

GOSSIPS, BAD NEWS, AND GOOD NEWS? HOW IT IS SPREAD AND HOW LONG IT IS SUSTAIN; ANALYSIS OF TWITTER CONVERSATION IN INDONESIA

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Abstract These studies will analysis the big data of the twitter conversation in Indonesia. The data obtained from Twitter.com which gave many feature for analysis. The features like topic, trending topic, retweet, favourite, mention, link, and also information that contain only 140 characters. The election of topic will classified from the trending topic data then categorizing through five kind of topic (Arkaitz Zubiaga, 2013). The trending topics can rapidly spread on the Twitter in immediately via hash tag. In every tweet that had tweeted by user have a content that make interest the follower to forward or retweet the tweet. Previous study analized for the user influence in Twitter via the million follower fallacy (Meeyoung Cha, 2010). Those analyses will compare the data between gossips, bad news, and good news.

The expected result is the trending topic via hash tag on twitter can rapidly spread via retweet system and the interestingness of Twitter feature give impact towards the spread of the topic. The system of the spread will be seen from the constrain sub graph system. The results can used by any area to launch something on the Twitter in order to make the information can spread in rapidly and give easiness for everyone to search the information via hash tag.

Index Terms— Social Media, Twitter, Follower Ranking, Gossips, Bad News, Good News,

I. INTRODUCTION

Social media is one of the places that can make a people connect to friends in a little region until the whole world region. In the providing information that reaches close to the far-reaching foreign information either domestically information or international information. Since the existence of social media dissemination of information becomes easy. So, many people will know the information quickly only through social media. One of social media who used by people is twitter. Twitter in one of place that the society give their opinion about anything in 140 character and the user can share their tweet to a whole their follower then will be spread by the followers if it is deemed interesting. The deployment can even be so quickly spread and others people

will begin to discuss it in their forums. The information can vary even the any desired can be available in it. The topics which have interestingness and being booming would be trending topics on Twitter. Anything can to be trending topics than classified into four types are news, on-going events, memes, and commemorative (Arkaitz Zubiaga, 2013). The trending topics usually experiencing changes and it can attract the attention of the public to criticized on whether they agree or not to the news or comment towards the topics which being on going events and may be something like a gossips can also to be a topics that can increasing the interest of the user to give their opinion about that.

This research analyse the set of the big data from Twitter conversation with include the features (date of tweet, time of tweet, user ID, followers, retweet, mention, favourite, replay, hash tag, link) and the topics.

Thereby, in this paper we make two contributions:

- This research will focus on the trending topics with the bahasa language and hash tag.
- Find out the feature of the Twitter which makes followers or another user interest towards the tweet.
- Find out the spread of the tweet conversation in Indonesia.

Outline Section 1 reviewing the introduction of this research and section 2 give a small overview about the literature which used. Section 3 explains the methodology and section 4 discuss about the analysis of this research. The last section 5 results and gives the outlook at possible applications and future work.

II. LITERATURE REVIEW

This research combines several recent researches which have related with this research. The classification of the trending topics in four types (Arkaitz Zubiaga, 2013) and choose the three popular topics (Meeyoung Cha, 2010) to determine the big data from Twitter and also take the

features to analyse the interestingness Twitter user spread the information (Nasir Naveed, 2011). Than the spread system or constrained sub graph reviewing via structure based model (Ruiz et al. 2012).

III. METHODOLOGY

The analysis of this research use the qualiatative method in order to analysis the data in deep and extensively. This research collected the big data from www.trendinalia.com and www.twitter.com. The total of trending topics data were 493 and Twitter data were 3899. The trending topics data have filtered to be a fix data with removed the data which not used bahasa and hashtag. The trending topics data used 131 and have to classify to five types. The types were good news, bad news, gossips, on-going events and meme (Arkaitz Zubiaga, 2013).

