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Analysis of COVID-19 Hoax Dissemination in Indonesia

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ABSTRACT

In Indonesia, social media is considered one of the primary channels for the massive spread of hoaxes related to the COVID-19 pandemic. The spread of hoaxes through social media is difficult to control due to the rapid advancement of internet-based information technology and the low level of digital literacy among the public. This study aims to analyze the dissemination of hoaxes and the keywords frequently associated with COVID-19 hoaxes in Indonesia from 2020 to 2022. Employing a descriptive qualitative research approach, this study uses non-participant observation on the website turnbackhoax.id as the data collection method and applies an interactive model for data analysis. The findings reveal that COVID-19 hoaxes in Indonesia are predominantly classified into misleading content, false context, and fabricated content, with fabricated content being identified as the most dangerous type.

Keywords: *COVID-19 Pandemic; Digital Literacy; Hoax; Social Media*

1. Introduction

Over the past three years, the rapid advancement of technology and digitalization has coincided with the accelerated spread of Coronavirus Disease 19 (COVID-19). This situation has driven society to focus more on using digital devices, delving deeper into the internet. Digital devices and social media have become two sides of the same coin. On the one hand, they provide valuable information and educational resources; on the other hand, they also disseminate a wide range of information, often leading to public confusion and uncertainty. One significant aspect of pandemic-related information, referred to as an infodemic, is widely accessed through social media, triggering panic and posing risks to mental health (Ahmad & Murad, 2020; Wang et al., 2021).

In Indonesia, social media has been identified as a hotspot for the dissemination of COVID-19-related hoaxes. The Ministry of Communication and Information Technology of the Republic of Indonesia reported 1,402 hoax cases related to COVID-19 between January 23, 2020, and February 1, 2021. Specific to vaccines, Kemkominfo handled 97 hoax cases about COVID-19 vaccines during the same period (Direktorat Jenderal Aplikasi Informatika Kementerian Komunikasi dan Informatika Republik Indonesia, 2021). Research by Bafadhal and Santoso (2020) identified five categories of disinformation related to COVID-19 in Indonesia: politics, health, international affairs, business, and criminality (Bafadhal & Santoso, 2020). Similarly, findings by Rahayu and Sensusiyati revealed three main topics from their review of 50 hoaxes: the spread of the Coronavirus, treatment options, and societal behavior in responding to the virus (Rahayu & Sensusiyati, 2023).

From an academic perspective, COVID-19 hoaxes can be classified into seven categories developed by Wardle (2017): (1) Satire or Parody, (2) Misleading Content, (3) Imposter Content, (4) Fabricated Content, (5) False Connection, (6) False Context, and (7) Manipulated Content. This classification helps to understand the nature and impact of misinformation better.

This study aims to assist the government and society in tackling the widespread dissemination of hoaxes. Previous studies collected data over relatively short periods, resulting in less comprehensive findings. Additionally, earlier research lacked a clear classification of hoaxes. Therefore, this study addresses these gaps by collecting data over two years (2020–2021) to provide a more complete understanding. It also examines frequently appearing hoax-related keywords and trends in COVID-19 hoaxes in Indonesia and classifies these hoaxes into seven categories.

The study gathers hoax-related information from various media platforms, including Facebook, Instagram, online news portals, Twitter, WhatsApp, YouTube, Telegram, flyers, and SMS. The findings reveal that COVID-19 hoaxes in Indonesia are predominantly classified into misleading content, false context, and fabricated content. Among these, fabricated content is deemed the most dangerous. The study also compiles data on frequently used keywords associated with hoaxes in Indonesia, allowing for the measurement of their frequency and distribution patterns over the 2020–2021 period. Hoaxes are deeply embedded in the discourse surrounding COVID-19, influencing how society perceives and responds to the pandemic.

This study provides recommendations for the government to enhance public education on digital literacy to reduce susceptibility to misinformation. It also aims to educate the public about various types of hoaxes to discourage the sharing of false information. The urgency of this research stems from the massive spread of hoaxes during the COVID-19 pandemic. Hoaxes are a common enemy for nations worldwide, including Indonesia. Since the initial announcement of the Coronavirus outbreak in China, false information has been spreading in

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Indonesia and continues to persist. Therefore, this research is crucial to support governmental efforts in combating COVID-19-related hoaxes.

2. Literature Review

The first study reviewed is Mapping COVID-19 Hoax Messages in Indonesia Across Categories, Sources, and Types of Disinformation (Bafadhal & Santoso, 2020). This research identifies disinformation based on its types, sources, and the nature of misinformation claims related to COVID-19. The data were collected from the Hoax Buster website between March 16 and April 22, 2020, resulting in 174 instances of disinformation. These were then analyzed using content analysis. The study highlights five categories of disinformation about COVID-19 in Indonesia: politics, health, international affairs, business, and criminality.

The second study, Analysis of COVID-19 Hoaxes on Social Media in (Rahayu & Sensusiyati, 2023), examines COVID-19 hoax news on social media to determine (1) the topics covered in the hoaxes, (2) the periods during which the hoaxes were disseminated, (3) the locations of the hoaxes, and (4) the hoaxes that were subject to legal action. This descriptive study began by searching various websites, including www.kominfo.go.id, www.suara.com, and news.detik.com, using the keywords "hoax" and "corona." The search, conducted between January and March 2020, yielded 52 news headlines. The analysis revealed three main topics from 50 identified hoaxes: the spread of the Coronavirus, treatments, and societal behaviors in responding to the virus. The website www.kominfo.go.id issued the most warnings to the public about COVID-19 hoaxes, while Jakarta was the most frequently mentioned location. March 24, 2020, recorded the highest frequency of hoax dissemination, with 10 cases reported on that day alone.

Previous studies collected data over relatively short periods, which may have resulted in less comprehensive findings. To address this gap, the current research collects data over two years (2020–2021) to provide a more complete and detailed understanding of COVID-19 hoaxes in Indonesia. Furthermore, earlier studies lacked a clear classification of hoaxes, prompting this research to fill that gap. In addition to identifying frequently appearing hoax-related keywords, this study examines trends in COVID-19 hoaxes in Indonesia and categorizes them according to established classifications.

2.1. The History of Hoaxes in the World and Indonesia

The term hoax originated from the English language and became prevalent during the industrial era. It is believed to have first appeared in 1808, as referenced in the book Sins Against Science by Lynda Walsh (Liputan6.com, 2017). The evolution of the term can also be traced through the book A Glossary: Our Collection of Words, Phrases, Names, and Allusions to Customs, authored by Robert Nares and published in London in 1822. Nares noted that the term hoax began to be used in 18th-century England, deriving from the word hocus, meaning "to deceive" (Aditiawarman, 2019).

In Indonesia, false news (hoax) is not a new phenomenon. However, it has existed for decades, dating back to the administration of President Sukarno and persisting into the era of President Joko Widodo. During Sukarno's presidency, a couple named Idrus and Markonah falsely claimed to be the King and Queen of Kubu, Sumatra. They traveled to various regions under the guise of liberating West Irian from Dutch control. This became one of the first significant hoax cases, deceiving even the president in the 1950s. In Joko Widodo's era, a prominent hoax circulated in 2016, claiming that 10 million Chinese workers had entered

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Indonesia. The government clarified that only 21,000 Chinese workers were present out of a total of 74,000 foreign workers in the country (Tempo.co, 2017).

This historical perspective highlights the longstanding nature of hoaxes, both globally and in Indonesia, illustrating how misinformation has evolved with the times and continues to pose challenges for society.

2.2. Hoax Classification

From an academic perspective, hoaxes can be classified into seven types, as outlined by Wardle.

Figure 1. Different Types Of Mis And Disinformation
Source: (Wardle, 2017)

Each type highlights a unique method through which misinformation and disinformation are created and disseminated, impacting public perception in various ways. Below is a detailed explanation of each classification:

1) Satire or Parody

This type of content is generally created without malicious intent but can inadvertently mislead audiences. Satire is crafted to mock or criticize individuals, groups, or societal issues, often employing parody, irony, or sarcasm as its primary tools. Commonly used as a form of critique, satire leverages humor to highlight flaws or shortcomings in people, policies, or events. While satire itself is not inherently harmful, many individuals may interpret such content as factual due to a lack of media literacy. For example, a satirical headline about a politician might be taken seriously by readers unfamiliar with the content's purpose, leading to widespread misconceptions.

2) False Connection

False connection occurs when there is a deliberate mismatch between the headline and the actual content of an article or post. This type of hoax is often employed to generate sensationalism, encouraging users to click on links or share the content for profit or increased exposure. False connections prey on the audience's expectations, enticing them with provocative or misleading headlines that fail to align with the accompanying content. For example, an article titled "Cure for COVID-19 Discovered!" might lead to a page discussing

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unrelated topics. This type of hoax exploits curiosity and urgency, making it one of the most commonly observed forms of disinformation.

3) False Context

False context involves taking genuine content, such as photos, videos, or statements, and presenting them in a misleading narrative or setting. This type of hoax distorts the truth by framing the content in a way that misrepresents its original intent or context. For instance, a photo of a crowded market taken years ago may be falsely claimed to depict people violating social distancing rules during the COVID-19 pandemic. False context hoaxes are particularly damaging because they manipulate real evidence, making it difficult for audiences to discern the truth without prior knowledge of the original context.

4) Misleading Content

Misleading content is deliberately designed to misrepresent the facts and manipulate public opinion. It often involves distorting or exaggerating factual information to align with a particular agenda, whether political, social, or personal. For example, misleading content might use selective data from a government report to create a false narrative about economic conditions. This type of hoax leverages partial truths to strengthen its credibility while omitting critical information that could refute the claims. Misleading content is particularly effective in polarizing issues, as it is crafted to resonate with pre-existing biases among target audiences.

5) Imposter Content

Imposter content is a form of misinformation that attributes false claims or statements to credible sources. This type of hoax relies on the reputation of influential individuals, organizations, or institutions to lend credibility to its message. For instance, fabricated statements attributed to world leaders or fake endorsements from reputable organizations are common examples. Imposter content exploits the public's trust in these sources, making it an effective yet deceptive tool for spreading misinformation. Its impact can be far-reaching, as audiences may share the content widely, believing it to be true due to its association with a credible figure.

6) Manipulated Content

Manipulated content involves altering genuine information, such as photos, videos, or documents, to mislead the audience. This type of hoax is particularly effective because it builds upon authentic materials, making it appear credible. For example, edited images might show a public figure in a compromising situation that never occurred, or a video clip might be doctored to misrepresent someone's speech. Manipulated content requires technical expertise, but its impact is significant, especially in the age of social media, where such content can quickly go viral. It often targets sensitive issues, amplifying its potential to create public outrage or confusion.

