

Pandemic in the complexity of the Digital Era

How online media in Indonesia construct the reality of COVID-19

Abstract: This article aims to examine the reality of the COVID-19 pandemic constructed by online media outlets in Indonesia as one of the primary sources of information during the crisis. It uses qualitative content analysis to determine how online media in Indonesia construct the reality of COVID-19. The country's eight most accessed online media websites are the objects of this study with a three-unit analysis: context, message, and tone. The result shows that Indonesian media coverage has predominantly emphasised the pandemic's political context over the health and economic context. Informants have predominantly been politicians; epidemiologists and scientists have been given little space. In this case, the media system in Indonesia through online news media were not able to play an optimal role in the early phases of the pandemic due to the tendency of this news construction.

Keywords: communication, content analysis, COVID-19, digital era, health journalism, Indonesia, online media, public health, qualitative research, risk communication

HERMIN INDAH WAHYUNI and

ANDI AWALUDDIN FITRAH

Universitas Gadjah Mada, Yogyakarta, Indonesia

Introduction

THE COVID-19 pandemic has become a serious global health crisis that has affected countries around the world without exception. The pandemic began in Wuhan, China, in December 2019. Within three months, it had spread worldwide; by May 2020, it had infected five million people and killed hundreds of thousands (WHO, 2020b; Shereen et al., 2020). It rapidly became a complex and multidimensional issue. Although issues first emerged in public health, COVID-19 soon had economic, political, security, and social implications, as well as far-reaching effects on education and culture (Stewart, 2020).

As the infected were hospitalised, all others were required by quarantine policy to remain at home (Atkinson, 2020; Aulia et al., 2020). This pandemic, caused by the novel coronavirus (SARS-CoV-2), has transformed social life to an extent previously unimagined.

As a multidimensional problem, the COVID-19 pandemic has wrought responses from various elements of society—including media institutions. Around the world, the COVID-19 pandemic has been subjected to widespread media coverage since January 2020. Taking the case of previous diseases, such as the bird flu, swine flu, SARS, MERS, and Ebola, studies have previously sought to map the quantity and quality of coverage as well as the framing used by media (Lee & Basnyat, 2013; Shih et al., 2008; Ho, 2012; Chang, 2012; Vasterman & Ruigrok, 2013; Getchel et al., 2018). Media institutions occupy a vital position in modern society, being not only sources of information and knowledge but also shapers of public discourse, constructors of reality, references for policymakers, and providing guidelines for public behaviour and responses to ongoing issues. When combatting pandemics, the two most important weapons are vaccines and communication (Barry, 2009); in the latter, media institutions play their most vital role, as editorial decisions and coverage content shape communication about the crisis.

In Indonesia, the COVID-19 pandemic has trapped society in a complex and unfamiliar situation. This pandemic has proven far more dangerous to Indonesians owing to its unprecedented characteristics and limited available knowledge. Problematically, especially given Indonesia's population of 260 million, there has been a lack of transparency from the government, and the public healthcare system has been insufficient for the demands placed on it (Lokataru, 2020; VoA Indonesia, 2020). On one hand, Indonesia has an extraordinarily expansive media landscape, encompassing both conventional media and new media (Nugroho, 2012; Ambardi et al., 2014; Tapsell, 2017; Sukmayadi, 2019). As the number of Indonesians using the internet has increased rapidly, so has the number of online news media/news portals. As of 2020, there were approximately 43,500 news portals in Indonesia (Djauhar, 2019), which were being widely accessed. These news portals provide Indonesians with an essential source of information, an alternative to conventional television and social media (Tapsell, 2017).

Although digital media is society's primary source of information today, significant problems have emerged. Just as COVID-19 has spread quickly, so too has panic and fear (Shereen et al., 2020), and this requires a rapid response for which online media is best suited. However, the role of online news media in handling this pandemic is still questionable; it is even considered to be contributing to a new problem: 'infodemics'. According to the World Health Organisation (WHO, 2020a), an infodemic is 'an over-abundance of information—some accurate and some not—that makes it hard for people to find trustworthy sources and reliable guidance when they need it'. Given the extent of their coverage and their hetero-

generality, online media have contributed significantly to this information overload (Schmitt et al., 2018; York, 2013). At the same time, there is also an inherent conflict between the nature of science (which is slow) and the nature of news (which is fast), according to Nabi and Prestin (2016).

This study examines the role of online media in Indonesia in covering COVID-19 during the first four months of the pandemic (January–April), a crucial phase. The study seeks to examine how online media in Indonesia have constructed the reality of the pandemic through the news content they produce. Reading the media's construction of reality enables us to achieve a comprehensive understanding of the ongoing pandemic, as well as efforts to overcome this crisis and potential avenues for resolving future communication problems. At the same time, this study will also show the position of the new media in modern society's increasingly complex dynamics. According to Bakir (2010), 'methodologically, there is a need for more longitudinal, historical, contextual and interpretive studies of impacts of mediated risk at micro and macro levels, and more in-depth, comparative studies between different risk types across different media forms and genres' (p. 5). This article offers such a study, using the context of COVID-19 and its coverage in Indonesia's online news media.

