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Fact-checking versus Misinformation: A Mexican Case Study

Luis Rodrigo Pesce Villagómez
Universität Heidelberg

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Fact-checking versus Misinformation: A Mexican Case Study

Luis Rodrigo Pesce Villagómez*
Heidelberg Center for Ibero-American Studies (HCIAS),
Heidelberg University

Abstract: This study explores the dynamics of misinformation and fact-checking in Mexico through an analysis of 20 randomly selected fact-checks published by the Mexican fact-checking organization El Sabueso between June and July 2024. The paper identifies the most prevalent topics and persuasion strategies used in misinformation claims and assesses the argumentation mechanisms El Sabueso uses to debunk them. It also evaluates El Sabueso's alignment with international best practices in fact-checking. Findings show that misinformation in social media in Mexico commonly focuses on international, national, and local news, relying heavily on emotional appeals and storytelling. In response, El Sabueso primarily counters claims by contrasting them with factual data and exposing omitted information while also consistently adhering to expert-recommended practices such as using simple language, avoiding truth scales, and clarity in structure. This research highlights how misinformation operates in a Global South context and offers a critical assessment of a professionalized fact-checking organization, contributing to the limited scholarship on misinformation debunking in Latin America.

Key words: Fact-checking, misinformation, debunking, El Sabueso, Mexico, mechanisms of persuasion, mechanisms of argumentation, best practices, social media

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1. Introduction

Fact-checking has gained considerable attention as a tool to counter misinformation in social media in political science, communication science, social psychology, and journalism studies. Cases such as the North Macedonian Fake News Industry and its involvement in the 2016 US Election via Facebook (Hughes & Waismel-Manor, 2021), the impact of misinformation on the Brexit campaign (Bennett & Livingston, 2018) and the infodemic in Twitter and Facebook during and after the COVID-19 pandemic (Yang et al., 2021) have raised concerns about the prevalence of misinformation –false or misleading information in the form of claims that contradict or distort common understandings of verifiable facts (Guess and Lyons, 2020, p.10) and that are "false by definition" (Guess and Lyons, 2020, p.11)– have raised concerns about the potential impacts that misinformation can have on elections and public health and the role of fact-checking in countering them. Fact-checking can serve as an intervention in countering the spread of false and/or misleading news and information (Moreno-Gil et al., 2021). By verifying the authenticity of information available in social media, fact-checking organizations play a crucial role in debunking false information and correcting false beliefs among media consumers.

Moreover, the existent literature has focused on conceptualizing misinformation, disinformation, and related concepts and comparing them (Guess & Lyons, 2020) (Santos-d'Amorim & Fernandes De Oliveira Miranda, 2021) (Kapantai et al., 2021) (Wang, 2020), studying how false information spreads (Ruffo et al., 2021), how people process misinformation (Hameleers et al., 2020) (Swire et al., 2017), the effectiveness of fact-checking and other strategies to counter it (Walter et al., 2020) (Bowles et al., 2025), and the practices employed by fact-checkers to debunk misinformation (Micallef et al., 2022) (Humprecht, 2020), among other topics. Nevertheless, most of the literature has focused on and comes from Europe, the US, and Canada, with a study finding that, of a sample of 155 misinformation studies analysed, around 80 percent were conducted in one or more Global North countries, suggesting that interventions to counter false information (including fact-checks) may work differently in the Global South (Blair et al., 2024).

There is a major research gap regarding misinformation and fact-checking effectiveness in non-western societies. The interventions against misinformation in the Global South are scarce in the literature, (Badrinathan & Chauchard, 2024), which highlights the "pressing need for more research on disinformation in the Global South" (Wasserman And & Madrid Morales, 2022) and, by extension, also on the role of fact-checking in countering it in those concepts.

This paper aims to contribute to that field by studying how misinformation in social media is

* **Luis Rodrigo Pesce Villagómez:** luis.pesce_villagomez@uni-heidelberg.de

being fought against in Mexico and what can be done better about it. Using a randomized sample of misinformation pieces fact-checked by Mexican fact-checking organization El Sabueso (ES), this paper aims to identify: (1) What are the mechanisms of persuasion found in the misinformation pieces debunked or verified by ES? (2) What are the mechanisms of argumentation used by ES to debunk claims? (3) What best fact-checking practices described in the literature can be adopted by ES to increase the effectiveness of its fact-checks? (4) What are the most common topics of misinformation fact-checked by ES? And (5) What are the most common verdicts reached by ES on the veracity of the claims it fact-checked?

By focusing on the work of ES in the Mexican context, this paper not only provides a country specificity to the study of misinformation and fact-checking, but also aims to contribute to provide insights on misinformation dynamics and its countering in the Global South, which is underrepresented in the literature. Moreover, by analysing both the mechanisms of persuasion of misinformation and the argumentative/ debunking strategies of ES, this paper adds a rhetorical focus to both misinformation in social media and fact-checking. This is of particular importance since a study that analyses how misinformation persuades users to believe claims of questionable veracity has not been undertaken in the Mexican context. Additionally, by analysing the verifications of a Mexican fact-checking organization, the findings of this paper have real-world applications connecting the best international fact-checking practices with those of ES, thus providing a critical evaluation of its work.

ES was chosen because it is the only Mexican fact-checking organization that adheres to the Code of Principles of the International Fact-Checking Network, which means it complies with "non-partisanship and fairness, transparency of sources, transparency of funding, transparency of methodology, and commitment to open and honest corrections" (ICFN, 2024, Animal Político – ES). Being part of IFCN also demonstrates a high level of fact-checking professionalization as joining that network takes meeting a series of requirements and a vetting process. Moreover, ES is part of the Mexican digital native medium Animal Político, so it follows the "newsroom model" in that it operates within an established news organization (Moreno-Gil et al., 2021).

ES publishes three types of content. Its "Fact-checking" section focuses on fact-checking quotes relevant to Mexico's national life (Animal Político, 2024, Fact-checking - Metodología) that ES confirms, counterbalances, or debunks. Secondly, ES publishes context pieces about complex topics. Thirdly, ES publishes fact-checks of potentially misinformative claims found in social media. The scope of this paper's analysis encompasses 20 fact-checks of this latter category that were published between June 1 and July 31, 2024. Focusing on those two months allowed for a focused and manageable scope while also capturing a sufficient volume and variety of misinformation claims and fact-checks to describe potential patterns. This provides both a balance of depth and feasibility that is well-suited for an exploratory study such as this one. In that sense, the sample used is methodologically practical but also provides a snapshot of the ES's fact-checking work even if it poses generalizability challenges because of its size.

The paper is divided in six sections. After the introduction, the literature review discusses concepts of misinformation, disinformation, and related terms, introduces the case of #Verificado19S as an example of misinformation spreading in social media and initiatives to fact-check that misinformation in the Mexican context, outlines the typology of persuasion strategies of misinformation used in the study, and describes the methodology of ES to correct misinformation including the mechanisms of argumentation used to analyse and debunk claims, the categories where claims are placed after reaching a veracity verdict, and the best practices and recommendations for fact-checking effectiveness found in the literature.

The methods section describes the sampling process used to determine what fact-checks of ES were included in the corpus of study. It also outlines the content analysis used to identify mechanisms of persuasion, mechanisms of argumentation, and best practices for fact-checking. A data table was compiled based on that analysis with the goal of applying a simple descriptive statistical analysis to answer RQ1 – RQ5. The results section showcases the most important findings identified in the corpus. That section is followed by the discussion and conclusions.

2. Literature review

2.1 Misinformation, disinformation, conspiracy theories, and other concepts.

False information comes in many forms and may be described with different concepts according to its characteristics. According to Guess and Lyons (2020), while misinformation, disinformation, and propaganda all refer to misleading messages disguised as informative content, they differ in some characteristics (p. 10). The same applies to related concepts conspiracy theories, rumours, and fake news. Misinformation and related concepts are operationalized here with the goal of differentiating between diverse types of false information commonly found in social media. Once the differences in concepts are highlighted, the concept of misinformation studied here is operationalized for the purposes of this study.

Misinformation comprises any "claim that contradicts or distorts common understandings of verifiable facts" (Guess and Lyons, 2020, p. 10) and that are "false by definition" (Guess and Lyons, 2020, p. 11). As in this paper, misinformation is often used as an umbrella term to describe all kinds of false information. Hameleers and Minihold (2022) highlight the

unintentional nature of the spread of false information in misinformation (p. 1179), which differentiates it from disinformation. Ruffo et al (2023) underline that in the case of misinformation, the information is false but shared without harmful purposes, thus highlighting the bona fide nature of misinformation (p. 3).

Disinformation on the other hand comprises false information that is deliberately propagated and meant to deceive (Guess and Lyons, 2020, p. 11). Similarly, Bennett and Livingston (2018) conceptualize disinformation as "intentional falsehoods spread as news stories or simulated documentary formats to advance political goals" (p. 124). The intentionality to deceive that characterises disinformation is also in line with the perspective of the European Union High Level Group on Fake News and Online Disinformation (2018), which highlights that disinformation includes "all forms of false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit" (p. 3). Fake news is a subset of disinformation "designed to mimic the look of actual articles from established news organizations." (Guess and Lyons, 2020, p. 11). Ruffo et al (2023) concur and define fake news as "disinformation in the format of news" (p. 4).

For Berinsky (2015), rumours are a form of misinformation that comprises factually unsubstantiated information that lacks standards of evidence and acquires power through widespread social transmission (p. 243). Rumours are then a type of misinformation whose power "arises from social transmission" (Guess and Lyons, 2020, p. 1). Nevertheless, authors such as Zubiaga et al (2018) underline that the unverified information of rumours may be true, false, or remain unresolved (p. 2). If the information found in the claims is true or, at least, non-false, it can no longer be categorized as misinformation.

