COMMUNICATION & SOCIETY

Miscellaneous

Hoaxes' anatomy: Analysis of disinformation during the coronavirus pandemic in Europe (2020-2022)

Rocío Sánchez-del-Vas
https://orcid.org/0000-0002-6161-3631
rocsanch@hum.uc3m.es
Universidad Carlos III de Madrid

Jorge Tuñón-Navarro
https://orcid.org/0000-0003-0393-6560
jtunon@hum.uc3m.es
Universidad Carlos III de Madrid

Submitted
January 31st, 2024
Approved
July 8th, 2024

Communication & Society
ISSN 0214-0039
E ISSN 2386-7876
www.communication-society.com

2024 – Vol. 37(4)
pp. 1-19

How to cite this article:
Sánchez-del-Vas, R. & Tuñón-Navarro, J. (2024). Hoaxes' anatomy: Analysis of disinformation during the coronavirus pandemic in Europe (2020-2022), *Communication & Society, 37*(4), 1-19. https://doi.org/10.15581/003.37.4.1-19

Abstract

The escalating proliferation of disinformation throughout Europe, exacerbated by the onset of the COVID-19 pandemic, necessitates a rigorous examination of its ramifications for public health. This study undertakes an investigation into trends in pandemic-related disinformation in Spain, Germany, the United Kingdom, and Poland spanning the period from 2020 to 2022. In this way, a meticulous content analysis of 704 publications from fact-checking sites was conducted. To augment the study's robustness and provide a nuanced perspective on the evolving nature of disinformation, case studies were meticulously incorporated. The data reveals that despite of the professionalization of deep fakes, 43% of disinformation propagated through textual means, predominantly leveraging social networks (75%), especially Facebook and WhatsApp. Notably, misinformation pertaining to vaccines constituted the most prevalent narrative among disinformation stories, comprising 25.85% of the total. Moreover, as the pandemic unfolded, the thematic focus of disinformation adapted to the distinct contexts of each country. Furthermore, 47.16% of the content was found to be fabricated, with the primary objective of amplifying a common adversary accounting for 39.77% of cases. Given the contemporary relevance and public significance of this subject, the overarching objective of this research has been to scrutinise the dynamics of disinformation related to the COVID-19 pandemic in Europe. Consequently, the findings of this study carry a distinct European public service orientation.

Keywords

Disinformation, misinformation, fake news, hoaxes, pandemic, fact-checking, Europe.

Funding

This article is part of an European Chair funded by the Education, Audiovisual and Culture Executive Agency (EACEA), belonging to the European Commission, Jean Monnet (Erasmus+), "Future of Europe Communication in times of Pandemic Disinformation" (FUTEUDISPAN), Ref: 101083334-JMO-2022-CHAIR), directed between 2022 and 2025, from the University Carlos III of Madrid, by Professor Jorge Tuñón. However, the content of this article is the sole responsibility of the authors and EACEA cannot be held responsible for any use which may be made of the information contained therein.

1. Introduction

The current media landscape is defined by misinformation and disinformation (Pamment & Lindwall, 2021). Indeed, experts projected that, starting in 2022, people in developed nations would consume more false news than authentic news (Cea & Palomo, 2021), as falsehoods are 70% more likely to go viral compared to truthful information (Vosoughi *et al.*, 2018).

Furthermore, disinformation proliferates particularly in situations of chaos, randomness, and uncertainty, as well as during extreme emergencies, such as the COVID-19 pandemic (García-Marín, 2020). This is because, in times of prosperity, the impact, dissemination, and viralisation of hoaxes differ from those seen during crises.

In February 2020, the Director-General of the World Health Organisation emphasised the need to combat the "infodemic," stating that fake news spreads faster and more easily than the virus itself, and is just as dangerous (Ghebreyesus, 2020). Correspondingly, Salaverría *et al.* (2020) assert that the health, social, economic, and political ramifications of the pandemic have amplified the circulation of deliberately false information.

Rogers (2020) posits that a distinctive trait of the pandemic was the collective unawareness of the extent of our understanding. This lack of knowledge was compounded by a sense of unreality due to the global simultaneity of the event. As the pandemic evolved globally, citizens' approach to information and its circulation changed (Magallón, 2020). Nevertheless, how individuals stay informed about significant events can have democratic repercussions (Feenstra *et al.*, 2016). The pandemic has created a situation where any news event can turn into disinformation, fuelling conspiracy theories. This has impeded global crisis management, necessitating the confrontation of disinformation to safeguard public health. In essence, constructing barriers against both the health and disinformation pandemics has become essential (Sánchez-del-Vas & Tuñón-Navarro, 2023a).

The use of fact-checking media to investigate disinformation has been previously employed in research, especially related to the coronavirus crisis. Studies include Salaverría *et al.* (2020), Aguado-Guadalupe and Bernaola-Serrano (2020), García-Marín (2020), Naeem *et al.* (2020), Brennen *et al.* (2020), Rosińska (2021), León *et al.* (2022), Almansa-Martínez *et al.* (2022), and Morejón-Llamas (2023). While numerous and diverse investigations have been published on disinformation regarding the COVID-19 pandemic, the originality of this one lies in its in-depth analysis of hoaxes in four different countries from 2020 to 2022, which enables a better understanding of the dynamics of disinformation during the pandemic in Europe. Moreover, this research employs a larger sample size than most previous studies, enhancing the robustness of its findings. Additionally, the analysis conducted in this paper can significantly contribute to understanding the phenomenon, and its results can be extrapolated and compared with other international events of a similar nature. Consequently, its conclusions reflect a distinct European public service orientation.

2. Literature Review

2.1. *Disinformation and conspiracy theories*

The media landscape has seen the rise of a new order of disinformation. According to Wardle (2018), disinformation is any false information content that has been deliberately created and disseminated. In this context, false and distorted messages have permeated public opinion, particularly during times of conflict (Gallotti *et al.*, 2020; Palau-Sampio & Carratalá, 2021). Notably, these messages can go viral six times faster than truthful information (Vosoughi *et al.*, 2018). While hoaxes have existed long before the Internet, the current extent of disinformation and its potential to harm Western democracies present a novel challenge (Masip & Palomo, 2020).

In recent years, various disinformation practices have emerged, reshaping reality for strategic and political purposes, often creating parallel realities (Tuñón-Navarro, 2021a).

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Examples include the 2016 US elections, the Brexit referendum, and the recent European Parliament Elections (2019 and 2024). Extraordinary international crises such as the COVID-19 pandemic, the Russia-Ukraine war (Pierri *et al.*, 2022; Kotoulas & Pusztai, 2022), and the conflict between Israel and Hamas (Tuñón-Navarro *et al.*, 2024; López-Martín & Córdoba-Cabús, 2024) highlight the impact of manipulative messages on political decisions during times of crisis.

According to Lelo and Figaro (2021), fake news can be more alluring than true stories, as producers prioritize creating content with maximum viral potential. Consequently, conspiracy theories offer citizens quick explanations for complex social phenomena, linking fear and disinformation. In times of uncertainty, falsehoods are more likely to spread, and under these circumstances, individuals make decisions driven by their emotions, shaping their perception of reality (McIntyre, 2018).