Literature review

The media has played a role in various health crises (epidemics/pandemics) since the dawn of print media, and this remains true even in the digital era (Wilson et al., 2009; Covello, 2009; Jones & Salathé, 2009; Bennet, 2020; Haynes, 2020; Flanagan, 2020). The role played by the media has been closely intertwined with the production and dissemination of information and with the construction of public knowledge. In times such as public health crises, such as pandemics, the media offers a primary source of information and knowledge (Holland et al., 2012). Lee and Basnyat (2013) argue that media coverage of pandemics is most effective when presented using a thematic frame rather than an episodic frame.

The role of the media in times of pandemic may be understood, in part, through one of its fundamental activities: journalism. The quality of news coverage is strongly determined by internal factors, particularly the quality of journalism. Media institutions worldwide face serious internal problems when their journalism no longer reflects their principles as democratic social institutions, especially when significant changes occur (Jorgensen & Hanitzsch, 2020). During times of crisis, such as pandemics, the knowledge-based journalism concept offered by Thomas E Patterson (2013) may provide a beneficial analytical tool. This concept deals primarily with the media's position and practices before, during, and after disasters. Patterson (2013) argues that: 'Two types of knowledge would tip journalism in the direction of a reflective practice: "content

knowledge”, which is knowledge of a subject, and “process knowledge”, which is knowledge of how reporting methods affect news content and impact’ (p. 184). Meanwhile, Nisbet and Fahy (2015) offer a concept of knowledge-based journalism wherein journalists serve three roles simultaneously: knowledge brokers, dialogue brokers, and policy brokers. The idea of knowledge-based journalism is also closely linked to the dynamic interactions between experts and journalists, which often become increasingly problematic during public health crises (Albæk, 2011, Holmes et al., 2009).

The media is a vital element of risk communication. Through media, it is possible to ensure and facilitate the public’s access to complete and accurate information in uncertain and ambiguous times, including pandemics (Sellnow et al., 2009). According to Covello (2009), ‘the media play a critical role in the delivery of risk information’ (p. 147), as it is entrusted with ‘reporting existing information, influencing the way an issue is portrayed, independently bringing an issue to the public’s attention or restricting its coverage, and proposing solutions to a risk-related decision, including taking a stand on an issue’ (Lundgren & McMakin, 2009, p. 208). In a digital society, the media’s involvement in risk communication is inexorably linked to the advancement of internet technology and online platforms. Advances in internet technology have fundamentally transformed the landscape of risk communication. As information has become increasingly available to the general public (Scholl et al., 2018); this democratisation of information has been widely debated, both as a concept and as a practice. Although it cannot be denied that the new media has offered significant opportunities to advance risk communication, it is crucial to recognise that—despite its philosophical and technical excellence—the new media is not a panacea for all communication challenges and crises (Hallahan, 2009; Neuwirth, 2009). This can be attributed, in part, to the fact that the new media contributes to the information overload that must be avoided in times of crisis, such as pandemics. Furthermore, as Krinsky (2007) noted, risk communication in the internet age has contributed to the rise of disorganised scepticism.

The debate regarding the media and its role in health crises has ranged from the general to the specific issues. For example, several studies have found that the media tends to dramatise or exaggerate the effects of pandemics, thereby producing an excessive, sometimes inaccurate, and sensationalist portrait (Smith, 2006). Citing the anthrax case, Kittler et al. (2004) find that the ‘information provided through the media was variable, often shallow, and not always validated by health authorities’. The media’s shortcomings in its coverage are also highlighted by Roche and Muskatvitch (2003), using the case of the West Nile virus, and Speers and Lewis (2004), using the rubella case. At the same time, several studies have shown that the media have the power to sway public perception of health issues by choosing what to publish and the context in which to present information (Berry et al., 2007; Wilkinson, 2010).

A study conducted by Sandell et al. (2013) investigated the association between the framing of health messages in the media and the public's perception of risk and related behavior; Shih et al. (2008) note that the success of health crises depends significantly on the media's focus and presentation of the pandemic. The media's capacity to disseminate information has been examined through a multitude of pandemics and epidemics that occurred before COVID-19. Investigating the swine flu, for example, Jones and Salathé (2009) find that 'public health messages spread via social media will need to be backed up by information spread via more traditional channels, which respondents list as being common sources of trusted information on the outbreak' (p. 6).