Conspiracy theories include "the belief that an event is the result of secret plots generated by powerful conspirators" (Aïmeur, Amri, and Brassard, 2023, p. 30). For Sunstein and Vermeule (2009), something falls in that category when there is "an effort to explain some event or practice by reference to the machinations of powerful people who attempt to conceal their role" (p. 205). The belief in the involvement of the powerful is the defining feature of conspiracy theories.

Finally, propaganda comprises information that may be true (Guess and Lyons, 2020, p. 11), but is "created by political entities to mislead people" (Aïmeur, Amri, and Brassard, 2023, p. 30) and "to manipulate social suggestion and mobilize communities against an enemy" (Hameleers and Minihold, 2022, p. 1178). The defining features of propaganda are being created by political entities and an intentionality to mislead even if the information is true. In that sense, while both propaganda and disinformation entail an intentionality to deceive, disinformation is false by definition whereas propaganda may entail true and verifiable information used to mislead people.

Though a difference between different forms of false information in social media is recognized, there is no effective or systematic way to measure the intentionality to deceive of the false information analysed here. Thus, this paper recognizes the differences between disinformation, misinformation, and propaganda but groups them all under the broader term of misinformation to highlight the potential falsehood contained in those claims rather than the intentionality to deceive that differentiates them. Similarly, this paper does not focus on the either the social transmission dimension that define rumours or on the alleged involvement of powerful people engaged in secret plots that defines conspiracy theories. Because the terms disinformation, propaganda, rumours, and conspiracy theories are not empirically assessed but only exemplified here, I use misinformation as an umbrella term to designate all the claims fact-checked by ES and analysed here even if the differences between those concepts is recognized.

2.2 Misinformation and fact-checking in the Mexican context: the 19S case

Mexico is not new to misinformation in social media and organized interventions to counter it. As in the case of other countries, the permeation of social media in the Mexican population laid the foundations for the spread of misinformation through them and the eventual organization of efforts to counter that misinformation. Per data of Kepios, there were 69.2 million active internet users in Mexico in 2015 that amount to an internet penetration of 49 percent of the population (Kemp, 2025, p. 8). Similarly, there were 56 million active social media accounts in the country accounting for a social media penetration of 46 percent of the population (Kemp, 2015, p. 8). By 2025, there were 110 million active internet users in Mexico accounting for 83.3 percent of the population (Kemp, 2025, p. 29) as well as 93 million active social media accounts accounting for a penetration of 70.7 percent of the population (Kemp, 2025, p. 29). Thus, the permeation of the internet and social media in the Mexican population increased meaningfully throughout that decade, likely increasing their contact with misinformation spread through social media.

Social media have also become a relevant source for news and information for Mexicans. In 2024, 42.5 percent of Mexican respondents of a survey conducted by GWI reported using social media to read news stories (Kemp, 2025, p. 89). Moreover, the Reuters Institute for the Study of Journalism reported that 64 percent of respondents of its survey for the 2024 Digital News Report declared using social media as a source of news (Newman et al, 2024, p. 127). Because Mexicans go to social media for news and information, they may be more exposed to misinformation that impact their daily lives.

This has become particularly evident following the impact of natural disasters such as the 19S earthquake that hit Mexico City in 2017. In that instance, misinformation of all kinds spread

through social and traditional media, which was directly followed by the rise of fact-checking initiatives that verified and debunked false information spreading in social media. This case has been extensively studied, so it is used here to exemplify and describe how misinformation has spread in Mexico in the past and the role of fact-checking in countering it.

An earthquake hit central Mexico on September 19, 2017 at 13:04 local time (Lutz, 2019, p. 345). Informational chaos ensued. The seismic event, which was later labelled "19S", triggered the proliferation of non-verified claims in both traditional and social media with users widely replicating them in the latter (Lutz, 2019). Some of the claims that were replicated in social media fall under the category of rumours since they were unverified but were widely socially transmitted as part of the post-earthquake chaos. The Mexican government responded to some of those rumours by disproving claims present in social media that (by virtue of being false information) fall under the general category of misinformation. For instance, Mexico's Minister of the Interior at the time, Miguel Ángel Osorio Chong discredited a WhatsApp chain that claimed more earthquakes were expected in the north of the country (Lutz, 2019, p. 346) by highlighting on his Twitter account that earthquakes cannot be predicted (Osorio Chong, 2017). Similarly, Mexico's Office of the Presidency published a news release that discredited claims that the rescue efforts had been suspended three days after the earthquake by underlining that rescue efforts would continue for as long as there were survivors under the rubble (Pérez, 2017). Another rumour that circulated in Twitter was the claim that 19S and the ensuing aftershocks were caused by the US military's HAARP meteorological project and accused the US government of using HAARP as a weapon to cause the earthquake that hit central Mexico (C. García, 2022). This was disproved by UNAM's National Seismic Service by highlighting that Mexico is an inherently seismic region where earthquakes can occur at any time (UNAM, 2017). That false claim falls under the category of conspiracy theory as it portrayed a plot by powerful actors to cause 19S.

Another rumour that was widely spread following 19S was the "Frida Sofía story", which was the claim that a 12-year-old girl by that name was trapped under the rubble of Enrique Rebsamen College –a school that collapsed after the tremor– (Hernández Flores et al., 2019). The Frida Sofía story started with a report by Televisa's TV reporter Danielle Dhiturbide who relayed viewers that rescuers told her of the existence of the trapped schoolgirl (Specia, 2017), which was reportedly confirmed by both members of volunteer rescue teams and personnel of the Mexican Navy on the scene (La Vieja Guardia Yucatán, 2017) (Redacción BBC Mundo, 2017). That claim was eventually recanted by the Navy and an apology was offered (Moreno, 2017). Nevertheless, there were dozens of reports by Televisa's personnel on what Frida Sofía was supposedly doing (drinking water, moving her hands, talking, etc.) and on the alleged efforts to rescue her that had members of the Mexican Navy as the main source (González, 2019, pp. 117-140) (Flores, 2017) (Villamil, 2017b) that were promptly and widely propagated in social media. For instance, #FridaSofia became a trending topic on Twitter at the time (Lutz, 2019, p. 357) (Jiménez-Yañez, 2022).

Nevertheless, the whole story was fabricated and was eventually debunked by independent medium Aristegui Noticias through a series of interviews with volunteer rescuers on the scene who declared they were told by anonymous members of Mexico's Federal Police that the Frida Sofía case was a hoax and that there was no such schoolgirl and with two mothers of pupils of Enrique Rebsamen College who affirmed there was no one alive under the rubble anymore (Redacción AN, 2017b) (Redacción AN, 2020) and denounced the staging of a show (Redacción AN, 2017a).

The "Frida Sofía story" falls under the categories of disinformation and propaganda as it aimed to deceive and/or mislead. This rumour was created by media conglomerate Televisa and members of the Mexican Navy (Lutz, 2019, p. 356) with the alleged involvement of then-Mexico's Secretary of Education Aurelio Nuño (Arena Pública, 2017) (Gómez Naredo, 2017). Not only did Televisa and members of the Mexican Navy report the existence of the trapped schoolgirl without providing an opportunity for another medium to corroborate the story (Televisa was given unique access to the ruins of the school and was the first to report on that case and thus had the exclusive scoop) (Gómez Naredo, 2017) (Villamil, 2017a) (Berman, 2017), but also members of the Mexican Navy reported giving water to, communicating with, seeing the movements of, and identifying the heat signal of a girl that was never there (González, 2019, pp. 118-121). Moreover, Nuño not only confirmed the presence of the schoolgirl under the rubble (González, 2019, p. 118) but also appeared on national television and social media asking for her parents to come forward (Infobae, 2020). Televisa reached a rating of 70 percent during its multi-hour coverage of the rescue that never was (Villamil, 2017c) and –once the story fell apart– was promptly accused of staging a reality show with the goal of transforming the Frida Sofía case into the emblematic story of the 19S tragedy (Villamil, 2017a) and the hashtag #ApagaTelevisa (i.e. turn Televisa off) trended on social media (Lutz, 2019, pp. 359-360).

The Frida Sofía story shows signs of intentionality to mislead and deceive on behalf of Televisa and various members of the Mexican government. The fabricated story of Frida Sofía enabled Televisa to reach a rarely-reached-before audience level and the Navy elements involved to ennoble the rescue efforts (Lutz, 2019, p. 366). Additionally, several analysts have underlined that the Frida Sofía Story served the three actors involved in different ways. First, it enabled Televisa to not only increase its ratings but also to gain credibility (Villamil, 2017b) (Gómez Naredo, 2017). Secondly, it enabled the Mexican navy to create and support the story of a heroic military serving the public after a natural disaster (Gómez Naredo, 2017). Finally, it helped former Secretary of Education Aurelio

Nuño to advance his aspirations to become the next presidential candidate of his party by presenting himself doing everything possible to rescue the trapped schoolgirl that was never there (Gómez Naredo, 2017) (Arena Pública, 2017). That intentionality to mislead and deceive make the Frida Sofía story fall into the categories of disinformation and propaganda because falsehoods were propagated by Televisa to achieve a profit and because of the involvement of the Mexican government in the scandal to manipulate social suggestion by extoling rescue efforts.