7) Fabricated Content

Fabricated content is entirely false, with no factual basis, and is created solely to deceive or exploit the audience. This type of hoax is considered the most dangerous because it can spread rapidly and cause significant harm. Examples include fake job offers, fabricated news stories about public health crises, or completely false statistics designed to mislead policymakers. Fabricated content is crafted to exploit emotional responses, such as fear or hope, making it

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particularly effective in influencing public opinion or behavior. During the COVID-19 pandemic, for instance, fabricated content about miracle cures or vaccine dangers fueled public anxiety and hindered efforts to manage the crisis.

3. Research Methodology

This study employs a descriptive research design with a qualitative approach. Data collection is conducted through non-participant observation, meaning the observer does not participate in the activities of the observed individuals and instead remains separate as an independent observer (Creswell, 2009; Margono, 2010). Consequently, the researcher acts solely as a full observer, examining cases or phenomena related to the dissemination of COVID-19 hoaxes in Indonesia during the period from 2020 to 2022.

The observations are focused on the website turnbackhoax.id, managed by MAFINDO (Masyarakat Anti Hoax Indonesia). This organization is dedicated to raising awareness about the dangers of false information (hoaxes) and fostering resilience against hoaxes within Indonesian society. The platform serves as a central database for verified misinformation, making it a reliable source for analyzing patterns and trends in hoax dissemination.

To analyze visual text data, this study uses the word cloud method to identify frequently occurring words or texts associated with COVID-19 hoaxes. Word cloud visualization is a valuable tool for text analysis. According to McNaught and Lam, word cloud visualizations make it easier for observers to identify key ideas and perspectives presented by the author of the text (McNaught & Lam, 2014). This method enables researchers to highlight prominent themes within a written discourse, offering a straightforward yet effective means of analyzing large volumes of textual data.

4. Results

4.1. COVID-19 Hoaxes in 2020

4.1.1. COVID-19 Hoaxes by Source of Data

1) Hoaxes on Facebook

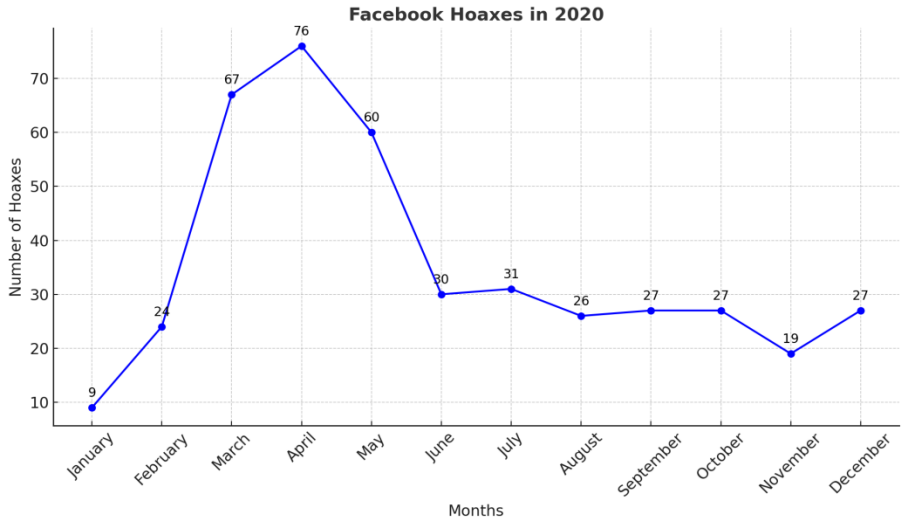

Figure 2. COVID-19 Hoax on Facebook

As shown in **Figure 2**, Facebook was one of the most prominent platforms for disseminating COVID-19 hoaxes. The number of hoaxes began to rise in February, peaking in April with 76 cases. March recorded the second-highest number of cases (67), followed by May as the third-

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highest month. After this, a gradual decline was observed, with the lowest number of cases (9) recorded in January. These trends suggest that Facebook's widespread use and the ease of sharing content contributed significantly to the rapid spread of hoaxes during the early months of the pandemic.

2) Hoaxes on Instagram

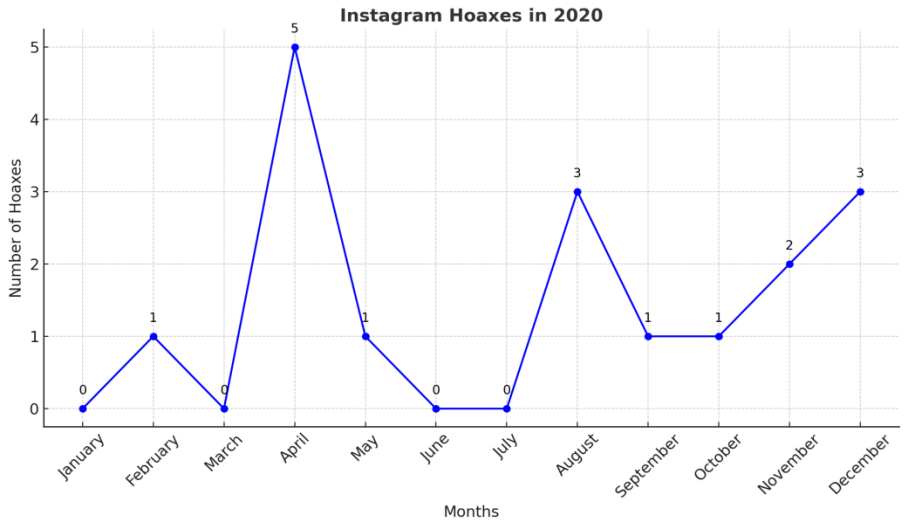

Figure 3. COVID-19 Hoax on Instagram

Figure 3 illustrates that Instagram played a minimal role in spreading COVID-19 hoaxes. The platform reached its peak in April, with only 5 cases reported. Notably, there were no recorded hoaxes in January, March, June, or July, indicating that Instagram's visual-focused nature may have limited its use for spreading textual misinformation.

3) Hoaxes on Online Platforms

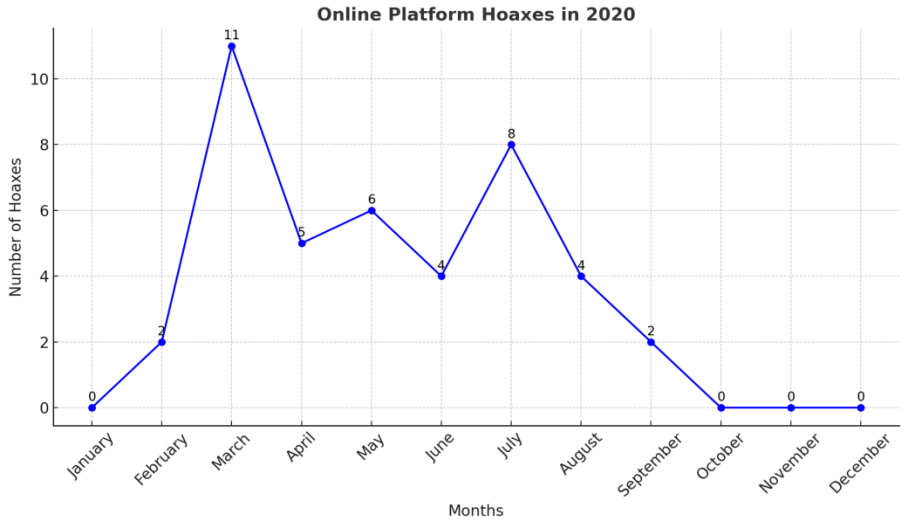

Figure 4. COVID-19 Hoax on Online Platform

According to Figure 4, the spread of hoaxes on online news portals began increasing in February, peaking in March with 11 cases. July recorded 8 cases, while May had 6 cases, making

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it the third-highest month. No cases were reported in January, October, November, or December. This trend highlights that while online news portals were used to disseminate misinformation, their role was relatively limited compared to social media platforms.

4) Hoaxes on Twitter

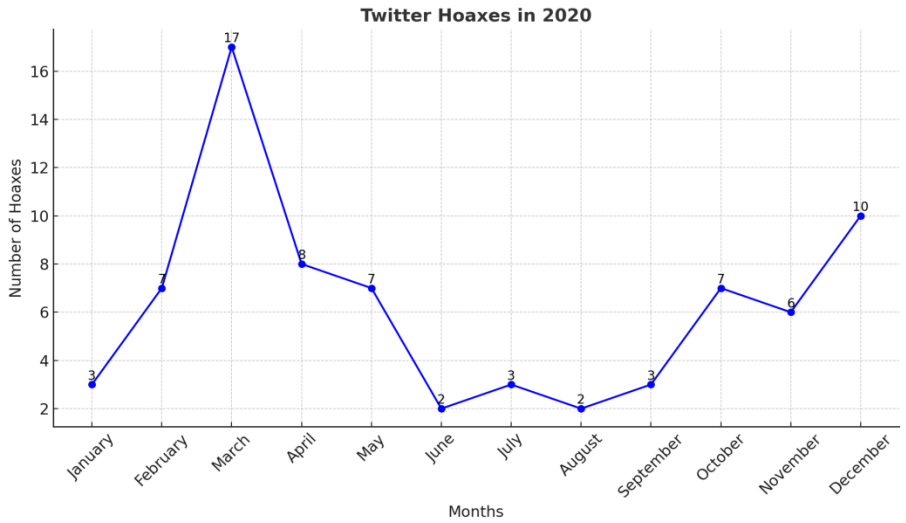

Figure 5. COVID-19 Hoax on Twitter

Figure 5 shows that Twitter experienced a steady increase in COVID-19 hoaxes, beginning in February and peaking in March with 17 cases. A decline followed in April, with only 2 cases reported in both June and August. However, hoaxes on Twitter began to rise again in September, reaching 10 cases in December. The platform's fast-paced nature and use of hashtags likely facilitated the spread of misinformation, particularly during key periods of the pandemic.

5) Hoaxes on WhatsApp

Figure 6. COVID-19 Hoax on WhatsApp

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As depicted in **Figure 6**, WhatsApp was a major platform for spreading COVID-19 hoaxes. The number of cases increased in February, peaking in March with 43 cases. May recorded 31 cases, followed by April with 25 cases. The number of hoaxes gradually declined, with the lowest count of 5 cases in November. WhatsApp's private messaging feature and widespread use in Indonesia likely contributed to its prominence as a medium for misinformation.

