## Making The Disaster Trending:  Study of #KalselJugaIndonesia on Twitter

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**Abstract:** Often referred to as a world disaster laboratory, Indonesia is one of the most prone to natural disasters globally. Disasters can happen at any time. Good disaster management is necessary given the colossal impact of disasters. Disaster communication is also vital in disaster management and is now closely related to social media. In a disaster situation, three types of information are commonly circulated on social media, namely situational information, sentiments, and personal opinions. This study attempts to map out the dominant information in the hashtag #KalselJugaIndonesia, which is related to the flood disaster in South Kalimantan last January 2021, which managed to become a trending topic overcoming other disaster discourses at the same time. This research is descriptive qualitative research with a directed qualitative content analysis method. As a result, it was found that sentiments of sympathy, sadness, and anger were the main drivers of the hashtag #KalselJugaIndonesia. In addition, the inclusion of this unusual and discourse-filled hashtag is the reason why people's attention can be drawn to the flood disaster in South Kalimantan at that time.

## INTRODUCTION

Indonesia is one of the most disaster-prone countries in the world, and is often referred to as a world disaster laboratory (Rahman & Hutagalung, 2020). In addition to the threat of earthquakes and volcanic eruptions that often occur because Indonesia is located on the Pacific Ring of Fire, the risk index for other natural disasters in Indonesia such as tsunamis, floods, landslides, droughts, and forest fires is also relatively high compared to other countries (Statista, 2021).

A natural disaster is any hazard caused by meteorological and earth forces without human intervention and involvement. Due to the significant social and economic impact it has, the threat of natural disasters cannot be taken lightly (Hansun, 2020). In 2021, Indonesia was the second most prone to natural disasters because the number of natural disasters that occurred was the second largest after the United States. Floods became one

of the most frequent natural disasters that occurred that year (Szmigiera, 2022). Other data released by the National Disaster Management Agency (BNPB) recorded floods as the most frequent disasters in Indonesia, namely 1,298 events out of a total of 3,092 disaster events that occurred throughout 2021 (Muhari, 2021). Compared to 2020, the total disasters that occurred in Indonesia in 2021 decreased by 33.5 percent. Even so, the impact of the disasters that occurred throughout 2021 was much greater than in 2020. BNPB recorded an increase of 76.9 percent in the number of deaths, as well as another increase in the number of injured, affected and displaced residents, and damaged houses. Muhari emphasized that lessons learned from the series of disasters that occurred were important to be used as a reference for preparedness plans in the coming year.

Disasters can happen at any time, unexpectedly, with varying degrees of severity. The impact of a disaster can be dire, not only for the victims, but also for those around them. This raises awareness that disaster communication and disaster management strategies need to be more integrated and effective (Moorthy, Benny, & Gill, 2018). According to Moorthy, Benny, & Gill, communication plays a vital role when a disaster occurs. Communication during a disaster connects first responders and other family members in critical situations so that communication media and access to information are crucial to building community resilience in dealing with disasters. Disaster can also be avoided or reduced by providing awareness to the people regarding the threat of disaster (Susilo & Putranto, 2021). Social media is playing an increasingly large role in disaster management and response. It is expected that such media can be important for announcing warnings, identifying critical needs, and responding (Carley, Malik, Landwehr, Pfeffer, & Kowalchuck, 2016).

As a country that is very prone to disasters, the occurrence of more than one disaster on the same day is not unusual for Indonesia. For example, in the mid-January 2021 period, several disaster events occurred in Indonesia in the near future, namely the earthquake in Majene & Mamuju-West Sulawesi, the eruption of the Ile Lewotolok volcano in Lembata-East Nusa Tenggara, landslides in Sumedang-West Java, and flooding in several areas of South Kalimantan. Discourse battles took place on social media related to disaster situations, and what succeeded in becoming a trending topic was #KalselJugaIndonesia which refers to the floods that occurred in South Kalimantan in that period.

