# Mass Media Takes the Lead as Opinion Leaders on Twitter During Early Days of COVID-19 Pandemic

Khuswatun Hasanah[(✉)], Yuseptia Angretnowati, and Retno Hendariningrum

Communication Science, Universitas Pembangunan Nasional Veteran, Yogyakarta, Indonesia
khuswatun@upnyk.ac.id

**Abstract.** This article discusses the role of mass media in leading public opinion on Twitter during the early days of the COVID-19 pandemic. The study used a content analysis approach with the Social Network Analysis (SNA) method to identify the top opinion leaders on Twitter. The result shows that six of the top ten *opinion* leaders were mass media, with @CNNIndonesia having the largest in-degree. The mass media became opinion leaders because of their social media sharing activities, which provided the public with various choices of information during the COVID-19 pandemic. The news distributed on Twitter contained basic, preventive, and treatment information, medical research, social, political, and economic contexts, as well as personal stories. This study implies that mass media played an essential role in providing vital information to the public during the early days of the pandemic, and it highlights the importance of social media sharing as a means of disseminating information to a broad audience.

**Keywords:** mass media · covid-19 · crisis · social network analysis · uncertainty reduction theory

## 1 Introduction

March 2020 was the beginning stage of the Covid-19 pandemic in Indonesia. At that time, the first case of Covid-19 was announced. In this crisis situation, crisis management by the government is very much needed to provide certainty in handling the community. Two main dimensions of crisis management: governance capacity and governance legitimacy [1]. The two are mutually exclusive and dynamically influence how governments mitigate, deal with, and learn from crises. Governance capacity is divided into analytical, coordination, regulatory, and communication capacity.

Meanwhile, the government's legitimacy relates to how the government system (including the public and the media) experiences and evaluates various government efforts during a crisis. When the crisis is handled well, the legitimacy of government is linearly high. On the other hand, when legitimacy is low, governance capacity can be described as weak [2].

The public has access to pandemic news and information in 6 countries (the UK, US, Germany, Spain, South Korea, and Argentina), stated that all of these countries accessed
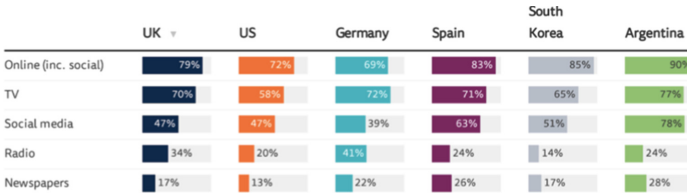
**Fig. 1.** How to get news of the March-April 2020 pandemic in 6 countries
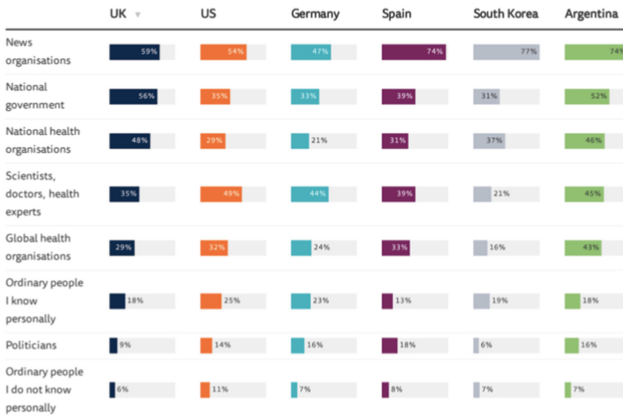


**Fig. 2.** The most frequent source of information on the March-April 2020 pandemic in 6 countries

the most online media (including online mass media) during March-April 2020 (Fig. 1.) [3].

The six countries are said to have sought more information regarding the COVID-19 pandemic from news organizations than national governments, government health organizations, scientists, doctors, health experts, global health organizations, and politicians (Fig. 2).

Meanwhile, it is known that the mass media, through framing their news plays an important role, especially in the early days of the pandemic, in helping people who are shrouded in ignorance and confusion to understand medical matters surrounding COVID-19, government responses and efforts, and ways to protect yourself during a pandemic better [3]. Although there is still much news that is shallow, full of stereotypes, less critical, and based on assumptions, journalists are considered more credible in providing information compared to other platforms (such as chat applications, video sites, and social media), which are prone to disinformation and misinformation. Other studies have found that the way people search for information about crises, evaluate, and make decisions related to crises is strongly related to the content covered by the news media [4]. Thus, news coverage is considered to significantly influence people's perceptions and behavior in crisis events, including public health emergencies [5, 6]. Previous research stated that in a crisis, it is better to provide information as clearly as possible, what is known and unknown at this time, rather than not stating anything. If

the government does not play a role, the mass media will become an essential tool in fighting Covid-19 from becoming a widespread epidemic in the future [7].