Table 1 The example of classified the trending topics

Type	Trending Topic	Description	Sample tweet
Good news	#GubernurAhok	The Jakarta province has a new governor	#GubernurAhok Selamat Pak Ahok tlt menjadi GUBERNUR DKI JAKARTA.. :D Jngn dngarkn kta2 orng yg gak berpnidikan.LNJUTKN
Bad News	#BBMNaik	Fuel prices rose to expensive	MAHASISWA MAKASSAR PENDEMO TOLAK HARGA #BBMNaik BENTROK DENGAN POLISI.SEPEDA MOTOR DIBAKA http://goo.gl/qyMxxZ
Gossips	#ShameOnYouJokowi	All Indonesia n people discuss about how the president work	Hari ini semua mata mulai terbuka.. Rakyat telah tertipu dengan muka polos dan ndeso jokowi.. #SalamGigitJari #ShameOnYouJokowi #BBMNaik
On going events	#1stmonthsaryRANS	Anniversary of RANS fans club	Aa raffi orang nya totalitas #1stmonthsaryRANS di acara siapapun aa tetap exsis...maju trus RANS bahagia dunia aqhirat..cepat2 dpt momongan
Mem e	#GombalinBebek	People were making the flattery	@H_ElaineJKT48 Dulu hatiku kyk gembok yg kekunci,tpi skrg hatiku terbuka karena km dtg mbawa kunci utk membuka hatiku ini^^ #GombalinBebek

For collecting the Twitter data used the hashtag as keywords for search the data needed and the election of the hashtag based on the three popular topics.

Table 2 Three popular topics

Trending Topics	User	Tweet	Audience
#GubernurAhok	338	446	11997156
#ShameOnYouJokowi	1350	2274	2518466
#BBMNaik	776	1179	4263920

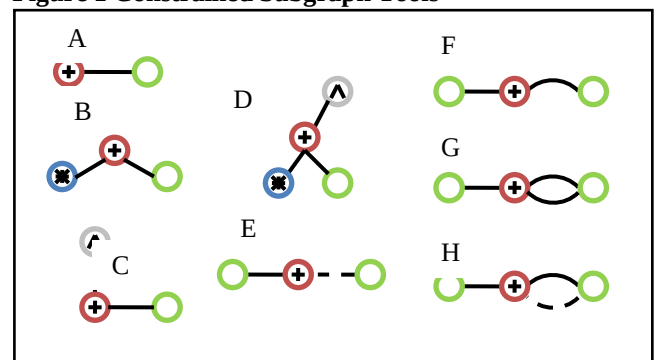
When collecting the data the author also collected the features data of every single tweet for measuring the percentage of the feature which real interestingness by Twitter user (Nasir Naveed, 2011).

Table 3 The feature of tweet

Feature	Description
Tweet Original	The first tweet before the tweet spreads via Twitter feature.
Retweet	A re-share of a tweet posted by another user
Favourite	Keep the tweet on the profile user as the favourite but not spread.
Replay	Replay or give a comment a tweet from another user.
Mention	Mention another user on the tweet
Hashtag	A symbol as a tag for a group tweet conversation.
Link	Used to indicate the location of the topics being talked.
Audience	The total number of followers in every tweet.

After that the author have to coddling the data user alphabetical order in order to make easier when draw the Twitter spreads system and make it not confused to differentiate between the one user to another user. The spreads system drawn used structure based model (Ruiz, 2010).

Figure 1 Constrained Subgraph Tools



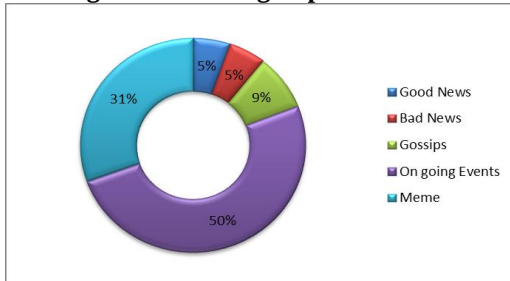
The tools for drawn the constrained sub graph are eight kind and each element represents different actions; (A) A user posted a tweet, (B) A user posted a tweet with link, (C) A user posted the tweet with hashtag, (D) A user posted a tweet with link and hashtag, (E) A user posted a tweet with mention another user, (F) A user tweet has retweeted by another user, (G) A user tweet has retweeted and also comment by another user, and (H) A user tweet has mention

another user and also replay it. This method also used to see the influence user in spreads the tweet and knowing the feature which mostly used by Twitter user as the interestingness.

IV. ANALYSIS

Trending Topics Analysis, the total of trending topics on November 15 until November 20 2014 is 131. The result presented in diagram doughnut.