At the same time, the COVID-19 pandemic is an entirely new phenomenon, one distinct from previous ones owing to the significant global impact and the specific characteristics of the virus. Further compounding the situation is society's increased reliance on new media and the increasingly digitised modern society. Society increasingly relies on new media as a source of information and knowledge. This situation offers essential context for understanding the role of the new media in healthcare crises such as pandemics. However, studies of the online media's role in health crises have been limited, as researchers have focused primarily on the role of social media and conventional media (newspaper and television).

Method

This research analyses media texts, which combines qualitative text analysis methods carried out by researchers and data aggregation performed by AI software that work based on specific algorithms. Therefore, this research uses a large amount of data presented with textual descriptions and statistics as supporting explanations and analyses. The research data comes from eight of Indonesia's most popular online news portals—*Kompas*, *Republika*, *Kumparan*, *Liputan 6*, *Okezone*, and *Tempo.co*, *Detik*, and *Jawa Pos*. These media fall into two categories: online media produced by mainstream media (television, magazines, newspapers) and online media with no traditional counterpart (i.e., media that have operated on the internet since their inception or 'digital-born'). *Kompas*, *Republika*, *Liputan 6*, *Tempo*, *Okezone* and *Jawa Pos* are in the first category, while *Detik* and *Kumparan* are the second.

News coverage data is collected by entering several keywords to identify headlines and news content. The keywords used include Covid19, Covid-19, Corona, Corona, Coronavirus, 2019-nCoV, Pandemic, and Wuhan. A total of 257,476 news items were identified as research objects ($n = 257,476$). Data were collected over four months, from January to April 2020. Two phases were identified: the first (January and February) covered the period before the first case occurred, while the second (March and April) covered the period after the

first infection case. This period is crucial because it is a decisive phase in dealing with a pandemic.

Analysis was conducted through three basic analytical units: context, messenger, and tone. Messengers were those persons cited in the story and included politicians, bureaucrats, academics, celebrities, religious/social leaders, and members of the general public. The software collect messenger data, and the researcher then identifies the primary sources (most frequently cited by the media) and categorises them according to their positions or professions. Researchers also double-checked the software results to prevent incorrect data, for example, related to variations in names published by the media. For example, for the name of the Indonesian Minister of Finance, some media use ‘Sri Mulyani Indrawati’, and others use only ‘Sri Mulyani’.

Context refers to the background presented through stories’ titles. Several types of context were identified: health, economic, political, socio-cultural, and others (see Table 1). These topics are determined based on how Luhmann (2000) describes media systems that respond to other systems by what he calls themes. This context analysis is not done by the software, but by a human coder. The software only collects news data (titles and summaries) from eight media. Therefore, eight coders analyse every media item. Previously, researchers conducted checks among the coders. Eight coders analysed the same medium and determined the gap was between the coders in determining the news context. This examination is carried out twice to ensure no confusion and differences in coders’ perceptions in understanding each context’s explanation. In the first test, eight coders examined the same 100 news items from one of the media and showed a similarity rate of 79 percent. The researcher then explained again and adjusted the definition of each context. The second test was carried out with 92 percent similarity between coders.

The tone of the news was ascertained by the software based on the news title, content, and statement analysis. The software determines tone by identifying and measuring words that will be defined as tone categories: positive, negative, and neutral. A positive tone is obtained when the news contains more words with positive connotations than negative and neutral words. The determination of negative and neutral tones also follows a similar logic. For example, the headline ‘Corona virus outbreak, doctors in New York prepare for the worst condition’ is news with a negative tone because of the number of negative words (corona, virus, outbreak, worst) is more than positive (prepare) and neutral (doctor, New York). Researchers also conducted a manual analysis of selected news items to complement this software analysis; samples were selected from both phases. Samples were selected through random sampling, with ten news items chosen from each news portal. As such, 80 news items were manually read or analysed by researchers.

Table 1: News content definitions

1	Health	Coverage deals with health issues, including the virus, the symptoms, the conditions in hospitals, the experiences of doctors, the availability of medicine and vaccines, etc.
2	Economy	Coverage deals with economic issues, including the economy, business, and enterprise (including tourism).
3	Politics	Coverage deals with issues related to government policies at various levels, as well as parliament and international relations.
4	Socio-cultural	Coverage deals with issues related to social relations, community dynamics, education, art, and religion.
5	Others	Coverage deals with other matters, including sports and entertainment.

