

Content Analysis of MAFINDO's Verified WhatsApp-Related Misinformation in Indonesia

Detta Rahmawan¹, Irma Garnesia², Rudi Hartanto³

^{1,3}Faculty of Communication Sciences, Universitas Padjadjaran, Bandung, Indonesia

²Institute of Media and Communication Sciences, Technische Universität Ilmenau, Ilmenau, Germany

Abstract

This study seeks to contribute to the emerging studies on fact-checking practices in the Global South by focusing on Indonesia, one of the largest democratic countries in the world. An organization and grassroots movement called MAFINDO (Masyarakat Anti Fitnah Indonesia/the Indonesian Anti-Defamation Society) has been spearheading fact-checking practices in Indonesia by operating a website “turnbackhoax.id” containing fact-checked articles including on misinformation spread through WhatsApp. This research uses content analysis to examine a diverse array of WhatsApp-related misinformation verified by MAFINDO, spanning from July 2015 to July 2020. Our findings reveal that politics and everyday occurrences, or trivial issues top the charts of WhatsApp-related misinformation, with nearly half primarily existing in the text format. Notably, the originators of this misinformation remain unknown, and MAFINDO primarily utilizes news articles for verification. Furthermore, we assess the “fact-check worthiness” of WhatsApp misinformation comparing it to a traditional “worthiness” from the notion of news values and “public priority issues” and found that over half of the misinformation falls within these categories. We hope these findings can inform strategies and interventions aimed at addressing the propagation of misinformation within the confines of enclosed platforms such as WhatsApp.

Keywords: fact-check; Indonesian fact-checkers; MAFINDO; misinformation; WhatsApp

Abstrak

Studi ini merupakan kontribusi terhadap berbagai kajian mengenai praktik pengecekan fakta di negara-negara selatan dengan fokus utama pada Indonesia, salah satu negara demokrasi terbesar di dunia. Sebuah organisasi dan gerakan akar rumput bernama MAFINDO (Masyarakat Anti Fitnah Indonesia) telah memelopori praktik pengecekan fakta di Indonesia dengan mengoperasikan situs web “turnbackhoax.id” yang berisi artikel-artikel pengecekan fakta termasuk misinformasi yang disebarkan melalui WhatsApp. Penelitian ini menggunakan metode analisis isi untuk mengeksplorasi beragam misinformasi terkait WhatsApp yang diverifikasi oleh MAFINDO, mulai dari Juli 2015 hingga Juli 2020. Temuan kami mengungkapkan bahwa politik dan kejadian sehari-hari, atau isu-isu sederhana menempati urutan teratas dalam misinformasi terkait WhatsApp, dengan hampir setengahnya terutama ada dalam format teks. Kemudian, kami menemukan bahwa sumber misinformasi tidak diketahui, dan MAFINDO sering kali menggunakan artikel berita sebagai sumber utama dalam melakukan proses verifikasi. Selain itu, kami menilai apakah berbagai misinformasi di WhatsApp “layak” untuk diperiksa faktanya, dengan membandingkannya dengan “kelayakan” terkait nilai-nilai pemberitaan dan “isu prioritas publik”. Kami menemukan bahwa lebih dari separuh misinformasi terkait WhatsApp yang diperiksa MAFINDO termasuk dalam kategori “layak”. Kami berharap temuan ini dapat memberikan masukan bagi strategi dan intervensi yang bertujuan mengatasi penyebaran misinformasi dalam lingkup platform tertutup seperti WhatsApp.

Kata kunci: cek fakta; pemeriksa fakta Indonesia; MAFINDO; misinformasi; WhatsApp

Correspondence: Detta Rahmawan, S.I.Kom., M.A., Faculty of Communication Sciences, Universitas Padjadjaran, Jl. Raya Bandung Sumedang KM.21, Kec. Jatinangor, Kab. Sumedang, Jawa Barat, 45363. Email: detta@unpad.ac.id

Submitted: April 2024, **Revised:** July 2024, **Accepted:** July 2024, **Published:** July 2024
ISSN: 2549-0559 (cetak), ISSN: 2549-1946 (online), Website: <http://jurnal.unpad.ac.id/kajian-jurnalisme>
Copyright © 2024 Author(s). This is an open-access article under the CC BY-NC-SA license

INTRODUCTION

It has been argued that misinformation, disinformation, or fake news disseminated through closed messaging apps such as WhatsApp can be even more perilous due to the encryption of the platform, making it challenging to employ analytics systems for effective monitoring. WhatsApp has posed issues in various political events in several Asian nations (Yee, 2017). In Indonesia, the platform was temporarily restricted during election-related protests in 2019 (Redaksi CNBC Indonesia, 2019). The proliferation of misinformation has spurred the emergence of fact-checking initiatives, which defined by by Walter et al (2020, p.2), as the practice of systematically publishing assessments of the validity of claims made by public officials and institutions, with an explicit attempt to identify whether a claim is factual or not. As of October 2023, according to Duke Reporter's Lab, a total of 419 fact-checking organizations were operational (<https://reporterslab.org/fact-checking/>). Many early studies examining fact-checking practices focused on organizations located in the Western World such as in the USA and Europe (Graves, 2016). However, recently fact-checking organizations have flourished outside Western, Educated, Industrialized, Rich, and Democratic (WEIRD) Countries (Vinhas & Bastos, 2023) or "Global South Countries" such as in Brazil (Recuero et al., 2022), Africa (Cheruiyot & Ferrer-Conill, 2018) and several ASEAN countries (Slijepčević et al., 2021).

An online survey of 1.596 respondents in Indonesia conducted in April-May 2022 revealed that 41% accessed fact-check content "often", while another 10% did so "very often", highlighting the popularity of fact-checking practices, at least among the online population (Mardjianto et al., 2022). Among several fact-checking organizations in Indonesia, the Indonesian Anti-Slander Society (*Masyarakat Anti Fitnah Indonesia*/MAFINDO) has been associated as the pioneer of the fact-checking movement in Indonesia and plays an important role in shaping the fact-checking landscapes in Indonesia (Rahmawan et al., 2022, 2023). MAFINDO has several networks of fact-checkers from numerous cities in Indonesia, and they publish their fact-checking works regularly on their website turnbackhoax.id. According to MAFINDO's first five years of fact-checking results, the top three channels in which misinformation are being spread in Indonesia are Facebook, WhatsApp, and Twitter (which currently rebranded as "X") (Rahmawan et al., 2023). We place particular emphasis on misinformation verified by MAFINDO, the largest fact-checking organization in Indonesia and focuses specifically on WhatsApp since there are few studies that attempts to depict misinformation within the platform. We analyze MAFINDO's fact-checked content's themes, types, and verification sources in fact-checks. Additionally, we explore the notion of "fact-check worthiness" based on journalistic values and public priority, aligning with discussions on fact-checking epistemology (Adiprasetyo et al., 2024). This contributes to the "interpretive communities" theory (Zelizer, 1993) suggesting fact-checkers are similar to journalists and other communicators in terms of their autonomy (Krisdinanto, 2024) and adherence to ethics (Soraya et al., 2023) which can establish conventions and simultaneously communicate which claims worthy of investigation.