Figure 2 Trending Topics Indonesia

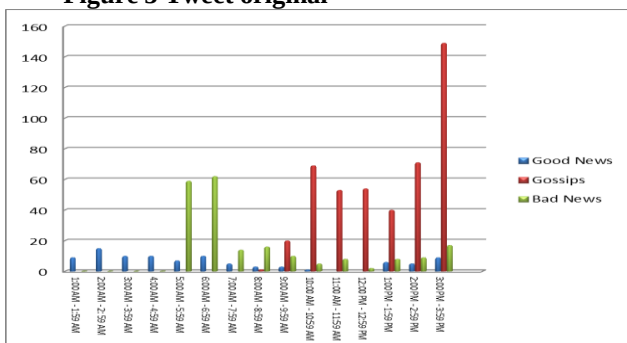


The data showing that Twitter user in Indonesia mostly liker to talk about on-going event with the 50% of the trending topics is talked about it. For 31% as the second larger percentage is meme and for another three categorized only get 5% for bad news, 5% for good news, and 9% for gossips. The trending topics in Indonesia easily to change because the behaviour of the Twitter user Indonesia mostly like to talk about something which being happens and talk about something which funny.

After that the authors select the three popular trending topics as the keywords to collect the Twitter data. There are #GubernurAhok as good news, #ShameOnYouJokowi as the gossips, and #BBMNaik as the bad news.

Structural Base Model, after that the author processing the 3899 data Twitter include the features content from bad news, gossips, and bad news. Than the total data began from 760 tweet original before get the respon from another udr. The authors select the data based on the original tweet than follwoing the figure 3 showing the diagram of original tweet from 1:00 AM – 3:59 PM.

Figure 3 Tweet original



Based on the Figure 4 about the tweet original analysis explain that the good news have 15 original tweet as the highest number with 835374 audience at 2:00 AM until 2:59 AM. The gossips have 149 original tweet as the highest number with 508340 audience at 3:00 PM until 3:59 PM and

62 original tweet for bad news with 847185 audience at 6:00 AM until 6:59 AM.

Baesd on the figure 3 seen that three topics have the pick time where the news to be booming until the news dissapper. The duration of the good news to be booming for 15 hours than gossips sustain for 7 hours and the last is bad news sustain for 8 hours. The following for the spreads of original twet from three popular topics.

Figure 4 Spreads of Good news Original Tweet

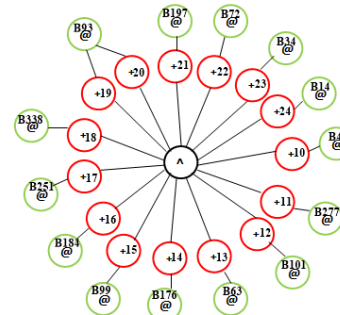


Figure 5 Spreads of Gossips Original Tweet

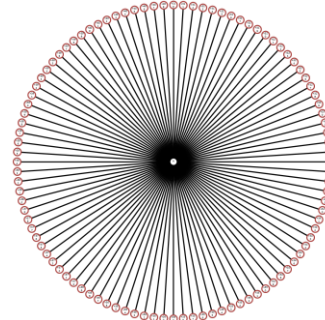
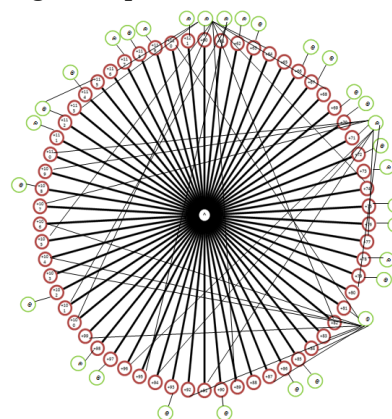


Figure 6 Spreads of Bad News Original Tweet



The circle in the middle of the spreads is the icon for the hashtag. Based on the figure 5 explained that the spreads of good news original tweet via #GubernurAhok is not too compact even it is the highest number of tweet. Eventhough the original tweet is the smallest than another topics but the spreads of the good news doing by their highest followers. The spreads of the figure 5 from #GubernurAhok there are 15 original tweet on red circle line with 14 user ID on green circle line than spreads via black straight line. The number of

tweet +10 tweeted by @B46, +11 tweeted by @B277, +12 tweeted by @B101, +13 tweeted by @B63, +14 tweeted by @B176, +15 tweeted by @B99, +16 tweeted by @B184, +17 tweeted by @B251, +18 tweeted by @B338, +19 and +20 tweeted by @B93, and +21 tweeted by @B197, +22 tweeted by @B72, +23 tweeted by @B34, and +24 tweeted by @B14.