In the midst of the informational chaos that followed the 19S earthquake, a citizen-led initiative integrated by media, NGOs, and universities called Verificado19S arose to strengthen the humanitarian response through the verification of information related to the earthquake (Flores-Saviaga & Savage, 2021, p. 354). By concentrating and verifying the authenticity of claims found in social media, Verificado19s made information available to both public officers and the general public (Lutz, 2019) using the social media hashtag #Verificado19S. Following the earthquake, thousands of volunteers jumped at the opportunity to help, but the information available in traditional and social media was often false or wrong, which meant any volunteering efforts were disorganised. That meant, for instance, that volunteers and equipment arrived to sites that did not require them (Campero Arena & Serdán Rosales, 2018), that some buildings that had reportedly collapsed or were damaged were, in fact, intact (Trejo Delarbre, 2018), or that (despite calls for donations that spread online) public hospitals refused blood donations as they had enough reserves (A. García, 2017), among other claims that likely complicated rescue efforts.

In lieu of that situation, Verificado19S started fact-checking claims to debunk misinformation of all kinds and enable rescue teams to deploy aid where it was needed. According to one of the founders of the initiative, Mexico City became filled with enthusiastic volunteers wanting to help after the earthquake, but the spread of unverified information and false rumours aggravated the chaos and hindered the distribution of aid (Hernández, 2017). Around 500 volunteers of #Verificado19S on the ground (Campoy, 2017) (#Verificado19s, 2017) either monitored disaster zones and verified what resources were needed or who acted as “nodes” monitoring neighbourhood chats and social media and securing the aid needed through those networks (#Verificado19s, 2017). In the 10 days that followed the earthquake, #Verificado19S fact-checked over 20,000 claims, mapped the collapsed buildings, shelters, and aid collection centres of Mexico City, and created a series of forms so the citizenship could report the collapse of buildings and the needs of aid collection centres and shelters (#Verificado19s, 2017).

The volunteers of the various organizations that integrated Verificado19S had different functions depending on their skills. Programmers and hackers working at digital medium Cultura Colectiva were tasked with creating a digital map that could be crowdsourced using Google Forms while several NGOs and media such as Article 19, R3D, and Centro Pro Derechos Humanos created a verification team tasked with fact-checking claims online that –once verified– were placed in a spreadsheet used by volunteer designers to create social media post-cards –images that are designed to be displayed when a link is shared on social media– and published on Twitter (Pérez de Acha, 2017), where the hashtag #Verificado19s reached 107,280 tweets by 77,209 users (Flores-Saviaga & Savage, 2021).

Moreover, the most common use of social media after the 19S earthquake was to read, share, and verify news (Flores-Saviaga & Savage, 2021). #Verificado19s operated within that category through its fact-checking efforts (Flores-Saviaga & Savage, 2021). By organizing people on the ground to verify disaster information, #Verificado19S engaged and organized citizens in the fact-checking process (Flores-Saviaga & Savage, 2021).

In that sense, #Verificado19S served as an effective tool that showcased the importance of information to mobilise citizen participation and showcased the power of fact-checking (De Leon, 2022). Although not the first fact-checking initiative in Mexico, the rise of #Verificado19S marked a key moment for misinformation debunking and verification in Mexico. It inspired other citizen-led fact-checking initiatives in Mexico such as Verificado México 2018 (Magallón Rosa, 2019), which fact-checked information and claims during the campaigns leading to Mexico´s 2018 federal election.

2.3 Mechanisms of persuasion of misinformation in social media

Persuasion is defined as “a successful intentional effort at influencing another’s mental state through communication in a circumstance in which the persuadee has some measure of freedom” (O’Keefe, 2016, p.4 in Druckman, 2022, p. 2). When applied to misinformation in social media, this concept can be operationalized as an effort to influence a social media user’s mental state through communication.

Neither the intentionality of the creator nor the success of misinformation in persuading can be analysed in this study. It is assumed that a user’s mental state may be influenced when entering contact with misinformation in social media. The focus is thus placed on the mechanisms of persuasion found in misinformation in social media. The Generalizing Persuasion Framework of Druckman (2022) is useful to analyse those mechanisms. It comprises four dimensions for persuasion: (1) Actors that can be either speakers or receivers, (2) Treatments that can be subdivided by topic, message content, and medium, (3) Outcomes that can be categorized in attitude, behaviour, emotion, and identity, and (4) Settings, which includes competition, space, process and culture (p. 68).

Of these dimensions and subdimensions, the ones that can be analysed in this paper’s corpus

of misinformation are (1) treatment-topic and (2) treatment-message content because actors are unknown, treatment-medium is social media in all cases, and it is impossible to gauge the outcomes of the misinformation or describe the settings in which it was published. Nevertheless, topic and message content can be determined through content analysis. The variable topic of the misinformation is categorized here according to the usual sections of a news medium in national news, international news, local news, business and economics, culture, public health, sports, and technology.

On the other hand, message content will be annotated according to the variable "mechanisms of persuasion" identified in the misinformation corpus. Those cases are studied using the framework of Chen, Xiao, and Mao (2021), who developed a typology of persuasion strategies for misinformation in social media based on Aristotle's Rhetoric as well as the work of several other scholars including Petty and Cacioppo (1986), whose Elaboration Likelihood Model explains two routes for persuasion: a central one where "persuasion results from a person's careful and thoughtful consideration of the true merits of the information presented", (p. 125) and a peripheral one where persuasion is the "result of some simple cue in the persuasion context (…) that induced change without necessitating scrutiny of the true merits of the information presented" (p. 125). The latter route relies on a variety of heuristics to persuade.

For Chen, Xiao, and Mao (2021) Aristotle's logos -the appeal to logic of an argument- follows the central route of persuasion whereas ethos and pathos –the appeal to the credibility and authority or the speaker and the appeal to emotions, respectively– follow the peripheral route (p. 6) and may rely on various heuristics to persuade. Chen, Xiao, and Mao (2021) classify pathos into positive, negative, patriotism, and others (p. 6) where positive appeals to pleasant emotions, negative appeals to unpleasant emotions, patriotism includes appeals to emotion by touching on audience's community spirit (Chen, Xiao, and Mao, 2021, p. 6), and others that includes appeals to surprise, curiosity, and ridicule (Chen, Xiao, and Mao, 2021, p. 7) where surprise and curiosity are "nonvalenced state(s) that influence the allocation of attention" (Dillard and Peck, 2001 in Chen, Xiao, and Mao, 2021, p. 7) and ridicule is an appeal that inspires both positive and negative emotions (Chen, Xiao, and Mao, 2021, p. 7).

In terms of ethos, Chen, Xiao, and Mao (2021) consider two main forms of appeals to authority: intrinsic authority stemming directly from the persuader and borrowed credibility where information comes from someone else who is reliable (p. 6). Additionally, Chen, Xiao, and Mao (2021) included three peripheral persuasion principles proposed by Cialdini and Goldstein (2002) in their study: reciprocation, scarcity, and consensus (social validation) (p. 6). Reciprocation is based on "an obligation to repay others for favours received" (Cialdini and Goldstein, 2002, p. 43), scarcity is the idea that items and opportunities in short supply are more desirable (Cialdini and Goldstein, 2002, p. 46), and consensus is the idea that people look to others for cues on how to act (Cialdini and Goldstein, 2002, p. 47). The final heuristic that Chen, Xiao, and Mao (2021) included is storytelling where persuasion occurs through the relating of an event using iterative retelling involving an event, a character, an action, and a consequence (p. 7).

Thus, the categories used to annotate "mechanisms of persuasion of misinformation" are: logos, pathos (positive, negative, patriotism, and others), ethos (intrinsic authority and borrowed credibility) and the heuristics reciprocation, scarcity, consensus, and storytelling. These categories are not mutually exclusive since misinformation may use several persuasion mechanisms simultaneously, so a casus may be annotated in several categories.

2.4 Mechanisms of argumentation of fact-checks to debunk misinformation in social media

Parting from the idea that fact-checks rely on appeals to logic to debunk misinformation, it is necessary to present the method that ES uses to identify misinformation units (i.e., claims), verify them, reach a verdict on their veracity, and publish findings as it is a key step to showcase the argumentation mechanisms used.

The corpus studied here includes claims that ES found in social media and categorized as misinformation. There is no word in Spanish for misinformation, so ES uses "Desinformación" as an umbrella term to describe three broad forms of misinformation: (1) events or facts that never happened but are distributed as true to mislead; (2) information that was taken out of context; and (3) manipulated material where the event or fact did happen but was distorted from the original message (El Sabueso, 2015, Metodología). ES selects claims that meet at least one these characteristics: (1) They have been widely spread in social media with over 1,000 interactions or have become news. (2) They are rumours that have spread in social media for some time and continue to reach the public. (3) They were created and distributed by a website that spreads fake news (El Sabueso, 2024, ¿Cómo se selecciona?).

Once a claim is selected, ES follows a verification method where it (1) verifies the source of the publication focusing on who published it, when, and what information it contains. (2) ES then contrasts the claim with data and facts and, in the case of images or video, identifies the original sources to check if they were manipulated. (3) ES confirms the claim with its protagonist asking for their account of the event. (4) ES asks witnesses for their account of the events. (5) ES checks topic-related academic and statistical information and consults with specialists (El Sabueso, 2024, Cómo verificamos).

ES then reaches one of the following verdicts on the claim's veracity: (1) "Fake" when the event that never happened or information that was fabricated; (2) "Manipulated" when the event occurred but the original message was distorted

to inform something different; (3) "Out of context" when the event occurred but information was omitted to distort the original message; (4) "Satire" when the information was created as a parody but was shared as real; and (5) "True" (El Sabueso, 2015, Metodología - Categorías). These categories will be used to annotate the variable fact-checking verdict. Finally, ES publishes an online article outlining its verification process and including a screenshot of the original misinformation post.