Kompas.com reported that the flood hit almost all areas of the province, with the worst floods occurring in Banjar and Tanah Laut Regencies, as well as Hulu Sungai Tengah Districts. In addition to damaging people's homes and existing facilities, this flood also caused casualties (Rachmawati, 2021). Regarding the hashtag, rri.co.id reported that until January 16, 2021, at 10:40, there were at least 325 thousand tweets using the hashtag #KalselJugaIndonesia. The tone of public tweets tends to expect support so that this disaster can go viral and help can come because people think there is too little media coverage and Indonesian people elsewhere do not know what is happening in South Kalimantan (Nugroho, 2021)

The government itself just issued its official statement regarding these disasters on January 15, 2021 at night, via President Joko Widodo's social media. In his Instagram account, President Joko Widodo linked the disaster with moderate rainfall, and ordered the Head of BNPB, as well as the Commander of the Indonesian National Armed Forces and Police to immediately send aid to the community. Especially for South Kalimantan, in particular President Joko Widodo then made a visit to flood-affected areas on January 18, 2021, only 3 days later after the hashtag went viral on social media. This indirectly shows

that the disaster in South Kalimantan has succeeded in capturing the attention of the public and is urgently winning in the discourse battle related to disaster issues on social media.

In disaster situations, there are various types of information uploaded by social media users in large numbers and at high speed, which contain situational information, sentiments such as sympathy for those who are victims of disasters, as well as personal opinions (Rudra, Ghosh, Ganguly, Goyal, & Ghosh, 2015). This paper tries to map any disaster-related information circulating on Twitter using the hashtag #KalselJugaIndonesia and tries to analyse best practice-based messaging strategies to increase awareness of disaster communication on social media, Twitter in particular.

## LITERATURE REVIEW
### Social Media, Twitter, and Disaster Communication
Social media has changed the way in which people can participate in situations of disaster and other public emergencies (Palen & Hughes, 2018). Social media has become an important source of information when a disaster strikes. Many studies have proven that people choose new media as their source of information during a disaster because new media tend to provide unfiltered, up-to-date information that cannot be found elsewhere (Liu & Kimb, 2011).

In particular, Twitter has become commonly used by internet users to stay updated of breaking news related to disasters as well as up-to-date information regarding the current state of the disaster (Murthy & Longwell, 2013). In recent years, there have been many attempts to investigate social media activity during disasters. One of them is Earle et.al who explored Twitter's capacity to report disasters and estimate their impact. As a result, Twitter has the ability to identify affected areas more quickly than other traditional monitoring methods (Zou, Lam, Cai, & Qiang, 2018).

The government, key responders, and society in general increasingly view social media as an important communication and monitoring tool when a disaster occurs. The main advantages of Twitter include crowd-sourcing, speed, and the ability to be accessed from mobile devices. However, there are also potential drawbacks, namely bias in the user base, inaccuracies, incorrect and outdated information, and the possibility of reduced access in the event of a power outage during a disaster (Carley, Malik, Landwehr, Pfeffer, & Kowalchuck, 2016).

Initially, Twitter was designed as a platform to help people stay connected by providing a platform for short updates regarding their daily activities. But now, according to Kirilenki and Stepchenkova, Twitter has transformed into a new social network to discuss what is going on (Zou, Lam, Cai, & Qiang, 2018). There are several features that make Twitter a reliable social media in finding information.

On Twitter, by adding a hashtag (#) before a word, information goes into categories that can be easily found. These hashtags are useful as labels, summaries, and topic indicators. By using hashtags, users can participate in conversations on a larger scale, and find out information even from users who were not connected to them before. In a disaster context, users with large followers are more effective at disseminating early warnings (Carley, Malik, Landwehr, Pfeffer, & Kowalchuck, 2016).

### Framing and Hashtag as a Frame
Even though the message tweeted on Twitter looks like a natural expression from the creators, actually there is a meaning to be conveyed in order to create a certain impression

in the minds of the audience about the current disaster situation. The concept of compiling meaning is then referred to as a frame. Goffman (1974) suggests that there are two types of frames, namely natural frames and social frames. The natural frame defines an event as an undirected physical occurrence without any social cause. While the social frame seeks to determine whether an event is the result of social forces, driven by goals, intentions, and manipulation of social actors. The distinction between natural and social frames can be used to understand how disasters are defined: as random acts of nature or as a result of human actions and omissions.

