

A Study of the Bulletins of Issued by the Directorate of Communications as a mean to Combat Disinformation

Havva Nur Tarakcı*, Nagihan Tufan Yeniçikti,

Department of Public Relations, Selçuk University Faculty of Communication, Konya, Turkey. *Corresponding Author's Email: hnuryildirim@selcuk.edu.tr

Abstract

Disinformation may be defined as the dissemination of incorrect or false information with an intent to deceive and mislead people in all capacities including individuals, communities, and society as a whole thereby contaminating information and promoting disorder. This is done well planned and consciously to influence people, spread lies, propagate falsehood and direct people to a specific direction. Today, the word disinformation is used to explain the enormous security threat at the national or global level that emerges from contamination of information. The legitimization and normalization of a distorted truth or a lie is quite normal these days. This calls for actions to be taken by us in our social and individual lives on a personal level and also at a national level by nations. In this study, 19 bulletins published by the Presidency Directorate of Communications in the year 2024 as part of the initiative to fight against disinformation have been analyzed using content analysis and text mining techniques. The findings point to the fact that the bulletins primarily deliver messages with neutral sentiment. The predominantly used types of disinformation in these bulletins were alteration and fabrication, with the maximum prevalence of disinformation content observed in social and political issues. It can be argued that an objective and neutral approach is critical in combating disinformation, and that state institutions should be a key player in this regard. In addition, it is also found that verifications conducted employing public data are substantial tools in upholding public access to accurate information.

Keywords: Combatting Disinformation, Content Analysis, Disinformation, Disinformation Bulletins, Text Mining.

Introduction

The high uptake of social media in every arena of human life has accelerated synthesis of information and its widespread dissemination thereby giving rise to disorder in information. The speeding up of information disorder and the misrepresentation of truth have made the idea of disinformation one of the major concerns. Disinformation, which is used to describe the purposeful distribution of false or inaccurate information with the goal of deceiving or misleading people by distorting the truth, creating information pollution and disorder, can be strategically implemented to influence individuals, communities, and society, mislead them, and steering them in a certain direction.

There are three main and closely related categories of false information. Disinformation refers to deliberately altered, fabricated, or manufactured content intended to cause harm or to influence behaviors, beliefs, or attitudes. Misinformation refers to information shared by individuals or groups who are unaware of its inaccuracy or

misleading nature, or who believe it to be beneficial despite its potential to cause harm. Malinformation, on the other hand, involves the deliberate use of factual information with the intent to cause harm (1). Disinformation may be defined as the production and dissemination of fabricated information, either partially or wholly, through audiovisual content with an intention to discredit and defame individuals, institutions, or states (2). Content can be designated as disinformation if the identity of the source is deliberately concealed, the published information contains harmful or destructive elements, and the source has a predetermined political, economic, military, or social agenda (3). In disinformation, the identity of the content creator is deliberately masked; the disclosed information often consists of harmful or destructive content aimed at influencing a situation, and the creator has a predetermined political, military, economic, or social objective (3). As it becomes increasingly difficult to determine the accuracy or fabricated

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nature of social media content, even after posts containing disinformation are proven false, their impact on individuals can remain lasting (4). Therefore, an early stage identification of disinformation is crucial to minimizing the number of affected individuals and the level of associated harm that is inherent to it.

The definition of disinformation, its detection, and research in related fields have gained traction in recent days. Researchers have addressed various aspects of disinformation from different perspectives. It is important to mention some important studies on the same here as follows:

The study titled "*Countering Disinformation: Concepts and Institutions*" aimed to reveal the state of combating disinformation in both literature and practical applications. The study systematically analyzed relevant literature on disinformation and made an effort to establish a conceptual and theoretical framework. Additionally, he analyzed practices for combating disinformation using a comparative approach at both national and international levels. This study aims to address ambiguities in the literature on disinformation and provides practitioners with a perspective in comparison (5).

The study titled 'Combating Misinformation and Disinformation: Concepts and Practices' aims to examine a number of practices developed to combat misinformation and disinformation. To this end, practices implemented before, during and after exposure to fake content, as well as those involving the analysis of disinformation networks, have been examined through a systematic literature review. Additionally, policy initiatives implemented in various countries across different geographical regions are presented, alongside some potential measures that Turkey could adopt to combat misinformation and disinformation (6). The study addresses the crisis management process organised by the state, how it combats crises, how state institutions are brought together, and the role of the Directorate of Communications, which was declared a supporting platform in the next stage. It comprehensively reveals the developments in this process in terms of crises and crisis reporting. The study aimed at demonstrating the effectiveness of this institution during such processes. The study, within the framework of universal principles of journalism, emphasized that with several considerable revisions in

operational practices, the Center for Countering Disinformation (CCD) could make considerable progress in becoming a dominant and dependable source of accurate information between the government and the public (7).

In this study, we attempt to examine the definition, detection, and spread of disinformation from a theoretical perspective and discuss some strategies used in Turkey to combat disinformation by analyzing the disinformation bulletins published by Presidency of Directorate of Communications, with a purpose to save the people from purposefully disseminated, distorted, or false content, primarily focused on false and/or fake news in online spaces. This study will be based on 19 bulletins published in 2024 within the scope of combating disinformation. Analysis will be conducted based on techniques known as content analysis and text mining methods. The study aims to outline a general framework for the strategies that may be developed to fight disinformation through examining the content of the bulletins.