The strategies that ES uses to debunk false information in its fact-checks include: (1) Showcasing how a claim fares when contrasted with facts and data; (2) Showcasing how media such as images and video were manipulated; (3) Showcasing how information was omitted; (4) Showcasing whether the protagonist of a claim or a witness to the event confirm the claim; and (5) Showcasing the perspective of experts on the claim's topic. These mechanisms will be annotated in the corpus studied in this paper as the categories for the variable "mechanisms of argumentation" with the following categories: contrast with facts and data, demonstrating manipulation of images and video, demonstrating omission of information, contrast with accounts of protagonists or witnesses, and experts' perspective. A fact-check may be annotated in several categories as ES may leverage several mechanisms of argumentation to fact-check a claim.

2.5 Characteristics of an ideal fact-check for social media misinformation

There is no perfect fact-check that debunks misinformation every time, but some practices can increase their effectiveness. Based on a meta-analysis of empirical studies on how fact-checking affects audiences' beliefs when correcting political misinformation, Walter et al (2019) found that fact-checking messages that include graphical elements tended to be less effective (p. 18). Those visual elements include truth scales such as PolitiFact's Truth-O-Meter or The Washington Post's Pinocchio rating. Walter et al (2019) point out that "truth scales can serve as a strong partisan cue, confirming a person's pre-existing beliefs" (p. 18), which would eliminate interest in processing the rest of the fact-check.

Another factor that increases effectiveness is simplicity. According to Walter et al (2019), "lexical complexity appears to detract from fact-checking efforts, whereas simpler and less sophisticated messages prove to be more effective" (p. 19). Finally, Walter et al (2019) found that fact-checks that aim to refute an entire statement are more effective than those that only correct parts of it (p. 19). They suggest that fact-checkers should "focus on specific statements that lead to more conclusive statements (true/ false)" (Walter et al, 2019, p. 19).

Moreover, in a white paper published by the Belgium-Netherlands Digital Media and Disinformation Observatory (BENEDMO), Hameleers and Tulin (2022) outlined a series of recommendations for fact-checkers that are relevant for the work of ES:

(1) Presenting fact-checking in a format that overcomes avoidance and resistance (p. 6) including publishing corrections on platforms like those where misinformation is found and formulating corrections in a neutral manner (Hameleers and Tulin, 2022, p. 9). That may include presenting fact-checks in social media where misinformation was originally found and formulating the correction in a form that is not perceived as an attack on people's beliefs (Hameleers and Tulin, 2022, p. 9).

(2) Using a clear structure that avoids the repetition of false information (Hameleers and Tulin, 2022, p. 10), which includes directing the public to the correction without emphasizing the false claim. This recommendation means presenting the argumentation in an accessible and clear style and showcasing the verification verdict as a bullet-point or graphical depiction (Hameleers and Tulin, 2022, p. 10).

(3) Consolidating and enhancing trust in reliable information (Hameleers and Tulin, 2022, p. 12), which means concentrating corrections on issues that are more susceptible to misinformation (Hameleers and Tulin, 2022, p. 12), guiding people toward trustworthy information, and nudging them toward credibility features (Hameleers and Tulin, 2022, p. 12).

(4) Helping users navigate their information environment (Hameleers and Tulin, 2022, p. 13), which includes offering reliable information sources when refuting misinformation. Hameleers and Tulin (2022) suggest including a brief list of links as suggested readings on the topic of the corrected misinformation (p. 13).

(5) Stimulating critical media literacy skills (Hameleers and Tulin, 2022, p. 13) where the effects of fact-checks spill-over to the verification of unrelated narratives so users learn how to identify misinformation. Hameleers and Tulin (2022) advice the presentation of short media literacy messages related to the issue that is being verified (p. 14).

While there is no one-size-fits-all fact-check, the findings of Walter et al (2019) and the recommendations of Hameleers and Tulin (2022) are useful to describe practices that fact-checks could adopt to become more effective. For the variable "best practices for fact-checking", the characteristics that are annotated in the corpus are: (1) absence of a truth rating as a graphical element; (2) simplicity in the language used (for which readability will be used as a proxy variable and measured using the Legible readability test tool); (3) focus of the correction on an entire statement; (4) publication of verification in social media (the social media of ES/ Animal Político will be revised to see if the fact-check was distributed there); (5) clearness of structure where ES's fact-checks will be checked for a summary with the verdict and the verification process used; (6) presentation of suggested content on the topic of the fact-check; and (7) presentation of content on media literacy that

helps the public identify misinformation.[1]

3. Methods

This study is of exploratory and descriptive nature. It is exploratory as it aims to study misinformation and fact-checks in Mexico, which has not been done before. Doing so will be useful for future researchers to continue investigating different dimensions of both phenomena in that country by going beyond the work of ES and in the rest of Latin America by analysing the verification practices of other fact-checking organisations operating in that region. The study is also descriptive as it aims to identify trends in the misinformation and fact-checks studied and in the fact-checking practices of ES. The study uses a mixed methods approach that combines a qualitative (content analysis) and a quantitative (descriptive statistics) dimension to answer the research questions. The unit of analysis here is a fact-check. These are understood as potential misinformation claims verified or debunked by a fact-checking organization. In the case of ES's fact-checks, each unit focuses on a single claim, so the sample has the same number of fact-checks and claims.

3.1 Sampling method

To create the corpus of claims pieces fact-checked by ES, the researcher made a list with all the blog entries of the "Desinformación" section of ES's website that were published between June 1 and July 31, 2024, which resulted in a list with 100 elements. The I then used the List Randomizer tool of random.org to place those entries in a random order and selected the first 20 URLs to be integrated to the sample. This sampling process guaranteed that all the fact-checks in that period had the same opportunity to be included, which should eliminate any selection bias and ensure a greater level of representativeness.

Those two months were selected to ensure the sample reflected the most recent trends and topics in misinformation in Mexico at the time this paper was written. Additionally, the selected period followed Mexico's 2024 federal elections, so the sample should not reflect the distortions that occur during such exceptional events. Moreover, those two months provide dataset of manageable size while still offering a variety of topics of misinformation and fact-checking techniques.

3.2 Mixed-methods approach

Content analysis was applied to both misinformation claims and to fact-checks to determine the type of misinformation fact-checked, the mechanisms of persuasion present in the claims with misinformation, the mechanisms of argumentation used in the fact-checks to debunk, contextualise, or verify misinformation, and the fact-checking practices used by ES. A codebook was developed to identify and annotate the different variables in the content of the fact-checks. To analyse these variables, content analysis served as the primary qualitative method applied. It allowed for the categorization of the topic of and the mechanisms of persuasion found in the claims fact-checked by El Sabueso, the fact-checking verdict reached, the mechanisms of argumentation to debunk or verify claims, and the observed debunking practices in the fact-check sample. All the categories used for these variables were defined deductively based on either previous findings and theoretical arguments in the existent literature or in the practices used by ES to categorize fact-checks (in the case of the verdicts reached).

Subsequently, the results of the content analysis were examined using descriptive statistics, which allowed for the description of patterns in the sample. The average coding outcomes for each variable were used to identify the most common characteristics of the studied misinformation claims, fact-checks, and fact-checking practices. This step was key to answer RQ1-5.

Moreover, since ES only publishes content in Spanish, the translation function of Google Chrome was used to translate all fact-checks to English to perform content analysis. ES does not include links to the sources of misinformation, so those were searched separately. When the original sources to the misinformation claims could not be found, the analysis was done based on the screenshots included by ES in its fact-checks. Then, the categories included in the codebook will be applied to the content. That data will be then summarized in a data table and analysed using descriptive statistics to highlight the presence and frequency of each variable studied.

In order to annotate misinformation topic, the general topic of the misinformation claim was analysed to identify in which common news section (business and economics, culture, international news, local news, national news, public health, sports, technology, or other) each misinformation claim should be categorised. Similarly, the misinformation claim's content was analysed to determine what mechanism of persuasion (consensus, ethos, logos, pathos, reciprocation, scarcity, or storytelling) those claims used to convince potential readers of their potentially false messages. In the case of fact-checking verdicts of the sample, these were just annotated based on the findings of ES and categorized in the different types of verdicts that the organization uses (fake, manipulated, out of context, satire, or true). The strategy used by ES to debunk potential misinformation (contrast with accounts of protagonists/witnesses, contrast with experts' perspectives, contrast with facts/data, demonstrating manipulation of multimedia content, or demonstrating omission of information) was identified in each fact-check.

1 There was an interest in also checking if ES's fact-checks were concentrated around topics more susceptible to misinformation, but reliable information on what those topics are in Mexico does not exist.

Finally, in the case of best fact-checking practices, what was annotated was whether fact-checks met all the characteristics of an ideal fact-check (clarity of structure, focus on an entire statement, non-use of a graphic truth-scale, inclusion of content on media literacy, presentation of suggested content, and publication of verification on social media) as derived from the literature. Moreover, the category "simplicity in language" was gauged using readability as a proxy variable using the readability test tool of legible.es, which uses algorithms to determine the linguistical readability of a text and places it in a seven-point scale that ranges from very easy to very difficult to read depending on the level of schooling required to understand it (Legible, 2016, Lecturabilidad de Fernández Huerta).

4. Findings

This section presents the main findings from the analysis of fact-checks conducted by ES between June 1 and July 31, 2024. Drawing from a content analysis of each fact-check as well as a descriptive statistical analysis of the results obtained from that sample, this section identifies the most common mechanisms of persuasion used in the misinformation corpus fact-checked by ES (RQ1), the most common mechanisms of argumentation used by ES to debunk misinformation in its fact-checks (RQ2), the best practices for fact-checking used (or that could be adopted) by ES (RQ3), and the most common topics of the misinformation claims and the most common verdicts reached by ES on those claims (RQ4 and RQ5).