Thus, disinformation reflects belief formation in contemporary societies (Waisbord, 2018), as individuals tend to avoid processing opinions that contradict their pre-existing ideas due to cognitive biases (Weeks & Garrett, 2014). Polarised contexts, in particular, provide fertile ground for the spread of disinformation. The more partisan an individual is, the more likely they are to believe they are immune to disinformation.

The success of disinformation lies in citizens unwittingly sharing and spreading erroneous content, often with the intention of providing trustworthy information to friends and followers (Masip & Palomo, 2020). These beliefs resonate in echo chambers and filter bubbles, ideal environments for their growth and consolidation without encountering counterarguments. Audiences thus find themselves in news bubbles, subject to the "anchoring effect," where the initial news received is deemed the most credible (Maldita, 2021).

2.2. *Fact-checking against the "disinformation pandemic"*

In response to the rising prevalence of disinformation, numerous fact-checking initiatives have emerged over the past decade (Amazeen, 2018; Singer, 2019). Fact-checking is defined as the meticulous process of scrutinising and verifying content disseminated across various online formats and platforms (Pamment & Lindwall, 2021) and originates from journalism. Some authors even consider it a distinct journalistic genre, referring to it as "fact-checking journalism" (Rodríguez-Pérez *et al.*, 2023). Although only around 60% of fact-checking organisations worldwide are affiliated with newsrooms (Lauer & Graves, 2024), many were established by veteran journalists with extensive professional networks (Graves, 2018). In recent years, these fact-checking organisations have gained prominence, evolving into a global movement (Vinhas & Bastos, 2023).

Currently, fact-checkers play a crucial societal role, tasked with examining content that might escape public and media scrutiny. Especially during the surge of disinformation related to the COVID-19 pandemic, the number of international fact-checkers has notably increased. According to the Duke Reporter's Lab at Duke University's Sanford School of Public Policy, there are 439 registered verification organisations globally as of July 2024. In contrast, Stencel and Luther (2020) reported 237 active fact-checkers at the beginning of April 2020. This increase highlights the significant impact of the "pandemic factor" on the growth of these initiatives. Additionally, new fact-checking organisations often aim to follow established standards in the field, adapting these models to their local contexts.

A notable aspect of the pandemic is the coordinated international response by fact-checkers, which has been essential in addressing the challenges posed by online disinformation (Tuñón-Navarro, 2021b). Initiatives such as the #CoronavirusFacts Alliance, established in January 2020 by the International Fact-Checking Network (IFCN), have united over 100 fact-checkers. Under this alliance, the LatamChequea network was launched in April 2020, bringing together fact-checkers from Latin America and Spain to consolidate their publications and unify their efforts (LatamChequea, 2020).

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

3. Objectives and hypothesis

The investigation is grounded upon the subsequent objectives:

Main Objective: To comprehensively analyze the characteristics of disinformation related to the COVID-19 pandemic within the four countries considered during the specified temporal parameters.

Specific Objective 1: To delineate both commonalities and distinctions among hoaxes by thoroughly examining their format, dissemination platform, as well as evaluating their typology and intended purpose.

Specific Objective 2: To meticulously scrutinize the temporal thematic progression exhibited by the identified hoaxes.

In this way, the study is based on the following four hypothesis:

H1. Text-based disinformation related to the pandemic disseminated through social media is the most scrutinized by fact-checkers.

H2. In the context of COVID-19 in Europe, deceptive content adapts its thematic focus in response to the evolving health crisis, aligning with distinct national contexts.

H3. Hoaxes characterized by entirely fabricated content prevail over other typologies as defined by Wardle (2017).

H4. The purpose of disinformation shifts with the progression of the pandemic, initially provoking audiences and later polarizing them through a common enemy.

4. Methodology

4.1. *Comparative qualitative analysis of case studies*

Primarily, a qualitative methodological framework has been adopted, centred on the comparison of research units, specifically European countries. The research is grounded in one of the comparative design systems articulated by Landman and Carvalho (2017), known as the "most similar system design" (MSSD). This design is particularly well-suited for area studies, enabling the construction of an intellectual and theoretical argument asserting intrinsic similarities among countries within a specific geographical region, in this instance, Europe.

The choice of countries –Spain, Germany, United Kingdom, and Poland– aligns with the classification of the media model proposed by Hallin and Mancini (2004). The authors delineate three distinct media models: Firstly, the polarized pluralist model, where media closely intertwine with politics, placing Spain within this category. Secondly, the democratic corporatist model, highlighting the nexus between media and political-economic powers, with Germany prominently featured. Thirdly, the liberal model, wherein media maintain ties with economic influence, with notable examples seen in the United Kingdom. This framework has been widely employed in previous studies (Tuñón-Navarro, 2008) and facilitates the analysis of diverse media systems across Europe.

While this medial model traditionally excludes Eastern European nations from classification, the inclusion of a country from this region, such as Poland, is deemed pivotal for enriching diversity and representativeness within the European media landscape. In addition, as reported by Zadroga (2023), Polish society has proven little immune to resisting false content, especially during the coronavirus pandemic, where the impact of anti-vaccine activists ultimately resulted in a high COVID-19 mortality rate in Polish society. In addition, the geographical proximity to the Russian-Ukrainian conflict has made the country a target for disinformation and propaganda. Even thousands of social media accounts have shifted from anti-vaccine narratives to anti-Ukrainian content. Consequently, Poland has 7 fact-checking organizations, according to the Duke Reporter's Lab, 4 of which are part of the IFCN, demonstrating its commitment to combating disinformation.

In this sense, the selection of these four countries is justified by their alignment with the chosen media model, with Poland's inclusion enhancing the robustness of the findings.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

4.2. *Content analysis of the content published by fact-checking sites*

For the establishment of the sample, two fact-checking initiatives from each country have been selected. This methodological decision has been adopted in order to mitigate potential biases that could arise from generalising the results of each nation based on a single unit of study. Consequently, there are a total of eight units of analysis. Among the criteria for defining the sample, priority has been given, though not exclusively, to those fact-checking organisations that are members of the IFCN, to ensure they adhere to rigorous quality standards. Additionally, organisations that are exclusively dedicated to fact-checking or have sections and teams specifically for verification have also been prioritised. It has also been considered important that these media have a significant number of published verifications within the timeframe defined for the research, to facilitate a thorough analysis.

In this regard, the following fact-checking organisations have been selected for analysis: Newtral and Maldito Bulo (Spain), CORRECTIV Faktencheck and BR24. Faktenfuchs (Germany), FullFact and Reuters Fact Check (United Kingdom), and Demagog and FakenewsPL (Poland). The focus of the research was on the analysis of hoaxes, and therefore, only publications that debunked false news were considered, aligning with a methodological decision consistent with prior research such as Brennen *et al.* (2020) and Ruiz-Incertis *et al.* (2024).