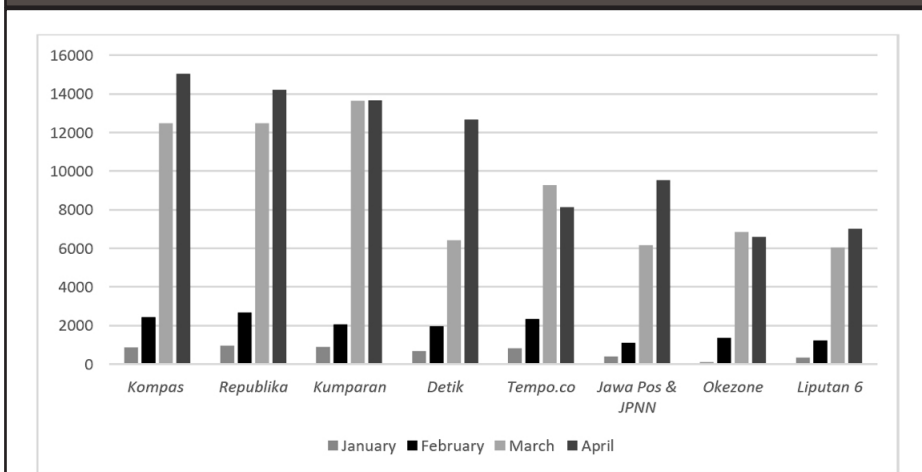
Results

Based on a quantitative analysis of online news coverage of the COVID-19 pandemic between January and April 2020, there was a significant increase in coverage every month (as seen in Table 2 and Figure 1). Only two media platforms (Tempo.com and *Okezone*) saw a reduction in the number of news stories in April. This increased coverage included not only coverage of the pandemic as it is but also an exploration of COVID-19-related issues. In other words, news

Table 2: Total number of news stories on COVID, Jan - April, 2020

No	Media	January	February	March	April	Total
1	Kompas	872	2448	12483	15035	30838
2	Republika	958	2670	12485	14216	30329
3	Kumparan	902	2053	13649	13671	30275
4	Detik	689	1951	6435	12668	21743
5	Tempo.co	827	2334	9280	8138	20579
6	Jawa Pos & JPNN	405	1104	6163	9541	17213
7	Okezone	117	1360	6849	6592	14918
8	Liputan 6	345	1216	6039	7024	14624
	Total	7,412	22,202	10,5224	122,638	180,519

Figure 1: Number of COVID 19 items, January-April, 2020



portals’ coverage of COVID-19 included a range of topics, including health, economics, education, politics, policy, and tourism.

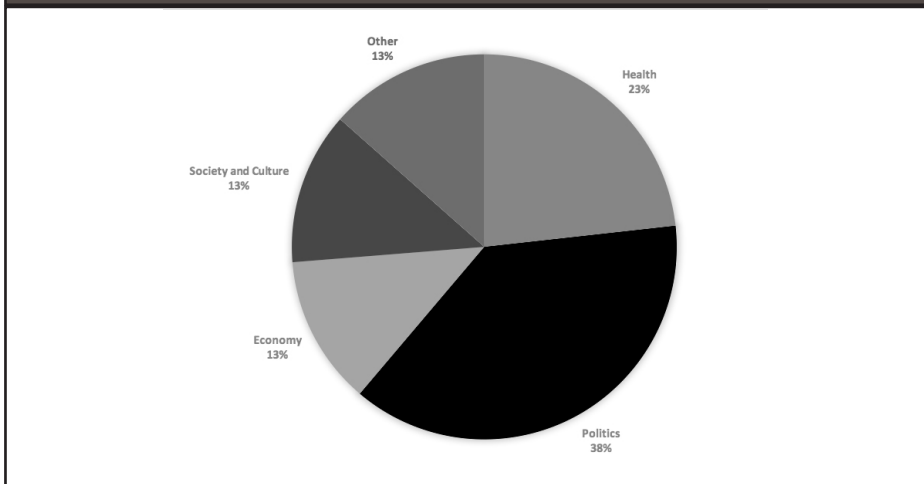
Context

Coverage of the COVID-19 pandemic in Indonesia was dominated by its political context, including bureaucratic and policy issues. Such a trend was identified in all studied media from January through May 2020. The health context was second most prominent, followed by the socio-cultural, economic, and

Table 3: Context of online media coverage, January - April, 2020

No	Media	Health	Politics	Economy	Society & Culture	Other	Total
1	Kompas	6720	10332	5020	4679	4087	30838
2	Republika	7147	11087	4115	3843	4137	30329
3	Kumparan	5345	13742	3722	4623	2843	30275
4	Detik	7482	7680	1650	3596	1335	21743
5	Tempo.co	5350	8477	2192	1489	3071	20579
6	Jawa Pos & JPNN	4487	6390	1526	1252	3558	17213
7	Okezone	1398	5002	1578	2307	4633	14918
8	Liputan 6	4027	5796	2825	1331	645	14624
	Total	41,956	68,506	22,628	23,120	24,309	180,519