The figure 7 explain the crowded of the original tweet spreads via #BBMNaik with the 62 tweet on red circle line but for this figure seen that one user with green line circle was make a tweet more than once at the time. Because the black straight line from green circle seen connected to another tweet to red circle line. The spreads of figure 7 from #BBMNaik there are 62 origina tweet with 32 ID user. The number of tweet +60, +64, +68, +74, +82, +89, +100, +105, +113, +113, and +116 tweeted by @A564, +61, +95, and +101 tweeted by @A566, +63 and +70 tweeted by @704, +65 tweeted by @A168, +66 tweeted by @A568, +67 tweeted by @A652, +69 tweeted by @A355, +71, +77, +80, +91, +94, +96, +107, +109, and +110 tweeted by @A445, +72 tweeted @A142, +73 tweeted by @A746, +75 tweeted by A771, +76 tweeted by @A370, +78 tweeted by @A743, +79 tweeted by A615, +81, +83, +84, +87, +92, +99, +103, +104, +106, and +120 tweeted by A@147, +85 tweeted by @A272, +86 tweeted by @A145, +88 tweeted by @A126, +90 tweeted by @A532, +93 tweeted by @A553, +97 tweeted by @A561, +98 tweeted by @A723, +102 tweeted by @A314, +108 tweeted by @A369, +111 tweeted by @A269, +112 and +115 tweeted by @A265, +114 tweeted by @A121, +117 tweeted by @A664, +118 tweeted by @A406, +119 tweeted by @A475, and +121 tweeted by @A514

Different with both figure before, the figure 6 seen not the green circle line because the limited of the drawn the red line circle make the author can not continue to drawn. But the gossips via #ShameOnYouJokowi almost same with figure 7 that one user make a tweet more than once at the time. The number of tweet are from +310 until +456. After knowing the spreads of the original tweet the authors also drwaned the spreads of the feature.

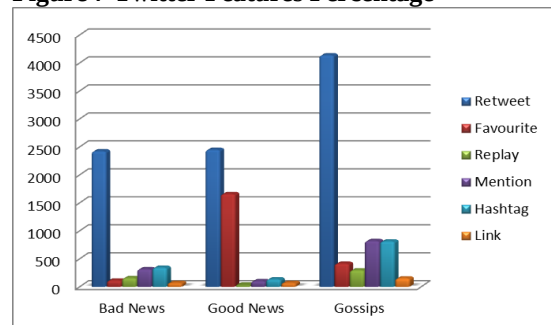
Data coding qualified the big data to be more specific that every user have to give the code number to make a differentiation between one users to another user. Example; the user who have a username A have a code one and the number one also including for all user A activity such as tweet, URL, hashtag, retweet, reply, and mention are in ascending date order. Beside that the codding data have to ranking based on the number of followers so the highest number of followers as rank 1 and the lowest rank as the last rank.

Table 4 Code of Topic

Topics	Code
Bad News	@A
Good News	@B

Twitter feature Analysis, the next step is counting the features in manually for every single tweet. For tnowing the most feature used by Indonesia Twitter user for these three popular topics.

Figure 7 Twitter Features Percentage

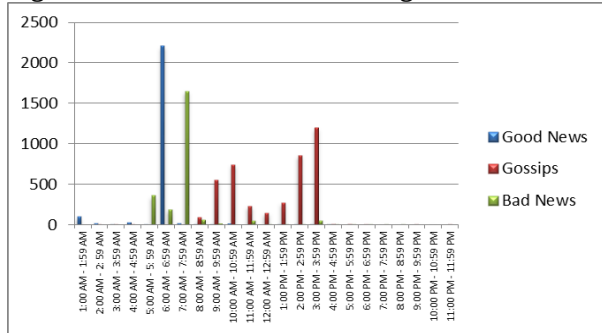


The data showing the Twitter features between three topics seen that the bar with blue color as retweet feature always have a taller bar than another bar. Retweet is the most highest feature which use by Indonesia people in using the Twitter to spread this three topics. Apart from retweet, another twitter feature has its own interest based on the topics discussed.