With regard to the time period under study, the verifications published by the selected organisations during March of the years 2020 and 2021, as well as January 2022, have been chosen. The selection of March is due to the fact that in March 2020, health restrictions began in most European countries, coinciding with the initial outbreak of the pandemic. Thus, it was deemed appropriate to analyze the evolution after 12 months, i.e., in March 2021, when, additionally, COVID-19 vaccination started in most of the continent.

The initial objective was to follow the methodological trend of studying the evolution of disinformation patterns for 2022. Therefore, fact-checking publications conducted in March 2022 were also intended to be studied. However, the extraordinary situation resulting from the war caused by Russia's invasion of Ukraine in late February 2022 presented a disruptive factor for this research, as the media agenda of the fact-checkers in the study was affected by the vast amount of false news related to the conflict (Sánchez-del-Vas & Tuñón-Navarro, 2024). Consequently, March 2022 was almost exclusively dedicated to debunking information of this nature. As a result, to maintain research continuity and prevent the study from being affected by a disruptive factor that could significantly alter the findings of this study, January 2022 was chosen because it remained unaffected by the emergency situation stemming from the war.

Following established criteria, the initial sample of 748 verifications was refined by eliminating duplicated publications from verifiers in the same country who had debunked the same hoax. This methodological decision, consistent with previous research like Salaverría *et al.* (2020) and Brennen *et al.* (2020), aimed to prevent distortion of results due to duplicates. After exclusion, the final sample resulted in a total of 704 publications organized for study (N=704).

Manual coding, adhering to intercoder reliability criteria established by Igartua (2006), was carried out for data analysis. In this line, the processed data were then analyzed using IBM SPSS statistical software and Microsoft Excel.

4.2.1. Variables, categories, and subcategories

To define the variables to be studied, this research has relied on both preceding and recent literature on the study of hoaxes in disinformative contexts, including works by Wardle (2017); Aguado-Guadalupe and Bernaola-Serrano (2020); García-Marín (2020); Magallón (2020); Salaverría *et al.* (2020); Ruiz-Incertis *et al.* (2024); López-Martín and Córdoba-Cabús (2024); Sánchez-del-Vas and Tuñón-Navarro, (2024), among others. In this way, the codification of publications involved the examination of the following variables, categories and subcategories:

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Variable 1 (V1): Format of hoaxes. Refers to the communicative code used to spread hoaxes. Categories of V1: Text; Image; Combined (Subcategories: text and video, and text and audio); Video; Audio.

Variable 2 (V2): Hoax platform studies the channels where the studied hoaxes have been verified. Categories of V2: Social networks (Subcategories: WhatsApp, TikTok, Twitter, Facebook, YouTube, Telegram, email, and Instagram); Blogs; Media.

Variable 3 (V3): The thematic of the hoax constitutes the main narrative around which each hoax revolves. Categories of V3: Disease and contagion; Political measures and health restrictions; Virus; Hospitals and healthcare professionals; Educational measures; Public disorder; Social policy; Vaccines; Masks; Other.

Variable 4 (V4): The hoax typology categorizes various forms of deceptive content within the information ecosystem, based on Wardle's (2017) classification. These categories, known as V4, include: Fabricated content: Completely false information created with the intent to deceive; Manipulated content: Genuine information or multimedia altered to deceive; Imposter content: Authentic sources impersonated to mislead; False context: Real content that becomes viral when taken out of its original context; Misleading content: Hoaxes that use information misleadingly to make accusations; False connection: Content where headlines, images, or subtitles do not support the information presented.

Variable 5 (V5): The hoax purpose examines the potential motivations behind disinformation efforts. This framework is based on the categorization by Wardle (2017), drawing from classifications by British journalist Eliot Higgins. The V5 categories include: Empowering a common enemy: Unintentionally strengthening an adversary by opposing them (Subcategories: vaccination; "corrupt elite;" gov./politicians; foreign countries/citizens); Poor journalism: Spreading inaccurate information due to lack of journalistic rigor; Parody: Sharing satirical content mistaken for genuine information; Provocation and passion: Spreading hoaxes to provoke controversy and manipulate public opinion. Economic gain: Using disinformation for financial benefits through increased traffic or deceptive promotion; Political power or influence: Shaping public opinion to gain or maintain political power.

5. Results

5.1. *General data*

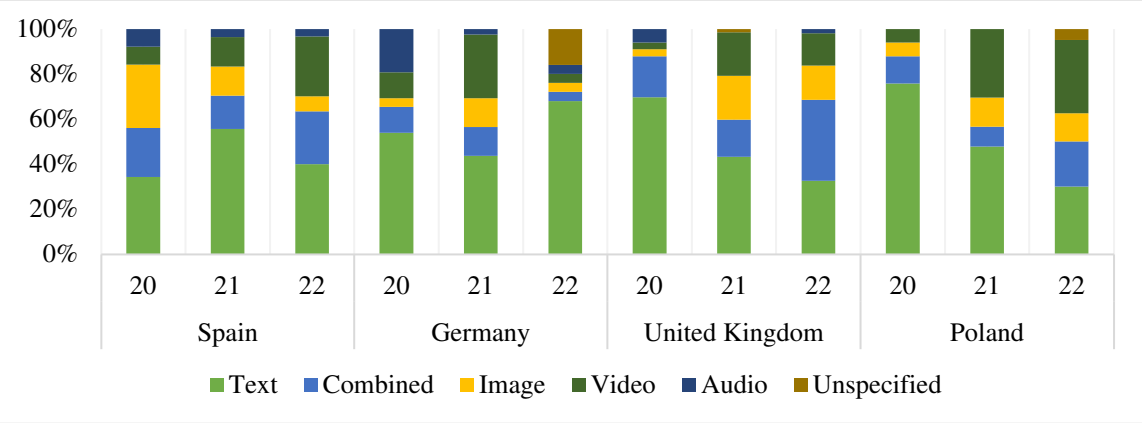
A comprehensive analysis was conducted on a total of 704 hoaxes verified by eight fact-checking institutions across four European countries –Spain, United Kingdom, Poland, and Germany. Throughout the entire study period, Spain exhibited the highest percentage of fact-checking, with 325 instances, constituting 46.16% of the total. Following Spain, United Kingdom accounted for 192 instances (27.27% of the total), Poland contributed 97 instances (13.78% of the total), and Germany verified 90 instances (12.78% of the total).

5.2. *Format*

An essential variable under analysis is the format of the hoax. Notably, the predominant format across the studied countries during the analyzed periods was text, with 43% of all hoaxes spreading through this medium. The second most prevalent format was a combination of text and multimedia content, accounting for 20% of the total instances.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Figure 1. The format of the hoaxes in number and percentage, by year and country.



Source: Own elaboration.

As illustrated in the Figure 1, in the case of Spain, during March 2020, the predominant format for the dissemination of hoaxes was text (34.31%), followed by image (28.03%). Notably, in March 2021, text continued to assert its prominence, surpassing the previous year's percentage (55.56%), complemented by the combined format (14.81%) of text and image. Subsequently, in January 2022, text maintained its prominence above all other formats (37.50%), along with video (25%).