As one of the social media that accommodates sharing activities, Twitter has become a platform often used by the mass media to spread their news. Official mass media accounts often share their news via Twitter. During the pandemic, social media a sharing tool for mass media related to covid-19 issues. This is an exciting strategy considering analysis that Twitter is a social media that reaches six times the speed of spreading misinformation [8]. Twitter social media is expected to be a tool for disseminating information, not only false information but also credible information, to the public. Therefore, this study seeks to explain the role of mass media as opinion leaders on Twitter social media in the early days of the pandemic and how the mass media—which also carries out sharing activities on Twitter—become a strategic tool in reducing uncertainty during a crisis.

## 2   Methodology

To answer how the mass media became digital opinion leaders and their role in handling the early crisis of the pandemic, this research was conducted using a Social Network Analysis (SNA) approach completed with qualitative analysis. SNA is concerned with the role of the actor and the relationship of the actor with other actors in a group or community. SNA will describe how the network structure of Twitter social media users is related to the issues of the COVID-19 pandemic on social media.

Withdrawal of tweets was carried out using the AcademictwitteR package for all tweets in the period March 1, 2020 (the first time a positive case of Covid-19 was announced in Indonesia) to April 6, 2020 (a week after the issuance of Government Regulation Number 20 of 2020 concerning Large-Scale Social Restrictions (PSBB) and the emergence of the issue of PSBB accompanied by a civil emergency). The retrieved tweets must contain the keywords lockdown, PSBB, quarantine, virus, corona, or masks. This process generated 13.5 million tweets containing keywords and was analyzed in this study.

The data retrieval results from Twitter are then analyzed for network attributes and visualized using Gephi Version 0.9.6. The analysis leads to a description of the discussion on the measurement of degree centrality, namely the actors who dominate the flow of information in the network or information about how many direct relationships or connections each actor (node) has so that it can be seen that famous actors are in the issue taken (Gruzd, 2016). The measurement of the degree of centrality is then analyzed from the perspective of the role of the mass media in times of crisis. In addition to SNA, a qualitative analysis of network analysis data was also carried out to identify which mass media took the role of digital opinion leaders and how the context of the news spread through social media.

## 3   Results and Discussion

### 3.1   Mass Media as Digital Opinion Leader

Each issue and interest has its opinion leader [9]. Mass media plays an essential role in society, from reporting important information about the world, culture, politics, and
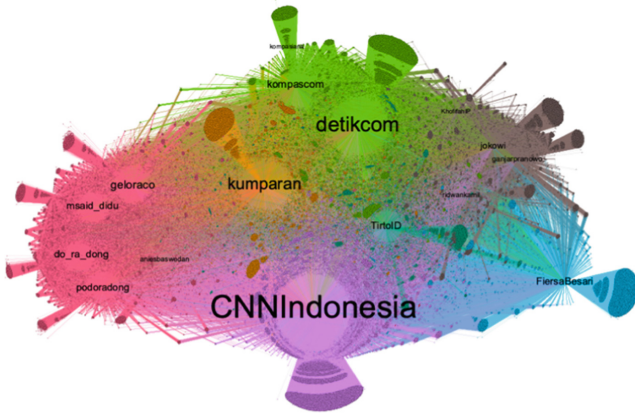
**Fig. 3.** Results of in-degree Social Network Analysis Twitter March 1–April 6, 2020

socialization. Not only that, but the mass media also acts as an intermediary in shaping important public opinion. So that the mass media becomes vulnerable when they manipulate and abuse their authority for the benefit of the actors in power. In a network analysis of all tweets that said the key to lockdown, PSBB, quarantine, virus, corona, or masks in the early days of the pandemic, six mass media out of the top ten opinion leaders with the most in-degrees were found. This means that the six media are the media that are most referred to, retweeted, commented on through the reply column, and liked by Twitter netizens. The six mass media are @CNNIndonesia, @detikcom, @kumparan, @geloraco, @kompascom, and @TirtoID. The dominating position of the mass media as an opinion leader in the mass media reinforces the assumption of Denis McQuail (1999). He states that the media is a potential vehicle to influence, control and promote innovation in companies, a vital source of information for the functioning of most social institutions, and a fundamental instrument of transmission.