Disinformation is defined as 'fabricated information that mimics certain content of the news media in form, but does not replicate organizational/institutional processes or objectives' (8).

When examining the existing literature in the context of detecting deliberately produced content, keywords and terminologies such as misinformation, disinformation, fake news, deception, rumor, and conspiracy theory can be encountered (9). It is quite difficult to stress that the executive branch, academia, policymakers, media, and the private sector agree on a common understanding in the explanation and interpretation of disinformation and its related terms.

There are multiple definitions in the literature regarding the definition and perception of disinformation. In the Guide for Countering Disinformation (GCD) published by the Presidency of Directorate of Communications in 2023, the various types of disinformation are categorized and explained under seven different headings with their differential characteristics which are as follows (10):

Manipulation: Alteration of actual information or visuals.

Distortion: Wrongful presentation of information about an event.

False association: Inconsistency headline, visuals, visual descriptions and the content.

Fabrication: Manufacturing deceitful information with the intention to harm or mislead.

Contextual dislocation: Using content in a wrong context.

Imitation: The falsification of sources by pretending to be genuine.

Satire/Parody: Content that is not necessarily intended to cause harm but may be misleading.

Disinformation can manifest in different forms, the range is wide including satire and parody to conspiracy theories, and it is manufactured and distributed by a wide variety of people, either knowingly or unknowingly. The consequences of disinformation can range from mildly disturbing to extremely serious and destructive outcomes, such as death (11).

Disinformation can be defined as content that is intentionally false and designed to cause harm. Disinformation is driven by three different factors: making money, gaining political influence domestically or internationally, or creating problems for these purposes. When disinformation is shared, it often turns into misinformation. Misinformation also refers to incorrect content, but the person sharing it is unaware that their action is wrong or misleading. Often, a piece of disinformation is taken by someone who does not realize it's false, and the individual shares it with their networks, believing they are helping (12). Individuals often fail to identify deception because of their reliance on others to make judgments based on their existing biases, attitudes, and credibility assessments.

The sharing of misinformation can stem from socio-psychological factors. For instance, members of a political party who share the same views, parents who oppose vaccinations for their children, activists concerned about the climate crisis, or individuals belonging to a specific religion, race, or ethnicity may be sources for sharing such content on the internet. The motivation behind sharing these contents could be the desire to display their identity online and/or the wish to be helpful to the groups they feel connected to Wardle's, 2019 study (12). People enjoy sharing new news with their social circles because, from an information theory perspective, new information is more valuable to people. Furthermore, new news becomes more valuable

when viewed from the perspective of gaining social status and projecting an image of being "in the know" (13).

WhatsApp, Twitter, and Facebook, as social media platforms, are also used by some malicious individuals to rapidly spread rumors, false, and sensational information. Thanks to the messaging features of social media platforms, fake messages and rumors are quickly disseminated, and with the widespread use of smartphones, this situation leads the public to regard these baseless claims as real information and subsequently form opinions and take action accordingly (9). People tend to trust their connections on social networks and "information" that seems trendy. Therefore, the spread of misinformation, depending on the intended outcome, requires persuasive content that resembles real articles and a method that will make the news go viral (14).

When examining the question of why individuals share false information online, the reasons that emerge include the desire to troll and spread rumors, political partisanship, belief in the correctness of the information, ineffectiveness in recognizing deception, entertainment purposes, and reliance on mental resources. Individuals have certain biases when evaluating credibility. For example, if a message comes from a reliable public figure, they are more likely to trust news on social media. Similarly, if there is a mismatch between what people are interested in and what news sources provide, and if it aligns with individuals' pre-existing worldviews, they are more likely to believe in misinformation (15).

The factors behind the spread of disinformation can be summarized under three main headings (9). The fundamental factor behind social media users being more vulnerable to disinformation is the sources and publishers. Due to the minimal cost of creating and publishing online content, and the ease of quick and high reachability inherent in social media platforms, alternative media channels have emerged. These media sources often publish fake content, disguise opinions presented as facts, and even promote highly polarized conspiracy theories and pseudoscience essays, exposing the target audience to an intense disinformation bombardment. This situation undermines the perception and understanding of trusted information/sources. Another factor is that certain emotions make the target audience believe

disinformation. Uncertainty, anxiety, difficulty in measuring importance, lack of control, and belief are among such emotional factors. Lastly, they highlight the role of social bots in the dissemination of disinformation. Social bots imitate human behavior, publish content, and engage with real people, targeting individuals more likely to believe disinformation.

In spite of these deep issues, many proposals that aimed at restoring logic and order in troubled public spheres emphasize policies that require fact-checking, media literacy initiatives, or content moderation by media giants like Facebook and YouTube. While the intentions behind these approaches are honest, they are highly unlikely to produce the desired results. This is because a surging number of citizens are more inclined to believe alternative facts that appeal to deeper emotional, political, and economic feelings of alienation. Moreover, it is unlikely that elected officials supported by such followers will view efforts to regulate communication on social media as anything other than censorship (16).