Turning to Germany, March 2020 witnessed a prevalence of the text format (53.85%), followed by audio (19.23%). In March 2021, although experiencing a decrease in percentage, text persisted as the dominant format in the dissemination of the majority of hoaxes (43.59%), trailed by video (28.21%). Continuing this established trend, January 2022 indicated a substantial predominance of text (68%) over other formats.

In the United Kingdom, during March 2020, hoaxes predominantly adopted the text format (69.70%), with a significant presence of the combined format (18.18%) of text and image. By March 2021, the percentage of hoaxes disseminated in text format decreased (43.28%), while the relevance of image format increased (19.40%). However, in January 2022, the principal format was the combination (35.87%) of text and images, followed by isolated text (32.61%).

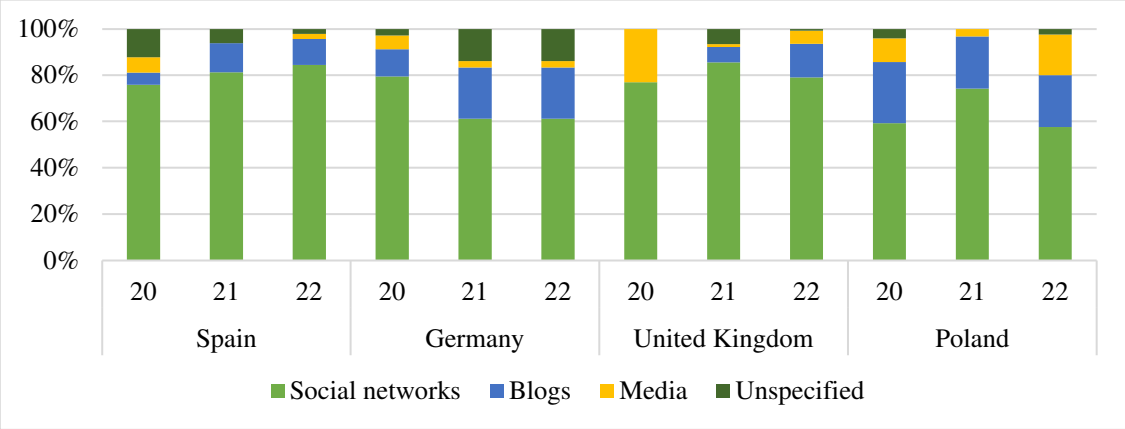
Regarding Poland, in March 2020, text (75.76%) emerged as the most utilised format for the spread of disinformation content, along with the combination (12.12%) of text and image. March 2021 continued to favour text as the preferred format (45.83%), followed by video (29.17%). However, by January 2022, video (32.50%) took precedence over text (30%), resulting in a decrease in its representation.

5.3. *Platform*

The sample of hoaxes examined in this research was distributed across various platforms. It was observed that certain hoaxes had gained virality on multiple platforms simultaneously, resulting in a total number of platforms exceeding the count of hoaxes in the sample (N=843). The data underscore that, overall, social networks were the most frequently utilized platform by creators of hoaxes, constituting 75%, followed by blogs at 12%.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Figure 2. The platform of the hoaxes in number and percentage, by year and country.



Source: Own elaboration.

As indicated in the Figure 2, in Spain, the primary platforms utilized in March 2020 were social networks (75.89%), with the private messaging service WhatsApp taking a notable share (47.40% of the total). Similarly, in March 2021, social networks maintained their dominance (81.25%), and Twitter emerged with increased prominence (23.08% of the total). Finally, in January 2022, social networks reinforced their prevalence (84.44%), with Twitter leading the way (36.84% of the total).

In the case of Germany, social networks predominated in all three periods studied (79.41% in March 2020; 67.31% in March 2021, and 61.11% in January 2022). Notably, the social network Facebook played a significant role (44.44% of the total in March 2020; 54.29% of the total in March 2021, and 27.27% of the total in January 2022).

In the UK, during March 2020, hoaxes were predominantly disseminated via social networks (76.92%), with Facebook being the most popular platform (66.67% of the total). By March 2021, the use of social media for the distribution of fake content increased to become the nearly exclusive platform (85.53%), with Facebook again dominating (67.69% of the total). In January 2022, social media continued its dominance (79.03%), with Twitter accounting for a significant share (45.92% of the total).

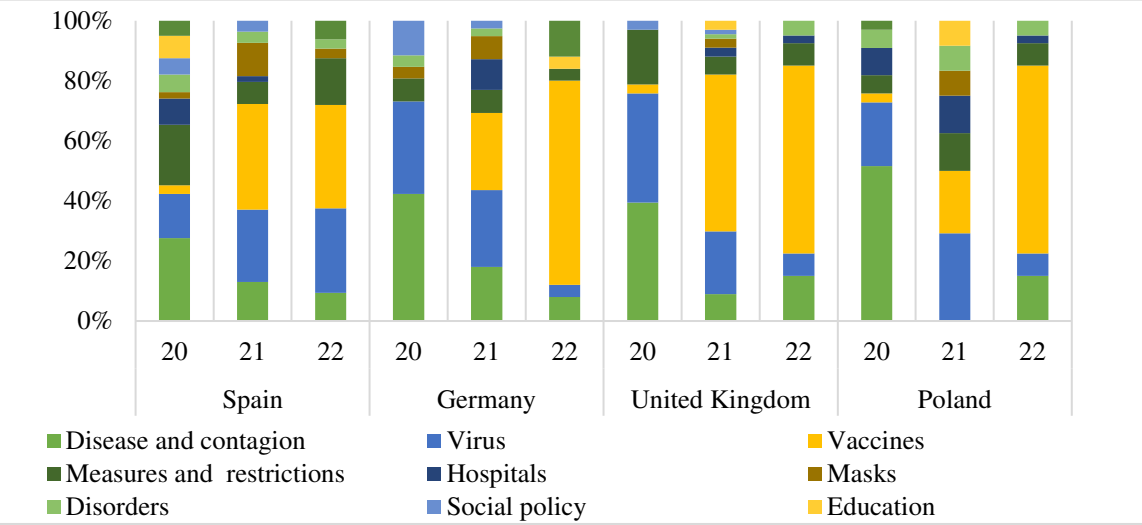
In Poland, social networks were among the most frequently used platforms (59.18% in March 2020; 74.19% in March 2021, and 57.50% in January 2022). Similarly, the preeminent channel was Facebook (68.97% of the total in March 2020; 60.87% of the total in March 2021, and 95.65% of the total in January 2022).

5.4. *Thematic*

Concerning the thematic content of the hoaxes, the findings indicate that, across the studied periods in the four countries, hoaxes related to vaccines (25.85%) constituted the disinformation narratives with the highest dissemination percentage, followed by information pertaining to diseases and contagions (22.02%) and the virus itself (19.18%). However, it is noteworthy that the thematic nature underwent changes and evolution parallel to the progression of the health crisis.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Figure 3. The thematic of the hoaxes in number and percentage, by year and country.



Source: Own elaboration.