These findings provide insights into the rhetorical structure and common topics of misinformation claims fact-checked by ES, that organization's debunking strategies and common verdicts, and the overall best fact-checking practices of ES. In doing so and despite the small size of the corpus studied, the findings provide a snapshot of the misinformation structure circulating in Mexico, the strategies of ES's debunking efforts as a fact-checking agency operating in a Global South context, and whether that organization uses the best international practices for fact-checking. The content analysis of fact-checks and the descriptive statistical analysis show several relevant results.

In response to RQ1, the most common mechanisms of persuasion found in the sample were "pathos – negative" with a prevalence of 80 percent followed by "storytelling" and "pathos – patriotism" with 45 and 40 percent, respectively. "Pathos – others (surprise, curiosity, and ridicule)" was the fourth most common mechanism with a prevalence of 35 percent, followed by "logos" with only 15 percent. "Consensus," "ethos – borrowed credibility", and "pathos – positive" had a prevalence of five percent each with only one appearance in the sample. There were no identified cases of "ethos – intrinsic authority," "reciprocation," or "scarcity."

The fact that the most common and third most common categories found in the sample are of "pathos" nature indicates that emotionally charged appeals were common mechanisms of persuasion used in the misinformation corpus studied here. Moreover, that "storytelling" was the second most common indicates that narrative-based persuasion is also a preferred form of persuasion compared to appeals to logic or authority found in the sample. It is noteworthy that no cases of ethos-intrinsic authority, reciprocation, or scarcity were found. This does not necessarily indicate that misinformation does not rely on that, just that no cases were identified in the sample.

For RQ2, the most common mechanisms of argumentation used by ES in the corpus sample were "contrast with facts and data" with a prevalence of 90 percent followed by "demonstrating omission of information" with 50 percent. Both "contrast with experts' perspective" and demonstrating "manipulation of images and video" had a prevalence of 30 percent. Finally, "contrast with accounts of protagonists and witnesses" only had a prevalence of 10 percent.

This indicates that ES predominantly relied on factual correction to debunk the misinformation found in the misinformation claims sample and that ES prioritised verifiable and objective information when debunking the false claims in social media studied here, which reinforces its commitment to empirical rigor in fact-checking. The prominence of "contrast with facts and data" as the most common mechanism of argumentation found in the sample suggests that ES relies heavily on empirically rebutting misinformation as part of its fact-checking techniques. Moreover, the fact that "demonstrating omission of information" was also common suggests an effort to expose misleading narratives do not often rely on falsehood but on half-truths and selective reporting, which aligns with the concept of propaganda in that the information may be true, but is used to mislead.

The fact that "contrast with experts' perspectives," "demonstrating manipulation of images and video," and "contrast with accounts of protagonists and witnesses" were less commonly identified mechanisms of argumentation found in the sample indicates that ES prioritizes empirical fact-checking techniques over the accounts of both experts and witnesses and that manipulated images and video were perhaps not as common in the corpus of misinformation in social media studied here. This suggests that ES may prioritize data- and fact-driven debunking methods over anecdotal evidence.

In terms of the best practices and expert recommendations to increase the effectiveness of the fact-checking of misinformation found in social media (RQ3), the prevalence of most best fact-checking practices annotated was either complete or almost complete in the sample. This suggests that ES's work is strongly aligned with expert recommendations for fact-checking as well as a high level of professionalization in its fact-checking practices.

Focusing the fact-checking on an entire

statement rather than just part of it, the non-use of a graphic truth-scale, and the presentation of suggested content were present in 100 percent of the fact-checks in the sample. The fact that all fact-checks in the sample analysed entire claims rather than just parts of them not only aligns with the code of principles of IFCN, but also suggests ES has a high level of discursive integrity.

Moreover, the fact that ES does not use a truth-scale probably suggests that this fact-checking organisation aims to avoid oversimplifying misinformation claims of more nuanced nature through a truth-o-meter. In the case of presenting suggested content, this practice means an effort on behalf of ES to help readers navigate their media environment. This practice may also reflect strategic editorial considerations of ES to increase reader engagement by offering alternative, related content and generating digital advertising revenue.

In terms of lexical simplicity, 100 percent of the fact-checks had a lexical legality score of "normal", so the content was readable for adults with at least seven years of schooling. This indicates the fact-checks of the sample meet the recommendations that emphasise the use of plain language in fact-checks to avoid alienating less-educated audiences while improving the comprehension and retention of fact-checks' contents. Both clearness of structure (using a summary of the fact-check) and the publication of the fact-check in social media had prevalence rates of 95 percent. The clearness of structure presented in a summary of the fact-check in most of the sample indicates ES provided a clear and comprehensible summary for readers who might not read each entire article. Similarly, the fact that 95 percent of the fact-checks studied were published in social media reflects ES's strategy to publish fact-checks in the spaces and media where the debunked/verified misinformation originally spread, thus meeting misinformation where it reaches users.

Finally, the only measure that had a low (inexistent, i.e. 0-percent) prevalence was "presentation of content on media literacy," which was not identified in any fact-check of the sample. This suggests that ES has no strategy to enhance its audience's ability to identify misinformation and thus inoculate themselves to misinformation or to "prebunk" it. These simple media literacy tools could help readers approach potential misinformation in a more critical manner.

In response to RQ4, the most common topics found in the misinformation fact-checked by ES corresponded to the international, local, and national news categories with 35, 30, and 25 percent of all fact-checks in the sample, respectively. The claims grouped in the international news category included false reports of the son of Venezuela's dictator Nicolás Maduro driving a golden Ferrari and a manipulated picture of Kamala Harris with sex trafficker Jeffrey Epstein. The misinformation cases in the local news category ranged from video footage of a suicide that occurred in Santiago, Chile being passed as footage from the Mexico City subway to a video from 2009 of a puppy being rescued that was taken out of context. The claims categorized under national news comprised a vlog that accused Mexico's electoral authority of rigging the 2024 presidential elections and video footage of a fire in an oil refinery in Iraq labelled as a deadly fire in a refinery in south-eastern Mexico, among others.

There were only two cases that were not categorized as local, national, and international news: a video of sharks migrating that was falsely passed off as the result of a hurricane and that was categorized as "other," and a claim that Google erased Palestine from Maps that was categorized in "technology."

In response to RQ5, the most common verdicts reached by ES on the veracity of misinformation cases (RQ5) were "fake" with 45 percent and "out of context" with 40 percent. The third most common verdict category was "manipulated" with 15 percent. There were no fact-checks in the sample where the verdicts "true" or "satire" were reached. The relative prominence of "Fake" verdicts in the sample suggests false claims constituted an important part of the claims studied. This may suggest that "Fake" is a common verdict reached by ES in its fact-checks, but a wider study with a larger sample is required to demonstrate so. Moreover, fact-checks with an "out of context" verdict being the second most common in the sample suggests there was a prevalent use of half-truths in the misinformation claims corpus. These claims are likely based on real events and footage, but they are misrepresented and can mislead audiences. Finally, the third most common verdict found in the sample was "manipulated", which includes digitally altered multimedia used to construct false evidence. These are perhaps the only demonstrable examples of disinformation as there is an intentionality to deceive whenever multimedia is altered to construct false evidence and support a misleading narrative of any kind.

It is noteworthy that no verdicts of "True" or "Satire" were identified in the sample. It is possible that fact-checks with such verdicts are less common because ES may prioritize fact-checking claims that are at least partially false rather than verifying information that are accurate or confirming true claims as part of its fact-checking efforts. Similarly, a lack of "satire" verdicts in the sample could suggest that ES does not often fact-check cases of humorous content. Nevertheless, a bigger sample is required to reach any relevant conclusion on that matter.

5. Discussion

This paper's findings provide a snapshot of how ES counters misinformation in social media in the Mexican context as well as what best international fact-checking practices it already uses and could consider adopting. The most common topics of misinformation in social media identified in this study were in the local, national, and international news categories. This finding suggests that those are the broad areas where fact-checking organizations such as ES should

focus their efforts to combat misinformation.

It is noteworthy that appeals to unpleasant emotions (pathos – negative) were the most prevalent mechanism of persuasion of misinformation in the sample. It suggests that mis- and dis-informers who created the misinformation claims in the corpus tended to leverage people's unpleasant emotions to influence them. Storytelling and pathos – others were the second and third most prevalent mechanisms, which suggests that misinformers also engaged in the iterative relating of events and in invoking ambivalent emotions such as surprise, curiosity, and ridicule to misinform.

With only three cases in the sample, appeals to logic (logos) was the fifth most prevalent persuasion mechanism identified. Consensus, ethos – borrowed credibility, and pathos – positive had a low prevalence in the sample with only case each. Ethos – intrinsic authority, reciprocation, and scarcity were not identified in the sample. That suggests that appeals to logic, any appeal to authority, appeals to pleasant emotions, and heuristics focused on reciprocation and scarcity were less common in the sample and may be uncommon in Mexico's misinformation environment, but a broader study with a larger sample is required to test that.

In terms of the mechanisms of argumentation used by ES, the most prevalent one identified in the studied sample was contrasting claims with facts and data followed by demonstrating omissions of information. This suggests that the most common ways that ES executes its fact-checking may be by identifying mismatches between claims and verifiable facts and identifying the original sources of images or video to demonstrate when information was omitted to change the message.

The third most common mechanisms found in the corpus were contrasting claims with an expert's perspective and demonstrating the manipulation of images and video. That suggests identifying the original source of an image and demonstrating how it was edited to change the message as well as using the perspective of experts in a subject were also relevant strategies of ES to verify misinformation but not the most common.

The most common verdicts of ES in the sample were "fake" and "out of context," respectively. That means in the sample ES mainly found claims containing falsehoods presented as facts followed by claims containing facts that did happen but where information was omitted to modify the message. The third most common verdict of ES was "manipulated," which comprises claims about events that did happen but where the original message was distorted. It is important to underline that no "satire" or "true" verdicts were identified in the sample, but ES does occasionally reach those verdicts. There were just none in the studied corpus.