The proliferation of "fake news" acts as significant indicators of the rise of "post-truth politics" and "alternative facts", and at the same time show the diminishing confidence on authoritative sources of information within society, such as the media, journalists and government. WhatsApp fuels vibrant social networks in Indonesia, with users actively engaging in multiple chat groups covering diverse aspects of life, from work and family to hobbies and school friends. This intense group activity makes it a key channel for information sharing, encompassing everything from national news to casual gossip.

Since 2014, Indonesia has pushed forward the fact-checking initiatives as a proactive

response to the rampant circulation of misinformation, particularly on social media. Such response has been said to be especially crucial during political events like the 2014 presidential election, the 2017 Jakarta gubernatorial election, and the 2019 presidential election (Hui, 2020; Tyson & Purnomo, 2017). During the 2017 DKI Jakarta Governor's Election, deliberate production of misinformation occurred in the shape of websites designed to mimic legitimate news articles from prominent media organizations. Subsequently, they were distributed as part of political propaganda through popular social media platforms such as Facebook and Twitter, as well as widely used instant messaging applications like WhatsApp (M. Lim, 2017).

In the second showdown between Joko Widodo, the current president of Indonesia, and his challenger, Prabowo Subianto in the 2019 Indonesian presidential election, the widespread dissemination of misinformation took center stage (Hui, 2020). WhatsApp, a platform that is already serving as an integral part of everyday life for many Indonesians, were also being used as a tool for communication and information-sharing between the supporters of both candidates. Over time, the platform also has evidently played a more significant role in the spread of political discussions and campaign messages (Baulch et al., 2024). Simultaneously, there are studies reporting the escalation of the spread of misinformation on the platform. A survey of 480 respondents in West Java, Indonesia in 2018, found that the ability to spot misinformation was higher on social media, with a success rate of 9.3%. Meanwhile on WhatsApp, it's slightly lower at 6.3% (Wibowo et al., 2019). Another survey involving 1.500 respondents reveals a direct relationship between increasing age and greater trust in the information shared on the messaging app. The respondents show a strong tendency to share images containing unverified claims or misinformation, primarily focused on health-related content, followed by messages addressing sensitive issues such as nationalism, the economy, religion, and politics in Indonesia (Ajengrastri, 2019). WhatsApp-related misinformation clearly presents a significant challenge in Indonesia, yet studies on its specific characteristics remains limited due to the platform's closed nature. Analyzing fact-checked articles published by the biggest fact-checking organization in Indonesia, MAFINDO, offers a unique window into the types of misinformation circulating on WhatsApp. However, we acknowledge that the results do not capture the full spectrum of misinformation in Indonesia.

Recent studies try to explore the global expansion of fact-checking networks (Amazeen, 2019; Singer, 2021; Vinhas & Bastos, 2023). Some has shed light on many fact-checking movements outside the West and noted the complexities of fact-checking efforts, such as what happened in the Arab World where political situations and authoritarian rule resulted in self-censorship (Fakida, 2021), or like in the case of African fact-checkers where they work separately from the networks of mainstream media journalists (Cheruiyot & Ferrer-Conill, 2018). Related to journalistic duties, some fact-checkers in Latin America, on the other hand, see themselves as the one who maintain their sense of journalistic social responsibility and work on opposing political polarization (Lelo, 2022; Moreno-Gil et al., 2021).

The Indonesian Ministry of Communication and Informatics introduced several methods to eradicate the spread of misinformation. Such measures range from the establishment of a coordination body to combat misinformation, the formation of dedicated police units, to the launch of various digital literacy initiatives to enhance public awareness of misinformation. The Indonesian Press Council (*Dewan Pers Indonesia*) has introduced a verification system for online news sources, and industry players such as Facebook and Google have also expressed their willingness to collaborate with the government and various Indonesian media organizations, particularly in terms of supporting the newsroom and developing the "fact-check initiatives" (Rahmawan et al., 2022).

One of the earliest instances of fact-checking activities in Indonesian can be traced back to a journalistic investigation in 1997 conducted by a journalist named Bondan Winarno. He delved into the “Busang gold mining scandal”, a major case of corporate fraud uncovered in the late 1990s in Indonesia, related to the work of a Canadian mining company in Busang, East Kalimantan, Indonesia (Winarno, 1997). The predominant practice of fact-checking in Indonesia today, however, is primarily linked to elections and political matters. Studies on fact-checking in Indonesia has blossomed recently (see for example Adiprasetyo et al., 2024; Mardjianto et al., 2022; Nurlatifah & Irwansyah, 2019; Rahmawan et al., 2022, 2023). The pioneer of fact-checking initiatives as well as the biggest fact-checking organizations in Indonesia is the Indonesian Anti-Slander Society (*Masyarakat Anti Fitnah Indonesia*/MAFINDO) (Rahmawan et al., 2022, 2023). MAFINDO has several networks of fact-checkers from numerous cities in Indonesia, and they publish their fact-checking works regularly on their website turnbackhoax.id. Since 2018, MAFINDO’s dedicated volunteers have consistently outpaced other organizations in terms of their fact-checking articles (Jumranaa et al., 2020).

MAFINDO’s commitment to combating misinformation extends beyond fact-checking. In 2019, Google supported their collaboration with the Indonesian Ministry of Communication and Informatics (KOMINFO) to launch a media literacy program. Additionally, MAFINDO also partnered with the Indonesian Cyber Media Association (AMSI), and The Alliance of Independent Journalists (AJI) to conduct fact-checking initiatives during the 2019 presidential and 2020 local elections. MAFINDO’s core team consists of nine individuals, supported by thousands of volunteers across Indonesia who play a crucial role in conducting training, fact-checking, and extending the organization’s reach to a broader audience. To strengthen the communities of fact-checkers and volunteers for their works, MAFINDO regularly conduct trainings and workshops all over Indonesia, promoting “how-to” fact-checking and also spreading the awareness about media and digital literacy. All things considered, these collaborative works and the initiatives mentioned above highlights MAFINDO’s significant role in the context of Indonesian fact-checking landscape (Rahmawan et al., 2022, 2023).