As evident from the Figure 3, in Spain, the prevalent disinformation content that went viral in March 2020 pertained to the coronavirus as a disease and its associated contagions (27.62%). Subsequently, the next most disseminated narrative concerned political measures and health restrictions (20.08%). Similarly, in March 2021, the primary theme of disinformation shifted towards the COVID-19 vaccine (35.19%). This was succeeded by false information about the virus (24.07%), specifically concerning its diagnosis and detection (38.46% of the total). Consistent with the preceding year, in January 2022, hoaxes centered on the vaccine (34.38%). Analogously, false content about the virus (28.13%), followed suit.

In Germany, March 2020 featured content related to the disease and its contagion (42.31%). This was trailed by hoaxes about the virus (30.77%). In March 2021, disinformation related to the vaccine took precedence (25.64%). Concurrently, hoaxes about the virus (25.64%), persisted. January 2022 maintained the thematic focus on the vaccine (68%), followed by the category labeled as "another" (12%).

In UK, the primary topic around which the most hoaxes circulated in March 2020 was the coronavirus as a disease and its contagion (39.39%). Simultaneously, false content related to the virus (36.36%) was prevalent. Conversely, in March 2021, the predominant viral topic of fake news pertained to the vaccine (52.24%). This was succeeded by information related to the virus (20.90%). Ultimately, in January 2022, the number of hoaxes about vaccines increased (57.14%). This was followed by content on diseases and contagions (18.68%).

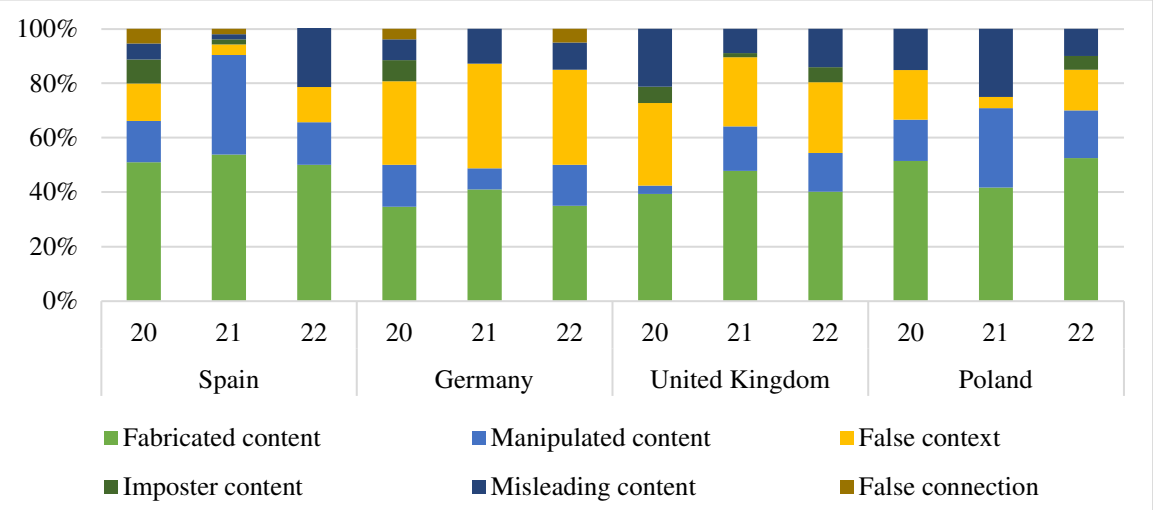
In Poland, the most prevalent hoaxes in March 2020 were those related to disease and contagion (51.52%). Similarly, information related to the virus (21.21%). In March 2021, the most disseminated disinformation narrative was related to the virus (29.71%). Additionally, various false pieces of information about vaccination (20.83%) were disseminated. In January 2022, the primary theme was vaccination (62.50%). Conversely, there were also hoaxes related to disease and contagion (15%).

5.5. *Typology*

In accordance with the categorization outlined by Wardle (2017), the findings indicate an overarching prevalence of fabricated content (47.16%), with misleading content (21.31%) and manipulated content (11.22%) following suit in terms of dissemination.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Figure 4. The typology of the hoaxes in number and percentage, by year and country.



Source: Own elaboration.

As depicted in the Figure 4, both in March 2020 and March 2021, the primary typology employed by hoax creators in Spain for disseminating hoaxes was fabricated content (51% and 54% respectively), with manipulated content following closely (15% and 37% respectively). January 2022 also witnessed a prevalence of fabricated content (50%), although false context gained prominence (21.88%).

In Germany, the most frequently used typology in both March 2020 and March 2021 was fabricated content (34.62% and 41.03% respectively), preceded in both instances by misleading content (30.77% and 38.46% respectively). In January 2022, fabricated content maintained its predominance (40%), alongside an increased presence of manipulated content (28%).

For the UK, fabricated content emerged as the primary typology in March 2020, March 2021, and January 2022 (39.39%, 47.76%, 40.22% respectively). Additionally, misleading content prevailed in all three consecutive years (30.30% in 2020, 25.37% in 2021, and 26.09% in 2022).

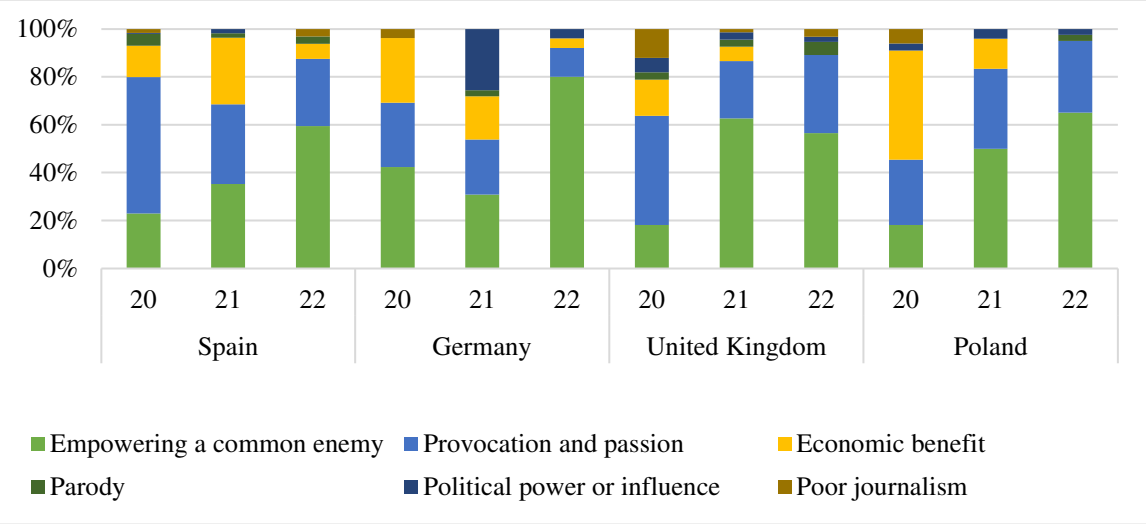
In Poland, during March 2020, fabricated content dominated (51.52%), followed by misleading content (18.18%). Similarly, in both March 2021 and January 2022, fabricated content retained its dominance (41.67% and 52.50% respectively), with manipulated content trailing behind (29.17% and 17.50% respectively).

