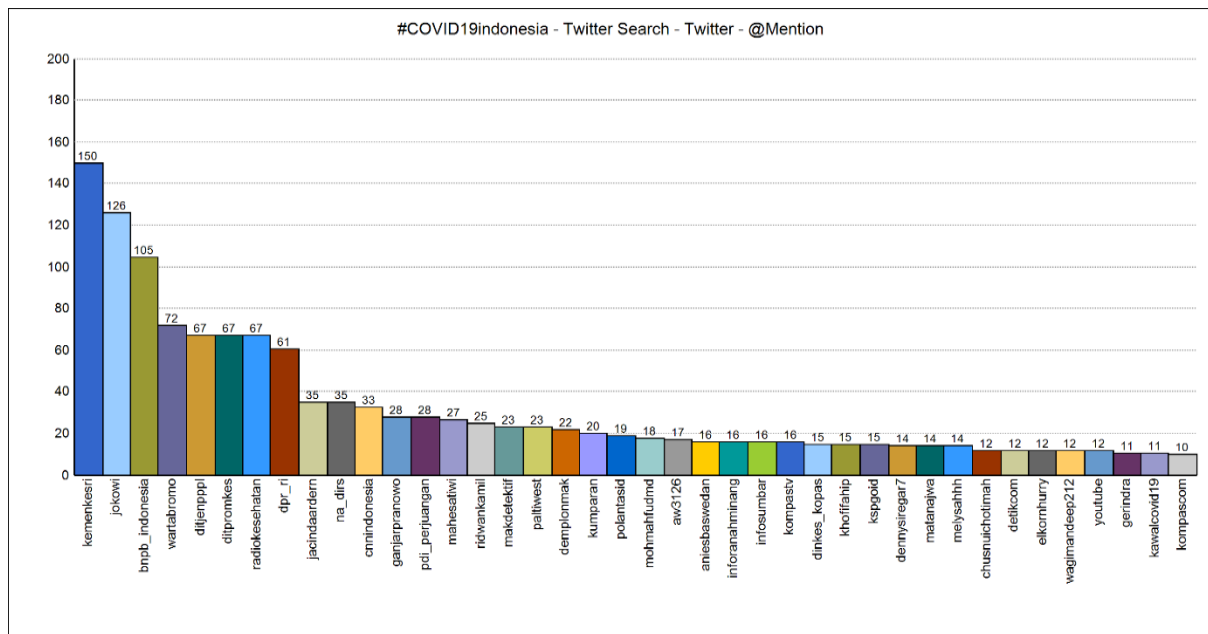


Organization (WHO), then the budget will be transferred to countries whose health system needs assistance in handling Covid-19.



Source: N capture Twitter Fitur Word Frequency Nvivo 12 Plus, 2020

community. During the pandemic, many people also remained at home so that this disaster could be resolved quickly and reduced the burden on medical personnel. A total of 5,675 Twitter users in Indonesia with conditions on April 20, 2020, to conditions on April 28, 2020. With only a relatively short amount of time but all activities and activities and discussions about Coronavirus (Covid-19) with high intensity and increase in the use of Twitter. Therefore do not rule out the possibility of the high intensity on social media. Twitter can avoid covid-19 hoax news.

**Figure 6. Analysis of Twitter #Covid19Indonesia by @Mention**

Source: NCapture Twitter Fitur Word Frequency Nvivo 12 Plus, 2020

Based on the Twitter analysis image with Hashtag covid19Indonesia above shows some mentions marked by multiple accounts in the Twitter activity. This indicates that these accounts still delegate in handling coronavirus (Covid-19) to several accounts which are as maintainers and who have the effect of making handling and policy of tackling Covid-19. Above can be seen that the most widely mentioned Twitter account is KemenkesRI with a value of 150, followed by a value of 126, Bnpb\_Indonesia with a value of 105. The activity on Twitter still hopes in tackling the Covid-19 to the tweet account already mentioned with the intensity of the value obtained.