Media @CNNIndonesia and @detik.com, which dominate in the top two positions, are business media created by Chairul Tanjung – a businessman, former minister of the Susilo Bambang Yudhoyono era, and has close ties to several political parties in Indonesia. The six mass media emerged as digital opinion leaders, meaning the success of the mass media in carrying out their agenda setting during the early days of the Covid-19 pandemic. The mass media have arranged media topics through various communication channels, including sharing activities through Twitter and encouraging netizen discussions in the Twitter reply column. In addition, editors mediate selected information to recipients. Furthermore, the mass media will indirectly shape public opinion, influence studies and debates spread ideas, expand conversations, and influence government policies related to the Covid-19 pandemic.

Unfortunately, let us look at the results of the SNA (Fig. 3. and Table 1). The relationship between government actors or politicians with the public is far inferior to the mass media on Twitter during the early Covid-19 pandemic. At the same time, Twitter social media provides an equally reasonable distance between mass media accounts and netizens or government actor accounts with netizens. For example, the account of the

President of the Republic of Indonesia @jokowi, which is in the 14th position with the highest in-degree account, the account of the Governor of Central Java @ganjarpranowo at the 42nd position, the account of the Governor of DKI Jakarta @aniesbaswedan at the 88th position, the account of the Governor of West Java @ridwankamil at the 91st position, and the account of the Governor of East Java @khofifahIP at the 984th position. This is possible without social media, given the difficulty of public resources and access to direct government sources and public health officials [10].

Another misfortune is that, although six mass media dominate opinion leaders on Twitter, there is still one mass media that the Press Council, namely @geloraco, has not verified. The verification in question is a data collection process for press companies as mandated in Article 15 (2) letter g, UU No. 40 of 1999 concerning the Press, namely registering press companies to ensure the implementation of press companies' commitments in upholding professionalism and protection of journalists in order to realize press freedom and carrying out social responsibility of the press to the public.

From these results, it can be seen that opinion leaders in social media are not always actors or influencers. The mass media become opinion leaders because of the help of social media that uses the principles of new media logic. News-sharing activities on social media are carried out by almost all traditional mass media today. The mass media expand their content distribution channels to reach a wider audience and gain economic benefits. If in traditional media, what is displayed in the media will be exposed in a limited way and controlled by only one channel. In new media logic, content or information (including by mass media accounts on social media) will spread more because of the connectivity and interactivity of the audience through comments, likes, and sharing. The social connectedness of people also supports this through shared interests in social media, which makes disseminating information and the process of agenda-setting mass media in crisis masses expand very quickly. By sharing news on social media, mass media provides a choice for the public in accessing information, as stated by the uses and gratification theory [11].

## 3.2   Framing Code

Framing can examine the relationship between mass media and journalism, public relations, and communication on health issues. Framing describes how an issue is characterized or made more prominent and packaged in mass media coverage to affect how the audience understands the issue [12]. In a health crisis, the mass media is one of the most stable and well-established sources of health information for the public, especially concerning urgent viral epidemics and pandemics. This is because mass media framing can impact people's understanding of current health issues and what people should do as recipients of information.

The six mass media that emerged as Key Opinion Leaders in the Twitter social network analysis became a sign that the mass media had taken up this role. The impact of a disaster or crisis condition will be lower when people have direct cognitive knowledge and experience, one of which is obtained from the mass media. Several types of framing carried out by the mass media during the Covid-19 pandemic, namely basic information containing basic information on the number of cases; preventive information containing information on ways to prevent Covid-19 such as hand washing campaigns, large-scale

**Table 1.** In-Degree Centrality, results from SNA Twitter at the beginning of the Covid-19 pandemic

| Rank | Twitter Account | In-Degree Centrality | Account Description |
|---|---|---|---|
| 1 | CNNIndonesia | 570689 | • Mass media<br>• Verified press council<br>• Person in Charge: Desi Anwar<br>• Principal: Titin Rosmasari<br>• Chairul Tanjung Conglomerate |
| 2 | detikcom | 326232 | • Mass media<br>• Verified press council<br>• Principal: Alfito Deannova Ginting<br>• Chairul Tanjung Conglomerate |
| 3 | kumparan | 230341 | • Mass media<br>• Verified press council<br>• President commissioner: Budiono Darsono<br>• Chief Editor: Arifin Ashdhad |
| 4 | geloraco | 115059 | • Mass media<br>• Not yet verified by the press council<br>• Does not have an editorial address<br>• Opposition Media |
| 5 | kompascom | 95732 | • Mass media<br>• Verified press council<br>• Chief Executive Officer: Wisnu Nugroho |
| 6 | do_ra_dong | 87804 | • Anonymous account<br>• Account been on Twitter since July 2018<br>• Account has been suspended<br>• Last update 23 March 2020<br>• Anti #BangsatBangsa |
| 7 | msaid_didu | 86934 | • Former Secretary of the Ministry of SOEs (Indonesia)<br>• Often criticizes the government<br>• Former civil servants of echelon officials at the Agency for the Assessment and Application of Technology (BPPT).<br>• Once had a dispute with Luhut, stating that Luhut was considered to be only concerned with personal gain without thinking about handling the coronavirus. |
| 8 | TirtoID | 85984 | • Mass media<br>• Verified press council<br>• Person in Charge/Pimred: Agung DH |