The bad news topics have a retweet as the highest feature to used with 2424 total retweet. Than thereafter mention and hashtag are the next highest feature used to with 317 mention and 344 hashtag. Than for three another feature is little bit to use with 158 replay, 115 favourite, and 68 link. The good news also have reweet as the most highest feature to used with 2450 retweet but diferent with another topics percentage the favorite have the second highest feature to used to with 1660 favourite. This means that the Twitter user mostly like to keep the tweet on their favorite profile as the good news. Than for four another feature is very little than another topics with 136 hashtag, 104 mention, 68 link, and 31 replay.

The most feature used to for gossips is retweet and gossips is the most highest number of reweet than another topics with 4139 total retweet. Different with another topics, gossips feature have a number of feature used to is more significant than another topics. The precentage of another highest feature are 813 hashtag, 821 mention, 416 favourite, 297 replay, and 153 link. After knowing the most feature used to is drawn the spreads of the Twitter feature so that can immediatly spreads.

Figure 8 Retweet Feature Percentage



As I explained before that retweet as the most highest feature to used in good news, gossips, and bad news so the authors will choose the tweet which have a highest retweet as the influencer with highest followers. Based on the figure 7 showing the precentage of retweet feature number with the time. Than for good news have the highest number of retweet at 4:00 AM until 4:59 AM, for the gossips at 3:00 PM until 3:59 PM, and for the bad news at 7:00 AM until 7:59 AM.

The feature which include in the tweet number +52 are one hashtag (#GubernurAhok) and one link than the the number ID user is @B177. The user @B177 as the influencer with full of green color on green circle line because this account as rank 7 in good news topic and have 83700 followers than got 25 retweet from @B226, @B44, @B1, @B275, @B155, @B119, @B306, @B77, @B126, @B37, @B126, @B37, @B38, @B138, @B181, @B244, @B256, @B267, @B108, @B74, and for the last ID user @B40 besides retweet this account also reply the tweet so on the graph this account user have two curved line.

Figure 10 Good News +44

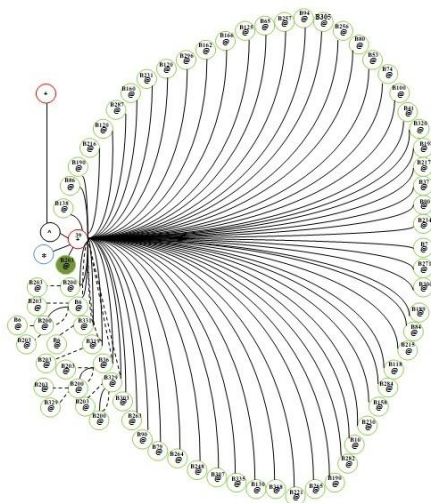
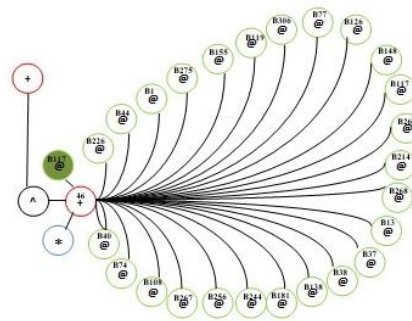


Figure 10 showing the constrain graph from tweet number +44 in good news topics. The tweet +44 on red circle line was tweeted at 4:59 AM with the feature are 56 retweet on green circle line, 27 favourite, 6 replay with curved dotted line, 0 mention, 1 hashtag on black circle with “^” and 1 link on blue circle line with “*”. The tweet was tweeted by use with ID

Constrained Sub Graph, the data for drwaning the graph from structure bades model where every feature was calculated. For the first graph is good news. Figure 7 showing the number of tweet +52 on red circle line and the time of tweet at 6:00 AM with 25 retweet on green circle line, 3 favourite, 1 replay with curved dotted line, 0 mention, 1 hashtag on black circle line with “^”, and 1 link on blue circle line with “*”.