In recent years, there has been a significant focus on the growing level of disruptive communication in contemporary democracies—"fake news," disinformation, and misinformation. Media organizations and social media platforms in many countries are spreading conspiracies, creating alternative facts, fabricating imaginary events, or blaming political opponents for real events. For example, when President Donald Trump reached his 1,055th day in office (on December 10, 2019), he had misled or lied to the American public 15,413 times. During a period before the 2018 midterm elections, he made an average of thirty false or misleading statements per day (16).

The dynamics of online disinformation are quite variable and understanding this variability is of vital importance in terms of evaluating threats and developing effective countermeasures. In this context, the online disinformation process is considered as a complex problem with no easy solutions (17).

The study, which examines how rumours spread via WhatsApp lead to lynching incidents in India, focuses on detecting and preventing the spread of disinformation and hoaxes on social media. It is noted that lynching and mob violence incidents, fueled by unsubstantiated allegations and hoaxes circulated exclusively through WhatsApp, have

become a growing concern. Widely used social media platforms such as WhatsApp have been found to contribute to the rapid dissemination of rumours, and the potential negative effects of this phenomenon on social order have been emphasized (18).

Furthermore, it was found that rumours often spread rapidly through platforms like WhatsApp, frequently triggering acts of violence and lynching, primarily due to misinformation and disinformation. It was also argued that the government adopted flawed approaches in responding to false news. Questions have been raised regarding whether measures such as labeling forwarded messages and limiting message forwarding on WhatsApp would be sufficient to prevent violence. Additionally, concerns were expressed that government collaboration with WhatsApp might lead to human rights violations, including compromised user privacy and restricted freedom of expression. The necessity of adopting more comprehensive and holistic strategies to prevent the adverse consequences of disinformation was strongly emphasized (18).

It is an undeniable fact that public will and tools are necessary to better educate digitally conscious media users as a society. A more professional effort led by the state is needed to counter this negative perception effectively. At this point, it would be appropriate to briefly outline the developments to understand the process of disinformation in Turkey.

On May 22, 2020, the "Social Media Usage Guide" published by the Presidency of Directorate of Communications frequently addressed issues related to the proper use of the internet and social media, challenges encountered on social media, security problems on social networks, and concerns about the lack of regulation over social media platforms and their users.

On July 24, 2018, with Presidential Decree No. 14 on the Organization of the Directorate of Communications, published in the Official Gazette No. 30488 and put into effect, the "Directorate of Communications" was established to conduct strategic communication and public diplomacy activities under the Presidency.

Significant efforts are being undertaken to effectively neutralize the threat posed by disinformation activities targeting Turkey, and

these efforts continue to evolve over time. Briefly addressing these efforts.

To ensure that efforts to combat disinformation are carried out more specifically and meticulously, the Center for Countering Disinformation was established under the Presidency of Directorate of Communications in August 2022. The Center is tasked with monitoring and evaluating propaganda activities targeting Turkey, collaborating with responsible public institutions, and taking necessary measures against propaganda (10).

In October 2020, the Law No. 5651, known publicly as the "Social Media Law," was enacted to hold technology companies operating in Turkey accountable for disinformation activities. Under this law, foreign-based social network providers with over one million daily user access in Turkey are required to appoint at least one representative (a Turkish citizen) to their organizations. These regulations aim to prevent malicious activities such as hate speech, terrorism-related content, threats, blackmail, and defamation online, as well as to swiftly identify fake accounts spreading false news. Through these measures, individuals or entities attempting to disrupt Turkey's peace and security via digital networks can face penalties, including imprisonment (10).

The Internet Help Center, a website under the Information and Communication Technologies Authority, serves as a platform where illegal content can be easily reported. It also offers a 24/7 hotline, ALO 141, for reporting issues (GCD, 2023). Anadolu Agency has established a "Verification Line" to reduce misinformation in the media by examining and verifying the accuracy of news in digital and traditional platforms (10).

The Presidency for Turks Abroad and Related Communities (YTB) has launched the NESAM portal (Combating Hate Crimes and Discrimination), allowing Turks living abroad to report hate speech and discrimination incidents they experience. Similarly, TRT World's "Eyes on Discrimination" project tracks cases of racism, Islamophobia, and discrimination globally, aiming to document these growing threats on social media (10).

The publication of Disinformation Bulletins by the Presidency of Directorate of Communications' Center for Countering Disinformation is one of the most well-known and effective strategic steps in

combating disinformation in Turkey. These bulletins, which are prepared weekly, daily, or on special agenda topics, are available on the Directorate's official website and are openly accessible to the public. The content verified and provided by the Center for Countering Disinformation is simultaneously shared with traditional media outlets and relevant institutions, thereby reaching a broad audience. These bulletins play a crucial role in meeting the public's need for accurate information amidst uncertainty and in protecting society from the harmful effects of disinformation.

An important comparative study focusing on the United States and India suggests that individuals exposed to digital media literacy content develop enhanced perceptions of identifying fake news as false and become better at distinguishing it (19). In a previous study, it was argued that education focusing on awareness-raising and supervision is particularly effective among vulnerable demographic groups and should be adopted as a critical method to detect deceptive efforts. Furthermore, the development and promotion of disinformation detection systems, along with the implementation of stricter regulations on social media platforms, have been emphasized. The strategies employed in Turkey to combat disinformation appear to be consistent with these recommendations (20).