5.6. *Purpose*

In terms of purpose, the results reveal that the primary objective is the amplification of a common enemy (39.77%), closely followed by provocation and passion (38.64%).

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

Figure 5. The purpose of the hoaxes in number and percentage, by year and country.



Source: Own elaboration.

As shown in the Figure 5, in Spain, the primary purpose of hoaxers in March 2020 was to provoke the population (56.90%), followed, to a lesser extent, by the promotion of a "common enemy" (23.01%), specifically against the government or politicians (58.18% of total). However, in March 2021, the situation reversed, with the main objective being to strengthen a "common enemy" (35.19%), in this case, against vaccination (52.63% of total). This was followed by the provocation of the public (33.33%). In January 2022, the promotion of a "common enemy" continued to predominate with an even higher percentage (59.38%), also against vaccination (52.63% of total). This was followed by provocation, although with a decreasing trend (28.13%).

In Germany, the main purpose of hoaxers over the three years studied was to promote a common enemy (42.31% in 2020, 30.77% in 2021, and 80% in 2022). A trend that, as can be seen, reached its peak in 2022. However, the "other" varied, as in 2020, 72.73% of the hoaxes empowering a "common enemy" were against a "corrupt elite," while in 2021 the percentage dropped to 50%, and in 2022 it was against vaccination (70%). Likewise, the second most popular aim in March 2020 was to generate financial gain through hoaxes (26.92%), while in March 2021, it was the lust for power or political influence (25.64%). Finally, in January 2022, it was the provocation of citizens (12%).

With regard to the UK, the purpose of most hoaxes disseminated in March 2020 was to provoke the population (45.45%), followed by the empowerment of a 'common enemy' (18.18%), namely against a "corrupt elite" (50% of total). However, in March 2021, the intentionality of empowering a "common enemy" became the main one (62.69%), this time against vaccination (64.29% of total), after which the provocation of the audiences was sought (23.88%). In January 2022, the same trend as in the previous year was followed, characterized by the promotion of a "common enemy" (56.52%), in particular vaccination (69.23% of total), together with the provocation of the population (32.61%).

In Poland, the main purpose of hoaxers in March 2020 was to generate financial gain (45.45%), as well as to provoke the receiver (27.27%). In March 2021, the aim was to promote a "common enemy" (50%), in particular against a "corrupt elite" (81.82% of total), as well as to provoke the public (33.33%). Likewise, following the trend, in January 2022, the main aim was to promote a "common enemy" (65%), in this case vaccination (76.92% of total), followed by provocation (30%).

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

6. Discussion

Having detailed the prevalent disinformation patterns during the COVID-19 pandemic across the four countries under study, this discussion will contextualise these trends, providing insights to address the research objectives and hypothesis outlined at the start of this paper.

6.1. *The patterns of text-based pandemic hoaxes on social media*

Initially, it is clear that the primary method for disseminating pandemic hoaxes is through isolated text, without any supplementary formats. This is followed by a combination of textual and multimedia elements. This pattern shows minimal variation across different countries and time periods. Despite advances in technology, which have made video and image editing more accessible and introduced threats such as Artificial Intelligence (Garriga *et al.*, 2024) and deep fakes, textual means remain the most common method for spreading false information during the coronavirus crisis.

These findings contrast with other research, such as Sundar *et al.* (2021), which indicates that audiences are more likely to share falsehoods when presented in video format rather than audio or text. This study suggests that video content undergoes less rigorous cognitive processing. However, it remains unclear whether video formats are inherently more likely to spread disinformation compared to text.

Moreover, verifying disinformation based on images or videos requires a longer time for fact-checkers (García-Marín, 2020). Therefore, during health crises, there might be a preference for text-based content as it can be debunked more quickly. This aligns with previous research by Salaverría *et al.* (2020), García-Marín (2020), Aguado-Guadalupe and Bernaola-Serrano (2020), and Morejón-Llamas (2023), which highlights the predominance of text in the viral spread of COVID-19 hoaxes.

Additionally, social networks emerge as the primary channels for spreading false information, accounting for three-quarters of the content analysed, far surpassing blogs and traditional media. This pattern is consistent across various countries and time periods, showing no significant change as the pandemic progressed. Both open networks and messaging apps are the main spaces where fact-checkers identify hoaxes to debunk. These results corroborate findings from research by Rosenberg *et al.* (2020), Brennen *et al.* (2020), Wetzelhütter and Martin (2021), Naeem *et al.* (2021), and León *et al.* (2022).

It is also noteworthy that Facebook stands out as the leading platform for the spread of hoaxes, with a significant presence in most countries. Meta, Facebook's parent company, collaborates with IFCN fact-checkers to combat false information on its platforms. In 2020, IFCN reported that 43% of surveyed fact-checking media received substantial revenue from this initiative (Mantas, 2021), which has increased its financial support and visibility (Tuñón-Navarro & Sánchez-del-Vas, 2022). This explains why fact-checkers, including those in this study, might focus heavily on debunking Facebook content, leading to a higher frequency of disavowals on this platform.

Conversely, a significant portion of the analysed hoaxes spread through WhatsApp, a finding confirmed by recent studies (Morejón-Llamas, 2023). Notably, WhatsApp is the world's largest messaging app (Sundar *et al.*, 2021) and is predominantly used in Spain (Aguado-Guadalupe & Bernaola-Serrano, 2020).

6.2. *Narratives in flux: understanding the evolution of deceptive content amidst COVID-19 in Europe*

During periods of heightened information density, particularly following extraordinary and unpredictable events, the public seeks more immediate and crucial information (Magallón, 2020). Consequently, the volume of disinformation surged significantly in the early months of the pandemic, compared to subsequent years. There was also a corresponding increase in the amount of verification content produced by fact-checking organisations.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

March 2020 marked a pivotal moment when many European countries began implementing stringent measures to mitigate the pandemic's health impacts. During this period, false information predominantly focused on the coronavirus as a disease and SARS-CoV-2 as its causative agent. León *et al.* (2022) noted that hoaxes regarding the virus's origin were particularly prevalent in the first three months of the pandemic. Similarly, Ceron *et al.* (2021) observed that rumours about preventing the disease were widespread during the first half of 2020. This thematic focus reflected widespread ignorance and uncertainty about the evolving health crisis. However, by March 2021, a noticeable shift occurred in the disinformation landscape, with a growing emphasis on vaccination coinciding with the start of vaccine distribution in Europe. This shift is supported by studies such as those by Islam *et al.* (2021) and Almansa-Martínez *et al.* (2022). By January 2022, disinformation related to vaccination had intensified further, surpassing the levels seen in 2021.

These findings illustrate how disinformation in Europe evolved in response to the global progression of the health crisis –initially driven by uncertainty and later focusing on vaccination issues. Moreover, these patterns are consistent across the countries studied. This aligns with research by the Poynter Institute (2020), which outlines the temporal evolution of pandemic-related disinformation. Thus, the disinformation disseminated and verified reflects the social and informational context of each period.