Just at home to campaign for the community to feel at home during the

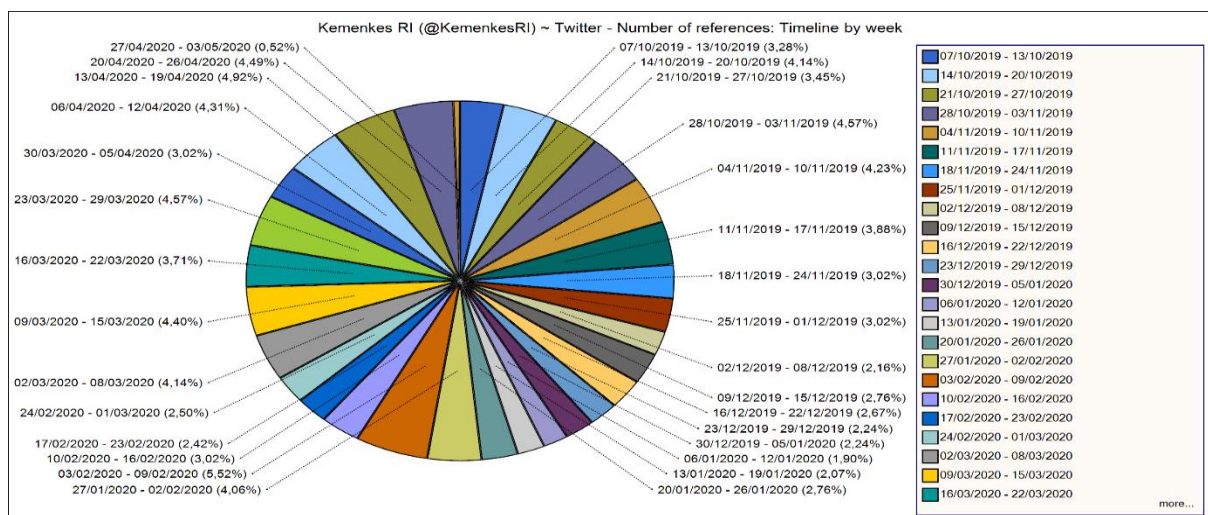
Covid-19 pandemic. Social distancing, one of the steps to prevent and control coronavirus infection (Covid-19) by encouraging healthy people to limit visits to crowded places and direct contact with other people. Keep your distance, issued by the World Health Organization (WHO), which is used as an appeal to maintain physical distance to avoid the Coronavirus's spread and is used as an appeal by the Indonesian Government, even recommending that this method be done at home. In practice, this can be done in the following ways: Do not leave the house, except for essential things, such as buying groceries or taking medication when sick; Greet others with a wave of your hand, not by shaking hands; Work or study from home; Take advantage of cell phones or video calls to stay in touch with relatives

and coworkers; Do exercise at home, not at a sports centre or gym; If you want to shop for groceries, do it outside of peak hours; Requesting the courier to deliver goods or food for contactless delivery (accept orders without meeting the courier in person) when ordering food or other goods; Postpone visiting other people or going home, especially in the upcoming month of Ramadan.

Large-Scale Social Restrictions (PSBB) as stipulated in Government Regulation Number 21 of 2020 and disclosed in detail in the Regulation of the Minister of Health (Pemenkes) of the Republic of Indonesia Number 9 of 2020 concerning Guidelines for Large-Scale Social Boundaries in the Environment in the

context of accelerated treatment of the Coronavirus (Covid-19). There are five essential points in implementing Large-Scale Social Restrictions: They last for 14 days; Transport Restrictions; There are no road closures; There are no disappearances for PSBB violators; Logistical deliveries continued usually. An appeal not to go back and forth issued by the central Government so that people remain in the previous area and not travel to other sites. Posters were made by several websites and Twitter users in Indonesia as a form of concern for fellow humans, meaning that this sign is an appeal made by the Indonesian Government to the public to break the Coronavirus (Covid-19) and make it easier for medical personnel in hospitals.

**Figure 7. Twitter Ministry of Health Analysis**



Source: Ncapture Twitter Fitur Chart Nvivo 12 Plus, 2020

Based on Figure 7, the Twitter analysis of the Ministry of Health of the Republic of Indonesia shows that conditions on January 20, 2020, containing

preliminary information on Coronavirus (Covid-19), on January 22, 2020, Indonesia is ready to anticipate pneumonia outbreaks in China. The Ministry of Health enforces