Methodology

The unique structure of social media has transformed the traditional models of information production and consumption, leading to an abundance of information, which in turn has resulted in information disorder and disinformation. With disinformation, a distorted or manipulated version of the truth is created, often driven by specific political, economic, or cultural interests, and presented as if it were objective reality. This phenomenon poses significant threats to contemporary societies, not only at the national level but also internationally.

In the context of combating disinformation, while some guidelines and verification systems have been developed to assess the reliability of information, countries are also taking different measures. In this regard, the aim of this study is to examine how disinformation is addressed in the bulletins prepared by the Center for Countering

Disinformation established under the Presidency of Directorate of Communications, and to identify the criteria used to verify disinformation-related news. Additionally, the study seeks to uncover the expressions within the bulletins through text mining, which constitutes the sub-objective of the research.

People viewing social media as a primary news source and questioning the accuracy of news based on it leads to confusion. The rapid flow of information and the quick changes in media on social platforms make it difficult for people to distinguish between truth, disinformation, and misinformation. Particularly during events such as elections, natural disasters, or wars—situations that cause public unrest—society's attention is diverted, hindering individuals from making informed decisions and potentially leading to long-term societal issues.

In the fight against disinformation, in 2022, the Presidency of Directorate of Communications established the Center for Countering Disinformation as a unit within its structure. The study will examine the effectiveness of the verification platform created by the government in questioning disinformation-containing content.

The population of the study consists of the bulletins published by the Center for Countering Disinformation within the Presidency of the Republic of Turkey's Directorate of Communications, while the sample consists of 19 bulletins published between January 1 and May 15, 2024, by the Center for Countering Disinformation. The scope of this study includes the disinformation bulletins published by the Presidency of the Republic of Turkey's Directorate of Communications, which were prepared with the motivation to strengthen citizens against intentionally spread, distorted, or false content online, particularly fake news. The study focuses on 19 bulletins published between January 1 and May 15, 2024. The content, sources, and accuracy of the bulletins have been analyzed as published by the Center for Countering Disinformation, without further research from other sources.

The disinformation bulletin published as a special issue in response to the high levels of disinformation caused by the Israel-Palestine conflict, namely the Palestine Special Bulletin, has been excluded from the study, thus constituting the limitation of the research.

In the study, to prevent content created with the intention of manipulating the public and to raise awareness against all forms of information pollution by combating disinformation, the disinformation bulletins published by the Presidency of the Republic of Turkey's Directorate of Communications Center for Countering Disinformation have been analyzed through content analysis and text mining. These bulletins, published in 2024 over a period of approximately four months, were examined with the aim of informing people by stating the truth in the face of disinformation (10).

Although the effectiveness of the bulletins was not measured directly in the study, indirect inferences were made based on the types of content and the issues they addressed. Through sentiment analysis, the bulletins were evaluated in terms of their neutrality or tendency to guide interpretation, and the fact-checking strategies were classified according to disinformation categories. In this way, the study revealed not only which false claims were corrected, but also the themes, types, and dissemination channels through which the bulletins were structured.

Quantitative content analysis is one of the key research techniques frequently used in communication studies. The strength of content analysis lies in its ability to present different themes and terms related to a social phenomenon in a concrete and comprehensible manner. Quantitative content analysis can be defined as a research technique that helps to explain the explicit and implicit content of communication in an objective, systematic, and quantitative way (21). The coding table developed for this study was adapted from a previous work that analyzed the earthquake bulletins of the Presidency of Directorate of Communications during crisis periods (7). A total of 183 contents in the disinformation bulletins have been analyzed separately based on their distribution, types of disinformation, topic headings, types of accounts sharing disinformation, methods of verification, content presentation methods, scope, motivations of the content creators, and the target audiences. Data mining can be described as the process of extracting concise information from large datasets. Through data mining applications, purposes such as deriving meaning from data, making predictions related to the data, generating new knowledge,

performing classifications, and detecting relationships between objects can be achieved (22). In other words, data mining allows for the extraction of valuable information from data that could otherwise be overlooked or buried within the datasets (23). Text mining will also be used as a branch of data mining.

Figure 1 shows the text mining model designed for this research. The following libraries have been used in this study, which was conducted in the Python 3 programming language within the Jupyter Notebook environment: pandas, re, wordcloud, and matplotlib. These libraries were utilized at various stages of the study for data processing, analysis, and visualization.