Hashtags ("#") were first used spontaneously by Twitter users in 2007 as a way to categorize discussions (Doctor, 2021). In addition to functioning as a category marker, several studies have also shown the use of hashtags to represent the context of conversations, markers of individual participation in a community or movement, and indicate one's interest in an issue (Tsur & Rappoport, 2012; Yang, Sun, Zhang, & Mei, 2012). As a symbol of communication, hashtags are widely used in various cases and contribute to conversation and social participation on Twitter, for example #KalselJugaIndonesia, #blacklivesmatter, #metoo, and so on.

Meraz and Papacharissi (2013) conceptualize hashtags as a framing vehicle. In line with what Entman (2007) stated that framing is a discourse construction process in which it involves selecting specific issues and emphasizing certain aspects of appearance that direct audience interpretation. A framing network is formed when problem definition, meaning interpretation, moral evaluation, and recommendations for proposals related to an issue are carried out through crowdsourcing practices (Meraz & Papacharissi, 2013).

## METHODS

This paper is the result of a descriptive qualitative research that uses qualitative content analysis as the method. The qualitative content analysis approach used is deductive or often referred to as directed. A deductive or targeted approach requires that there is a framework used to organize categories or themes to guide the research (Kibiswa, 2019). For this reason, the author uses the disaster information framework presented by Rudra et. al (2015) to classify the top 20 most engaged tweets.

To collect data, researchers used the Sonar Platform as a tool. The data collected is tweets from January 15-21, 2021, using the hashtag #KalselJugaIndonesia as a filter. Sonar Platform will then analyze engagement in tweets from the comprehensive data collected and provide reports regarding the top 20 influencers on the hashtag #KalselJugaIndonesia. After that, the data will be analyzed by qualitative content analysis, as previously mentioned.

As part of the ethical discussion regarding data retrieval from Twitter, even though the data is publicly accessible, the author will replace the first three and last three letters of the user with the letters xxx. Researchers must ensure the anonymity of users and protect users' personal information (Rahmanti, Ningrum, Lazuardi,, Yang, & Li, 2021).

## RESULTS AND DISCUSSION

The hashtag #KalselJugaIndonesia became a trending topic on Twitter in mid-January 2021, related to the flood events that occurred in South Kalimantan. The researcher determined that the period of data taken was from January 15-21, 2021, overall there were 228,879 tweets, with 116,087 engagements.  Based on data obtained with the help of the Sonar

Platform, the tool used in this study as a social media listening tool, the number of tweets peaked in January 15<sup>th</sup> 2021, there were 108,654 tweets using the hashtag on that day.

**Top Influencers and Theme of the Tweets**

The Sonar Platform identifies the top influencers related to the hashtags #KalselJugaIndonesia based on the interactions that occur on their accounts and tweets in the period 15-21 January 2021. The following is data regarding the 20 accounts that had the most engagement in that period.