Since the rise of the fact-checking movement, many have conducted studies to evaluate its practice. For example, one critical assessment argued that the practice needs to be evaluated for its impact and effectiveness, including the process of selecting claims and “evidence” for assessing facts (Amazeen, 2013). Furthermore, a review of fact-checking literature done in 2018 has identified three main topics related to “(1) the effects of fact-checking, (2) fact-checking as a profession and (3) public opinion about fact-checking” (Nieminen & Rapeli, 2019). However, few have been exploring the question of what kind of misinformation is “worthy” to be verified thoroughly. This particular inquiry is important because, while many have been pointing out the increasing need of fact-checking initiatives, and how it is important in addressing the proliferation of misinformation, at the same time, fact-checking organizational capacity and resources are limited (Micallef et al., 2022). Furthermore, fact-checking has been known as intellectually demanding and a laborious process which requires more research and a more advanced style of writing rather than merely regular journalism (Hassan et al., 2015).

On one hand, several computer scientists have turned to technological solutions, in which they believe that fact-checking process should be “automated” using machine learning models. However, they still highlighted that one of the challenges they had is determining the “check-worthy claims” and “whether its truthfulness is important to the public” (Hassan et al., 2015, p. 1). On the other hand, some believe that the combination of crowdsourced and professional fact-checking can address the capacity problem. However, it must be kept in mind that such practices might have another shortcoming in terms of the possibility of low consensus between

the fact-checker and partisan focuses (Zhao & Naaman, 2023).

Historically, fact-checking as idea and practices has flourished among journalistic tradition and values (Graves, 2016). Hence, it can be said that to determine whether a particular claim is worthy to be checked and verified, it can be seen through the lens of journalism, for example regarding its news values (Harcup & O'Neill, 2001). Such perspectives has been found in several studies. Graves (2017) studied three fact-checkers in the U.S and found that the first element for a typical fact-check is to select which claims to fact-check, taking into account factors such as the claim's newsworthiness and political importance. Furthermore, Micallef et al. (2022) added that social responsibility is important values in terms of fact-checking practices. Other scholars try to define a rigorous list of "uncheckable sentences" and emphasized that "ambiguous or vague claims" and "claims concerning the supernatural or matters of faith" are examples of claims unworthy to be checked thoroughly (Nieminen & Sankari, 2021).

The debate around the fact-check worthiness can also be framed as the problems of "epistemology" on fact-checking (Amazeen, 2015) and to "checking how fact-checkers check" (C. Lim, 2018). Within the discussion of epistemology, one key criticism of fact-checking focuses on its methods and target claims. Critics question how evidence is chosen, information justified, and "factuality" determined (Graves, 2017). Moreover, Uscinski and Butler (2013) described five challenges in the fact-checking epistemology, that is selection impact, mixing facts into one or separating facts, cause and effects claims, forecasting the future, and unclear selection criteria. These challenges are also relevant to contested claims about fact-check worthiness.

Many studies on fact-checker routines including in terms of investigating the fact-check worthiness of claims typically focus on journalism model of fact-checking (Micallef et al., 2022). Yet it is important to also consider while in the U.S fact-checking movement establish themselves as "political fact-checkers" mainly seek to scrutinize political matters, global fact-checking movement, including in Indonesia, work with broader themes and topics than just politics. MAFINDO's stated vision, articulate on their website (<https://www.mafindo.or.id/tentang-kami/visi-misi/>), is to create an active, peaceful, and prosperous society where active participation is encouraged in developing public critical thinking skills. This suggests that their work extends beyond checking claims and writing the results into articles, but they also actively pursue a broader social impact, a kind of movement with focus on literacy and empowerment. However, this is precisely why the problems of capabilities justify closer examination. With limited organizational capabilities, fact-checkers must carefully weigh the possible harm caused by particular claims, including risks to public health, democratic processes and emergency situations, against the resources needed to verify the claim. Assessing the worthiness of fact-checking claims necessitates a comprehensive evaluation encompassing both the specific claim itself and the established procedures and internal processes employed by the fact-checking organization. Again, recognizing the limitations, by analyzing specific organizations like MAFINDO, we propose that the results can be used as essential building blocks for mapping the characteristics of misinformation circulating within WhatsApp in Indonesia. Rather than taking fact-checking practices for granted, "checking how fact-checkers check" is necessary (C. Lim, 2018). Furthermore, evaluation on fact-checking practices contributes to ongoing studies looking at fact-checkers as "interpretive communities" (Zelizer, 1993), in which their practices, meaning making activities and shared interpretation about certain facts and claims are scrutinized.

RESEARCH METHOD

This study employs content analysis, following Krippendorff's (2004) methodology, to analyze articles that have undergone fact-checking by MAFINDO and were published on their website, turnbackhoax.id. To compile the entire dataset of their published articles spanning five years, we used a combination of manual data collection and automated web scraping using R. The coding process has been done by two research team members. Each unit of analysis underwent intercoder reliability assessment. This process had two coders checking a randomly selected set of articles to achieve an agreement rate exceeding 75% and Krippendorff Alpha values surpassing 0.7, which falls within the range of 0 (unreliable) to 1 (perfect reliability) (Hayes & Krippendorff, 2007). We used ReCal OIR (Freelon, 2013) for the calculation of intercoder reliability. Any discrepancies during the process were then discussed until the coders reached a consensus.

We collected data over a five-year period from the earliest articles available on turnbackhoax.id, starting from July 2015 to July 2020. The 2015–2020-time frame was chosen because it allows for a five-year window since MAFINDO's establishment, providing ample time for data collection and evaluation. Additionally, during this period, significant political events took place in Indonesia, including the regional election in 2017 & 2018, as well as presidential elections in 2019. Furthermore, in 2020, the early stages of the COVID-19 pandemic unfolded. These political events and the pandemic represent some major contexts in which misinformation has significantly proliferated.

From our initial data collection, we noticed that MAFINDO used arbitrary tagging and categorizations on their published articles. The articles have the following categorizations: “issues” (*isu*); “clarification” (*klarifikasi*); “news” (*berita*); “miscellaneous” (*campuran*); “education” (*edukasi*); “fact” (*fakta*) “truth” (*benar*); “misinformation” (*misinformasi*); “disinformation” (*disinformasi*); “slander” (*fitnah*); “false” (*salah*); “incitement” (*hasut*); “hoax” (*hoaks*) and “others” (*lainnya*). Hence, for the data reduction and categorization process as well as to provide clarity, we opted for purposive sampling. This involved selectively choosing articles explicitly categorized as “disinformation”, “misinformation”, “slander”, “incitement”, “hoax”, and “false”. We selected these categories as they are similar or closely aligned with the concept of misinformation. During this stage, we obtained a total of 3658 articles describing the spread of misinformation which were verified by MAFINDO from several platforms.

From the 3658 articles, unfortunately there is a lack of specific information regarding the source platform for the misinformation. Therefore, we conducted a manual identification of the platform using several cues within the article, including details like the portrayal of the platform's logo within the article and how the platform was referenced in the text. Our focus was on determining whether the misinformation originated or first circulated through WhatsApp, for example by looking for the specific written information that mentioned “source: WhatsApp” or an article containing a screen captured conversation from WhatsApp. After the data cleaning stage, we found 441 articles directly related to WhatsApp for further coding and analysis.