*(continued)*

**Table 1.** (*continued*)

| Rank | Twitter Account | In-Degree Centrality | Account Description |
|---|---|---|---|
| 9 | FiersaBesari | 85559 | • Artist<br>• Writer<br>• Influencers |
| 10 | podoradong | 80741 | • Anonymous account<br>• Account been on twitter since March 2020<br>• Account has been suspended<br>• Last update 10 October 2020<br>• Anti #BangsatBangsa |
| 14 | jokowi | 59194 | President of the Republic of Indonesia |
| 42 | ganjarpranowo | 28842 | Governor of Central Java |
| 88 | aniesbaswedan | 17948 | Governor of DKI Jakarta |
| 91 | ridwankamil | 17634 | Governor of West Java |
| 984 | KhofifahIP | 1104 | Governor of East Java |

social restrictions, working and studying from home; treatment information contains information about what to do when exposed to Covid-19, how to do testing, and what drugs or vaccines must be obtained to recover; medical research containing information on the latest technological developments and vaccinations to support the handling of the Covid-19 pandemic; the social context contains information related to community activities that have been hampered by the Covid-19 pandemic and what the government has done; political and economics context containing economic information, government policies related to tourism, social restrictions, and economic recovery; as well as personal stories containing humanist features or inspirational stories during the Covid-19 pandemic crisis [13].

As the top media that emerged as an opinion leader, CNN Indonesia framed mass media coverage on several central ideas. CNN Indonesia displays basic information in the form of daily Covid-19 case updates (cases recovered, positive, and dead). CNN Indonesia conveys this information daily to provide an overview of the current situation. Information is framed in neutral language and is more informative than tendentious. CNN Indonesia media also conveyed preventive information, for example, the hand washing campaign (CNN Indonesia has the news tag "wash hands"), which was carried out in a persuasive manner instead of containing threats.

The tendency of CNN Indonesia reporting on preventive information is to cite medical research to frame the news objectively from a medical point of view. For example, even until Covid-19 subsided in October 2022, CNN Indonesia was still displaying the results of medical research regarding hand dryers commonly used after washing hands which were claimed to have the potential to spread Covid-19 (Fig. 4).

Reports that are political and economic context are also displayed by CNN Indonesia, for example, the government's affirmation regarding "keep your distance" (not just an
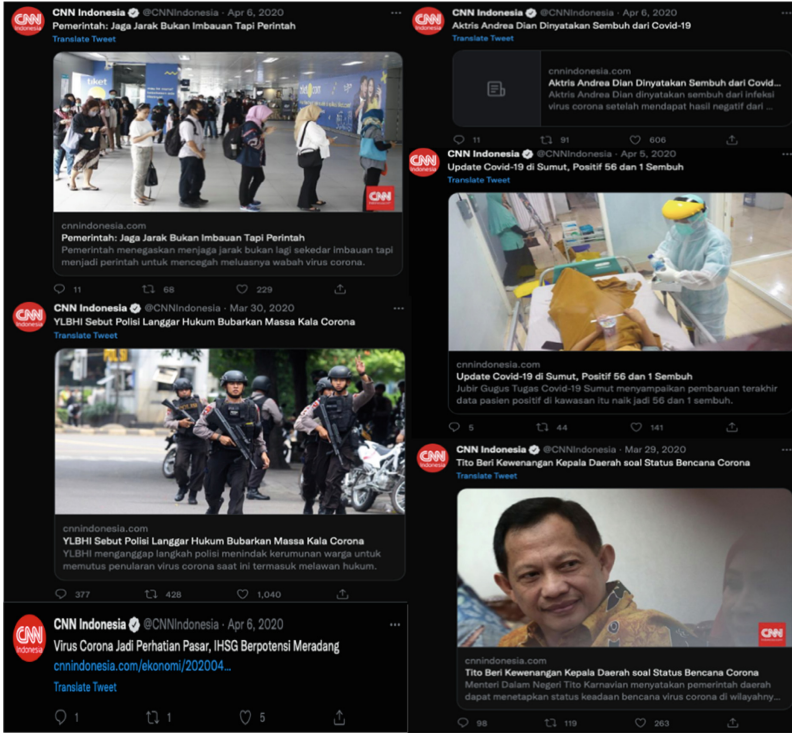
**Fig. 4.** CNN Indonesia news framing about Covid-19 pandemic in Indonesia