Table 1: Top Influencers Tweets

| No | Account | Engagements | Post Sample | Theme |
|---|---|---|---|---|
| 1 | @xxxanRizkxxx | 7193 | Sebanyak 9 dari 13 kabupaten di Kalimantan Selatan terdampak banjir besar. Sedikit sekali media yang memberitakan. Di Barabai, Kab. Hulu Sungai Tengah jalan lumpuh total, listrik mati total, kota masih terendam sampai sekarang. #KalselJugaIndonesia | Situational Information |
| 2 | @xxxlvsxxx | 3072 | Katanya kalimantan paru-paru dunia. Paru-paru dunianya sakit tapi yg lain biasa aja :)) #PrayforKalSel #kalsel #KalselJugaIndonesia | Sentiment |
| 3 | @xxxkintapisixxx | 2245 | Tolong bantu kami dengan meng up berita ini. Agar kami bisa mendapatkan lebih banyak bantuan berupa dana, sembako dll. Kami satu KALSEL sudah dikepung air, terimakasih #KalselJugaIndonesia @kompascom @SCTV @tvOneNews @MetroTVNewsRoom @OfficialRCTI @tvOneNews @jokowi @NajwaShihab | Situational Information |
| 4 | @xxxxxx | 1899 | Kalimantan Selatan is my hometown. It's been 3 days. both the media government acted as if Nothing happened here. Don't just taking our natural resources destroying our forest, but Look at us. do something Mr. @jokowi !! #PrayforKalSel #KalselJugaIndonesia | Sentiment |
| 5 | @xxxrihelmxxx | 1498 | Minta tolong doa nya untuk banua kami Kalimantan Selatan. Banjir nya sudah hampir satu provinsi??? please satu Indonesia juga harus menyorot Kalsel karna kami juga bagian negara Indonesia #PrayforKalSel #KalselJugaIndonesia #Kalselbanjir #KALIMANTANDARURATBANJIR #BanjirKalsel | Sentiment |
| 6 | @xxxdiansyahHxxx | 1279 | Mohon bantuan nya sobat tweeps... Bantu RT juga,, gak tau mau cc'in ke siapa.. Anak sya di barabai butuh bantuan secepat nya #PrayforKalSel #KalselJugaIndonesia #savebarabai | Sentiment |
| 7 | @xxxgaBaxxx | 1278 | #KalselJugaIndonesia #PrayforKalSel Kalimantan Selatan berduka. | Sentiment |
| 8 | @xxx30985xxx | 1217 | Semoga cepat berlalu, dan pemerintah pusat juga memerhatikan? #KalselJugaIndonesia | Sentiment |

| 9 | @xxxchexxx | 1118 | Sending my prayers to everyone in South Kalimantan who affected by the flood. Hope the flood will receded soon and no more lose that they would face. Wishing everyone strength and stay safe? #PrayforKalSel #KalselJugaIndonesia | Sentiment |
|---|---|---|---|---|
| 10 | @xxxjepxxx | 1063 | #PrayforKalSel #KalselJugaIndonesia<br><br>drop the HT?? | Sentiment |
| 11 | @xxx_NASIOxxx | 998 | Update perkembangan evakuasi banjir di Kalimantan Selatan (15/1/2021).<br><br>Mohon doa dan dukungannya #sobatSar.<br><br>#banjirkalsel #KalselJugaIndonesia #SARuntukKalsel #Basarnas | Situational Information |
| 12 | @xxxnobronxxx | 893 | Kalsel itu ngga spt di Jawa. Di kabupaten², tdk byk rmh tembok atau 2 lantai. Byk rmh² pddk yg dari kayu, atap seng seadanya. Begitu dtg banjir besar pertama kali, hancurlah semuanya. Mrk tdk kaya, hasil hutan dan tambang bkn mrk penikmatnya. #KalselJugaIndonesia #PrayForMamuju | Personal Opinion |
| 13 | @xxxikurniawaxxx | 846 | Cukup tau #PrayforKalSel #KalselJugaIndonesia #prayforindonesia | Sentiment |
| 14 | @xxxAxxx | 770 | udh parah bgtt we need help ??? #PrayforKalSel #KalselJugaIndonesia | Sentiment |
| 15 | @xxchiebeaxx | 622 | Al-Fatihah, sending my prayers for kalsel and sulbar. Stay safe everyone, semoga semua nya segera membaik???<br><br>#PrayforKalSel #PrayForSulBar #KalselJugaIndonesia | Sentiment |
| 16 | @xxxrkrxxx | 613 | plis bisa bisanya kalimantan yang banjir 3 hari ga di sorot, stay safe semua yang terkena bencana #PrayforKalSel #KalselJugaIndonesia | Sentiment |
| 17 | @xxxamdaniAxxx | 562 | #KalselJugaIndonesia Ga tau kenapa? | Sentiment |
| 18 | @xxxangpratiwxxx | 560 | Hello? #KalselJugaIndonesia | Sentiment |
| 19 | @xxxehsultanxxx | 512 | Banyak orang Indonesia hanya sekedar bisa membayangkan betapa besarnya negaranya, tanpa pernah sadar kalau Indonesia hanya Jakarta, Pulau Jawa dan Bali saja.<br><br>#KalselJugaIndonesia | Personal Opinion |
| 20 | @xxxdifaxxx | 511 | Kalsel juga Indonesia mereka butuh perhatian dari pemerintah pusat, banyak masyarakat yg menjadi korban mereka butuh bantuan,butuh tempat tinggal,butuh makan,semoga pemerintah pusat bisa memberi bantuan secepatnya ?<br><br>#KalselJugaIndonesia | Sentiment |