From our sample (n=441), we then determined several variables which have been used in another study on MAFINDO (Rahmawan et al., 2023). We also tried to check if the misinformation specifically included the screenshot of the misinformation shared on WhatsApp and also check the sources for verification (López-García et al., 2021). To analyze the “fact-check worthiness”, we use the “news values” categories provided by Harcup and O'Neill (2001) which we slightly adjusted to make it more appropriate to our analysis, and our own categories of “public priority issues” comprising political issues, involvement of political

parties, state institutions, public officials, public figures other than celebrities and those in the entertainment industry, public health concerns with high potential risks as classified by public health authorities, criminal matters, terrorism, national-scale disasters, or issues clarified by relevant authorities or institutions.

RESULTS AND DISCUSSION

The breakdown of our analysis regarding misinformation themes on WhatsApp is presented in Figure 1. We found that 24.94% of the misinformation (110 articles) are related to politics, 21.09% (93 articles) are related to COVID, 11.79% (52) are related to non-COVID health issues, 8.16% (36 articles) are related to religion, 7.48% (33 articles) are related to crime, and only 1.59% (7 articles) are related to the economy. We have also included a category labeled as “others” for misinformation that cannot be classified under politics, COVID, health, religion, crime, or the economy, and it is more like an everyday occurrences and trivial issues. Interestingly, this category accounts for a significant portion, comprising of 110 articles or 24.94% of the total misinformation, which is similar to the number of political misinformation.

In our study, political misinformation contains a range of issues. One example is related to one of the largest demonstrations in Indonesian called the “aksi bela islam 212” (212 rally for defending Islam) which was connected to the blasphemy case of then-Jakarta Governor Basuki Tjahaja Purnama, commonly known as Ahok. The misinformation included fake conversations discussing the 212 rally involving one of the most renowned and influential Islamic preacher in Indonesia, Aa Gym and then-Commander of the Indonesian National Armed Forces, General Gatot Nurmantyo (<https://turnbackhoax.id/2016/11/11/hoax-pembicaraan-aa-gym-dengan-panglima-tni-jendral-gatot-nurmantyo/>), or a fake letter from the State of Intelligence Agency of Indonesia containing warnings on the 212 reunion activities which can disrupt the stability of national security (<https://turnbackhoax.id/2018/11/29/salah-bin-keluarkan-surat-siaga-i-terkait-kegiatan-reuni-212/>). Other examples of political misinformation is an article containing a claim that Indonesian President Joko Widodo being a Chinese-Christian and his real name is “Herberthus” (<https://turnbackhoax.id/2017/10/14/fitnah-jokowi-nama-lahirnya-herberthus/>). Overall, we found many political misinformation that revolves around political figures, significant political event which attracted public discussion such as the 2017 Gubernatorial Election, the 2018 Regional Election, and the 2019 Presidential Election. The spread of political misinformation in the Indonesian fact-checking landscape have been

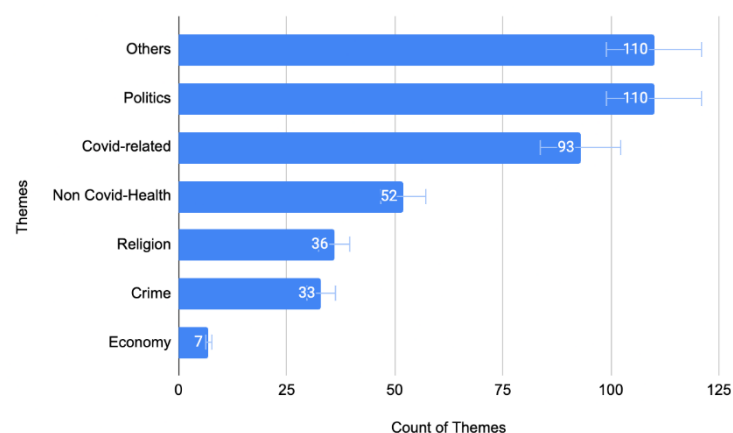


Figure 1. Misinformation' themes

Source: Authors (2024)

discovered in other researches (Adiprasetio et al., 2024; Rahmawan et al., 2023; Safitri et al., 2022). The results from our studies complement such findings and highlights the prevalence of political misinformation on WhatsApp.

There is a significant amount of misinformation categorized as “others,” which mainly revolves around everyday occurrences and trivial issues. For instance, false information about job recruitment from well-established companies, such as from “PT. Angkasa Pura Airport”, a state-owned enterprise in the aviation business (<https://turnbackhoax.id/2017/02/16/hoax-rekrutmen-pt-angkasapura-airport/>), or fraudulent messages involving one of the largest and oldest banks in Indonesia, “Bank Rakyat Indonesia.” (<https://turnbackhoax.id/2016/08/26/hoax-pesan-berantai-atas-nama-bank-bri/>), misinformation include false claims about WhatsApp changing into a paid application since its acquisition by Facebook (<https://turnbackhoax.id/2017/09/24/hoax-whatsapp-dikenakan-biaya-pasca-diakuisisi-facebook/>), misinformation regarding the death of public figures like the prominent Islamic preacher Arifin Ilham (<https://turnbackhoax.id/2019/01/08/salah-ustaz-arifin-ilham-meninggal-dunia/>) and misinformation on warnings about disasters, such as a large earthquake in Malang, East Java, Indonesia (<https://turnbackhoax.id/2018/04/25/salah-gempa-akan-terjadi-di-malang-selatan/>). To summarize, this theme encompasses a wide range of issues and contexts, primarily consisting of false information frequently packaged as forwarded messages that spread widely through WhatsApp. Moreover, since we also include the year 2020 to our coding, we found high occurrence of Covid-19 related misinformation, such as how drinking a high amount of warm water with salt and pepper eliminates coronavirus in the throat (<https://turnbackhoax.id/2020/03/17/salah-minum-banyak-air-dan-berkumur-dengan-air-hangat-garam-atau-cuka-dapat-menghilangkan-virus-corona-saat-di-tenggorokan/>), misinformation regarding Covid-19 restrictions or “lockdown” in the capital city of Indonesia, Jakarta (<https://turnbackhoax.id/2020/03/21/salah-dki-jakarta-mulai-besok-lock-down-warga-di-luar-jakarta-tidak-dibolehkan-masuk-kecuali-ada-izin-polisi/>), and several intersections between Covid-19, religion, and politics such as misinformation about the government forces a cleric to receive Covid-19 vaccine (<https://turnbackhoax.id/2020/05/03/salah-video-rezim-memaksa-para-kyai-utk-di-suntik-dgn-dalih-utk-ketahanan-tubuh-dari-virus-kyai-di-banten-ini-tegas-menolak/>).