Additionally, the study highlights the adaptability of hoaxes to national contexts. The content analysis reveals that 5.24% of the scrutinised hoaxes were either wholly or partially replicated across different countries within the selected time frames. Similarly, 10.56% of the disinformation content showed thematic similarities tailored to specific regional characteristics. While these figures may not be large enough to definitively confirm direct disinformation transfer between nations, they suggest that information technologies facilitate the cross-border spread of false content, which adapts to local contexts.

6.3. *Beyond typologies: the reign of fabricated hoaxes in the disinformation landscape*

Wardle (2017) has established a comprehensive typology of disinformation that is widely accepted in the study of deceptive content, identifying seven distinct categories within the information ecosystem, graded according to the degree of intentional deception. According to Wardle's taxonomy, the most frequently disseminated type of content during the COVID-19 pandemic was fabricated content, which refers to entirely fictitious information. Manipulated content, which involves the alteration of genuine information or images, also emerged prominently. In contrast, other categories such as false context, impostor content, and misleading content were less prevalent in the sampled data. This predominant trend showed remarkable consistency across the four countries examined throughout all the scrutinised periods.

While one might argue, as García-Marín (2020) does, that reshaping truthful information constitutes a significant portion of the sample, a more intriguing observation is the near equivalency of fabricated content compared to the combined prevalence of the other categories. This highlights the dominance of fabricated content, which Wardle (2017) identifies as the most dangerous type, with the highest potential to deceive. These findings are consistent with research by León *et al.* (2022) and Morejón-Llamas (2023), supporting the hypothesis that the most egregious fabrications were prevalent during the health crisis.

Furthermore, while fabricated content was the most common type in the analysed sample of hoaxes, it would be unwise to assume that entirely invented information was equally dominant in terms of its dissemination about the pandemic. This potential discrepancy might be attributed to the subjective discretion exercised by fact-checkers in debunking false information. As journalists, fact-checkers often use subjective criteria of significance (de Aguinaga, 2001) when selecting topics for verification. Consequently, the focus of verification efforts may have been biased towards content perceived as having a greater potential to cause harm to the public.

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

6.4. *Tracing the purpose of disinformation: from audiences' provocation to polarization*

In March 2020, a noticeable trend emerged where the primary aim of disseminated hoaxes was to incite the population by appealing to their emotions, which this article categorises as "provocation and passion." A significant portion of fabricated content during this period aimed to mobilise citizens, urging them to take specific actions or adopt particular stances while simultaneously stoking fear. Notably, pandemic-related disinformation capitalised on the heightened state of alarm, amplifying fear beyond the existing uncertainty (Maldita, 2020).

However, by March 2021, the intent behind disinformation shifted towards cultivating a "common enemy." This strategic change aimed to polarise and divide citizens. Research by Almansa-Martínez *et al.* (2022), which analysed disinformation trends a year after the onset of the Spanish State of Alarm, found that most hoaxes sought to discredit individuals or organisations, clearly positioning themselves against them. Indeed, existing studies suggest that disinformation spread through social networks is closely linked to the growing polarisation and segmentation of user communities (Hwang *et al.*, 2014).

As the situation progressed into early 2022, the drive to create a "common enemy" intensified. The rise of new conspiracy theories, particularly those related to vaccines (Islam *et al.*, 2021), likely contributed to an increased susceptibility to pandemic-related disinformation, fostering further polarization among the population (Suter *et al.*, 2022). It is also worth noting how the concept of the common enemy evolved with the pandemic. Some scholars argue that disinformation can create a sense of "us versus them" (Hopp *et al.*, 2020). Andreas Zick explains to DW that "when one holds certain attitudes or preconceived notions about the enemy, there is a tendency to believe in conspiracy myths" (Weber, 2021). In summary, the transition from initial uncertainty and alarm to a more stabilised phase of the pandemic has inevitably led to the dominance of polarisation in online debates and discussions (Vicario *et al.*, 2019).

7. Conclusions

In summary, the COVID-19 pandemic marked a pivotal moment, triggering a global health crisis and widespread upheaval. This unprecedented situation, combined with information saturation, led to a secondary pandemic –the infodemic. Disinformation, facilitated by technology, overwhelmed an already confused and information-deprived population, influencing the course of the pandemic. Despite the efforts of fact-checkers, who have proven effective in mitigating the crisis (Tuñón-Navarro *et al.*, 2023), disinformation has persisted, exploiting the fear and uncertainty experienced by society through hoaxes.

With the aim of studying the development of disinformation surrounding the pandemic in Europe, its processes, as well as its forms of distribution and circulation, four hypotheses were proposed. Throughout the investigation, evidence has been gathered to confirm the following:

Firstly, the evolution and ascent of social networks have enabled these platforms to serve as the breeding ground for the viral spread of hoaxes. Indeed, due to the existence of algorithms enabling the formation of "echo chambers," disinformative content is capable of reaching audiences more directly. In light of the results, the social network that stands out among the debunked content is Facebook, followed by WhatsApp, especially in Spain. Similarly, despite the advancements in information technologies and the professionalization of deep fakes, text remains the preferred format for the viralization of disinformation related to the pandemic. This allows us to validate the first hypothesis.

Secondly, as the pandemic evolved, disinformation adapted accordingly to the different contexts of each country. In this regard, it is observed that in March 2020, amid a context of urgency and insecurity, there was a predominance of hoaxes related to the virus and the disease, as well as political and health measures. However, the stabilization of the emergency situation and its increased understanding fostered more specific false information, particularly regarding vaccination. This trend remains homogeneous across different regions, and, in fact, it has been

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19

demonstrated that some hoaxes are partially identical or similar across different countries. Based on this, the second hypothesis is confirmed.

Furthermore, following Wardle's classification (2017), the most harmful type of content, characterized by a higher intent to deceive, is fabricated content. In this sense, the results demonstrate how invented content prevails in all studied regions and temporal frameworks, overshadowing content characterized by the decontextualization, reconfiguration, or restructuring of reality. This provides the means to authenticate the third hypothesis.

Finally, in light of the results obtained, the purpose of COVID-19-related disinformation in Europe evolved in line with the pandemic's progression. In March 2020, amid the health emergency, patterns were more oriented towards provoking the population. However, in the subsequent years, this intent was replaced by an increase in the polarization of citizens towards a "common enemy," eliciting rejection and division. This enables us to verify the fourth hypothesis.

8. Limitations and future lines of research

A key methodological limitation of this study is its reliance on hoaxes previously identified by fact-checking organisations. Although these organisations adhere to ethical codes that help them reliably identify disinformation, they are not immune to various biases and lack access to the full spectrum of disinformation. Much of the disinformation is disseminated through private and encrypted channels, which only a fraction of the total hoaxes reach. Additionally, the study's temporal constraints necessitated the selection of specific countries and time periods. A broader analysis covering more countries and an extended timeframe would provide more nuanced insights into the evolution of European pandemic disinformation.