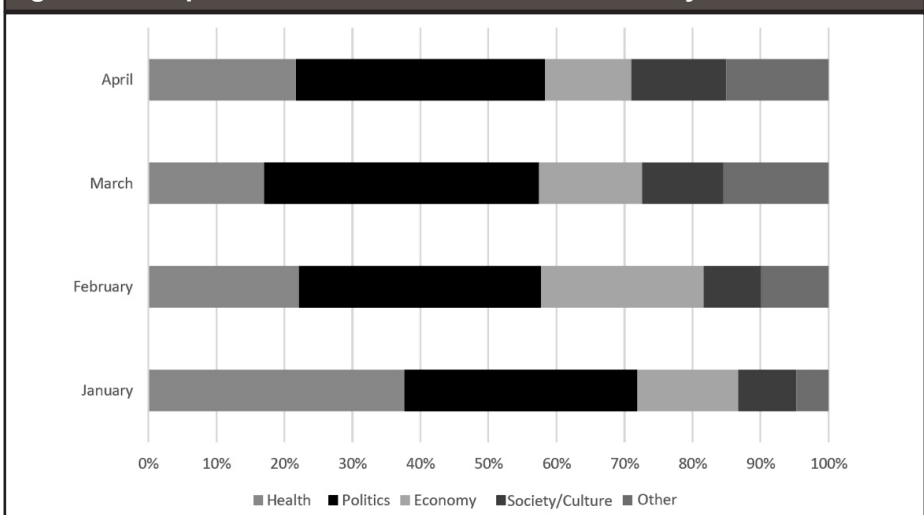
Figure 2: Percentage of online media coverage, January-April 2020



other contexts. The political context was found in 38 percent of the news stories reviewed, and the health context was found in 23 percent; the socio-cultural, economic, and other sectors each accounted for 13 percent. This information is presented in detail in Table 3 and Figure 2.

Analysed within a chronological context, it can be seen that the health context was dominant in January, and the political context dominated news coverage in later months (February through April). The other contexts (economy, socio-cultural, and other) remained relatively stable in March and April. Figure 3 shows the evolution of pandemic coverage between January and April 2020:

Figure 3: Comparison of online media news context by month



Messenger

A review of the stories published in eight media between January and April 2020 found that President Joko Widodo and Achmad Yurianto (the government’s spokesperson for COVID-19 affairs) are the most quoted politicians. Although the media cited a range of informants, including politicians, bureaucrats, academics, and celebrities, the former two were the most frequently mentioned. Epidemiologists and public health officials, thus, have had limited space in online public discourses.

Although several epidemiologists have acted as messengers, including Pandu Riono (University of Indonesia), Dicky Budiman (Griffith University, Australia), Tri Yunis Miko Wahyono (University of Indonesia), Riris Andono Ahmad (University of Gadjah Mada), and Laura Navika Yamani (University of Indonesia), the amount of coverage is relatively insignificant. For example, between January and April 2020, Pandu Riono was only quoted in 92 stories published by the eight online media surveyed. Other epidemiologists are cited less frequently; Dicky Budiman acted as a messenger in 11 news stories, while Riris Andono Ahmad was quoted in 16 news stories. In the early months of the pandemic (February 2020 only), the Indonesian media frequently quoted American epidemiologist Marc Lipsitch and Chinese epidemiologist Zhong Nanshan. At least 116 news items cite Marc Lipsitch, and 70 cite Zhong Nanshan. Similarly, the Indonesian media

Table 4: Top 10 in online media coverage, January-April, 2020

<i>No</i>	<i>Messenger</i>	<i>Position</i>	<i>Category</i>	<i>Number of news items</i>
1	Joko Widodo	President of Indonesia	Bureaucrats/ Politicians	5.857
2	Achmad Yurianto	Covid-19 Spokesperson	Bureaucrats	5.835
3	Anies Baswedan	Governor of DKI Jakarta	Bureaucrats/ Politicians	2.485
4	Sri Mulyani Indrawati	Minister of Finance	Bureaucrats	1.631
5	Ridwan Kamil	Governor of West Java	Birokrat/Politisi	1.589
6	Terawan Agus Putranto	Minister of Health	Bureaucrats	1.517
7	Donald Trump	President of the United States	Bureaucrats/ Politicians	1.186
8	Khofifah Indar Parawansa	Governor of East Java	Bureaucrats/ Politicians	1.143
9	Ganjar Pranowo	Governor of Central Java	Bureaucrats/ Politicians	1.088
10	Doni Monardo	Head of COVID-19 Task Force	Bureaucrats	1.068

also relied heavily on information from the World Health Organisation (WHO), particularly the organisation’s director-general, Tedros Adhanom Ghebreyesus. Table 4 presents the identified messengers in order of citation frequency:

Data shows an interesting dynamic, which may be attributed to a shift in the dominant messenger. In the early months of the pandemic (January and February), the primary messenger was the Minister of Health. In the second phase of the pandemic (March–April), President Joko Widodo and Achmad Yurianto (the spokesman of the Pandemic Management Task Force) were dominant. President Joko Widodo was quoted 134 times in January, 362 times in February, 3,361 times in March, and 2,000 times in April. Achmad Yurianto was quoted 31 times in January, 236 times in February, 3,292 times in March, and 2,276 times in April. Finally, Terawan Agus Putranto—the Minister of Health—was quoted 165 times in January, 552 times in February, 611 times in March, and only 189 in April. Table 5 identifies the ten most commonly cited messengers in Indonesian media by month:

Tone

Generally, coverage of the COVID-19 pandemic in the eight surveyed Indonesian media between January and April 2020 was positive (rather than negative or neutral). A positive tone was identified in 62,321 items published over four months; a neutral tone was found in 59,154 items, and a negative tone was

Table 5: Top 10 in online media coverage by month

No	January	February	March	April
1	Terawan Agus Putranto	Terawan Agus Putranto	Joko Widodo	Achmad Yurianto
2	Joko Widodo	Joko Widodo	Achmad Yurianto	Joko Widodo
3	Retno Marsudi	Budi Karya Sumadi	Anies Baswedan	Anies Baswedan
4	Teuku Faizasyah	Retno Marsudi	Ridwan Kamil	Ridwan Kamil
5	Anung Sugihantono	Achmad Yurianto	Sri Mulyani Indrawati	Khofifah Indar Parawansa
6	Tedros Adhanom	Airlangga Hartarto	Terawan Agus Putranto	Donald Trump
7	Budi Karya Sumadi	Tedros Adhanom	Erick Thohir	Sri Mulyani Indrawati
8	Danang Mandala Prihantoro	Muhadjir Effendy	Ganjar Pranowo	Doni Monardo
9	Xi Jinping	Sri Mulyani Indrawati	Donald Trump	Yusri Yunus
10	Sri Mulyani I	Anung Sugihantono	Doni Monardo	Luhut Binsar P

Table 6: Online media news coverage tone, January-April, 2020

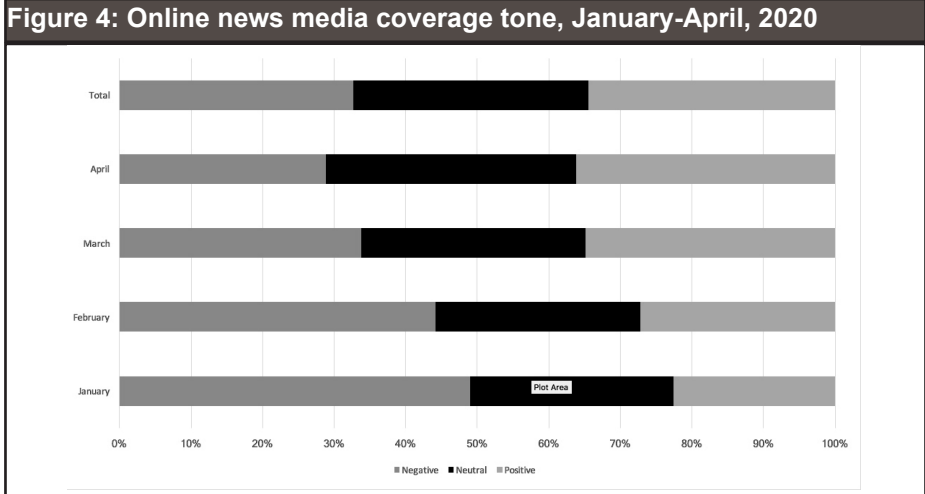
	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>Total</i>
Negative	2503	6675	24723	25143	59044
Neutral	1448	4345	22861	30500	59154
Positive	1154	4112	25545	31510	62321

found in 59,044 items. This suggests that the tone was roughly balanced, as no significant differences were found. Interestingly, however, a tonal shift was identified. A negative tone was most common in items published between January and February 2020; coverage became increasingly positive in tone between March and April. Table 6 and Figure 4 provide a comprehensive portrait of tonal dynamics over four months:

News with a positive tone, among others, are entitled ‘East Java provincial government recruits 470 new medical personnel to handle corona’; ‘250 Indonesians who will be evacuated from Hubei are believed to be in healthy condition’, and ‘Experts say masks are not the solution to prevent corona virus’. News with a negative tone, for example, include ‘Mysterious pneumonia in China may be new coronavirus infection’; ‘Impact of corona virus, Toyota Indonesia factory employees begin to take time off’; and ‘North Bekasi sub-district head who died positive for corona, family isolated’. While the news with a neutral tone, for example, entitled ‘Considering the profits and loss of travelling amid the corona virus’; ‘Two scenarios of evacuating Indonesian citizens in Wuhan’; and ‘COVID-19 and Sharia business’. Positive tone articles are generally related to efforts to deal with the pandemic, solutions, government successes, and health interventions. News with a negative tone usually contain an increase in the number of people infected, treated, and died, limited health facilities, or losses due to pandemics in various fields. Even so, this is not the main aspect of determining the news tone.