By using the grouping of disaster information themes as mentioned by Rudra et.al (2015), namely (1) situation information, (2) sentiments such as sympathy for disaster victims, and (3) personal opinion, it was found that out of the 20 tweets with the most engagement, most contain sentiments in the form of sympathy for those affected by the disaster. In addition, the sentiment also leads to anger because South Kalimantan has not received enough attention even though the floods have been going on for several days. In details, only three tweets contain information on the situation from the scene, and two tweets contain personal opinions. The remaining 15 tweets expressed their sadness and sympathy for the victims, the hope that the disaster would end soon, the hope that aid would come soon, and anger at the lack of attention given to the disaster in South Kalimantan.

**Sentiments as The Main Driver in Disaster Communication**
Based on the results of the analysis of the tweets with the most engagement in the hashtag #KalselJugaIndonesia, it was found that sentiment was the main driver in conversations related to the disaster that was happening in South Kalimantan. The sentiments referred to in this paper relate to the expression of feelings related to the events. Several feelings arise, as mentioned above. The interesting thing about these findings is that several types of feelings are expressed, not only sadness and sympathy but also implied anger.

It is assumed that this is a strong reason why #KalselJugaIndonesia was able to win the discourse battle in the disaster situation that day. The push from the community so that South Kalimantan is also paid attention to by the government and the mainstream media through the hashtag finally succeeded in getting people's attention to be there.

Most of the tweets in this study are expressions of hope that the flood will subside soon, help will come soon, and conditions will soon return to normal. Several tweets expressed anger at the neglect of South Kalimantan, accompanied by an implicit criticism that the central government and Indonesian society had too alienated regions other than Java. An example is @xxxehsultanxxx's tweet: *"Banyak orang Indonesia hanya sekedar bisa membayangkan betapa besarnya negaranya, tanpa pernah sadar kalau Indonesia hanya Jakarta, Pulau Jawa dan Bali saja. #KalselJugaIndonesia"* if roughly translated talks about how Indonesian can only imagine how big their country is without knowing that Indonesia is just Jakarta, Java Island, and Bali Island only.

This finding is in line with the study conducted by Palen and Liu (2007) on citizen communication in crises which found that information related to response, assistance, and evaluative communication, such as anger or sadness, was the most commonly conveyed. Another study has found something similar, during a disaster, Twitter is used as a tool to convey sympathy for those affected (Safitri, Angeline, & Wibowo, 2021). Based on the study, netizens will be very quick to express their sympathy to the victims when a disaster occurs. Tweets related to sympathy are also usually followed by encouragement to related parties to provide a quick response to help the victims.

Still from the same study, encouraging the government to take action has also become a habit for Indonesian netizens when a disaster occurs. Regarding the hashtag #KalselJugaIndonesia, one can see an example of one of the tweets related to this by @xxxdifaxxx: *"Kalsel juga Indonesia mereka butuh perhatian dari pemerintah pusat, banyak masyarakat yg menjadi korban mereka butuh bantuan,butuh tempat tinggal,butuh makan,semoga pemerintah pusat bisa memberi bantuan secepatnya ? #KalselJugaIndonesia",* which essentially says that the central government must also pay attention to victims and provide assistance as soon as possible.