In the sample studied, ES consistently implemented most the best fact-checking practices and experts' recommendations for effectiveness outlined. ES's fact-checks always addressed an entire misinformation claim rather than only parts of it. Per the findings of Walter et al (2019), this practice should increase the effectiveness of ES's fact-checks as it leads to more conclusive statements on the veracity of a claim. ES also always presented suggested content in the fact-checks studied here. Per the recommendations of Hameleers and Tulin (2022), this practice should help readers navigate their media environment by offering reliable information sources as misinformation is refuted as well as guide people toward trustworthy information.

Additionally, a graphic truth-scale was not identified in any of the fact-checks in the sample. Per the findings of Walter et al (2019), truth-scales may reduce the effectiveness of fact-checks by triggering pre-existing beliefs, which eliminates interest in processing the rest of the fact-check. Their absence in the fact-checks of ES in the sample prevents this triggering from taking place. Additionally, all the fact-checks in the sample had a readability score of "normal" for adults, which demonstrates a consistent lexical simplicity in their content. Because lexical complexity may detract from fact-checking efforts (Walter et al, 2019), the simplicity of the language used in ES's fact-checks may increase their effectiveness.

Moreover, in all cases but one was a summary of the fact-check presented, which demonstrates a commitment to a clarity of structure of the fact-check on behalf of ES. It aligns with the recommendation of Hameleers and Tulin (2022) of presenting the argumentation in an accessible and clear style and the verdict in a bullet point or graphic depiction. Similarly, in most cases the fact-check was published in the social media account of Animal Político / El Sabueso. This is decisive as it entails publishing fact-checks in the media where people often enter contact with misinformation, which is in line with the recommendation of Hameleers and Tulin (2022) of publishing corrections on platforms like those where misinformation is found.

Finally, the only practice that was not identified in any of the elements of the sample was the presentation of content on media literacy. Hameleers and Tulin (2022) recommend presenting such media literacy messages related to the verified issue so the effects of fact-checks spill-over to the verification of unrelated narratives and users can identify misinformation. ES could provide such content to increase the effectiveness of fact-checking in general and help readers inoculate themselves against misinformation to some extent.

The most important limitation of this study is the size of the sample. Because it was performed on a sample of only 20 fact-checks/misinformation claims, it is not possible to generalise the results outside of the sample. Additionally, because the sample focused solely on the fact-checks created and published by ES, it does not contain the fact-checks of other fact-checking organisations that exist in Mexico or the many different examples and claims of misinformation that exist in social media and enter contact with the Mexican population.

6. Conclusions

This study aimed to make a snapshot of how misinformation is being fought against in Mexico and what can be done better about it by analysing some of the most common topics and persuasion mechanisms identified in a sample of misinformation claims found in social media and fact-checked by fact-checking organisation El Sabueso. It also studied the mechanisms of argumentation used in ES's fact-checks to debunk misinformation, the most common verdicts reached regarding those claims, and the best practices that ES uses or could adopt to increase the effectiveness of its fact-checks.

The main limitation of this study is the small size of the sample that may not reflect the totality of ES's fact-checks or the misinformation debunked, much less the much broader and diverse phenomenon of misinformation in social media in Mexico. It is therefore complicated to derive generalizable conclusions about either phenomenon. Nevertheless, as an exploratory and descriptive study, this paper has provided relevant insights on misinformation and fact-checking in Mexico that pave the way for future research.

In the sample studied, the most common topics of the misinformation found were international, local, and national news, the most prevalent persuasion strategies in misinformation claims were appeals to unpleasant feelings, storytelling heuristics, and appeals to patriotism. Additionally, the most common methods of argumentation used by ES to fact-check misinformation found in the corpus were contrasting claims with facts and data and demonstrating an omission of information to modify a message and mislead. The most common verdicts reached by ES were fabrication of information and events being taken out of context. Finally, it was found that ES consistently implemented most of the best practices and recommendations for fact-checking effectiveness outlined in the literature review. The only one that it did not implement was including content focused on developing the media literacy, which is an area of opportunity for ES to explore.

References

Aïmeur, E., Amri, S., & Brassard, G. (2023). Fake news, disinformation and misinformation in social media: A review. Social Network Analysis and Mining, 13(1), 30. https://doi.org/10.1007/s13278-023-01028-5

Animal Político. (2015a, January 22). Metodología. Animal Político - El Sabueso. https://animalpolitico.com/verificacion-de-hechos/desinformacion/metodologia

Animal Político. (2015b, July 22). Fact-Checking—Metodología. Animal Político - El Sabueso. https://animalpolitico.com/verificacion-de-hechos/fact-checking/metodologia

Arena Pública. (2017, September 27). Aurelio Nuño presente en el colegio Enrique Rébsamen solo mientras Frida Sofía existió. Arena Pública. https://www.arenapublica.com/articulo/2017/09/27/7387/frida-sofia-estrategia-politica-de-aurelio-nuno

Badrinathan, S., & Chauchard, S. (2024). Researching and countering misinformation in the Global South. Current Opinion in Psychology, 55, 101733. https://doi.org/10.1016/j.copsyc.2023.101733

Bennett, W. L., & Livingston, S. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. European Journal of Communication, 33(2), 122–139. https://doi.org/10.1177/0267323118760317

Berinsky, A. J. (2017). Rumors and Health Care Reform: Experiments in Political Misinformation. British Journal of Political Science, 47(2), 241–262. https://doi.org/10.1017/S0007123415000186

Berman, S. (2017, September 24). El otro sismo que viene…. El Universal. https://www.eluniversal.com.mx/columna/sabina-berman/nacion/el-otro-sismo-que-viene/

Blair, R. A., Gottlieb, J., Nyhan, B., Paler, L., Argote, P., & Stainfield, C. J. (2024). Interventions to counter misinformation: Lessons from the Global North and applications to the Global South. Current Opinion in Psychology, 55, 101732. https://doi.org/10.1016/j.copsyc.2023.101732

Bowles, J., Croke, K., Larreguy, H., Liu, S., & Marshall, J. (2025). Sustaining Exposure to Fact-Checks: Misinformation Discernment, Media Consumption, and Its Political Implications. American Political Science Review, 1–24. https://doi.org/10.1017/S0003055424001394

Campero Arena, C., & Serdán Rosales, A. (2018, May). #Verificado19s A Citizens' Experience after the 2017 Mexico City Earthquake. Voices of Mexico, 105(Spring 2018), 43–46.

Campoy, A. (2017, September 30). In both the US and Mexico, citizens led better disaster response than their governments. Quartz. https://qz.com/1090417/in-both-the-us-and-mexico-citizens-led-better-disaster-response-than-their-governments

Chen, S., Xiao, L., & Mao, J. (2021). Persuasion strategies of misinformation-containing posts in the social media. Information Processing & Management, 58(5), 102665. https://doi.org/10.1016/j.ipm.2021.102665

Cialdini, R. B., & Goldstein, N. J. (2002). The Science and Practice of Persuasion. Cornell Hotel and Restaurant Administration Quarterly, 43(2), 40–50. https://doi.org/10.1177/001088040204300204

De Leon, S. (2022). Fake news en México: Del oficialismos a la posverdad (p. 508049 Bytes). figshare. https://doi.org/10.6084/M9.FIGSHARE.21718046.V1

Druckman, J. N. (2022). A Framework for the Study of Persuasion. Annual Review of Political Science, 25(1), 65–88. https://doi.org/10.1146/annurev-polisci-051120-110428

European Commission. (2018, March 12). Final report of the High Level Expert Group on Fake News and Online Disinformation. European Commission High Level Expert Group on Fake News. https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=50271

Flores, S. (2017, September 22). La frustrante invención de la niña Frida Sofía. Milenio. https://www.milenio.com/estados/la-frustrante-invencion-de-la-nina-frida-sofia

Flores-Saviaga, C., & Savage, S. (2021). Fighting disaster misinformation in Latin America: The #19S Mexican earthquake case study. Personal and Ubiquitous Computing, 25(2), 353–373. https://doi.org/10.1007/s00779-020-01411-5

García, A. (2017, September 23). Terremotos en México: Rumores y Desinformación. Snopes. https://www.snopes.com/news/2017/09/23/rumores-y-informacion-terremoto-mexicano/

García, C. (2022, September 20). ¿Qué es el proyecto HAARP y por qué se habla de eso por el sismo del 19S? El Universal. https://www.eluniversal.com.mx/tendencias/que-es-el-proyecto-haarp-y-por-que-se-habla-de-eso-por-el-sismo-del-19s/

Gómez Naredo, J. (2017, September 22). Frida Sofía: El invento de Aurelio Nuño, Televisa y la Marina. Polemon. https://polemon.mx/frida-sofia-el-invento-de-aurelio-nuno-televisa-y-la-marina/

González, J. (2019). ¿Cómo se construyó la historia de Frida Sofía? In Medios de comunicación y derecho a la información en Jalisco, 2017 (1st ed.). ITESO. https://doi.org/10.2307/j.ctvg5bs88

Graves, L. (2017). Anatomy of a Fact Check: Objective Practice and the Contested Epistemology of Fact Checking: Anatomy

of a Fact Check. Communication, Culture & Critique, 10(3), 518–537. https://doi.org/10.1111/cccr.12163

Guess, A. M., & Lyons, B. A. (2020). Misinformation, Disinformation, and Online Propaganda. In N. Persiley & J. A. Tucker (Eds.), Social Media and Democracy (pp. 10–33). Cambridge University Press. https://doi.org/10.1017/9781108890960