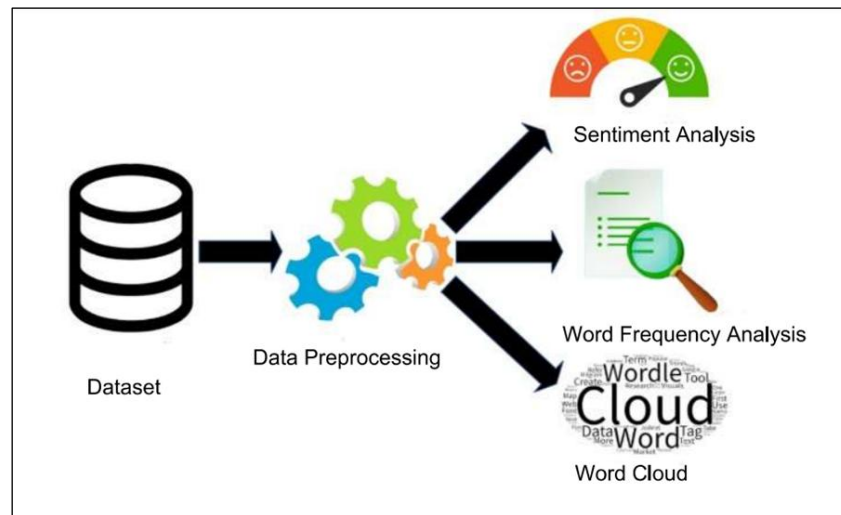


Figure 1: Designed Text Mining Model

The functions of these libraries are as follows:

- pandas: Used for data analysis and manipulation.
- re: Used for text processing or extracting subparts from the relevant text.
- wordcloud: Used to create word clouds.
- matplotlib: Used for data visualization.

The study was conducted using text mining techniques on the dataset obtained from the disinformation bulletins numbered 107-125 published by the Turkish Presidency of Directorate of Communications. The dataset created underwent several data preprocessing steps to make it suitable for analysis; these steps included removing punctuation marks, converting texts to lowercase, and eliminating unnecessary words. Then, using the SentiTurk Turkish sentiment lexicon, the emotional label for each word was determined (24). The words from the dataset that had undergone the preprocessing steps were analyzed, and classification was performed based on the most prominent sentiment contained in the

text. SentiTurk is a resource specifically designed for understanding emotional content in Turkish texts and is frequently used in sentiment analysis to label emotions and classify sentiments. It can be described as an important tool often referenced in academic studies on emotional analysis, emotional labeling, and sentiment classification.

Next, a word frequency analysis was performed to identify the most frequently used words within the text. Based on the results of this analysis, a word cloud was created to highlight the main concepts and key terms of the text. This enabled the data to be presented both visually and analytically.

Results

Text Mining Findings

This section presents the findings of the text mining analysis conducted using the dataset derived from the disinformation bulletins published by the Presidency of Directorate of Communications.

Table 1: Sentiment (Mood) Analysis

	Word Count	Frequency	Percentage (%)
😊	Positive Sentiment Word Count	2177	11
😞	Negative Sentiment Word Count	1669	9

Neutral Sentiment Word Count	15742	80
Total Word Count	19588	100

According to Table 1, the total word count in the disinformation bulletins was found to be 19,588. These words were categorized into positive, negative, or neutral sentiment words. It was determined that 80% of the words in the disinformation bulletins consist of neutral

sentiment words. The dominance of neutral sentiment words in the emotional analysis of the dataset is noteworthy. This suggests that an impartial and objective approach has been adopted in the fight against disinformation.

Table 2: Frequency Analysis of the Most Common Positive, Negative, and Neutral Words

S.No	Positive Word	Frequency	Negative Word	Frequency	Neutral Word	Frequency
1	Social	133	Is not	184	Claim	443
2	President	43	Earthquake	26	Topic	195
3	Police	37	Crime	26	Field	190
4	Help	36	Weapon	20	Truth	179
5	Health	32	Fraud	16	Place	165
6	Education	23	Old	14	Truth	159
7	Top	22	Genocide	12	Media	150
8	Safety / Security	13	War	10	Publication / Broadcast	89
9	Support	13	Internet	9	Press	78
10	High	12	Wrong	6	Word/Speech	71

In Table 2, frequency analyses of words containing positive, negative, and neutral emotions have been conducted. 'Social' is the most frequently used word among those containing positive emotions. In words with negative emotions, the expression 'is not' appears 184 times. Looking at the

frequencies of neutral emotion words, it is clear that 'claim' is used quite frequently. These words clearly reflect the topics often encountered in efforts to combat disinformation and highlight key points that need to be emphasized.

Table 3: Frequency Analysis of Most Used Words

S.No	Word	Frequency
1	Claim	443
2	Topic	195
3	Field	190
4	Is not	184
5	Truth	179
6	Place	165
7	Right	159
8	Media	150
9	Social	133
10	Publication / Broadcast	8

Table 3 presents the frequency analysis of the most commonly used words. According to the results of the study, it is observed that words such as 'claim',

'topic', 'field', 'is not', 'truth', 'place', 'right', 'media', 'social', and 'publication' stand out.

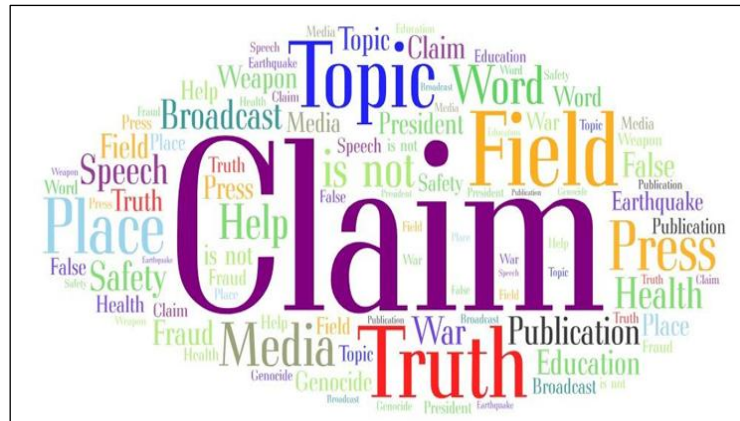


Figure 2: Word Cloud

Figure 2 presents a word cloud of the most frequently used words in disinformation bulletins. The frequent use of words such as 'claim', 'topic', 'area', 'is not', 'truth', 'place', 'right', and 'media' particularly emphasizes the importance of the accuracy of information and the reliability of media outlets. This can be interpreted as a critical indicator that, although claims play a central role in disinformation, the dissemination of correct information and the use of reliable sources are