Discussion

The above results show several important facts and issues related to the COVID-19 pandemic in Indonesia, as well as the role of online media and new media. It is commonly hoped that, in times of crisis, the media will achieve not only broad coverage but also promote significant structural changes in society. From a cybernetics communication perspective, the concepts of disseminated media and success media hold that the media must disseminate information and stimulate discussion and promote continued adaptation (Luhmann, 2000). During a pandemic, institutions (including media institutions) significantly inform



society’s success or failure in achieving public understanding and controlling the pandemic. As such, the media plays a central role in cultivating a mindset that can stop the spread of the COVID-19 virus.

The dominance of bureaucrats and politicians as messengers and the minimal space available for epidemiologists and other experts is a severe issue. By providing epidemiologists access to public channels, they will be given a platform for spreading credible information and countering potential misinformation. Where experts are absent from the media, it falls to the government to distribute information about risks and their likely management; in such a situation, the message can be poorly received, as the messengers may be poorly suited to the matter. When epidemiologists and other scientists are lost in the sea of COVID-19 information and coverage, significant problems may emerge, as underscored by several studies of journalist–expert relations (Lopes et al., 2012; Albæk, 2011, Holmes et al., 2009).

The dominance of government officials and bureaucrats as messengers in COVID-19 coverage in Indonesia does not indicate that the media has simply reproduced the government’s perspectives and platforms (Castells, 2009). It is strongly correlated with fast journalism dominating all media (but especially online media). Exploring media coverage of the West Nile virus, mad cow disease, and avian flu, Shih et al. (2008) found that ‘the event-oriented nature of epidemic hazards coverage, with updates on infected cases (consequence) and actions taken by the authorities (action) [is] the staple of news coverage’ (p. 155). This study’s portrait of pandemic coverage in eight Indonesian media outlets, including their messenger and context aspects, reinforces the argument that the media depends heavily on—or is sometimes even controlled by—the government in times of crisis. In some cases, governments have even directly involved prominent media

actors in their COVID-19 task forces (Duong et al., 2020).

As the epicentre of pandemics lies in the health sector, media coverage of pandemics must prioritise the use of public health experts and epidemiologists—be they employed by the government, universities, or independent research institutions—as messengers. By providing space for public health experts from a range of backgrounds, the media can provide diverse perspectives regarding the ongoing crisis. Experts' perspectives and solutions may differ, and thus a wealth of perspectives is necessary for a democratic society to ensure the achievement of a collective decision that is both ideal and inclusive.

The minimal space available to epidemiologists may also be attributed, in part, to the operational perspective employed by Indonesia's online media. Endeavors to position epidemiologists as the leading messengers have been hindered by the logic of online media itself, which prioritises the number of clicks/visits received by articles. This logic poses a significant challenge for journalism in the digital era. It is possible that politicians and bureaucrats, the main messengers of online coverage to date, are perceived as drawing the attention of larger audiences. From a technical perspective, journalists' minimal capabilities—as well as their limited time and energy—may compound this issue; this assumption warrants further examination but is outside the scope of this article. It is also necessary to understand that the ongoing pandemic has significantly affected media organisations, both in editorial and financial matters. The media sector faces significant uncertainty, which affects the quality of the news produced and the journalism undertaken.

The COVID-19 pandemic has become a multidimensional problem. As such, messengers must consist of more than epidemiologists and public health experts; they should include economists, psychologists, historians, artists, and experts in law, communication, and culture. The COVID-19 pandemic offers media actors an opportunity to strengthen their relationship with experts, and indeed in the digital era, such bonds are necessary for overcoming hoaxes and addressing disinformation. Examined from an ideal journalism perspective, media coverage of the COVID-19 pandemic in Indonesia has yet to reflect the principles of knowledge-based journalism, one of which necessitates the inclusion of experts in media coverage.

This study has shown that the messenger aspect is correlated with the contexts of media coverage, including the dominant political context. Online media in Indonesia have tended to frame the COVID-19 pandemic as a political moment rather than a public health moment (crisis). Although this is not a fatal mistake, it is not unproblematic either. For instance, although the media must pressure the government to produce appropriate policies, its decision (conscious or not) to the forefront of the pandemic's political context in its coverage has created a distraction for the public from other essential issues. Collected data (Figure 3)

indicates that online media tended to highlight the health context at the beginning of the pandemic (January). However, beginning in February, coverage began to emphasise other pandemic elements. Why did this happen? The answer may be found in the internal dynamics of the media, as well as external factors.