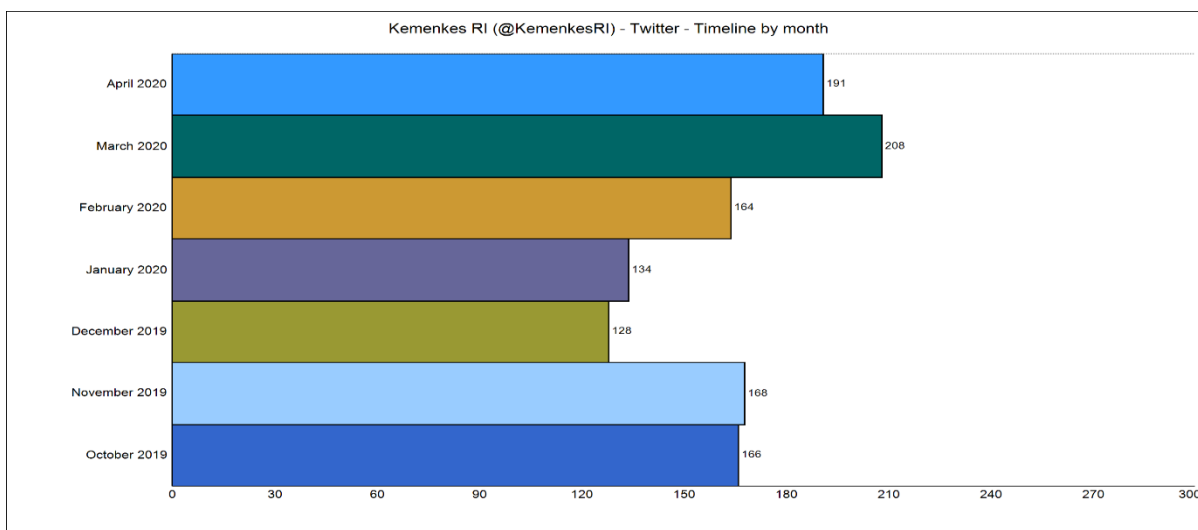
alertness with thermoscanner at 135 doors Country. On January 23, 2020, the issue of covid-19 appeared in Indonesia, the Ministry of Health requested all parties to remain calm, on January 26, 2020, providing information that there were no Indonesian citizens in God who had contracted Coronavirus (Covid-19). On January 27, 2020, hoax news circulated on social media, then on March 2 2020, it was confirmed that two patients had contracted Coronavirus (Covid-19) in Indonesia.

On the intensity of Twitter user activity of the Ministry of Health of the Republic of Indonesia, the condition of October 7, 2019, up to the condition on January 19, 2020, with the percentage of intensity of Twitter activity of 45.63%. Then with the conditions on January 20, 2020, until the conditions on April 27, 2020, the percentage of the intensity of Twitter activity began to increase by 54, 36%. The

effects of the intensity of the Coronavirus (Covid-19) for the people of Indonesia began to be seen since the condition on January 20, 2020.

The Indonesian Ministry of Health's Twitter account also stated with optimism that Indonesia was able to fight co-19. The key to fighting co-19 is with strong discipline and discipline from all elements of society to make prevention efforts. Keep your peers, keep healthy, keep yourself clean and keep the information you get. Retweeting is done from all Twitter account users to the Indonesian Ministry of Health's Twitter account providing information related to prevention and motivating the public always to implement social distancing, physical distancing, large-scale social restrictions (PSBB), stay at home, don't go home, keep clean, always wash your hands with soap, hand sanitizer, and use a mask.