crucial in the fight against disinformation. According to the results of the sentiment analysis, the majority of the content exhibits a neutral tone. This indicates that the bulletins prefer a formal, rational, and impartial language. However, the use of certain keywords (such as “claim,” and “truth”) may also reflect an effort to guide the public toward accurate information and, consequently, to promote social cohesion.

Table 4: Number of Contents Verified by CCD

Analysis Results	Number of News	Percentage %
Unresolved	-	-
Correct	-	-
Incorrect	183	100
Total	183	100

Table 5: Distribution of Content Verified by CCD in Disinformation Bulletins

CCD Disinformation Bulletins	Number of News in the Bulletins
107	9
108	11
109	13
110	8
111	8
112	8
113	7
114	17
115	9
116	14
117	9
118	10
119	8
120	7
121	5
122	10
123	14
124	6
125	11

Quantitative Content Analysis Findings

According to Table 4, all 183 pieces of content that underwent fact-checking in the CCD disinformation bulletins analyzed in this study are considered false content debunked by the Center. The Center for Countering Disinformation did not include any unresolved or correct content in its bulletin. In Table 5, 19 disinformation bulletins published in 2024, which were prepared by the Presidency of Directorate of Communications to

strengthen citizens against distorted or baseless content intentionally spread online, primarily focusing on fake news, and published as part of the fight against disinformation, have been analyzed in this study. Among these bulletins, the one with the highest number of verified contents is Issue 114, with 17 pieces of content. The crisis environment caused by the landslide in the Erzincan mining area led to a surge in disinformation-related news, which in turn required more content to be verified in this issue.

Table 6: Scope of Content Verified by CCD in Disinformation Bulletins

Scope of Contents	Number of News	Percentage %
National	135	73,8
International	48	26,8
Total	183	100

According to Table 6, of the 183 pieces of content verified in the CCD disinformation bulletins analyzed in this study, 73.8% are national in scope, while 26.8% are international. It has been determined that the content in the international scope primarily consists of manipulation news related to Gaza. The intensification of disinformation has been reflected in the bulletins due to the ongoing war, which has been a

prominent topic since the beginning of 2024. According to Table 7, the most frequently used type of disinformation in the content verified in the CCD disinformation bulletins analyzed in this study is manipulation, accounting for 58.5%. 20.2% of the content was produced as complete 'fabrication' with no basis in reality, while 13.1% was produced as distortion.

Table 7: Type of Disinformation in Content Verified by CCD in Disinformation Bulletins

Type of Disinformation	Number of News	Percentage %
Context Removal	12	6,6
Distortion	24	13,1
False Association	1	,5
Parody	2	1,1
Fabrication	37	20,2
Manipulation	107	58,5
Total	183	100

Table 8: Topic of Content Verified by CCD in Disinformation Bulletins

Topic of Content	Number of News	Percentage %
Politics	75	41,0
Health	10	5,5
Scientific Topic	5	2,7
Social Issues	61	33,3
Entertainment/Magazine	5	2,7
Environmental Issues	26	14,2
Religious Issues	1	,5
Total	183	100

Table 9: Type of Accounts Sharing the Content Verified by CCD in Disinformation Bulletins

Type of Accounts	Number of News	Percentage %
Individual/Celebrity/Politician	27	14,8
Media Organization	75	41,2

Anonymous	5	2,7
No User Account Provided	42	23,1
Organization/NGO	4	2,2
Mixed	29	15,9
Unanswered	1	,5
Total	183	100

According to Table 8, 41% of the content analyzed in this study consists of political topics, 33.3% is related to social issues, 14.2% is about environmental issues, and 5.5% is related to health topics. In Table 9, when looking at the types of

accounts sharing the content verified in the CCD disinformation bulletins, 41.2% are media organizations, 15.9% are mixed (both media organizations and Twitter accounts), and 14.8% are individual social media accounts.

Table 10: Fact-Checking Method of Content Verified by CCD in Disinformation Bulletins

Fact-Checking Method	Number of News	Percentage %
Public Data	76	41,5
Organization/NGO Data	47	25,7
Academic Studies	1	,5
Scientific Consensus	2	1,1
Technical Methods	23	12,6
Mixed	1	,5
Person/Witness	19	10,4
Decree	14	7,7
Total	183	100

According to Table 10, while verifying the content analyzed in this study, 41.5% of the data used by CCD came from public data. This is followed by 25.7% from Organization/NGO data and 12.6% from technical methods. Additionally, 10.4% of the verification involved consulting individuals or witnesses to the events. Decrees accounted for 7.7% of the sources. Looking at these results, it can

be said that CCD, as a public institution established under the Directorate of Communications, benefits from the advantage of accessing data from other public institutions. In this context, it can be concluded that CCD particularly uses public data when verifying content that may generate disinformation related to the government and/or public institutions.