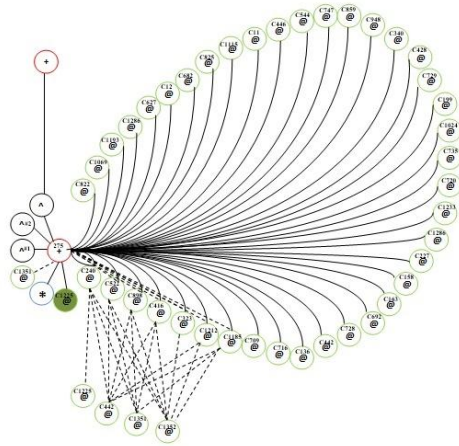
Figure 9 Good News +52



@B202 as the influencer with green circle line with full green collar because this account have 7250000 followers as 1 rank and got 56 retweet from @B138, @B86, @B190, @B216, @B120, @B287, @B160, @B231, @B120, @B296, @B162, @B166, @B125, @B65, @B257, @B94, @B305, @B256, @B80, @B53, @B74, @B100, @B41, @B320, @B198, @B217, @B37, @B90, @B234, @B7, @B271, @B300, @B300, @B189, @B84, @B215, @B118, @B284, @B158, @B230, @B10,

@B282, @B190, @B6, @B265, @B221, @B318, @B130, @B335, @B307, @B248, @B264, @B79, @B90, @B263, and @B303. the 6 replay from @B200 with 1 mention at 8:11 PM, @B6 with 1 mention @B202 at 7:19 AM and get replay again from @B200 at 8:12 with 2 mention are @B6 and @B202, than next replay from @B331 at 5: 50 AM 5:09 AM with 1 mention @B202, @B319 at with mention @B6, @B36 with mention @B202, @B36 with mention @B202 and got replay from @B200 at 8: 11 PM with mention to @B202 and @B329, and the last @B329 at 5:31 AM with mention to @B202 than got replay from @B200 at 8: 11 PM.

Figure 11 Gossip +275



The second topic is gossips. Figure 11 showing the constrain graph from tweet number +275 with red circle line was tweeted at 2:41 PM with the feature 52 retweet on green circle line, 9 favourite, 8 replay with curved dotted line, 1 mention to @C1351, 3 hashtag on black circle line with “^” (include the number of hashtag because more than one hashtag), and 1 link on blue circle line with “*”. The tweet was tweeted by user with user ID @C1225 as the influencer with green circle line with full green color because this account have 90100 followers as 5 rank and got 52 retweet from @C822, @C1069, @C1193, @C1286, @C627, @C12, @C682, @C825, @C1115, @C11, @C446, @C544, @C747, @C859, @C948, @C340, @C240, @C428, @C729, @C19, @C1024, @C735, @C720, @C1233, @C1286, @C227, @C158, @C163, @C692, @C728, @C442, @C136, @C716, and @C709. But 18 account cannot be access by author so only 34 retweet with used ID which was constrain on the graph. There are 8 replay from tweet +257 that are @C240 besides retweet this account also use replay feature with use two curved line reply at 7:37 PM, @C522 replay at 2:42 PM, @C898 replay at 7:04 PM, @C416 replay at 7:01 PM, @C323 replay at 5:54 PM, @C1212 replay at 4:31 PM, @C1185 replay at 3:39 PM, and @C930 replay at 3:17 PM. The curved dotted line explain the activity of user who replay with mention four ID user are @C1225, @C442, @C1351, and @C1352.

Figure 12 Gossips +305

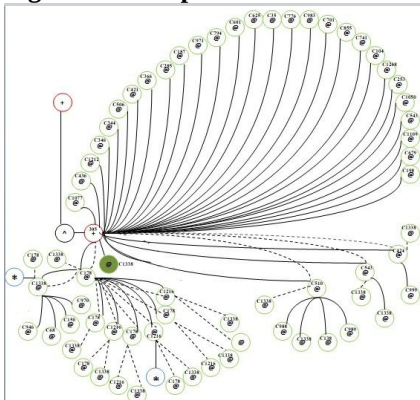


Figure 12 showing the constrain graph from tweet number +305 in gossips topic. The tweet +305 on red circle line was

tweeted by @C1338 at 4:59 AM with the feature are 36 retweet on green circle line, 4 favourite, 4 replay with curved dotted line, 0 mention, and 1 hashtag on black circle with “^”. The tweet was tweeted by user with ID @C1338 as the influencer with green circle line with full green color because this account have 164000 followers as 3 rank and got 34 retweet from @C1077, @C436, @C1212, @C346, @C344, @C506, @C421, @C366, @C285, @C187, @C971, @C794, @C601, @C625, @C35, @C776, @C983, @C701, @C855, @C741, @C104, @C1268, @C253, @C1050, @C543, @C1109, @C679, @C198, @C692, @C728, @C442, @C136, @C716, and @C709. There are 4 replay that are @C178 with 1 mention to @C1338 one dotted line to green circle line than this replay get replay from replay by @C1338 give 1 mention to @C178 and 1 link with and got 3 retweet from @C970, @C150, and @C946.