6) Hoaxes on YouTube

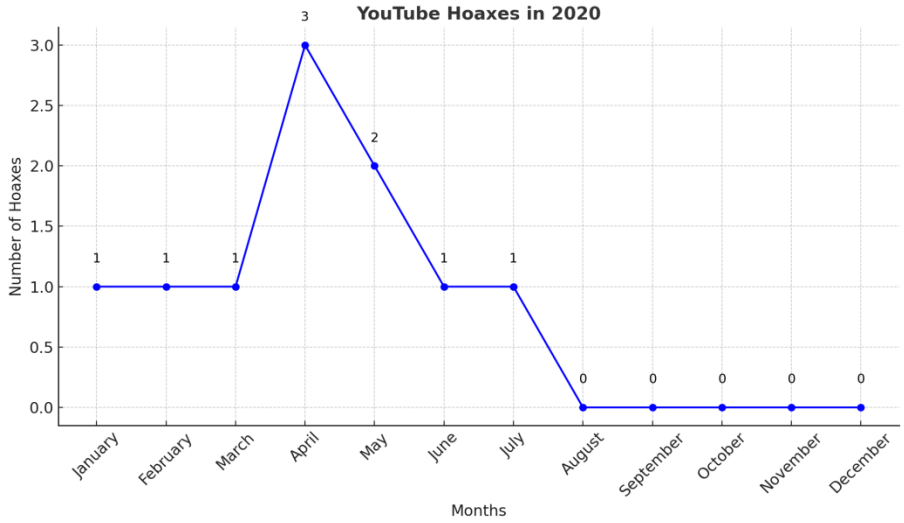

Figure 7. COVID-19 Hoax on YouTube

Figure 7 reveals that YouTube had a relatively minor role in hoax dissemination. The platform peaked in April with 3 cases, while August and September recorded only 1 case each. No cases were reported between October and December, suggesting that YouTube's content moderation policies may have reduced its use for spreading hoaxes.

7) Hoaxes on Telegram

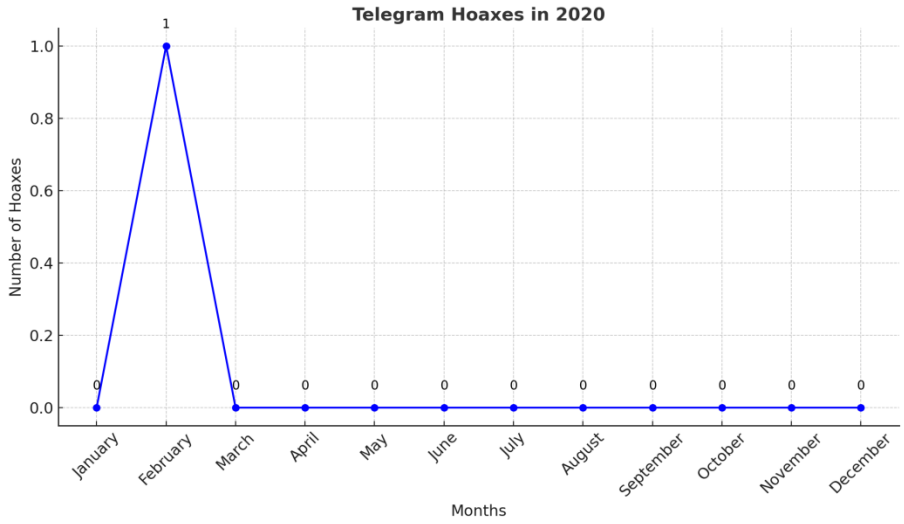

Figure 8. COVID-19 Hoax on Telegram

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Figure 8 illustrates that Telegram played a minimal role in spreading COVID-19 hoaxes. The platform peaked in February with just 1 case, while no cases were recorded in any other month. This indicates that Telegram's smaller user base may have limited its influence in disseminating misinformation.

8) Hoaxes on Flyers

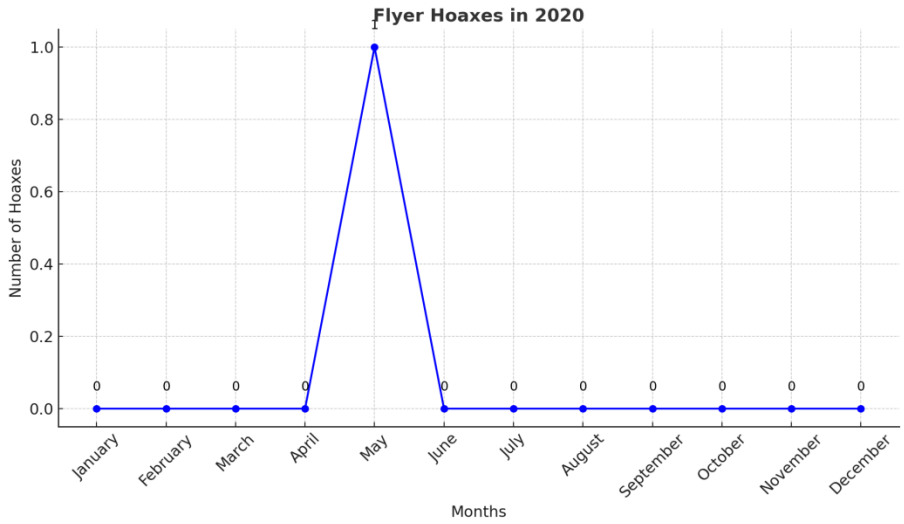

Figure 9. COVID-19 Hoax on Flyer

According to **Figure 9**, flyers were rarely used to spread COVID-19 hoaxes. Only 1 case was recorded in May, with no hoaxes reported in other months. The minimal use of this traditional medium highlights the dominance of digital platforms in spreading misinformation during the pandemic.

9) Hoaxes on SMS

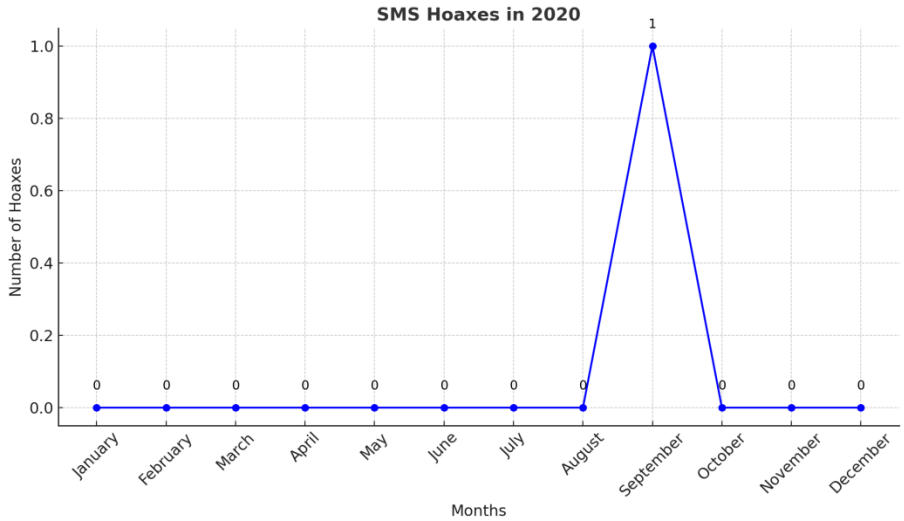

Figure 10. COVID-19 Hoax on SMS

Figure 10 shows that SMS was an insignificant medium for disseminating COVID-19 hoaxes. Only 1 case was recorded in September, with no hoaxes reported in other months. This

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reflects the declining popularity of SMS as a communication channel compared to instant messaging platforms.

4.1.2. COVID-19 Hoaxes by Hoax Categories

1) False Context

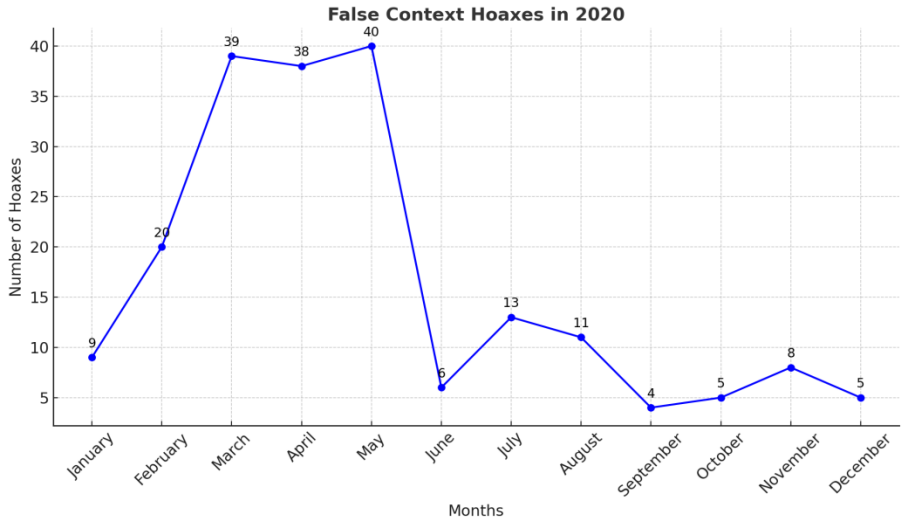

Figure 11. False Context Category

As shown in **Figure 11**, the spread of false context hoaxes during the COVID-19 pandemic in Indonesia began increasing in February. The number of cases peaked in March (39), followed closely by May (40) and April (38). A sharp decline occurred in June (6 cases), reaching the lowest point in September with just 4 cases. These trends indicate that false context, where real information is presented in a misleading narrative, was a significant contributor to misinformation during the pandemic's early months.