Table 11: Presentation Types of Content Verified by CCD in Disinformation Bulletins

Presentation Types	Number of News	Percentage %
Text	46	25,1
Text + Photo	96	52,5
Text + Video	29	15,8
TV	5	2,7
Mixed	3	1,6
No Content Provided	4	2,2
Total	183	100

Upon examining Table 11, it can be seen that in the CCD disinformation bulletins published as part of the fight against disinformation, 52.5% of the 183 pieces of content published over a period of approximately 4 months were circulated using text + photo. The share of content shared solely in text

form is 25.1%, while the share of content served using text + video is 15.8%. Content published by TV channels accounts for 2.7%, while content not provided by CCD accounts for 2.2%. According to these data, the combined use of text and visuals is predominant in content production.

Table 12: Target Audience of Content Verified by CCD in Disinformation Bulletins

Target Audience	Number of News	Percentage %
Individuals	27	14,8
Organizations/NGOs	43	23,5
Government and Public Institutions	47	25,7
The Entire Society	48	26,7
Global Public Opinion	18	9,8
Total	183	100

According to Table 12, 26.7% of the verified content in disinformation bulletins targets the society, 25.7% targets government and public institutions, and 23.5% targets organizations/NGOs. Content directly targeting individuals makes up 14.8%, while content targeting global public opinion accounts for 9.8%. In particular, the

widespread use of social media in every aspect of individuals' lives facilitates the spread of disinformation news aimed at manipulating society. CCD stands out as a mechanism for verifying disinformation content that could affect the entire society.

Table 13: Motivations Behind the Content Verified by CCD in Disinformation Bulletins

Motivations Behind the Content	Number of News	Percentage %
Political	68	37,2
Psychological and Social	26	14,2
Economic	27	14,8
Societal	62	33,9
Total	183	100

As seen in Table 13, 37.2% of the content is produced with political motivation. This is followed by 33.9% of content produced with societal motivation, 14.8% with economic motivation, and 14.2% with psychological and social motivation. Recently, issues such as war, natural disasters, refugees, and election periods, which directly concern society and affect people, have been extensively discussed in the public agenda. Political leaders aiming to change societal perceptions and balances may share disinformation news on these topics. For this

reason, CCD selects and verifies content produced with political motivation from disinformation news. Content produced with societal motivation targets the entire society. Disinformation produced with economic motivation mainly consists of content created by malicious individuals for fraud and content targeting organizations. The exploitation of public anxiety and fear leads to a higher volume of content produced with psychological and social motivation, which can also be seen as targeting the entire society.

Table 14: Media Types Contributing to the Distribution of Content Verified by CCD in Disinformation Bulletins

Media Type	Number of News	Percentage %
Social Media	111	61,7
Newspaper	59	32,8
TV	7	3,9
Phone	3	1,7
Total	180	100

As shown in Table 14, the distribution of the verified content in the CCD bulletins is categorized by media types. In the study, out of the 183 pieces of content verified in CCD's disinformation bulletins, 3 did not have a media type specified. Therefore, the analysis was conducted on 180 pieces of content. Of these, 61.7% were published

via social media. One of the key features of social media is its ability to allow both content creation and consumption. Unlike traditional media, where content is filtered, social media provides users with the opportunity to freely create and consume media content on current topics. This leads to a significant issue regarding the reliability of content

circulated via social media, making it easier for disinformation to spread. Additionally, 32.8% of the content was spread through newspapers, and 3.9% through television programs.

This result indicates that social media provides the most suitable environment for the spread of disinformation due to factors such as its lack of oversight, the ease with which content can go viral, and the creation of echo chambers by algorithms. Considering that social media is now used by all segments of society, the societal impact of the content circulated on these platforms and the need for verification become increasingly apparent. On the other hand, the low percentage of disinformation found in traditional media suggests a shift toward user-driven platforms. This highlights the necessity for verification strategies to be digitally focused rather than traditionally oriented. In other words, it becomes clear not only where disinformation spreads, but also where verification efforts should be concentrated.

Discussion

The widespread use of social media in all areas has increased the speed of information production and circulation, while also bringing along information disorder. This increasing information disorder reflects the importance of the concept of disinformation, which involves the distortion of the truth. Disinformation, used in the context of creating information pollution and informational disorder by intentionally spreading false or misleading information to deceive or mislead people, can be consciously applied to influence individuals, communities, and society, to mislead them and direct them in a certain way.

The concerns of the target audience play a significant role in the spread of disinformation, and due to its harmful effects on society as a whole, there is an urgent need for strategies that provide immediate solutions. In this context, disinformation bulletins are strategic efforts introduced to meet this need. This study has been conducted with the motivation of explaining the concept of disinformation, discussing its societal impacts, explaining its dissemination mechanisms, and presenting the content of disinformation bulletins as a mechanism to combat disinformation. By examining the content addressed in the bulletins in the context of combating disinformation, the study aims to

outline a general framework of the strategies used in the fight against disinformation.