Replay from @C178 got another 6 replay from 2 user are 3 from @C178 and 3 from @C1216 with different feature that showed by dotted line, straight line and the circle line. The second replay from @C424 at 3:34 PM with one mention and one hashtag than have one retweet from @C1338. The third replay from @C543 at 3:26 PM with same feature like before also have one retweet from @C999. The fourth replay from @C510 at 3:00 PM with 4 retweet from @C988, @C1338, @C138, and @C989 with use straight dotted line.

Figure 13 Bad News +210

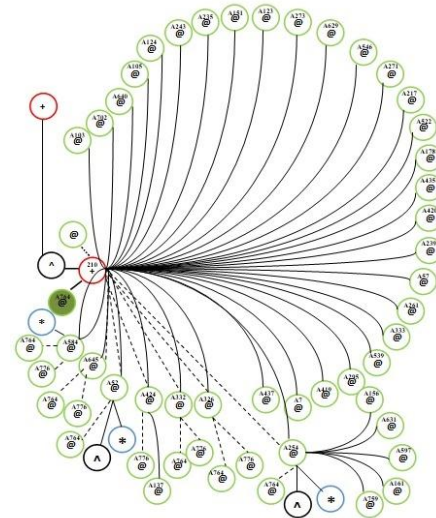


Figure 13 showing the constrain graph from tweet number +210 in gossips topic. The tweet +210 on red circle line was tweeted by @A764 at 5:02 AM with the feature are 111 retweet on green circle line, 13 favourite, 7 replay with curved dotted line, 1 mention, and 1 hashtag on black circle with “^”. The tweet was tweeted by user with ID @A764 as the influencer with green circle line with full green color because this account have 1143 followers as 140 rank and got 111 retweet but only 28 retweet which author can access. They are @A103, @A702, @A640, @A105, @A124, @A243, @A235, @A151, @A123, @A273, @A629, @A546, @A271, @A217, @A522, @A178, @A435, @A420, @A239, @A57,

@A261, @A333, @A539, @A295, @A419, @A7, and @A437. There are 7 replay that are @A584 replay at 5:31 AM with 2 black curved line and have two mention and one link, @A645 replay at 5:54 AM with two mention with black straight dotted line to two green circle line, @A52 reply at 6:09 AM with three feature are hashtag, link and mention. @A424 replay at 6:10 AM with one mention and one retweet from @A137, @A332 replay at 6:40 AM with two mention, @A326 replay at 5:59 PM with two mention, and the last @A254 replay at 7:38 PM there are three features hashtag, link and one mention with 5 retweet from @A156, @A631, @A597, @A161, and @A759 with use five black curve to green circle line as the retweet.