**Hashtag as a Frame in Disaster Communication**

This study not only analyzes tweets to identify frames but also positions the hashtag #KalselJugaIndonesia as one of the frames in the issue of flooding in South Kalimantan. Researchers see the significance of hashtags for voicing the main issues in the disaster, not just summarizing different tweets into one topic category so that users can easily find them.

Jang and Hart (2015) state that an effective approach to viewing frames is identifying unique components of public rhetoric that represent a framework of more complex issues. Hashtags are unique components that represent complex issue frames on social media. The hashtag #KalselJugaIndonesia is unique and serves as a frame for viewing flood events in South Kalimantan. The frame constructed is related to the marginalization, marginalization, or neglect of South Kalimantan Province carried out by the central government, media, and communities outside South Kalimantan. The hashtags highlight the other side of the flood event, synonymous with damage, loss of life, and handling, namely injustice. The frame of injustice is used to voice the aspirations of the people of South Kalimantan, who so far feel that they have not been heard, even without a disaster.

Moy and Bosch (2013) also assert that frames provide meaning to social phenomena through highlighting and packaging information. Therefore, hashtags can also give meaning and highlight social phenomena. The hashtag #KalselJugaIndonesia is a way for the people of South Kalimantan to interpret social phenomena that have been attached to their daily lives. How they see their nature being used for the economic interests of external parties, how the government and political apparatus treat them, and how people outside South Kalimantan perceive them. Floods are a momentum for the people of South Kalimantan to voice this meaning. The hashtag #KalselJugaIndonesia contains many social phenomena critically highlighted and interpreted by the South Kalimantan community.

The uploaded tweet seeks to reframe the victim's narrative by focusing on the impact of damage and injustice by ignoring the disaster that occurred in one of the provinces in Indonesia. The presence of different narratives or counter narratives produced by individual users serves to challenge the "othering" pattern that is often used in disaster narratives in the media (Jamieson & Van Belle, 2018). The "othering" process emphasizes the difference between affected and unaffected communities. A characteristic of the "othering" narrative is the tendency to blame disaster victims by referring to keywords such as "lack of preparedness, poor infrastructure, social problems, or poverty."

In the disaster situation in South Kalimantan, the community produced counter-narratives through tweets with the hashtag #KalselJugaIndonesia. Tweets confirming the status of South Kalimantan as part of the Indonesian state challenged the labels that differentiated between "us" versus "them", "Java Island" and "outside Java", "near" or "far" from the center of government, and so on. This shows that it is possible to deconstruct disaster narratives that exist so far and that people can produce different narratives through postings on social media Twitter (Olausson, 2014).

## CONCLUSION

This paper describes how a hashtag, namely #KalselJugaIndonesia has won the battle of discourse related to disasters with content full of sentiments, both sympathy, sadness, and anger. The existence of a different narrative than usual and a different framing of a disaster

event can make people's attention to the flood disaster in South Kalimantan; even though, at the same time, disasters are happening in other parts of Indonesia.

In the case of the flood in South Kalimantan, Twitter's role as a medium of information and expression is very important. Various stories and perspectives that have escaped the government's attention and the mass media have flowed from people's tweets on Twitter. This condition shows that it is possible to construct alternative narratives or counter-narratives from the perspective of the affected community in a disaster event. The public can use the social media interactivity network in disaster conditions. However, social media such as Twitter has limited words, which can be an obstacle in discourse construction. The embedding of the hashtag #KalselJugaIndonesia in every tweet and virtual public movement to make the hashtag a trending topic and, in the end, succeeded in capturing the attention of the government, media, and the public as a whole.

Based on the findings described in this paper, it can be seen that in the case of Indonesia, the attachment of the emotional side is still something that can encourage conversations related to disaster issues. For further disaster communication, it is necessary to pay attention to what emotional issues are attached to the community and then use them so that discourse related to disaster can become more of a concern in the community.

## ACKNOWLEDGEMENTS

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