2) Misleading Content

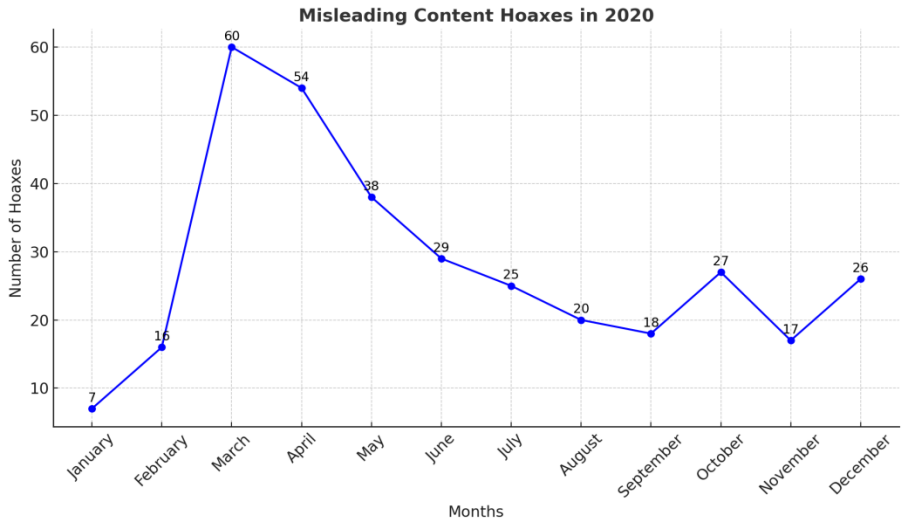

Figure 12. Misleading Content Category

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Figure 12 illustrates that misleading content hoaxes experienced a substantial increase in February. The peak months were March (60 cases), April (54 cases), and May (38 cases). A steady decline followed, with the lowest number recorded in November (17 cases). Misleading content, characterized by deliberate manipulation of information to mislead or harm, was the most dominant category, reflecting efforts to influence public opinion during critical moments of the pandemic.

3) Fabricated Content

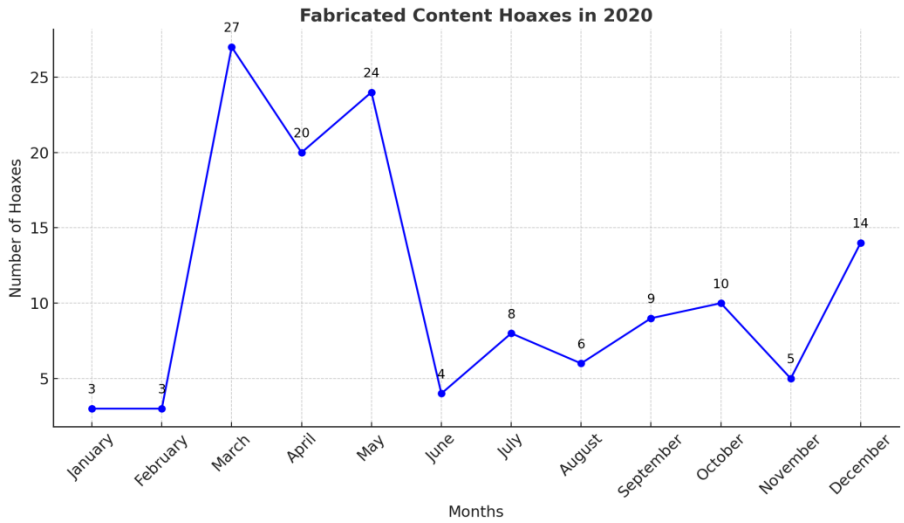

Figure 13. Fabricated Content Category

Figure 13 shows that fabricated content hoaxes began rising in February, peaking in March (27 cases), followed by May (24 cases) and April (20 cases). The lowest number of cases (4) was recorded in June. Fabricated content, which consists of entirely false information, played a major role in spreading false claims about COVID-19 treatments, infections, and policies.

4) False Connection

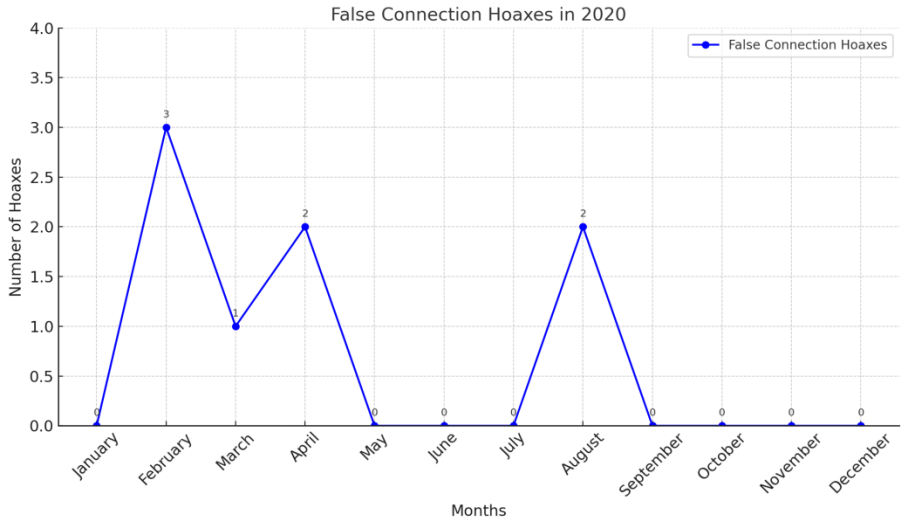

Figure 14. False Connection Category

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According to **Figure 14**, false connection hoaxes saw a slight increase in February, peaking with just 3 cases. This category, characterized by mismatched headlines and content, was not widely utilized for spreading misinformation during the pandemic, reflecting its relatively low impact compared to other categories.

5) Manipulated Content

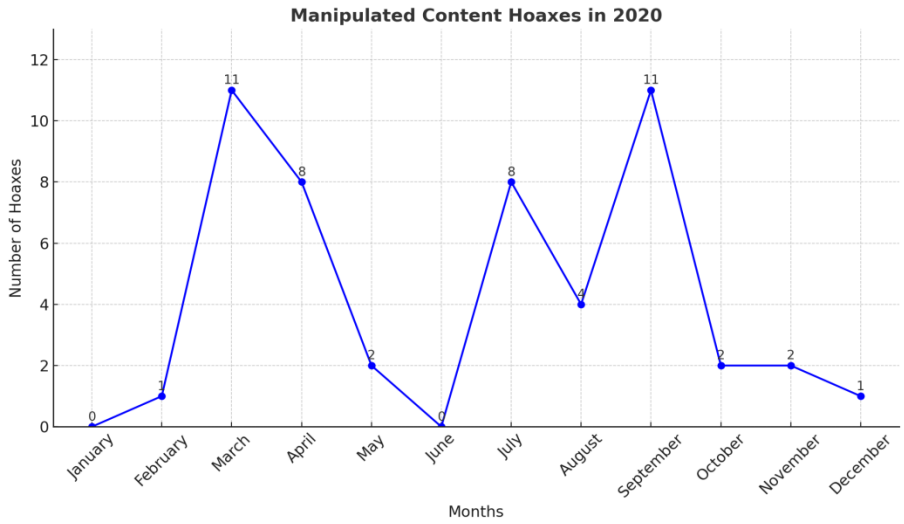

Figure 15. Manipulated Content Category

Figure 15 indicates that manipulated content hoaxes began increasing in February, peaking in March and September with 11 cases each. No cases were recorded in January or June. Manipulated content, which involves altering credible information, was relatively rare but impactful, often targeting sensitive issues to mislead the public.

6) Imposter Content

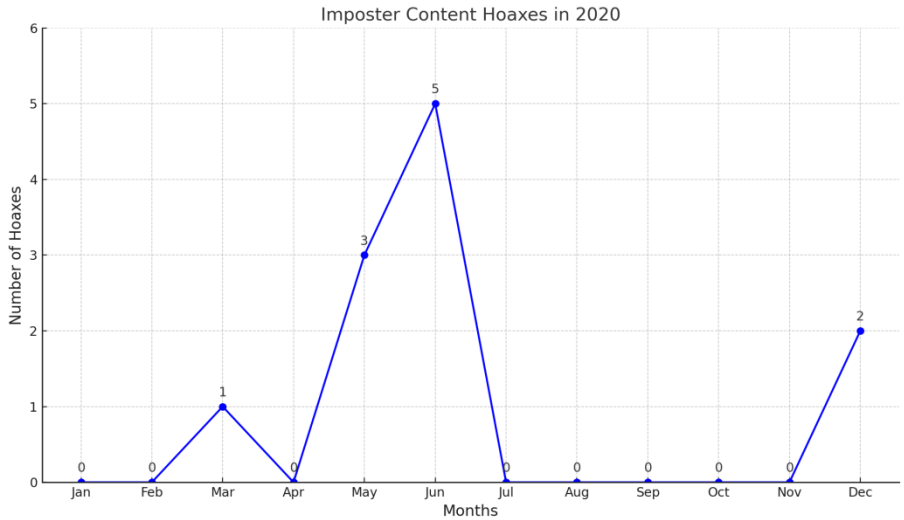

Figure 16. Imposter Content Category

As depicted in **Figure 16**, imposter content hoaxes saw a rise in March, peaking in June with 5 cases. This category, where false claims are attributed to reputable sources, was infrequently

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used but posed a risk due to the exploitation of trusted figures or organizations to spread misinformation.

7) Satire or Parody

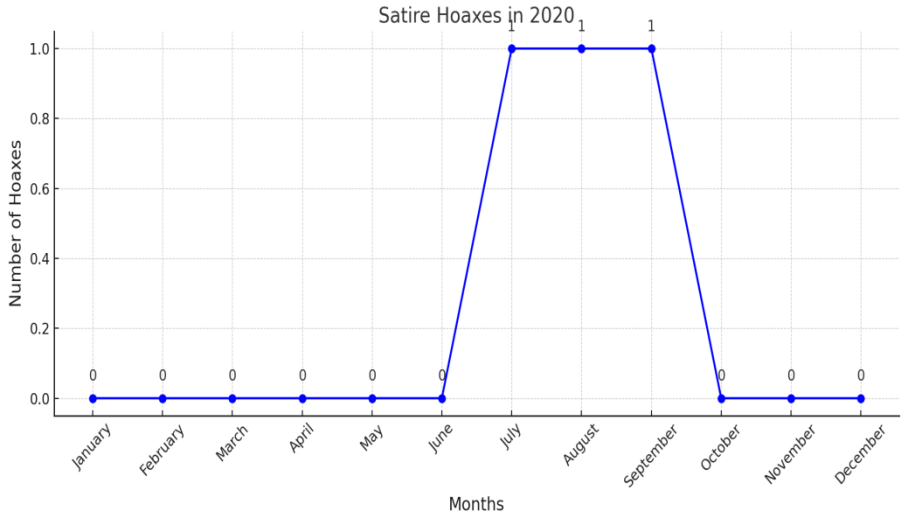

Figure 17. Satire Category

Figure 17 reveals that satire or parody hoaxes began increasing in June. This category, often created without malicious intent, was rarely used as a means of spreading misinformation. Its limited use suggests that audiences generally recognized satirical content as non-factual during the pandemic.