Hameleers, M., & Minihold, S. (2022a). Constructing Discourses on (Un)truthfulness: Attributions of Reality, Misinformation, and Disinformation by Politicians in a Comparative Social Media Setting. Communication Research, 49(8), 1176–1199. https://doi.org/10.1177/0093650220982762

Hameleers, M., & Minihold, S. (2022b, December 7). White Paper: Making fact-checks work – evidence-based recommendations for practitioners. BENEDMO. https://benedmo.eu/2022/12/07/making-fact-checks-work-evidence-based-recommendations-for-practitioners/

Hameleers, M., Powell, T. E., Van Der Meer, T. G. L. A., & Bos, L. (2020). A Picture Paints a Thousand Lies? The Effects and Mechanisms of Multimodal Disinformation and Rebuttals Disseminated via Social Media. Political Communication, 37(2), 281–301. https://doi.org/10.1080/10584609.2019.1674979

Hernández Flores, H. G., Sánchez Hernández, V., & Estupiñán Villanueva, A. (2019). COMUNICACIÓN GUBERNAMENTAL RESPONSABLE EN SITUACIONES DE CRISIS: EL CASO DE FRIDA SOFÍA. Perspectivas de La Comunicación, 12(2), 127–153. https://doi.org/10.4067/S0718-48672019000200127

Hernández, S. (2017, 11). Ayuda de la tecnología después del sismo en México. #Verificado19s. https://verificado19s.org/2019/03/08/ayuda-de-la-tecnologia-despues-del-sismo-en-mexico/

Hughes, H. C., & Waismel-Manor, I. (2021). The Macedonian Fake News Industry and the 2016 US Election. PS: Political Science & Politics, 54(1), 19–23. https://doi.org/10.1017/S1049096520000992

Humprecht, E. (2020). How Do They Debunk "Fake News"? A Cross-National Comparison of Transparency in Fact Checks. Digital Journalism, 8(3), 310–327. https://doi.org/10.1080/21670811.2019.1691031

IFCN. (2024, March 27). Animal Político—El Sabueso Signatory Badge. IFCN Code of Principles. https://ifcncodeofprinciples.poynter.org/profile/animal-pol%C3%ADtico---el-sabueso

Infobae. (2020, September 18). 19-S: Frida Sofía y cómo nació la mentira que tuvo al mundo en vilo por una niña que nunca existió. Infobae. https://www.infobae.com/america/mexico/2020/09/18/19-s-frida-sofia-y-como-nacio-la-mentira-que-tuvo-al-mundo-en-vilo-por-una-nina-que-nunca-existio/

Jiménez-Yañez, C. (2022). Frida Sofía, crónica de un mito mediático en México. Perspectivas Em Ciência Da Informação, 27(3), 3–25. https://doi.org/10.1590/1981-5344/29376

Kapantai, E., Christopoulou, A., Berberidis, C., & Peristeras, V. (2021). A systematic literature review on disinformation: Toward a unified taxonomical framework. New Media & Society, 23(5), 1301–1326. https://doi.org/10.1177/1461444820959296

Kemp, S. (2015, January 22). Digital 2015: Mexico. Datareportal. https://datareportal.com/reports/digital-2015-mexico

Kemp, S. (2025, March 3). Digital 2025: Mexico. Datareportal. https://datareportal.com/reports/digital-2025-mexico

La Vieja Guardia Yucatán. (2017, September 20). Frida Sofía, niña atrapada bajo escombros del Enrique Rébsamen. La Vieja Guardia Yucatán. https://laviejaguardia.com.mx/noticias/frida-sofia-nina-atrapada-bajo-escombros-del-enrique-rebsamen

Legible. (2016, November 27). Lecturabilidad de Fernández Huerta. Legible - Analizador de Legibilidad de Texto. https://legible.es/blog/lecturabilidad-fernandez-huerta/

Lutz, B. (2019). Rumores después del sismo de septiembre de 2017 en México. Revista Temas Sociológicos, 24, 339–371. https://doi.org/10.29344/07196458.24.1975

Magallón Rosa, R. (2019). Verificado México 2018. Desinformación y fact-checking en campaña electoral. Revista de Comunicación, 18(1), 234–258. https://doi.org/10.26441/RC18.1-2019-A12

Micallef, N., Armacost, V., Memon, N., & Patil, S. (2022). True or False: Studying the Work Practices of Professional Fact-Checkers. Proceedings of the ACM on Human-Computer Interaction, 6(CSCW1), 1–44. https://doi.org/10.1145/3512974

Moreno, T. (2017, September 22). Caso Frida: Crea Marina confusión y pide perdón. El Universal. https://web.archive.org/web/20180412094218/https://www.eluniversal.com.mx/nacion/sociedad/frida-sofia-no-fue-real-marina-se-disculpa/

Moreno-Gil, V., Ramon, X., & Rodríguez-Martínez, R. (2021). Fact-Checking Interventions as Counteroffensives to Disinformation Growth: Standards, Values, and Practices in Latin America and Spain. Media and Communication, 9(1), 251–263. https://doi.org/10.17645/mac.v9i1.3443

Newman, N., Fletcher, R., Robertson, C. T., Ross Arguedas, A., & Nielsen, R. K. (2024). Reuters Institute digital news report 2024. Reuters Institute for the Study of Journalism. https://doi.org/10.60625/RISJ-VY6N-4V57

Osorio Chong, M. Á. [@osoriochong]. (2017, September 20). En redes se está propagando el rumor de otro gran sismo. Si bien puede

haber réplicas, los sismos NO se pueden predecir. X. https://x.com/osoriochong/status/910264385116921861

Pérez de Acha, G. (2017, 10). A un mes de #Verificado19s. #Verificado19s. https://verificado19s.org/2019/03/08/a-un-mes-de-verificado19s/

Pérez, R. (2017, September 21). Labores de rescate no se suspenden: EPN. La Prensa. https://oem.com.mx/la-prensa/mexico/labores-de-rescate-no-se-suspenden-epn-15084653

Petty, R. E., & Cacioppo, J. T. (1986). The Elaboration Likelihood Model of Persuasion. In Advances in Experimental Social Psychology (Vol. 19, pp. 123–205). Elsevier. https://doi.org/10.1016/S0065-2601(08)60214-2

Redacción AN. (2017a, September 21). #FridaSofía Nos han mantenido con un show; yo no vi nada: Madre en el #Rébsamen (Video). Aristegui Noticias. https://aristeguinoticias.com/2109/mexico/fridasofia-nos-han-mantenido-con-un-show-yo-no-vi-nada-madre-en-el-rebsamen-video/

Redacción AN. (2017b, September 24). Hora por hora: Cobertura de una infamia. Aristegui Noticias. https://aristeguinoticias.com/2409/mexico/hora-por-hora-cobertura-de-una-infamia/

Redacción AN. (2020, September 19). 'Frida Sofía', a tres años del engaño. Aristegui Noticias. https://aristeguinoticias.com/1909/mexico/frida-sofia-a-tres-anos-del-engano/

Redacción BBC Mundo. (2017, September 21). Frida Sofía, la niña de 12 años que los rescatistas tratan desesperadamente de sacar con vida de entre los escombros de la escuela Rébsamen, derrumbada en Ciudad de México por el terremoto. BBC News Mundo. https://www.bbc.com/mundo/noticias-america-latina-41348479

Ruffo, G., Semeraro, A., Giachanou, A., & Rosso, P. (2021). Studying Fake News Spreading, Polarisation Dynamics, and Manipulation by Bots: A Tale of Networks and Language. https://doi.org/10.48550/ARXIV.2109.07909

Santos-d'Amorim, K., & Fernandes De Oliveira Miranda, M. (2021). Informação incorreta, desinformação e má informação: Esclarecendo definições e exemplos em tempos de desinfodemia. Encontros Bibli: Revista Eletrônica de Biblioteconomia e Ciência Da Informação, 26, 01–23. https://doi.org/10.5007/1518-2924.2021.e76900

Specia, M. (2017, 9). 'Frida Sofia': The Mexico Earthquake Victim Who Never Was. The New York Times. https://www.nytimes.com/2017/09/27/world/americas/mexico-earthquake-trapped-girl.html

Sunstein, C. R., & Vermeule, A. (2009). Conspiracy Theories: Causes and Cures*. Journal of Political Philosophy, 17(2), 202–227. https://doi.org/10.1111/j.1467-9760.2008.00325.x

Swire, B., Berinsky, A. J., Lewandowsky, S., & Ecker, U. K. H. (2017). Processing political misinformation: Comprehending the Trump phenomenon. Royal Society Open Science, 4(3), 160802. https://doi.org/10.1098/rsos.160802

Trejo Delarbre, R. (2018, May). In the Media, Tragedy. On the Social Networks, Confusion and Solidarity. Voices of Mexico, 105(Spring 2018), 27–30.