Figure 2 shows that misinformation circulated on WhatsApp are mostly in the form of texts-only misinformation (204), non-video and texts (198) and video and texts (39). It might be possible that the high number of text-only misinformation can be explained by the fact that WhatsApp is primarily a text-messaging platform. As widespread misinformation became a major problem, WhatsApp added forwarding limits to its features. Now users can only forward a message or a channel update with up to five chats at a time. If users are forwarding a message that was forwarded to them, it can only be shared to one group chat at a time. Hence, if users wants to share a text to multiply groups, they must do it one by one manually. WhatsApp also added the label “Forwarded many times” if a message or update is forwarded through a chain of five or more chats. The platform claimed these measures helps slow down the spread of rumors, viral messages, and misinformation (Tandoc Jr. et al., 2022).

Another important finding is the high level of misinformation spread through non-video images and text. This is important considering that a high amount of information spread via instant messaging platforms is usually in the form of altered images, infographic messages, memes, or many other visual contents that are susceptible to manipulation. Therefore, in addition to improving the ability to spot and analyze false messages on text-only misinformation, which is more oriented towards logics and basic literacy, our findings reinforce the opinion that strengthening the public’s ability to be skeptical of visual contents is also very important. Some

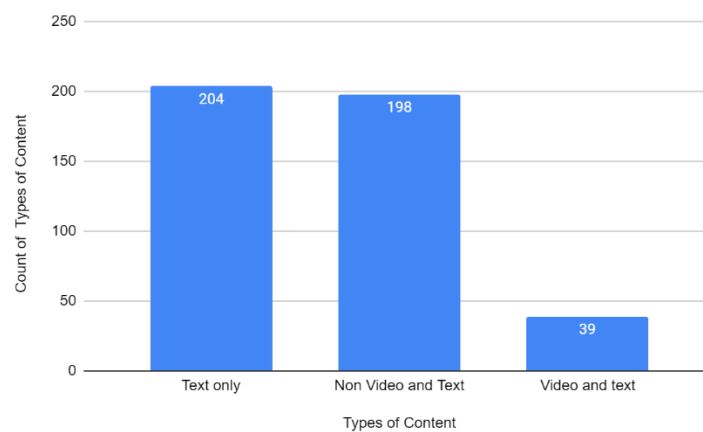


Figure 2. Types of Content
Source: Authors (2024)

has even suggest that specific studies on the visual ability to manipulate audiences need to be carried out separately from textual misinformation (Weikmann & Lecheler, 2023).

We found that the majority (85.3%) of WhatsApp-related misinformation fact-checked by MAFINDO included screen captures of WhatsApp messages in addition to the written information “source: WhatsApp” as a marker indicating that the misinformation was being circulated on WhatsApp. However, based on our closed reading of the articles, we discovered that nearly all (99.8%) of the misinformation disseminated through WhatsApp are untraceable. For example, while some article might contain information explaining that a particular misinformation being checked by MAFINDO was from a WhatsApp user “A”, we cannot be certain that user “A” is the person who initially created and spread the misinformation. The majority of these misinformation are forwarded from one person to another person, or from one group to another group, making it extremely challenging to trace their origins.

Next, we wanted to observe the sources for verification used by MAFINDO. Analysis on the type of sources is one of the important elements on the evaluation of fact-checking practices (López-García et al., 2021). Our categorization included interviewing a source, using legal documents, citing a news article, using other sources, and no information on the source of verification. In that regard, we found that the majority of the sources of verification used by MAFINDO are news articles, as can be seen in Figure 3. Although our analysis only focuses on WhatsApp related misinformation, we argue that for fact-checking works, only citing a news article as the primary source for verification can occasionally might not be adequate. As we know, today’s news organizations also have biases, they also cite from other sources that need thorough investigations, and some of them might not be reliable as the first source.

MAFINDO produce more articles compared to the other fact-checked organizations (Rahmawan et al., 2023). Hence, we assumed that they cited a high amount of news articles to quickly get done with the verification. Given this finding, we raise an important consideration on the trade-off between speed and quantity and the depth or meticulousness of verification. Many fact-check articles can be good, however, prioritizing comprehensiveness and evaluating “fact-check worthiness” will ultimately strengthen a fact-checking practices’ impact and credibility.

We emphasized that there are limited studies on the fact-checking initiatives which explored which claims or misinformation merit thorough verification. This is an important area to be studied since fact-checking organizations often have limited capabilities while the work of fact-checkers is more likely to be resource-intensive, demanding more research and

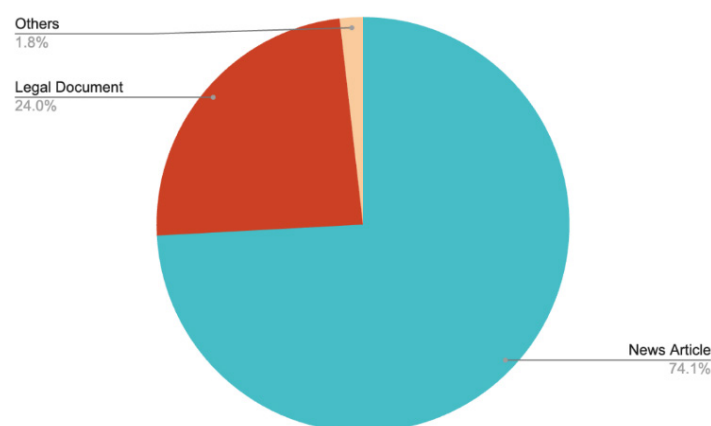


Figure 3. Source for Verification
Source: Authors (2024)

writing skills compared to traditional journalism (Hassan et al., 2015; Micallef et al., 2022). We explore the question of “fact-check worthiness” with several contextual factors that need to be acknowledged. First, during our intercoder reliability training, we briefed our research assistant who conducted the coding to adopt the perspective of a layperson. They needed to consider how individuals in Indonesia, particularly those with lower literacy skills, might perceive the fact-check articles. As a point of comparison, in the domain of reading literacy, which was the primary focus of the PISA 2018 assessment, a 15-year-old in Indonesia scored 371 points, in contrast to the OECD countries’ average of 487 points (OECD, 2019).

Secondly, we start to dissect “fact-check worthiness” by trying to categorize the “news values” present in the fact-checked articles. We made adjustments and merged two categories of news values (Harcup & O’Neill, 2017). So, we have “The power elite” (whether the articles are about influential individuals, organizations, or institutions), “Celebrity & Entertainment” (whether the articles are about already famous individuals, show business, human interest, etc), “Surprise” (whether the articles have elements of surprise and/or contrast), “Bad news” (whether the articles have notably negative aspects, such as conflict or tragedy), “Good news” (whether the articles are have notably positive aspects, such as rescues and recoveries), and “Magnitude & Relevance” (whether the articles can be perceived as significantly impactful, either in terms of the number of people involved or their potential consequences), as our categorization for “news values”.