Figure 14 Bad News +97

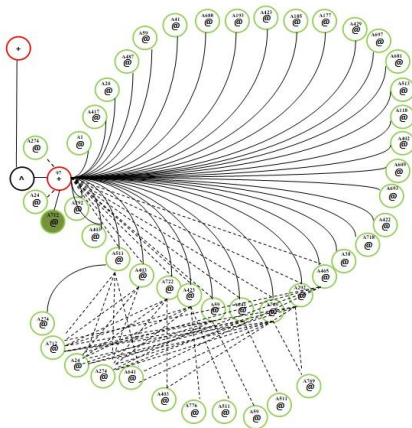


Figure 14 showing the constrain graph from tweet number +97 in gossips topic. The tweet +97 on red circle line was tweeted by @A712 at 7:33 AM with the feature are 141 retweet on green circle line, 3 favourite, 10 replay with curved dotted line, 1 mention, and 1 hashtag on black circle with “^”. The tweet was tweeted by use with ID @A712 as the influencer with green circle line with full green collar because this account have 88700 followers as 7 rank and got 141 retweet but only 24 retweet which authour can access. They are @A1, @A417, @A20, @A487, @A59, @A41, @A688, @A193, @A423, @A185, @A177, @A429, @A697, @A681, @A513, @A118, @A402, @A609, @A693, @A422, @A403, @A718, and @A38. The black curve line with two line mean that the use doing the retweet and replay and based on the figure 13 there are two user @A403 and @A722. There are 10 replay from @A511 replay at 7:24 AM, @A388 replay at 7:33 AM, @A403 replay at 8:12 AM, @A722 replay at 8:13 AM, @A423 replay at 8:36 AM, @A59 replay at 9:32 AM, @A641 replat at 4:15 AM, @A511 replay at 4:27 AM, @A641 replay at 4:29 AM, and @A769 replay at 5:27 AM. The user make a conversation with mention one user to each user but only 10 user ID who contributing and based on the figure 13 the activity of replay seen from the one black curbe and one dotted curve connected to one user ID with green circle line and the activity of conversation seen from many black straight dotted line connected to the user means that the user mentioned by the user who make a replay.

Good news, the spreads of the good news showing that the user are becoming as influencer and also got the best rank in the number of follower that proven get more retweet than the user which is under rank. The example from the figure 10 with the user code @B202 as the rank 1 get 56 retweet and the user code @B177 as the rank 7 only got 25 retweet seen from figure 9.

Gossips, The gossips topics more complex than another topics because beside the highest number of retweet this topics have a complex feature after dong the replay feature. So there are some conversation in the one tweet. Than based on the figure 10 and 11 the differentiation of the both spread is from the total audience. Figure 11 with @C1351 as the rank 5 with the number followers 90100 and the figure 12 with @C1383 as the rank 3 with the number followers 164000.

Bad news, also have a concersation in a replay like gossips but the the feature used mostly via mention one user to another user not make a replay on replay. Same like another topics bad news topic also have retweet as the dominan feature to used. Seen from the figure 13 and figure 14 seen have the same spread with the total retweet of figure 13 is 111 and the user code @764 with the total followers 1143 as rank 140 and the user code @A712 with the total followers 88700 as the rank 7 in figure 14. Explain that the number followers not too influential in spreading because despite ranking 140 the user code @764 have amount that not much difference with the user code @712 which have 88700 followers as rank 7.

V. RESULT

The trending topics in Indonesia can easily change in every time or every second because based on this research analyzed that Indonesian Twitter user mostly like to talk about event on going and meme topic with the precentage 50% and 31%. But the topics only booming in a while so easily to change but different with three another topics, bad news, good news, and gossips. Because of the three topics usually discus about somenthing that happend or being happend but mostly about the event that all people in Indonesia will respace towards the topic. The most three popular topics with hashtag are #GubernurAhok as the good news, #ShameOnYouJokowi as a gossips, and #BBMNaik as a bad news. The analysis of the Twitter data get 3899 total tweet in three different day with the range time 1:00 AM until 11:59 PM. The time of the topics can sustain based on the people on the Twitter than for good news sustain while 17 hours, gossips while 23 hours, and bad news while 17 hours. Who will be a topic of enduring is gossips with include many conversation.

The result of the structure based on model showing that retweet is the most feature which Indonesia user use as the interstingnes of the Twitter feature. Than the result for the constrained sub graph between three topics have a differentiation in spreads the tweet. In *good news* topics, the influncer who have the big followers have the impact toward the spreads of the twee. It will be obtained more follower and more twitter. In *gossips* topics, the number of audience is the important thing to spreads the tweet. The more the audience, the more the likelihood of user activity in response to a tweet

tweeter. Almost same between good news and gossips but some audience in gossips topics do the conversation in one tweet to talked about the gossips. The *bad news topics*, the number followers or audience not influence towards the spreads because the the user who have the under rank and the top rank almost have same number of the retweet.

VI. RECOMMENDATION

This research can use for marketing in analysis of what the customer being need, what the booming topics, who is the influencer who can help in maket their product or service, and how long they can predict their topics if use Twitter feature. In the beginning, I was doing this research with stock topic but the topic of the finance mostly less to knwoing how they can tweet the information and can be booming so that when search the data is do hard. So with this research, the author hope that any topics can be booming in a long time and the information can spreads immediattely than make people easier to find out the information esspecially in Finance topics.

For previous research, can deeper in take the data from Twiiter in a long time and may be can find the application or program to make more easy in data collection and make the sub graph in unlimited system.

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