4.2. COVID-19 Hoaxes in 2021

4.2.1. COVID-19 Hoaxes by Source of Data

1) Hoaxes on Facebook

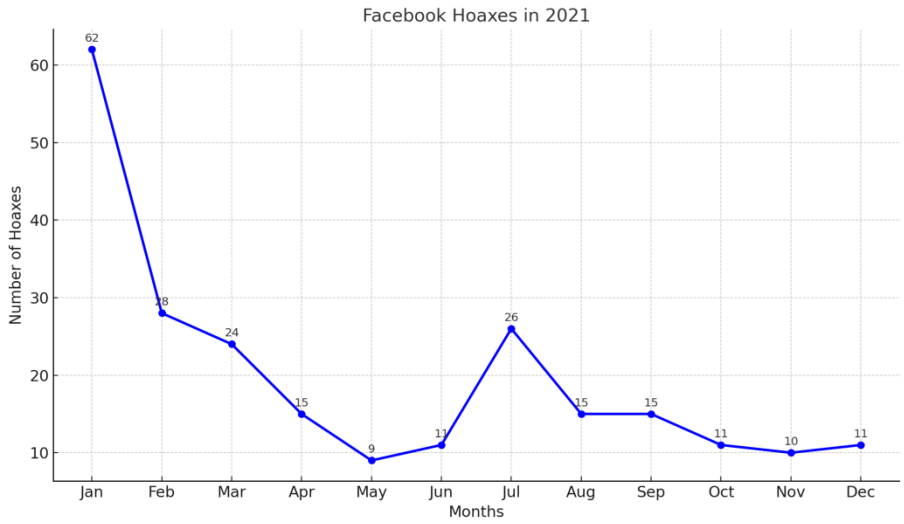

Figure 18. COVID-19 Hoax on Facebook

As shown in Figure 18, Facebook remained a significant platform for spreading COVID-19 hoaxes in 2021. The number of hoaxes peaked in January with 62 cases, followed by a notable decline to 28 cases in February. The lowest number of cases was recorded in May, with just 9

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instances. These patterns suggest that Facebook continued to be a central medium for misinformation dissemination, particularly at the start of the year.

2) Hoaxes on Instagram

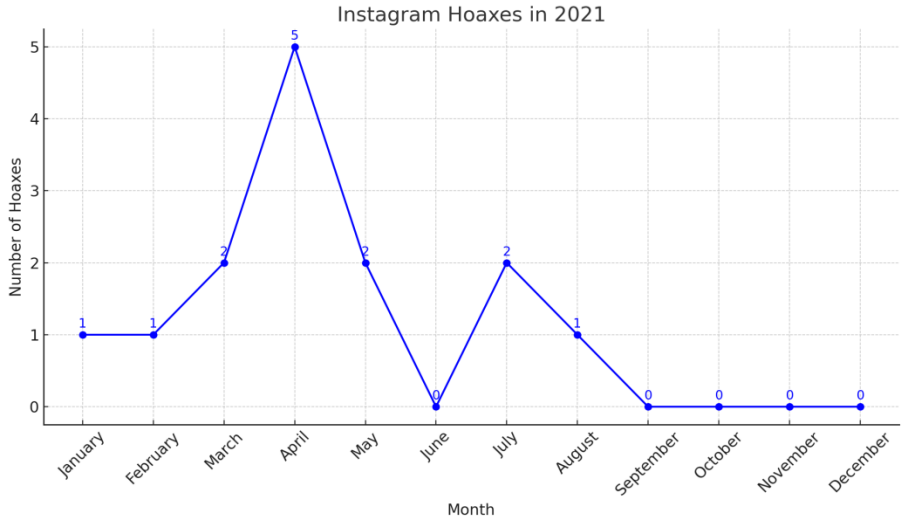

Figure 19. COVID-19 Hoax on Instagram

Figure 19 illustrates that Instagram's role in spreading COVID-19 hoaxes was minimal. The platform's peak occurred in April with 5 cases, while no cases were reported from June through December. This suggests that Instagram's visual-oriented format limited its use as a significant channel for hoax dissemination in comparison to text-based platforms.

3) Hoaxes on Online Platforms

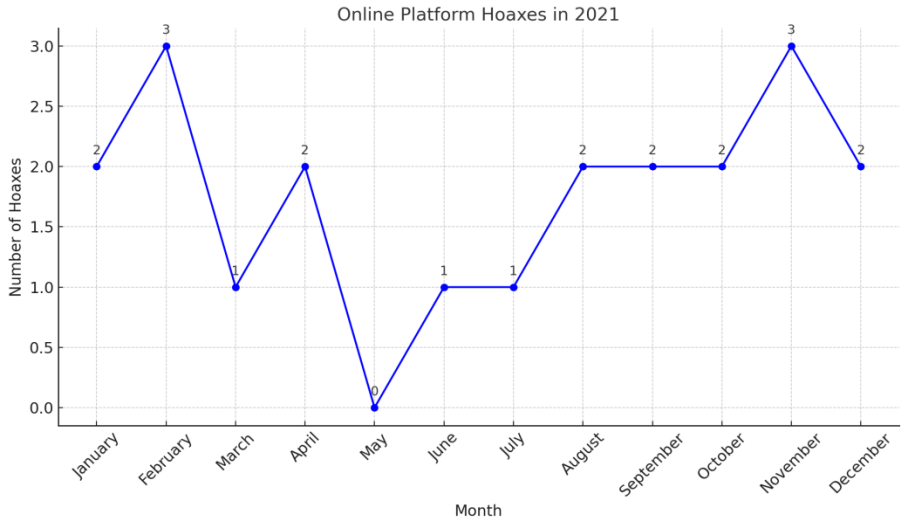

Figure 20. COVID-19 Hoax on Online Platform

According to Figure 20, online news portals experienced a low number of hoaxes in 2021. Peaks were observed in February and November, each with 3 cases, while May recorded no cases at all. This indicates that while these portals were occasionally used for spreading misinformation, they were not primary channels for hoax dissemination.

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4) Hoaxes on Twitter

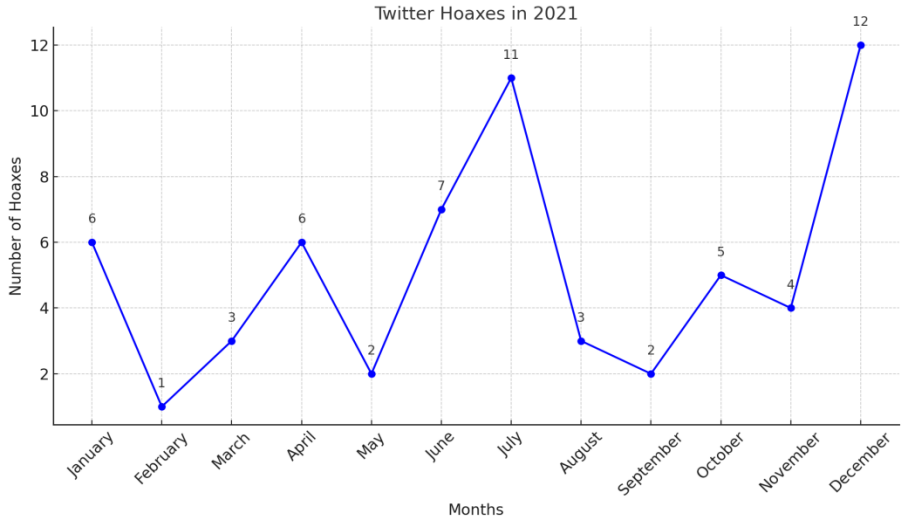

Figure 21. COVID-19 Hoax on Twitter

Figure 21 shows that Twitter had notable peaks in hoax dissemination in July (11 cases) and December (12 cases). The lowest number of hoaxes (1 case) was recorded in February. Twitter's role as a medium for hoaxes reflects its fast-paced nature and the ability to amplify messages quickly through retweets and trending hashtags.

5) Hoaxes on WhatsApp

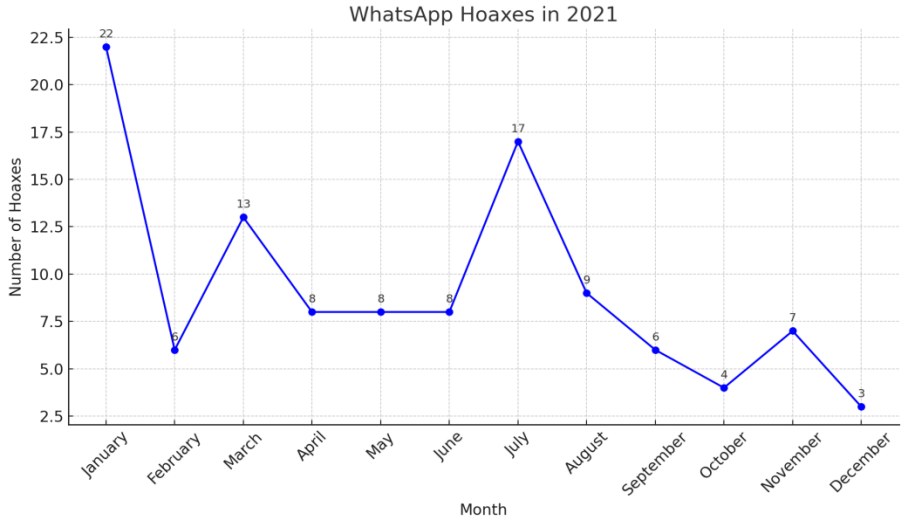

Figure 22. COVID-19 Hoax on WhatsApp

As depicted in Figure 22, WhatsApp was one of the most frequently used platforms for spreading COVID-19 hoaxes in 2021. Peaks were recorded in January (22 cases), July (17 cases), and March (13 cases). A steady decline began in August (9 cases), with the lowest point recorded in December (3 cases). WhatsApp's private messaging feature made it a preferred medium for spreading misinformation.