For the results of our analysis on news values, we found that 274 articles related to magnitude & relevance (see Figure 4), which shows that it is the most prevalent category (62%) in our dataset of WhatsApp related misinformation checked by MAFINDO. Some fact-checked articles that are listed under this category for example is a religion themed misinformation entitled “The birth of a baby resembling the Dajjal in Israel” (<https://turnbackhoax.id/2016/05/22/hoax-pesan-berantai-lahirnya-bayi-seperti-dajjal-di-israel/>) . Since according to Islamic tradition, dajjal is an important concept related to the end of times, this type of misinformation might potentially be easy to spread in Indonesia, as the country which holds a majority of Muslim population.

Another example under this category is misinformation related to Indonesian Communist Party (Partai Komunis Indonesia/PKI) entitled “Be careful of people who are sticking a PKI sticker on the back of cars” (<https://turnbackhoax.id/2016/12/09/hoax-hati-hati-orang-iseng-tempel-sticker-pki-di-belakang-mobil/>). Since there are widespread negative sentiments on anti-communism in Indonesia, the misinformation can be considered as having an importance

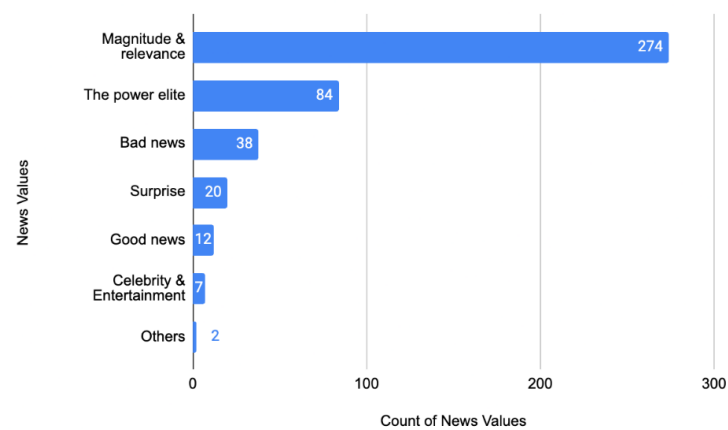


Figure 4. News Values

Source: Authors (2024)

for the Indonesians. The ‘power elite’ category emerges as the second most common category (19%) for WhatsApp-related misinformation, with popular figures ranging from politicians, public figures, celebrities, to popular Islamic Preacher. This suggests that many WhatsApp misinformation mentioned popular figures to make them more believable or to make it easier to spread to a wider audience.

Lastly, we also analyze whether the fact-checked articles contain “public priority issues”. However, defining “public priority” as part of the concept of “public interest” is difficult. To begin with, the concept of “public interest” is so flexible that it can be defined within different contexts and depending on the circumstances. However, it can be seen as part of political discourse, an issue that “bringing people together”, “fostering dialogue” and more importantly “it centers on public discussion about what matters and why” (Johnston & Gulliver, 2022, p. 9). Furthermore, if we put the “public priority issues” on the context of information ecosystem, it is more reasonable to think that what constitutes as “public” might be related to important issues, problematic or contested situations, that need to be solved, hence it often draws on the attention of the “public” that is the wider population. Borrowing Johnston & Gulliver’s explanation, we try to define “public priority issues” on this study as issues that related to politics, political parties, state institutions, public officials, public figures other than celebrities and those in the entertainment industry, concerning public health concerns with high potential risks as classified by public health authorities, and criminal matters, terrorism, national-scale disasters, or issues clarified by relevant authorities or institutions. From our analysis (Figure 5), it can be said that more than half of the misinformation (65.3%) can be put into the category of public priorities. And 34.7% is not a priority to be checked thoroughly.

Our analysis on public priority issues is important since we can say that while closed networks platform such as WhatsApp is mainly used for private communication, a great number of misinformation spread on the platform are related to important public issues. Hence, we emphasize the need for the fact-checker organization to look closely into WhatsApp and encourage people who find misinformation to report and submit it to them. On the other hand, with more than a third of misinformation that can be considered as non public-priority issues, the fact-checkers need to be more selective in terms of choosing what claims need to be checked, since fact-checking on resources are limited, and there are many more pressing public issues that need to be checked. We encourage the fact-checkers to always considered the urgency of claims related to public issues, and not waste valuable time and resources to

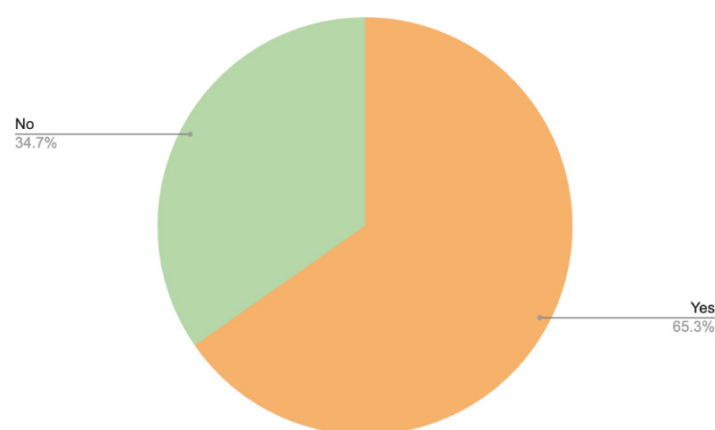


Figure 5. Public Priority Issues
Source: authors (2024)

check issues related to unimportant rumors, with no attention from public officials or relevant authorities and institutions such as “the danger of giving a greeting with .gif in WhatsApp” (<https://turnbackhoax.id/2018/01/18/hoax-bahaya-memberi-ucapan-selamat-dengan-gif-di-whatsapp/>), “Video of worms coming from a can” (<https://turnbackhoax.id/2020/01/28/salah-video-cacing-datang-di-kaleng/>) or “Sperm Donation at the Faculty of Medicine, University of Indonesia” (<https://turnbackhoax.id/2017/11/17/hoax-donor-sperma-di-fakultas-kedokteran-universitas-indonesia/>) . Finally, this exploration on fact-check worthiness also aligns with the theory of fact-checkers as “interpretive communities” (Zelizer, 1993), suggesting that fact-checkers are a group of communicators which can establish shared conventions, share a collective interpretation on which claims and or issues related to misinformation hold significant public interest and require further investigation.