In the study, it was found that manipulation was the most common type of disinformation addressed in the bulletins (58.5%), and that social media was the primary channel through which manipulative content was disseminated (61.7%). These findings align with previous studies that emphasize manipulation as one of the most effective forms of disinformation in the age of social media (9), that demonstrate false news spreads faster than true news on social media (13), that show low-credibility content becomes viral through social bots (14), and that highlight how emotions in digital media are vulnerable to manipulation, positioning social media as a key vehicle for disinformation (15). In this context, the strong focus on manipulation in the bulletins reflects a consistency with global trends. Moreover, it supports the view that false or distorted information is widespread in the digital age, and that social media plays a highly influential role in its dissemination.

In the bulletins analyzed within the scope of the study, it was found that 80% of the content conveyed a neutral emotional tone. This finding is consistent with previous research emphasizing the tactic of “emotional neutrality” in the official communications of public institutions (16). This strategy may be interpreted as an effort to prioritize rationality in the bulletins and to build trust among the target audience.

The bulletins analyzed in the study reveal that content produced with political motivations is particularly more common. A study explaining how politically charged content circulated via WhatsApp can lead to lynching incidents demonstrates the politically destructive impact of disinformation (18). In this context, the frequent focus on political content in the bulletins is a natural outcome and highlights the importance of addressing politically motivated disinformation.

The efforts led by the Presidency of the Directorate of Communications play a significant role in preventing the spread of disinformation, providing accurate information to the public, and raising awareness. In order for these efforts to be effective, it is crucial to regulate social media, verify information, prioritize media literacy education, and raise public awareness.

In the main findings of a study conducted in this field, it was stated that cognitive factors related to individuals play an important role in the process of disinformation dissemination, especially at the individual level. Based on this, it can be said that the disinformation bulletins of the Directorate of Communication are effective in increasing individuals' cognitive awareness of disinformation (5).

State-led disinformation countermeasures make significant contributions to ensuring public access to accurate information. However, the potential consequences of these efforts—such as information control or the construction of an official narrative—must also be taken into account. Especially during periods of intense political polarization, it is crucial to maintain a clear boundary between informing and influencing the target audience. This distinction is also essential for building public trust in the state's disinformation countermeasures.

As a result, this study can contribute to the ongoing efforts in the field of combating disinformation by presenting the current situation. The findings obtained can guide the development of disinformation combat strategies and the identification of effective communication methods. It is clear that such analyses are indispensable in ensuring the public's access to accurate information.

Conclusion

Nineteen bulletins published by the Presidential Communications Directorate between 1 January and 15 May 2024 as part of the fight against disinformation were analysed using content analysis and text mining techniques. As a result of the sentiment analysis conducted with the text mining technique, it was concluded that the bulletins mostly contain neutral sentiment-based messages and that an impartial and objective approach was taken in the fight against disinformation. Furthermore, the most frequently used words in disinformation bulletins are 'claim', 'subject', 'field', 'not' and 'truth'.

The results of the content analysis showed that the most common types of disinformation in the verified content of disinformation bulletins were manipulation and fabrication. In addition, the fact that the verified content is about political and social issues suggests that disinformation is used

to influence people on these issues. Another important finding of the research is that the content containing disinformation is spread through social media. Unlike traditional media, social media, which allow users to freely produce and consume media content on current affairs as producers and consumers, disseminate content without any filtering. While this situation poses an important problem in terms of the reliability of content disseminated through social media, it also makes it easy for disinformation to spread. In other words, the content that is verified in disinformation bulletins is generally composed of news disseminated through social media.

As a recommendation for future research, a more comprehensive sample could be developed over time for further analysis. Additionally, field research studies investigating the effectiveness of disinformation bulletins could be conducted. Furthermore, by shifting the focus from the content level of these bulletins to their discourse and narrative structures, the ideological or political framework underlying the disinformation countermeasures can be examined in greater depth.

From a policymaking perspective, the preparation process of the bulletins can be made more transparent. The criteria used in producing the bulletins, the areas of expertise involved, and the standards by which media content is labeled as "disinformation" should be clearly stated. In addition, how state-based fact-checking mechanisms operate in different countries can be examined through a comparative approach. Especially within the context of democracy and media freedom, such comparisons could help reveal Turkey's strengths and weaknesses.

Establishing comparative standards with international fact-checking organizations may enhance public trust in disinformation bulletins. For example, the content of Turkey's bulletins could be compared with global initiatives such as the EUvsDisinfo project of the European Union in terms of methodology, transparency, and impact. The importance of accessing verified content in the fight against disinformation is growing every day. The threat of disinformation is significant, and countries must combat it through comprehensive and holistic strategies. The importance of strategic collaborations, both nationally and internationally, should not be overlooked. From a Turkish

perspective, it can be concluded that an active and comprehensive approach has been adopted in the fight against disinformation.

Abbreviations

CCD: Center for Countering Disinformation, GCD: Guide for Countering Disinformation.

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H.N. Tarakci: Making concept, writing article, finding references, translating the article, evaluating article, analyzing the data, N. Tufan Yeniçikti: Analyzing the data, reviewing article, evaluating article, making figure design.

Conflict of Interest

The authors have no conflicts of interest to declare.

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