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6) Hoaxes on YouTube

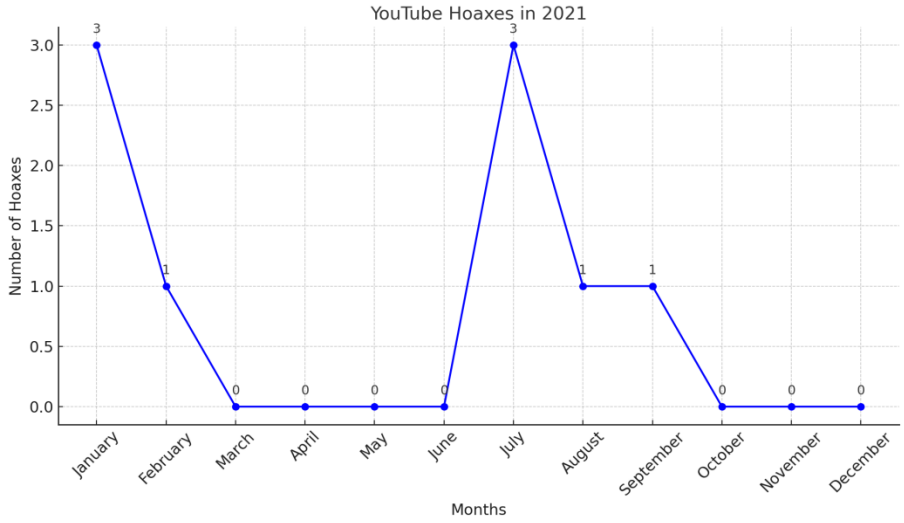

Figure 23. COVID-19 Hoax on YouTube

Figure 23 reveals that YouTube's role in spreading hoaxes remained minimal in 2021. The platform's peaks were recorded in January and July, with 3 cases each. August and September recorded only 1 case each, while no hoaxes were reported during other months. These patterns suggest that YouTube's stricter content moderation policies may have limited its use for misinformation dissemination.

7) Hoaxes on Telegram

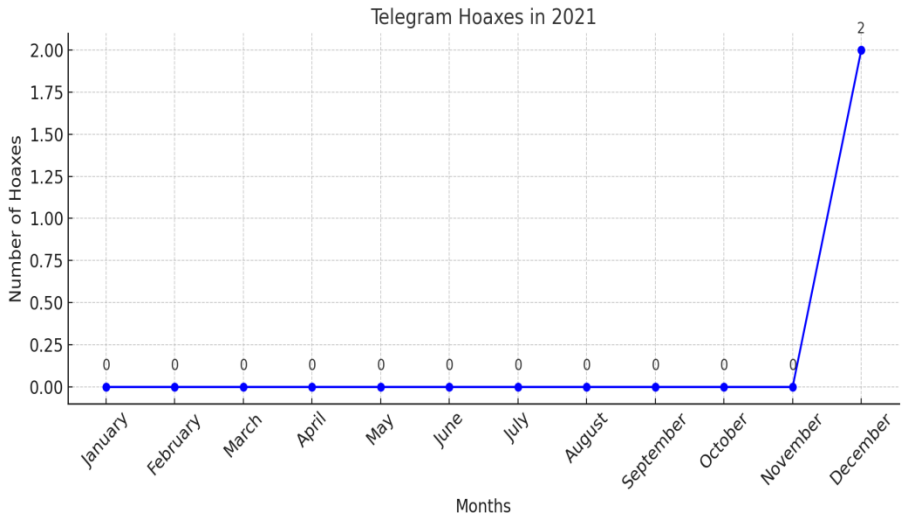

Figure 24. COVID-19 Hoax on Telegram

Figure 24 illustrates that Telegram played a minimal role in spreading COVID-19 hoaxes. The platform's peak occurred in December with just 2 cases, while no cases were reported in other months. Telegram's smaller user base compared to other platforms may explain its limited impact on hoax dissemination.

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8) Hoaxes on Flyers

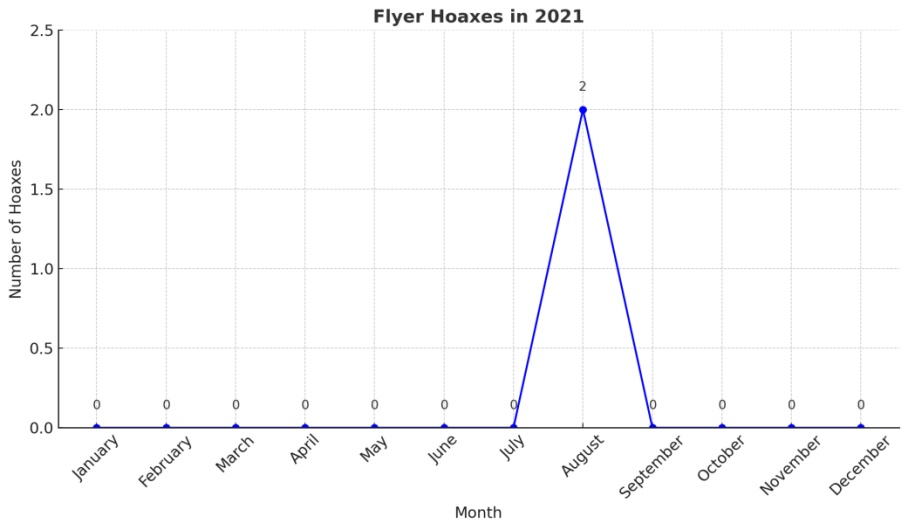

Figure 25. COVID-19 Hoax on Telegram

According to **Figure 25**, flyers were rarely used to spread hoaxes in 2021. Only 2 cases were recorded in August, with no cases reported during other months. This reflects the dominance of digital platforms over traditional methods of spreading misinformation.

9) Hoaxes on SMS

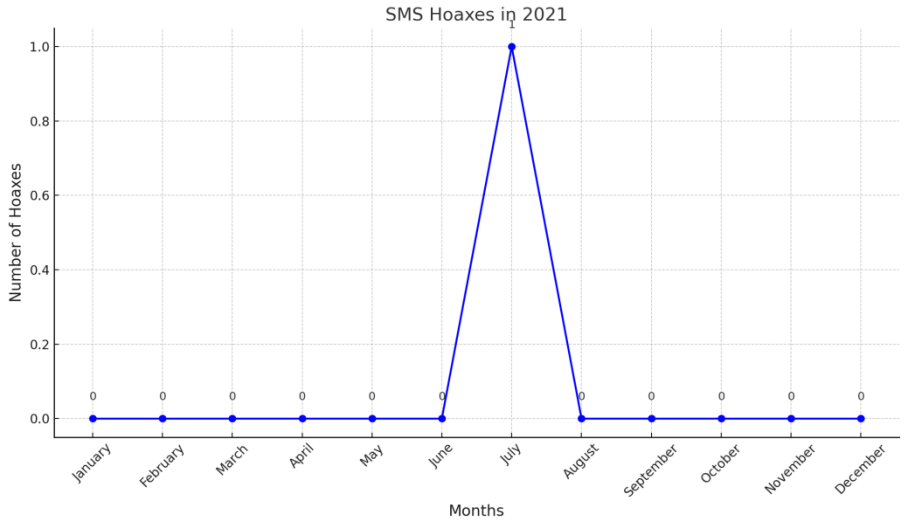

Figure 26. COVID-19 Hoax on SMS

Figure 26 shows that SMS was an insignificant medium for disseminating COVID-19 hoaxes in 2021. Only 1 case was recorded in July, with no cases reported in other months. The declining popularity of SMS as a communication channel likely contributed to its minimal role in spreading hoaxes.

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4.2.2. COVID-19 Hoaxes by Hoax Categories

1) False Context

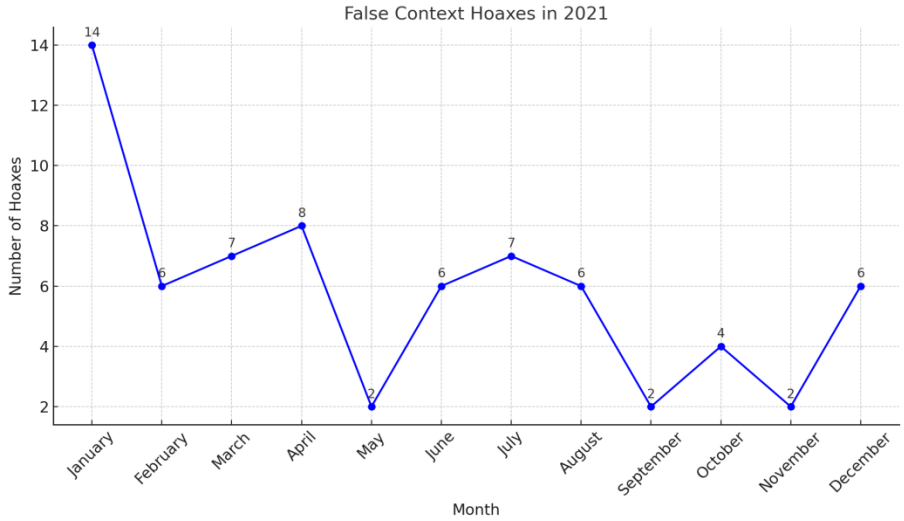

Figure 27. False Context Category

As shown in **Figure 27**, the spread of false context hoaxes peaked in January with 14 cases. A decline followed in February (6 cases), with the lowest points recorded in May, September, and November, each with 2 cases. False context hoaxes, where genuine information is presented in a misleading narrative, were less frequent in 2021 compared to 2020.

2) Misleading Content

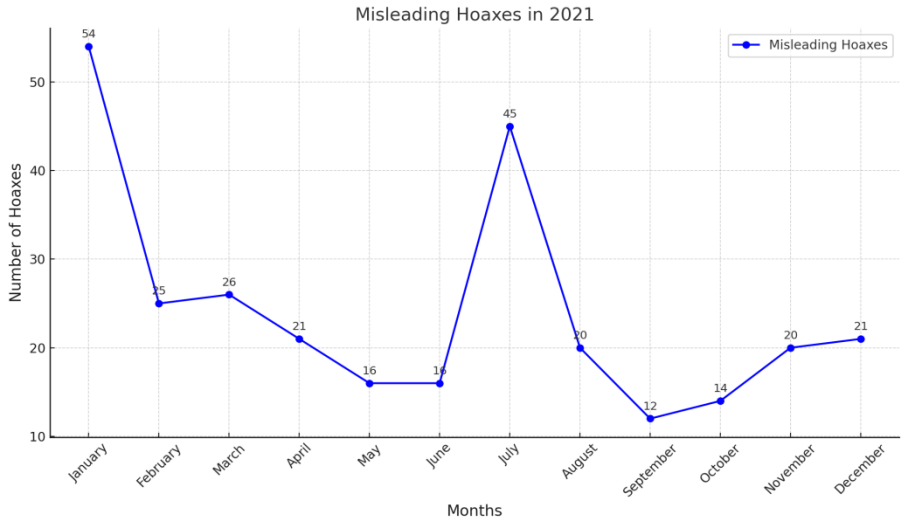

Figure 28. Misleading Content Category

Figure 28 illustrates that misleading content remained the dominant category of hoaxes in 2021. Peaks were observed in January (54 cases) and July (45 cases), with the lowest frequency recorded in September (12 cases). Misleading content hoaxes, characterized by deliberate distortion of facts to mislead audiences, were significant contributors to misinformation during key periods of the pandemic.