CONCLUSION

This research employs content analysis to investigate a diverse range of misinformation directly associated with WhatsApp and verified by MAFINDO (*Masyarakat Anti Fitnah Indonesia* or Indonesian Anti-Defamation Society). Our analysis is segmented by examining data from the initial five years following MAFINDO’s establishment, covering the period from July 2015 to July 2020. Given the closed nature of WhatsApp, which hinders efforts to understand the misinformation circulating on its platform, we propose a study which analyzes fact-check articles from MAFINDO. While acknowledging that this approach cannot provide a complete picture of misinformation in Indonesia, we argue that it still offers a valuable glimpse into the characteristics of misinformation presented on WhatsApp. Our findings reveal that the most common misinformation on WhatsApp is related to politics and everyday occurrences, or trivial issues, with nearly half of them presented as text-only content. This misinformation lacks information about their creators, and MAFINDO primarily sources verification from news articles. Categorizing misinformation based on their news values, more than half of them fall under “magnitude & relevance,” and most are connected to public priority issues, which make most of the issues “worthy” to be fact-checked.

Until 2022, at least six fact-checking organizations in Indonesia were members of the International Fact-checking Network (IFCN): “Cek Fakta-Liputan 6,” “Cek Fakta-Suara.com,” “Tirto.id,” “KOMPAS.com,” “Tempo.co,” and MAFINDO. However, we noted that despite the IFCN’s presence, discussions and regular evaluation on fact-checking articles have remained

limited. This issue should be considered central to the broader question of fact-check worthiness, which ultimately underlies fact-checking accountability. Examining this foundation can yield valuable insights and drive the future progress of the fact-checking movement, including in Indonesia. By compiling and scrutinizing misinformation from the fact-checking organization such as MAFINDO, we aim for this research to inform strategies and interventions for combatting the spread of misinformation, especially within enclosed platforms like WhatsApp which can also be conducted with different focuses and methods, such as ethnographic research on fact-checkers' routines and work culture, and how these aspects might be interlinked with journalistic practices in Indonesia.

REFERENCES

- Adiprasetyo, J., Rahmawan, D., Wibowo, K. A., Yudhapramesti, P., & Hartoyo, N. M. (2024). Epistemological problems in fact-checking practice: Evidence from Indonesia. *Media Practice and Education*, 1–22. <https://doi.org/10.1080/25741136.2024.2341338>
- Ajengrastri, A. (2019). *Indonesian survey explores the spread of misinformation on WhatsApp*. Ijnet.Org. <https://ijnet.org/en/story/indonesian-survey-explores-spread-misinformation-whatsapp>
- Amazeen, M. A. (2013). Making a difference? A critical assessment of fact-checking in 2012. *New America Foundation*. https://static.newamerica.org/attachments/10215-making-a-difference/Amazeen_-A_Critical_Assessment_of_Factchecking.4a3289cb3fcd4a8faf0d94f40ebcdc35.pdf
- Amazeen, M. A. (2015). Revisiting the epistemology of fact-checking. *Critical Review*, 27(1), 1–22. <https://doi.org/10.1080/08913811.2014.993890>
- Amazeen, M. A. (2019). Practitioner perceptions: Critical junctures and the global emergence and challenges of fact-checking. *International Communication Gazette*, 81(6–8), 541–561. <https://doi.org/10.1177/1748048518817674>
- Baulch, E., Matamoros-Fernández, A., & Suwana, F. (2024). Memetic persuasion and WhatsAppification in Indonesia's 2019 presidential election. *New Media & Society*, 26(5), 2473–2491. <https://doi.org/10.1177/14614448221088274>
- Cheruiyot, D., & Ferrer-Conill, R. (2018). "Fact-checking Africa." *Digital Journalism*, 6(8), 964–975. <https://doi.org/10.1080/21670811.2018.1493940>
- Fakida, A. (2021). Political fact-checking in the Middle East: What news can be verified in the Arab world? *Open Information Science*, 5(1), 124–139. <https://doi.org/10.1515/opis-2020-0117>
- Freelon, D. (2013). ReCal OIR: Ordinal, interval, and ratio intercoder reliability as a web service. *International Journal of Internet Science*, 8(1), 10–16. https://dfreelon.org/publications/2013_ReCal_OIR_Ordinal_Interval_and_Ratio_Intercoder_Reliability_as_a_Web_Service.pdf
- Graves, L. (2016). *Deciding what's true: The rise of political fact-checking in American journalism*. Columbia University Press.
- Graves, L. (2017). Anatomy of a fact check: Objective practice and the contested epistemology of fact checking. *Communication, Culture & Critique*, 10(3), 518–537. <https://doi.org/10.1111/cccr.12163>
- Harcup, T., & O'Neill, D. (2001). What is news? Galtung and ruge revisited. *Journalism Studies*, 2(2), 261–280. <https://doi.org/10.1080/14616700118449>
- Harcup, T., & O'Neill, D. (2017). What is news? *Journalism Studies*, 18(12), 1470–1488. <https://doi.org/10.1080/1461670X.2016.1150193>

- Hassan, N., Adair, B., Hamilton, J., Li, C., Tremayne, M., Yang, J., & Yu, C. (2015). *The quest to automate fact-checking*. <http://cj2015.brown.columbia.edu/papers/automate-fact-checking.pdf>
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, 1(1), 77–89. <https://doi.org/10.1080/19312450709336664>
- Hui, J. Y. (2020). Social media and the 2019 Indonesian elections: Hoax takes the centre stage. In *Southeast Asian Affairs 2020* (pp. 155–172). ISEAS Publishing. <https://doi.org/10.1355/9789814881319-010>
- Johnston, J., & Gulliver, R. (2022). *Public interest communication*. The University of Queensland.
- Jumranaa, Partinib, & Wastutiningsih, S. P. (2020). Netizen participation in the counter narrative of the anti-hoax movement in Indonesia. *International Journal of Innovation, Creativity and Change*, 13(1), 569–582. https://www.ijicc.net/images/vol_13/13149_Jumrana_2020_E_R.pdf
- Krisdinanto, N. (2024). Metajournalistic discourse on the commercialization of news: Resistance toward journalistic autonomy. *Jurnal Kajian Jurnalisme*, 7(2), 98–111. <https://doi.org/10.24198/jkj.v7i2.48238>
- Lelo, T. (2022). The rise of the Brazilian fact-checking movement: Between economic sustainability and editorial independence. *Journalism Studies*, 23(9), 1077–1095. <https://doi.org/10.1080/1461670X.2022.2069588>
- Lim, C. (2018). Checking how fact-checkers check. *Research & Politics*, 5(3). <https://doi.org/10.1177/2053168018786848>
- Lim, M. (2017). Freedom to hate: Social media, algorithmic enclaves, and the rise of tribal nationalism in Indonesia. *Critical Asian Studies*, 49(3), 411–427. <https://doi.org/10.1080/14672715.2017.1341188>
- López-García, X., Costa-Sánchez, C., & Vizoso, Á. (2021). Journalistic fact-checking of information in pandemic: Stakeholders, hoaxes, and strategies to fight disinformation during the COVID-19 crisis in Spain. *International Journal of Environmental Research and Public Health*, 18(3), 1227. <https://doi.org/10.3390/ijerph18031227>
- Mardjianto, F. L. D., Pandji, Y., & Indrasari, T. M. (2022). *Fact-check audience in Indonesia 2022*. <https://turnbackhoax.id/wp-content/uploads/2023/12/Fact-Check-Audience-in-Indonesia-2022-7.pdf>
- Micallef, N., Armacost, V., Memon, N., & Patil, S. (2022). True or false: Studying the work practices of professional fact-checkers. *Proceedings of the ACM on Human-Computer Interaction*, 6(CSCW1), 1–44. <https://doi.org/10.1145/3512974>
- Moreno-Gil, V., Ramon, X., & Rodríguez-Martínez, R. (2021). Fact-checking interventions as counteroffensives to disinformation growth: Standards, values, and practices in Latin America and Spain. *Media and Communication*, 9(1), 251–263. <https://doi.org/10.17645/mac.v9i1.3443>
- Nieminen, S., & Rapeli, L. (2019). Fighting misperceptions and doubting journalists' objectivity: A review of fact-checking literature. *Political Studies Review*, 17(3), 296–309. <https://doi.org/10.1177/1478929918786852>
- Nieminen, S., & Sankari, V. (2021). Checking politifact's fact-checks. *Journalism Studies*, 22(3), 358–378. <https://doi.org/10.1080/1461670X.2021.1873818>
- Nurlatifah, M., & Irwansyah. (2019). Fact-checking journalism sebagai platform kolaborasi human and machine pada jurnalisme digital. *Jurnal Komunikasi*, 13(2), 121–134. <https://doi.org/10.24198/jkj.v8i1.54463>