Online media outlets lacked internal mechanisms for dealing with this situation. The COVID-19 pandemic has thrust the media—both in Indonesia and worldwide—into an unprecedented situation, and almost all aspects of the media sector have been affected. Indeed, the unprecedented nature of the pandemic does not justify the media's failure to fulfill its roles ideally. Problematically, the media has relied on the government as its sole source of information, even though (ironically) the Indonesian government initially stated that not all information would be made available to the public. The media has also extensively covered the 'conflict' between the central government and local governments, the coverage that may have worsened a counterproductive disharmony that has stymied pandemic mitigation efforts nationwide.

In April, Indonesia's tone of online media coverage shifted significantly when positive tones dominated the mediascape after three months of negative coverage. In the early months of the pandemic, a negative tone had permeated media coverage due partly to the lack of available information and the widespread confusion within the government and Indonesian society. This situation was reflected in the predominantly negative tone of coverage. However, the shift in tone in April does not mean that conditions had improved or that positive developments had occurred. This can be seen, for instance, in the increasing amount and breadth of news coverage. The negative tone of news coverage in the initial phase can be associated with conditions of uncertainty and ignorance of the threats faced. In contrast, in the second phase, the media focuses more on reporting to support efforts to deal with and prevent panic so that more positive news is raised.

The ongoing COVID-19 pandemic has posed significant and complex problems, which may be partly attributed to the new media's increased number and dynamism. Complexity has increased as access to information has expanded, resulting in an information overload. During times of crisis, it is necessary to ensure that the information disseminated is correct and confirmed, thereby avoiding panic and cultivating trust; only then can social solidarity be created. The media, being involved in the construction of reality, must seek to reduce the complexity of the ongoing pandemic by providing accurate and truthful information through balanced, evidence-based, and regularly updated coverage (Covello, 2009). The media must adhere strictly to a code of 'inform or not inform', i.e., decide to spread important information and minimise the spread of irrelevant information. To do so, the media must establish strong relations with various experts, academics, researchers, and intermediary actors (including civil society actors). Such sources and the essential knowledge they convey can be blocked

out where there is an over-reliance on aggressive, communicative activity from official sources—as the data in this study have been indicating.

In times of crisis, the media system must serve its ideal role as a social system capable of stimulating other social systems. The public's limited awareness of the COVID-19 virus and its dangers is a serious matter, as it hinders efforts to break the chain of transmission. Efforts to educate the public have had limited results, as have efforts to stop transmission through social distancing. Ideally, the media should be able to guide the public towards a shared understanding, facilitate the achievement of collective action, and pressure the government to implement strategic, adaptive, and accommodative policies. It would be necessary for knowledge-based journalism to be practised by the Indonesian media. It must recognise that Indonesia is vulnerable to disasters, including not only the COVID-19 pandemic but also natural disasters. Indeed, it is predicted that the COVID-19 pandemic will continue, and society will be required to create a new normal. The media must thus seek to improve the quality and consistency of its coverage.

As a shared platform modern society uses to construct reality, the new media has played a significant role in creating a shared understanding. Risk communication, crisis communication, and emergency communication are all needed in times of pandemics (Reynolds & Seeger, 2005). Given that social panic cannot be avoided, the media's decision to simply convey the government's messages is problematic; ideally, it should serve to inspire and stimulate society and the government. Given the rampant spread of disinformation on social media, spread by individuals whose interests do not necessarily align with those of the public, it is necessary to ensure that journalists' output adheres to high-quality standards. Given the plethora of available information, succinctness in online coverage is particularly important in times of crisis.

Conclusion

This study offers a gateway to a more detailed understanding of the role played by the media, especially the online media, in times of crisis (including the ongoing COVID-19 pandemic). This study has offered a general portrait of how online media covered the pandemic in its first four months in Indonesia. Further studies could use the instrument provided by Shih et al. (2008), using a more focused selection of data. At the same time, it is crucial to consider the pandemic's subsequent phases (for instance, after a vaccine becomes available or in the final months of the pandemic). A longitudinal study may guide future investigations of how the media operates in global crises such as COVID-19, which affect societies worldwide. It is also possible to conduct a comparative study using cases with different political, economic, and socio-cultural contexts.

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Professor Hermin Indah Wahyuni is the director of the Center for Southeast Asian Social Studies (CESASS) and an academic in the Communication Department, Faculty of Social and Political Sciences, Universitas Gadjah Mada (Gadjah Mada University), in Yogyakarta, Central Java, Indonesia. She has collaborated with Pacific Journalism Review for many years, especially in the field of risk communication. hermin_iw@ugm.ac.id

Andi Awaluddin Fitrah is a researcher in the Center for Southeast Asia Social Studies, Univesitas Gadjah Mada, in Yogyakarta, Indonesia



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