appeal), forced dispersal of crowds of people, and the granting of authority from the minister of home affairs to regional heads to determine regional alert status on Covid-19 period. CNN Indonesia also raised news on the economic impact through the tag "layoffs due to corona." Economic news headlines tend to be shorter and do not appear to be on a particular subject. CNN Indonesia delivered Personal Stories, one of which was about healing stories from Covid-19, which contained messages of benefit and human interest.

The mass media need to understand their role as managers of public anxiety during the pandemic, one of which is by packaging the news in gain-framed messages (containing benefits and advantages). This is necessary so that the message's meaning is more straightforward to reach and persuasive for the audience than news containing messages of fear and threats, especially in encouraging the prevention of the spread of the pandemic [14].

### 3.3   Mass Media in Reducing Uncertainty

Uncertainty Reduction Theory (URT) individuals feel discomfort over uncertainty at the beginning of interpersonal interactions [15]. Therefore, individuals are involved in seeking information to reduce uncertainty. URT is widespread, involving the conditions of interpersonal communication and trying to explain alternative situations. Individuals seek to reduce uncertainty only when they expect a positive outcome. According to him,

the basic logic of URT theory is that it is clear that individuals in uncertain situations tend to feel uncomfortable, so information seeking is a viable solution to that discomfort in many contexts [16]. Thus, the URT theory can also be applied to mass communication studies.

In the early days of the Covid-19 pandemic, the type of uncertainty known as epistemic uncertainty was felt by the community, where important actors who were supposed to be responsible and involved in providing information accompanied by data did not appear to provide an initial picture of Covid-19 and resulted in confusion. Another type of uncertainty the public feels also comes from the conflicting attitudes of actors who should be responsible for information on the Covid-19 pandemic (consensus uncertainty). This condition raises public doubts about which one to trust or not. For example, when people are left alone with questions about whether they should wear masks or not and how to use masks properly and correctly at the beginning of the Covid-19 pandemic.

Not only these two types of uncertainty are the source of people's emotions, but also the process of mass communication. In times of crisis, such as the Covid-19 pandemic, the mass communication process can be a source of uncertainty. On the other hand, it is also a mechanism for seeking information from individuals. The traumatic events of September 11, 2001, in the United States, which were broadcast on the mass media, caused a strong emotional reaction due to a sense of uncertainty [17, 18]. In other words, negative influences (including sadness, anger, and helplessness) can result from uncertainty and encourage interest in the information. There is a close relationship between emotional reactions to traumatic events and information-seeking efforts.

As individuals become aware of the origins of their negative influence, interpersonal efforts occur to reduce the negative influence, including information seeking in mass communication [18]. Instead of avoiding information, when people feel anger, anxiety, and helplessness in the Covid-19 pandemic situation, they increase their media use. This was done to learn more about the causes of emotions and how to deal with uncertainty during the early days of the Covid-19 pandemic.

Meanwhile, in fulfilling their curiosity about conditions of uncertainty, people tend to use more media types than only one. The uses and gratification theory reinforces the phenomenon that the need for specific information will drive a shift in the use of media. When people do not find satisfaction with a piece of information in one type of mass media, they shift to other types that provide more information to reduce the negative impact it produces on uncertainty. In this situation, the mass media need to take public feedback carefully. Mass media, with its dedication to the public interest, has the potential to provide accurate information to help the public reduce its negative influence and uncertainty. The results of the SNA in this study found that six of the top ten opinion leaders on Twitter are mass media. This also shows that the mass media are reading the public's needs and trying to maximize a more diverse platform for sharing the resulting news.

## 4    Conclusion

Six mass media became digital opinion leaders on Twitter during the early Covid-19 pandemic. The prominent opinion leader is CNN Indonesia. The factor that makes the

mass media an opinion leader is news-sharing activities on social media that use the principles of new media logic. From these sharing activities, the mass media utilize social media to distribute information and content to provide an alternative for audiences seeking information. This news-sharing activity causes mass media coverage to spread and emerge as opinion leaders. The mass media as an opinion leader is ideal in a health crisis such as the Covid-19 pandemic. The hope is that the agenda-setting process of the mass media will bring people into a more controlled situation through gain-framed messages. This study has the limitation of not looking quantitively at how CNN Indonesia does much news framing on each framing that Bernard put forward.

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