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3) Fabricated Content

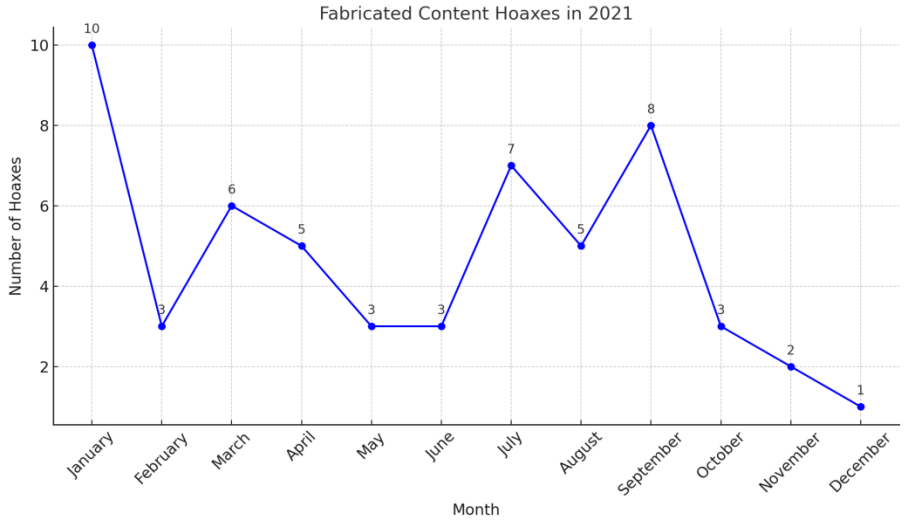

Figure 29. Fabricated Content Category

Figure 29 shows that fabricated content hoaxes saw an increase in February, peaking in March (27 cases), April (20 cases), and May (24 cases). The lowest frequency was observed in June, with just 4 cases. Fabricated content, which consists of entirely false information, continued to play a substantial role in misinformation dissemination in 2021.

4) False Connection

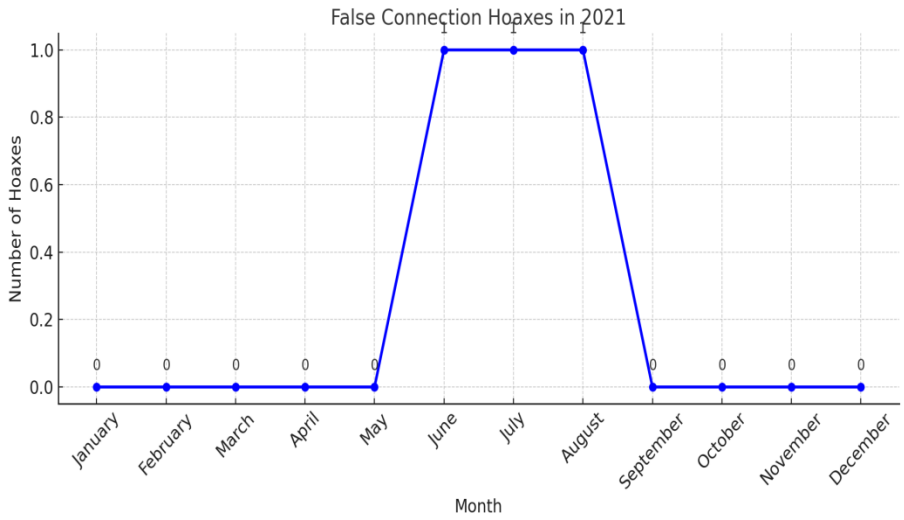

Figure 30. False Connection Category

According to **Figure 30**, false connection hoaxes, where the headline does not match the content, were infrequent in 2021. Peaks were observed in June, July, and August, each with 3 cases, the highest for this category. This reflects the relatively minor role of false connection hoaxes during the pandemic.

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5) Manipulated Content

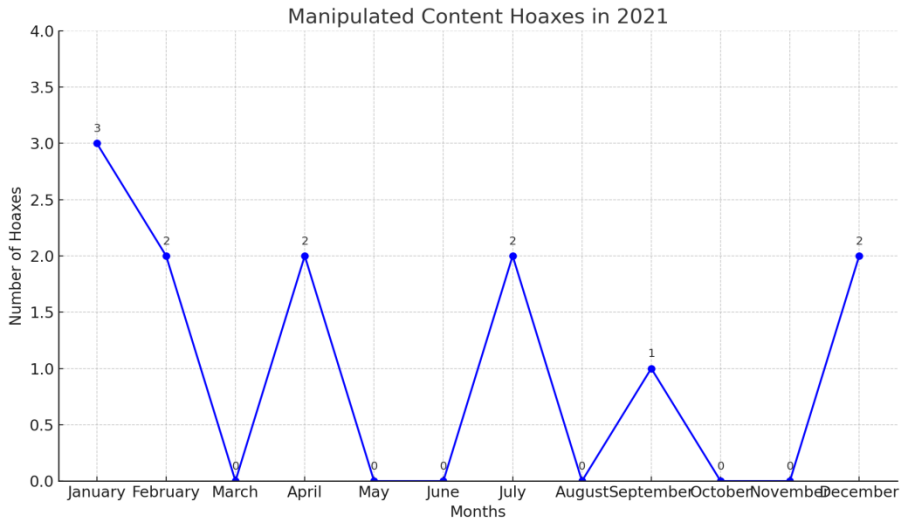

Figure 31. Manipulated Content Category

Figure 31 indicates that manipulated content hoaxes peaked in 3 cases in January. The category saw no cases reported in March, May, June, August, October, or November. Manipulated content, involving the alteration of credible information to deceive, was rarely used for hoax dissemination in 2021.

6) Imposter Content

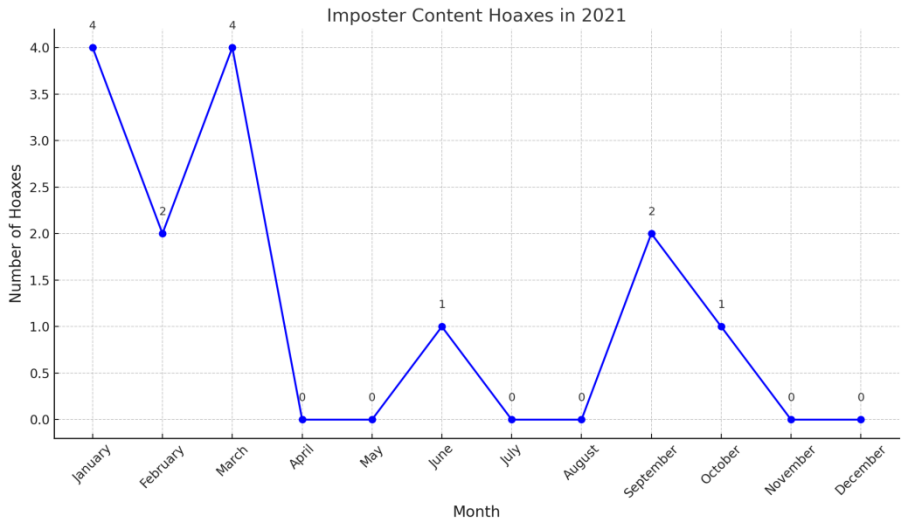

Figure 32. Imposter Content Category

As depicted in Figure 32, imposter content hoaxes peaked in January and March, with 4 cases each. This category, which involves attributing false claims to credible sources, was infrequent throughout the year. Its limited usage reflects its niche role in misinformation campaigns.

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7) Satire or Parody

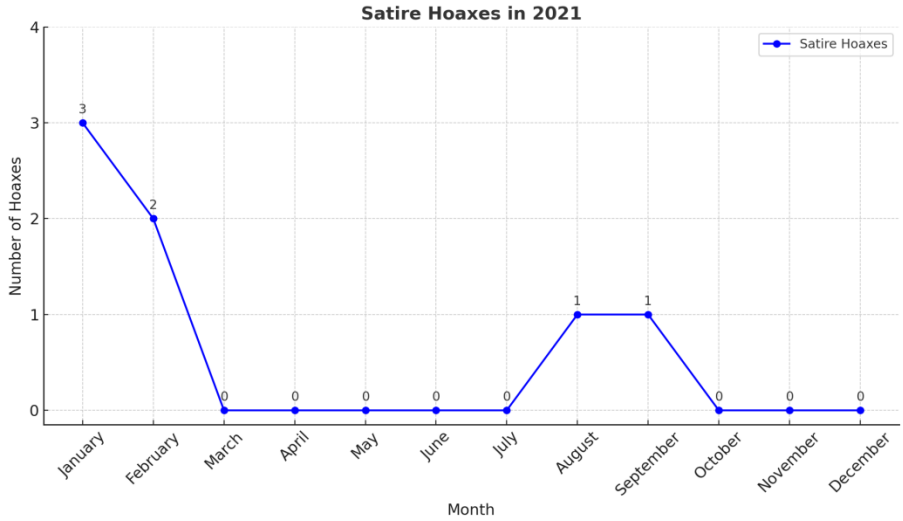

Figure 33. Satire Category

Figure 33 reveals that satire or parody hoaxes began to increase in June, although they remained infrequent throughout the year. Satirical content, created without malicious intent but potentially misleading, was rarely used for hoax dissemination during the pandemic.

5. Discussion

The discussion of findings reveals significant patterns in the spread of COVID-19-related hoaxes in Indonesia during 2020–2021, emphasizing the pivotal role of social media platforms and content strategies employed by hoax creators. In 2020, hoaxes peaked during March, April, and May, coinciding with the initial surge of COVID-19 cases and heightened public uncertainty. Facebook emerged as the dominant platform for hoax dissemination, followed by WhatsApp, online portals, and Twitter. The prevalence of these platforms highlights their accessibility, widespread user base, and inherent features that facilitate rapid information sharing, such as "likes," "shares," and private messaging capabilities (Zaenudin, 2018). This phenomenon aligns with previous studies that underscore the vulnerability of social media platforms to misinformation due to their speed-oriented architecture.

Interestingly, Instagram, YouTube, Telegram, flyers, and SMS were far less utilized for hoax propagation. The low incidence of hoaxes on these platforms can be attributed to their more specialized user demographics and limited interactive features compared to platforms like Facebook and WhatsApp. For instance, Instagram's visual-centric design may inherently restrict the dissemination of text-heavy misinformation. However, the sporadic presence of hoaxes on platforms like Telegram and Flyers reflects the adaptability of hoax creators in targeting niche audiences.