UNAM, [UNAM.MX]. (2017, 9). El Servicio Sismológico Nacional dependiente de la UNAM, reitera que los sismos NO se pueden predecir. Facebook. https://www.facebook.com/UNAM.MX.Oficial/posts/el-servicio-sismol%C3%B3gico-nacional-dependiente-de-la-unam-reitera-que-los-sismos-n/1456729637725981/

#Verificado19s. (2017, September 20). Sobre 19s. #Verificado19s. https://verificado19s.org/s

Villamil, J. (2017a, September 21). El reality de Frida Sofía o la desmesura mediática de Televisa. Proceso. https://www.proceso.com.mx/cronica/2017/9/21/el-reality-de-frida-sofia-la-desmesura-mediatica-de-televisa-191853.html

Villamil, J. (2017b, September 27). Bajezas mediáticas. Proceso. https://www.proceso.com.mx/reportajes/2017/9/27/bajezas-mediaticas-192200.html

Villamil, J. (2017c, October 3). La pelea por el rating y la invención de Frida Sofía. Proceso. https://www.proceso.com.mx/opinion/2017/10/3/la-pelea-por-el-rating-la-invencion-de-frida-sofia-192553.html

Walter, N., Cohen, J., Holbert, R. L., & Morag, Y. (2020). Fact-Checking: A Meta-Analysis of What Works and for Whom. Political Communication, 37(3), 350–375. https://doi.org/10.1080/10584609.2019.1668894

Wang, C.-C. (2020). Fake News and Related Concepts: Definitions and Recent Research Development. Contemporary Management Research, 16(3), 145–174. https://doi.org/10.7903/cmr.20677

Wasserman And, H., & Madrid□Morales, D. (2022). Conclusion. In H. Wasserman & D. Madrid□Morales (Eds.), Disinformation in the Global South (1st ed., pp. 210–220). Wiley. https://doi.org/10.1002/9781119714491.conc

Yang, K.-C., Pierri, F., Hui, P.-M., Axelrod, D., Torres-Lugo, C., Bryden, J., & Menczer, F. (2021). The COVID-19 Infodemic: Twitter versus Facebook. Big Data & Society, 8(1), 20539517211013861. https://doi.org/10.1177/20539517211013861

Zubiaga, A., Aker, A., Bontcheva, K., Liakata, M., & Procter, R. (2019). Detection and Resolution of Rumours in Social Media: A Survey. ACM Computing Surveys, 51(2), 1–36. https://doi.org/10.1145/3161603

Appendix 1 List of Fact Checks

FC1: Este avistamiento de tiburones no está relacionado con el huracán 'Beryl' [This shark sighting is not related to hurricane ‚Beryl'] https://animalpolitico.com/verificacion-de-hechos/desinformacion/tiburones-no-relacionados-huracan-beryl

FC2: Esta foto no muestra el rescate de un perro por inundaciones en NL; la imagen es de 2009 [This photo does not show the rescue of a dog from flooding in NL; the image is from 2009] https://animalpolitico.com/verificacion-de-hechos/desinformacion/rescate-perro-nl-sacado-contexto

FC3: Este video no es del metro en CDMX; ocurrió en Chile [This video is not from the subway in CDMX; it happened in Chile] https://animalpolitico.com/verificacion-de-hechos/desinformacion/suicidio-metro-cdmx-chile-falso

FC4: Video no muestra incendio en refinería Dos Bocas; corresponde a suceso en Irak [Video does not show fire at Dos Bocas refinery; corresponds to event in Iraq] https://animalpolitico.com/verificacion-de-hechos/desinformacion/video-incendio-dos-bocas-falso

FC5: AMLO no prohibió DiDi en México tras el caso de Paola Bañuelos [AMLO did not ban DiDi in Mexico after Paola Bañuelos case] https://animalpolitico.com/verificacion-de-hechos/desinformacion/amlo-prohibe-didi-paola-falso

FC6: Video no muestra al hijo de Nicolás Maduro manejando un Ferrari en Mónaco [Video does not show Nicolás Maduro's son driving a Ferrari in Monaco] https://animalpolitico.com/verificacion-de-hechos/desinformacion/falso-nicolas-maduro-hijo-maneja-ferrari

FC7: ¿Kamala Harris en compañía de Jeffrey Epstein? No, la imagen está manipulada [Kamala Harris in the company of Jeffrey Epstein? No, the image is manipulated] https://animalpolitico.com/verificacion-de-hechos/desinformacion/foto-kamala-harris-jeffrey-epstein

FC8: Este video no muestra una marcha al CNE en Venezuela tras las elecciones [This video does not show a march to the CNE in Venezuela after the elections] https://animalpolitico.com/verificacion-de-hechos/desinformacion/marcha-cne-venezuela-falso

FC9: Circula desinformación en WhatsApp sobre secuestro de niños y robo de órganos [Disinformation circulating on WhatsApp about child abduction and organ theft] https://animalpolitico.com/verificacion-de-hechos/desinformacion/mafia-secuestro-ninos-falso

FC10: ¿Intentaron dispararle nuevamente a Trump? No, este video es de otro hecho [Did they try to shoot Trump again? No, this video is from another event] https://animalpolitico.com/verificacion-de-hechos/desinformacion/intento-asesinato-trump-milwaukee-eu

FC11: Video no muestra a senador de EU pidiendo un trato con Sheinbaum para combatir cárteles; es de 2023 [Video does not show U.S. senator asking for a deal with Sheinbaum to fight cartels; it is from 2023] https://animalpolitico.com/verificacion-de-hechos/desinformacion/eu-sheinbaum-combatir-carteles

FC12: No se inundó metro Cuauhtémoc, el video es de una atracción en Estados Unidos [The Cuauhtémoc subway station was not flooded, the video is from an attraction in the United States] https://animalpolitico.com/verificacion-de-hechos/desinformacion/metro-cuauhtemoc-inundado

FC13: Video que acusa al INE de 'inflar' votos a favor de Morena es desinformación [Video accusing INE of ‚inflating' votes in favour of Morena is disinformation] https://animalpolitico.com/verificacion-de-hechos/desinformacion/video-ine-inflar-votos-morena

FC14: Este video no muestra efectos de la tormenta Alberto en Tamaulipas [This video does not show

the effects of storm Alberto in Tamaulipas] https://animalpolitico.com/verificacion-de-hechos/desinformacion/playa-tamaulipas-no-fue-alberto

FC15: Sheinbaum no votó entre gritos a favor de Xóchitl, es un video manipulado [Sheinbaum did not vote among shouts in favour of Xóchitl, it is a manipulated video] https://animalpolitico.com/verificacion-de-hechos/desinformacion/apoyo-xochitl-falso-claudia-video

FC16: Kamala Harris no dijo 'hoy es hoy y ayer fue ayer'; el video está manipulado [Kamala Harris did not say ‚today is today and yesterday was yesterday'; video is manipulated] https://animalpolitico.com/verificacion-de-hechos/desinformacion/kamala-harris-discurso-manipulado

FC17: Google Maps no borró a Palestina, nunca ha sido etiquetado en sus mapas [Google Maps did not erase Palestine, it has never been labelled on its maps] https://animalpolitico.com/verificacion-de-hechos/desinformacion/google-maps-borro-palestina-falso

FC18: Video que muestra inundación en Valle de Chalco no es actual; circula desde 2021 [Video showing flooding in Valle de Chalco is not current; has been circulating since 2021] https://animalpolitico.com/verificacion-de-hechos/desinformacion/video-inundacion-valle-chalco-lluvias

FC19: Reino Unido no aprobó asesinar bebés con síndrome de Down; sacan de contexto una noticia de 2022 [UK did not approve killing Down syndrome babies; 2022 news story taken out of context] https://animalpolitico.com/verificacion-de-hechos/desinformacion/aborto-sindrome-down-sacado-contexto

FC20: Usan foto de Ismael "El Mayo" Zambada para crear falsa alerta de persona no localizada [Photo of Ismael "El Mayo" Zambada Used to Create False Missing Person Alert] https://animalpolitico.com/verificacion-de-hechos/desinformacion/mayo-zambada-persona-no-localizada

Appendix 2

	Fact-checking Corpus																				Total	Percentage
	FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9	FC10	FC11	FC12	FC13	FC14	FC15	FC16	FC17	FC18	FC19	FC20	20	100%
Variables and categories																						
V1: Misinformation Topic																						
Business and economics																					0	0%
Culture																					0	0%
International News						1	1	1		1	1					1			1		7	35%
Local News		1	1						1			1		1				1			6	30%
National News				1	1								1		1					1	5	25%
Public Health																					0	0%
Sports																					0	0%
Technology																	1				1	5%
Other	1																				1	5%
V2: Mechanisms of persuasion of misinformation																						
Consensus	1																				1	5%
Ethos – borrowed credibility											1										1	5%
Ethos – intrinsic authority																					0	0%
Logos	1			1									1								3	15%
Pathos – negative			1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	16	80%
Pathos – others (surprise, curiosity, and ridicule)	1		1									1		1		1	1	1			7	35%
Pathos – patriotism				1	1	1		1		1	1		1		1						8	40%
Pathos – positive		1																			1	5%
Reciprocation																					0	0%
Scarcity																					0	0%
Storytelling		1			1				1	1	1			1			1		1	1	9	45%
V3: Fact-checking verdict																						
Fake				1	1	1		1	1	1			1				1			1	9	45%
Manipulated							1								1	1					3	15%
Out of Context	1	1	1								1	1		1				1	1		8	40%
Satire																					0	0%
True																					0	0%
V4: Mechanism of Argumentation																						
Contrast with accounts of protagonists and witnesses													1				1				2	10%
Contrast with experts' perspective						1			1				1	1			1		1		6	30%
Contrasting facts and data	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1		1	1	1	18	90%
Demonstrating manipulation of images and video							1			1					1	1		1		1	6	30%
Demonstrating omission of information	1	1	1	1		1				1	1	1		1				1			10	50%
V5: Areas of improvement for debunking (practices observed)																						
Clearness of structure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	19	95%
Focus on an entire statement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	100%
Non-use of a graphic truth-scale	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	100%
Presentation of content on media literacy																					0	0%
Presentation of suggested content	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	100%
Publication of verification on social media	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	95%
Readability score (very easy)																					0	0%
Readability score (easy)																					0	0%
Readability score (moderately easy)																					0	0%
Readability score (normal)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	100%
Readability score (moderately difficult)																					0	0%
Readability score (difficult)																					0	0%
Readability score (very difficult																					0	0%

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