- doi.org/10.20885/komunikasi.vol13.iss2.art1
- OECD. (2019). *PISA 2018 assessment and analytical framework*. OECD. <https://doi.org/10.1787/b25efab8-en>
- Rahmawan, D., Garnesia, I., & Hartanto, R. (2023). Checking the fact-checkers: Analyzing the content of fact-checking organizations as initiatives for hoax eradication in Indonesia. *Jurnal ASPIKOM*, 8(2), 241–256. <https://doi.org/10.24329/aspikom.v8i2.1267>
- Rahmawan, D., Hartanto, R., & Garnesia, I. (2022). Multi case analysis on the development of fact-checking organizations in Indonesia. *Jurnal Kajian Komunikasi*, 10(1), 14–28. <https://doi.org/10.24198/jkk.v10i1.38752>
- Recuero, R., Soares, F. B., Vinhas, O., Volcan, T., Hüttner, L. R. G., & Silva, V. (2022). Bolsonaro and the far right: How disinformation about COVID-19 circulates on Facebook in Brazil. *International Journal of Communication*, 16, 148–171. <https://ijoc.org/index.php/ijoc/article/view/17724/3631>
- Redaksi CNBC Indonesia. (2019). *Whatsapp-medsos dibatasi pemerintah sampai 25 Mei 2019*. CNBC Indonesia. <https://www.cnbcindonesia.com/tech/20190522144725-37-74298/whatsapp-medsos-dibatasi-pemerintah-sampai-25-mei-2019>
- Safitri, P. N., Astuti, S. I., Hidayah, N., Suryani, C., Wasdiana, M. D., & Wahid, A. (2022). When politics and religion become disaster: An annual mapping of hoax in Indonesia. *Ultimacomm: Jurnal Ilmu Komunikasi*, 13(2), 343–357. <https://doi.org/10.31937/ultimacomm.v13i2.2104>
- Singer, J. B. (2021). Border patrol: The rise and role of fact-checkers and their challenge to journalists' normative boundaries. *Journalism*, 22(8), 1929–1946. <https://doi.org/10.1177/1464884920933137>
- Slijepčević, M., Holy, M., & Borčić, N. (2021). Media ecosystems and the fact-checking movement. *Politička Misao*, 58(2), 92–112. <https://doi.org/10.20901/pm.58.2.04>
- Soraya, N. A., Gumilar, G., & Al-Faqih, M. Z. (2023). The meaning of citizen journalism ethics by citizen journalists of Tempo Witness in the Central Java Region. *Jurnal Kajian Jurnalisme*, 6(2), 185–199. <https://doi.org/10.24198/jkj.v6i2.40985>
- Tandoc Jr., E. C., Rosenthal, S., Yeo, J., Ong, Z., Yang, T., Malik, S., Ou, M., Zhou, Y., Zheng, J., Mohamed, H. A. Bin, Tan, J., Lau, Z. X., & Lim, J. Y. (2022). Moving forward against misinformation or stepping back? Whatsapp's forwarded tag as an electronically relayed information cue. *International Journal of Communication*, 16, 1851–1868. <https://ijoc.org/index.php/ijoc/article/view/18138/3740>
- Tyson, A., & Purnomo, B. (2017). President Jokowi and the 2014 Obor Rakyat controversy in Indonesia. *Critical Asian Studies*, 49(1), 117–136. <https://doi.org/10.1080/14672715.2016.1258585>
- Uscinski, J. E., & Butler, R. W. (2013). The epistemology of fact checking. *Critical Review*, 25(2), 162–180. <https://doi.org/10.1080/08913811.2013.843872>
- Vinhas, O., & Bastos, M. (2023). When fact-checking is not weird: Negotiating consensus outside western, educated, industrialized, rich, and democratic countries. *The International Journal of Press/Politics*. <https://doi.org/10.1177/19401612231221801>
- Walter, N., Cohen, J., Holbert, R. L., & Morag, Y. (2020). Fact-checking: A meta-analysis of what works and for whom. *Political Communication*, 37(3), 350–375. <https://doi.org/10.1080/10584609.2019.1668894>
- Weikmann, T., & Lecheler, S. (2023). Visual disinformation in a digital age: A literature synthesis and research agenda. *New Media & Society*, 25(12), 3696–3713. <https://doi.org/10.1177/14614448221141648>

- Wibowo, K. A., Rahmawan, D., & Maryani, E. (2019). *In Indonesia, young and old share fake news on social media*. The Conversation. <https://theconversation.com/in-indonesia-young-and-old-share-fake-news-on-social-media-111433>
- Winarno, B. (1997). *Bre-X: Sebungkah emas di kaki pelangi*. Inspirasi Indonesia.
- Yee, A. (2017). Post-truth politics and fake news in Asia. *Global Asia*, 12(2), 66–71. <https://www.globalasia.org/data/file/articles/bd578898a7c01489ee904d24f804e242.pdf>
- Zelizer, B. (1993). Journalists as interpretive communities. *Critical Studies in Mass Communication*, 10(3), 219–237. <https://doi.org/10.1080/15295039309366865>
- Zhao, A., & Naaman, M. (2023). Insights from a comparative study on the variety, velocity, veracity, and viability of crowdsourced and professional fact-checking services. *Journal of Online Trust and Safety*, 2(1), 1–24. <https://doi.org/10.54501/jots.v2i1.118>