Analyzing the types of hoaxes reveals that misleading content was the most prevalent category in 2020, followed by false context and fabricated content. This pattern suggests a calculated approach by hoax creators to leverage partial truths or distorted facts to enhance the believability of their narratives. Misleading content often incorporates real data or statements but manipulates the context to fit a false narrative, making it particularly effective in shaping public opinion (Wardle, 2017). Fabricated content, although less frequent, remains a critical concern due to its entirely false nature and potential to incite panic or distrust in official information sources.

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By 2021, the patterns evolved, with a significant decline in hoaxes spread via Facebook compared to the previous year, although it remained the leading platform. This decline could reflect increased platform interventions, such as fact-checking and content moderation, alongside growing public awareness. However, WhatsApp and Twitter continued to play substantial roles in spreading hoaxes, underscoring the challenges posed by encrypted and semi-private messaging systems that limit traceability and accountability (Imaduddin, 2018).

The types of hoaxes in 2021 showed consistent reliance on misleading content and false context, with subtle shifts in narrative focus as public attention shifted to vaccination campaigns and emerging COVID-19 variants. This adaptability demonstrates the resilience of hoax creators in responding to evolving public concerns, further complicating efforts to combat misinformation. For example, words like "vaccine," "omicron," and "infection" frequently appeared in hoax titles and content, reflecting the public's heightened interest in these topics.

The dominance of Facebook, WhatsApp, and Twitter across both years highlights their dual role as critical information sources and vehicles for misinformation. The findings align with global reports indicating that Facebook remains the leading platform for COVID-19-related misinformation due to its vast user base and rapid dissemination capabilities (Pusparisa, 2021). Similarly, WhatsApp's private ecosystem fosters trust among users, enabling the unchecked circulation of hoaxes, while Twitter's retweet mechanism amplifies the reach of misinformation exponentially (Pertiwi & Nistanto, 2018).

5.1. Social Media and Hoaxes

In 2020 and 2021, Facebook, WhatsApp, and Twitter were the most frequently used platforms by irresponsible individuals to spread COVID-19 hoaxes in Indonesia (see **Table 1**).

Table 1. COVID-19 Hoaxes by Data Sources

Data Source	2020	2021	Total
Facebook	423	237	660
WhatsApp	173	111	284
Twitter	78	62	140
Online Platforms	42	21	63
Instagram	17	14	31
YouTube	10	9	19
Telegram	1	2	3
Flyers	1	2	3
SMS	1	1	2

The high number of hoaxes on Facebook can be attributed to its 2.2 billion users worldwide. With such a large user base, false news can spread rapidly through social networks. Every false news story can be shared with thousands of users and receive numerous comments, amplifying its reach. According to Benedict Carey in The New York Times, one of the reasons hoaxes spread so effectively on social media is their speed. Social media thrives on rapid content dissemination, which makes it difficult for fact-checkers to keep up. Facebook and other platforms act as "marketers" of fake news due to this characteristic.

Another reason hoaxes proliferate on social media is users' habit of not fully reading the content they post or share. Additionally, the prevalence of features like "share," "like," or

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"repost" simplifies the process of redistributing content (Zaenudin, 2018). Findings from the Reuters Institute and the University of Oxford reinforce this, showing that misinformation about COVID-19 was widespread across various countries, with Facebook being the platform with the most hoaxes identified (Pusparisa, 2021).

Apart from Facebook, WhatsApp is another platform frequently used to disseminate hoaxes. It is especially effective due to its private and closed ecosystem, which encourages users to overlook the credibility of information sources and rely more on the trustworthiness of the sender. Viral hoaxes on WhatsApp often take the form of text or images that spread from one user to another. These messages often lack clear sources or, in some cases, falsely claim to come from "official" or credible entities. As a result, the only assurance of authenticity is trust in the sender.

Unlike relatively open networks like Facebook or Twitter, WhatsApp's closed nature makes it harder to intervene. Hoaxes circulate privately between users or in closed, often homogenous, groups. Additionally, WhatsApp allows users to edit or add narratives to existing hoaxes, making tracking their origins even more difficult (Imaduddin, 2018).

Twitter, meanwhile, has been found to facilitate the faster spread of hoaxes compared to factual news or clarifications. Researchers from the Massachusetts Institute of Technology (MIT) discovered that 70% of false news stories are retweeted more than true ones. The cascade effect, or uninterrupted retweet chain, allows hoaxes to spread 10 to 20 times faster than factual information. Humans, not bots, are the primary drivers of this rapid dissemination, often sharing false information without second thoughts (Pertiwi & Nistanto, 2018).

Meanwhile, COVID-19 hoaxes, based on their types, were dominated by three main categories: misleading content, false context, and fabricated content (see **Table 2**).

Table 2. COVID-19 Hoaxes by Category

Hoax Type	Year	Total
Misleading Content	339	293
False Context	198	71
Fabricated Content	137	59
Manipulated Content	52	10
Imposter Content	11	14
False Connection	8	3
Satire	3	7

Misleading content arises when information is intentionally twisted to defame individuals or groups. This type of content is deliberately created to influence opinions in favor of the hoax creator's agenda. Misleading content often leverages authentic materials, such as images, official statements, or statistics, but edits them in a way that disconnects them from their original context.

False context, on the other hand, refers to content that is presented with incorrect narratives or settings. Typically, false context includes statements, photos, or videos of events that happened in a specific place or time but are inaccurately represented to suggest otherwise.

Fabricated content, regarded as the most dangerous type of hoax, consists entirely of false information that cannot be verified or substantiated with facts. It is created with the sole intention of misleading and deceiving its audience (Wardle, 2017).

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5.2. Hoax Texts Based on Word Cloud Analysis

Visual representations provide a convenient way to interpret and gain instant access to critical ideas. In this context, language as a visual representation offers immediate insights into the distribution of ideas within discourse analysis, compared to traditional written text (Schroeder, 2002). One of the effective methods for visual analysis is the word cloud. According to McNaught and Lam, word cloud visualizations make it easier for observers to grasp the ideas and perspectives of the text's author, thus serving as a valuable tool for analyzing written discourse (McNaught & Lam, 2014).

This study employs the word cloud method to identify the words or terms that frequently appear in COVID-19 hoaxes in Indonesia. Below are the visualized results of text analysis using the word cloud method for COVID-19 hoaxes in Indonesia.

Figure 34. COVID-19 Hoaxes Based on Titles (Word Cloud Results)

Figure 34 illustrates that the most frequently occurring words in COVID-19 hoax titles include vaccine, COVID, Omicron, video, vaccination, and Moderna. These words indicate the primary topics leveraged by individuals to disseminate hoaxes. They reflect the public's heightened interest and concerns about vaccination programs and new variants, making these terms effective tools for spreading misinformation.

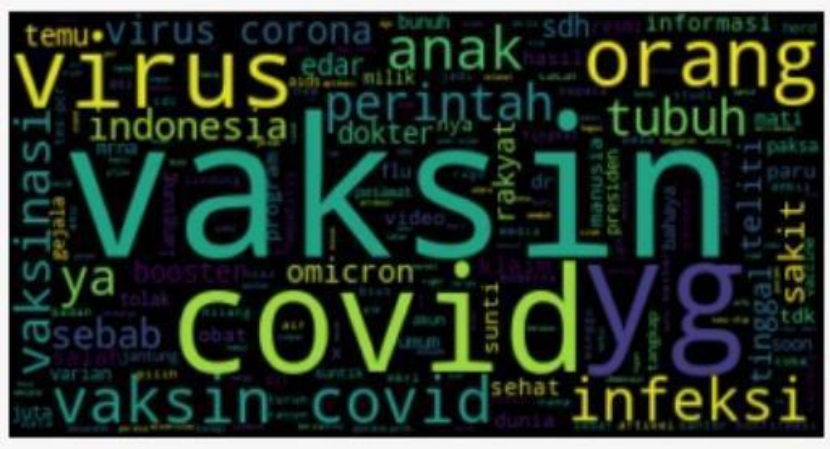

Figure 35. COVID-19 Hoaxes Based on Content (Word Cloud Results)

Figure 35 highlights the words most frequently appearing in the content of COVID-19 hoaxes, including vaccine, COVID, virus, infection, and vaccination. These terms are consistent

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with the themes identified in hoax titles, further emphasizing the exploitation of public anxieties related to health and safety during the pandemic.

6. Conclusion

This study gathered information on COVID-19 hoaxes disseminated through various platforms, including Facebook, Instagram, online news portals, Twitter, WhatsApp, YouTube, Telegram, flyers, and SMS. COVID-19 hoaxes in Indonesia were largely categorized into three primary types: misleading content, false context, and fabricated content. The research further identified frequently used terms in hoax dissemination and measured their occurrence over the course of the pandemic in 2020 and 2021. This thorough data collection provides a strong foundation for analyzing the patterns and implications of COVID-19 hoaxes.

COVID-19 hoaxes are deeply intertwined with the broader discourse surrounding the pandemic, influencing public perception and responses. The prevalence of such hoaxes is largely a result of the unrelenting flow of information the public encounters daily, prompting many to turn to alternative news sources outside traditional media like television or newspapers. Social media, with its accessibility and immediacy, emerged as the primary alternative for information consumption. However, this shift also rendered social media a highly effective conduit for spreading hoaxes at unprecedented speeds.

The findings of the study highlight that the most frequently utilized platforms for spreading COVID-19 hoaxes in Indonesia are Facebook, WhatsApp, and Twitter. Regarding content types, the hoaxes predominantly consisted of misleading content, false context, and fabricated content. Of these, fabricated content was deemed the most hazardous, as it comprises entirely false information with no factual basis.

Word cloud analysis revealed the most commonly used terms in COVID-19 hoaxes in Indonesia. Frequently used terms in titles included “vaccine,” “COVID,” “Omicron,” “video,” “vaccination,” and “Moderna.” In the content, key terms included “vaccine,” “COVID,” “virus,” “infection,” and “vaccination.”

These findings emphasize the significant role of social media in facilitating the spread of misinformation and underscore the urgent need for enhanced digital literacy and stronger fact-checking systems to mitigate the proliferation of hoaxes during public health crises.

These findings underscore the significant role of social media in propagating misinformation and highlight the need for improved digital literacy and robust fact-checking mechanisms to counteract the spread of hoaxes during public health crises.

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8. Declaration of Conflicting Interests

The authors have declared no potential conflicts of interest concerning this article’s research, authorship, and/or publication.

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