**Figure 8. Analysis Twitter Ministry of Health Republic Indonesia by activity**

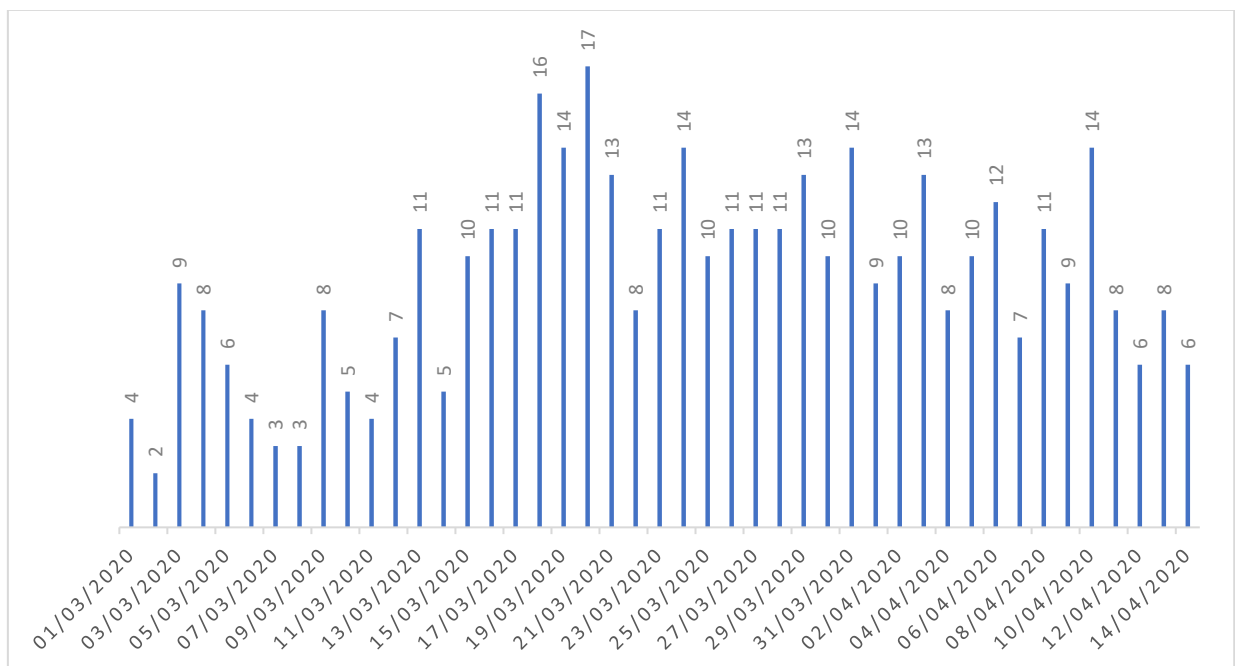


Source: Ncapture Twitter Fitur Chart Nvivo 12 Plus, 2020

The picture above shows that there is a difference in the Twitter account of the Ministry of Health of the Republic of Indonesia in activity in the year 2019 and 2020. It gives an overview related to the activity of Twitter account of the very dominant KemenkesRI in March and April year 2020, because of the pandemic Covid-19, so the activity of Twitter Ministry of Health starts very impressive in providing

information about Coronavirus and in handling. However, unlike the previous month that the Twitter activity of KemenkesRI relatively little in providing information. This difference proves that social media platform Twitter KemenkesRI become one place in providing considerable information on the other Twitter users in the Republic of Indonesia.

**Figure 9. Number of posts confirmed by the Republic of Indonesia's communications and information ministry hoax**



Source: website of the Republic of Indonesia's Ministry of Communication and Information

Based on the data taken from the official website of the Republic of Indonesia which is the Ministry of Communication and Information on the number of post hoax reported related to Garry 19 taken from 1 March-14 April 2020 News lie post 415, from the picture above shows the news lying every day has

increased. On March 21, 2020, the most Hoax post 17 Posts. It spread erroneous information masks healthy behaviour and promotes incorrect practices that increase the spread of the virus and ultimately lead to poor results in individual physical and mental health. Many injuries caused by

rumours have been recorded all over the world.

The issue of any individual or person whose origin is posting and spreading the news that is not feared correctly will make the community who reads it will receive bad-impact news for the future. It can also make people confused after receiving false news and can make noise in the middle of society. In the fake news that circulated in the middle of a pandemic like this a lot of people who readily absorb or spread back through other groups of platforms, and easily false information can affect the users of information technology in Indonesia. The impact of the hoax news that spreads quickly in the current situation can make a country fail to acquire or process information in any existing disasters and decrease in education level in the state, even in any situation that is a joint discussion to create a direct policy.

The use of advanced technologies such as natural language processing or data mining approaches to detect and remove online content without the scientific basis of all social media platforms must be anticipated as well as reinforce the analysis of each individual so that they are not affected by false news. It is expected to be a shield for fake news and provide the correct

information about COVID-19 of the official Twitter Republic of Health Indonesia.

## **Conclusion**

Twitter user activity in all states with 12,500 Twitter accounts, the activity level on social media is 99.97% with covid19 hashtags. In Indonesia alone, the Twitter account @SEACoronavirus was returned to Indonesia in July to return to normal in July according to the joint government task force 19. However, Queensland University professor Ian Mackay questioned this report and believed that Indonesia needed to increase shipments before making a statement like that. Twitter accounts in various parts of the Country decided on Indonesia's own Twitter account, which stated that the Indonesian Government could approve and improve much longer than Southeast Asian countries in handling the co-19 pandemic government, remain slow and amateur, economists must be improved.

Twitter analysis from the Ministry of Health of the Republic of Indonesia shows that conditions on January 20, 2020, contain preliminary information about Coronavirus (Covid-19), on January 22, 2020, Indonesia is ready to anticipate an outbreak of pneumonia in China and the Ministry of Health enforces vigilance with a thermoscanner at 135 doors Country. On



the intensity of Twitter user activity from the Ministry of Health of the Republic of Indonesia, the condition of October 7, 2019, to the condition on January 19, 2020, with a percentage of the intensity of Twitter activity of 45.63%. Retweeting is done from all Twitter account users to the Indonesian Ministry of Health Twitter account which provides information related to prevention and motivates people always to apply social distance, physical distance, large-scale social restrictions (PSBB), stay at home, don't go home, stay clean, always wash your hands with soap, hand sanitizer, and use a mask.

The use of sophisticated technology such as natural language processing or data mining approaches to detect and remove online content without the scientific basis of all social media platforms must be anticipated. It is hoped that it will be a shield for fake news and provide correct information about COVID-19 from the official Twitter of the Indonesian health ministry republic.

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