Another limitation is the impact of the Russia-Ukraine war on the chosen time frame. Initially, March 2022 was to be included, but the invasion shifted the focus to debunking war-related disinformation. Consequently, January 2022 was selected to avoid disrupting the fact-checkers' agendas. Despite these limitations, this study represents a significant step forward in understanding the nature and extent of disinformation, providing a foundation for future research.

As demonstrated in this article, disinformation tends to proliferate during extraordinary situations marked by alarm and urgency, creating conditions ripe for the spread of inaccurate and potentially harmful content. The COVID-19 pandemic is a prime example of the exponential growth of such content. Similar disinformation strategies have been observed in other events, such as the ongoing Russia-Ukraine war, the conflict between Israel and Gaza, and recent electoral campaigns like the 2024 European Parliament Elections. The forthcoming 2024 United States Presidential Elections are also expected to be a battleground for disinformation. Future research could explore disinformation surrounding these events using the same methodology and incorporating in-depth interviews to ensure methodological triangulation and enhance the robustness of the findings.

References

Almansa-Martínez, A., Fernández-Torres, M. J. & Rodríguez-Fernández, L. (2022). Desinformación en España un año después de la COVID-19. Análisis de las verificaciones de Newtral y Maldita. *Revista Latina de Comunicación Social*, *80*, 183-200. https://doi.org/10.4185/rlcs-2022-1538

Amazeen, M. A. (2018). Practitioner perceptions: Critical junctures and the global emergence and challenges of fact-checking. *International Communication Gazette*, *81*(6-8), 541-561. https://doi.org/10.1177/1748048518817674

Brennen, J. S., Simon, F. M., Howard, P. N. & Nielsen, R.-K. (2020). Types, sources, and claims of Covid-19 misinformation. *Reuters Institute for the Study of Journalism Factsheet*, April 2020, 1-13. Retrieved from https://reutersinstitute.politics.ox.ac.uk/types-sources-and-claims-covid-19-misinformation

Casero-Ripollés, A. (2020). Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *El Profesional de la Información*, *29*(2). https://doi.org/10.3145/epi.2020.mar.23

Cea, N. & Palomo, B. (2021). Disinformation Matters: Analyzing the Academic Production. In G. López-García, D. Palau-Sampio, B. Palomo, E. Campos-Domínguez & P. Masip (Eds.), *Politics of Disinformation: The Influence of Fake News on the Public Sphere* (pp. 5-22). Hoboken, NJ: Wiley-Blackwell.

Ceron, W., De-Lima-Santos, M. & Quiles, M. G. (2021). Fake news agenda in the era of COVID-19: Identifying trends through fact-checking content. *Online Social Networks And Media*, *21*, 100116. https://doi.org/10.1016/j.osnem.2020.100116

De Aguinaga, E. (2001). Hacia una teoría del periodismo. *Estudios sobre el mensaje periodístico*, *7*, 241-255.

Feenstra, R. A., Tormey, S., Casero-Ripollés, A. & Keane, J. (2016). *La reconfiguración de la democracia*. Granada: Comares.

Gallotti, R., Valle, F., Castaldo, N., Sacco, P. & De Domenico, M. (2020). Assessing the risks of 'infodemics' in response to COVID-19 epidemics. *Nature human behaviour*, *4*(12), 1285-1293. Retrieved from https://acortar.link/bFaRrI

García-Marín, D. (2020). Infodemia global. Desórdenes informativos, narrativas *fake* y *fact-checking* en la crisis de la Covid-19//Global infodemic: Information disorders, false narratives, and fact checking during the Covid-19 crisis. *Profesional de la información*, *29*(4). https://doi.org/10.3145/epi.2020.jul.11

Garriga, M., Ruiz-Incertis, R. & Magallón-Rosa, R. (2024). Artificial intelligence, disinformation and media literacy proposals around deepfakes. *Observatorio (OBS*)*, 18. https://doi.org/10.15847/obsOBS18520242445

Ghebreyesus, T. A. (2020, February 15). *Munich Security Conference*. World Health Organisation. Retrieved from https://acortar.link/2ybHm4

Graves, L. (2018). Boundaries not drawn. *Journalism Studies*, *19*(5), 613-631. https://doi.org/10.1080/1461670X.2016.1196602

Hallin, D. C. & Mancini, P. (2004). *Comparing media systems: Three models of media and politics*. Cambridge: Cambridge University Press.

Hopp, T., Ferrucci, P. & Vargo, C. (2020). Why do people share ideologically extreme, false, and misleading content on social media? A self-report and trace data–based analysis of countermedia content dissemination on Facebook and Twitter. *Human Communication Research*, *46*(4), 357-384. https://doi.org/10.1093/hcr/hqz022

Igartua, J. J. (2006). *Métodos cuantitativos de investigación en comunicación*. Barcelona: Bosch.

Islam, S., Kamal, A. H. M., Kabir, A., Southern, D. L., Khan, S. H., Hasan, S. S., Sarkar, T., Sharmin, S., Das, S., Roy, T. S., Harun, G. D., Chughtai, A. A., Homaira, N. & Seale, H. (2021). COVID-19 vaccine rumors and conspiracy theories: The need for cognitive inoculation against misinformation to improve vaccine adherence. *PLOS ONE*, *16*(5), e0251605. https://doi.org/10.1371/journal.pone.0251605

Kotoulas, I. E. & Pusztai, W. (2022). Geo-Politics Of The War In Ukraine. *Foreign Affairs Institute*. Retrieved from https://acortar.link/Eb15ZJ

Landman, T. & Carvalho, E. (2017). *Issues and Methods in Comparative Politics: An Introduction* (4th Ed.). London: Routledge

LatamChequea (2020). Información chequeada sobre el Coronavirus. *Chequeado*. Retrieved from https://chequeado.com/latamcoronavirus/

Lauer, L. & Graves, L. (2024). How to grow a transnational field: A network analysis of the global fact-checking movement. *New Media & Society*. https://doi.org/10.1177/14614448241227856

Lelo, T. & Fígaro, R. (2021). A Materialist Approach to Fake News. In D. Teira & C. Elías (Eds.), *Manual de periodismo y verificación de noticias en la era de las "fake news"* (pp. 23-234). Universidad Nacional de Educación a Distancia. https://doi.org/10.1002/9781119743347.ch2

León, B., Martínez-Costa, M., Salaverría, R. & López-Goñi, I. (2022). Health and science-related disinformation on COVID-19: A content analysis of hoaxes identified by fact-checkers in Spain. *PloS One*, *17*(4), e0265995. https://doi.org/10.1371/journal.pone.0265995

López-Martín, Á. & Córdoba-Cabús, A. (2024). Desinformación sobre la guerra de Israel-Hamás: Análisis de las *fake news* identificadas por las plataformas de verificación españolas. *Estudios Sobre el Mensaje Periodístico*, *30*(2), 311-322. https://doi.org/10.5209/esmp.95088

Magallón, R. (2020). *Desinformación y pandemia. La Nueva Realidad*. Madrid: Pirámide.

Maldita.es. (2020, November 27). *La COVID-19 y sus bulos: 1.280 mentiras, alertas falsas y desinformaciones sobre el coronavirus*. Retrieved from https://acortar.link/QajAoc

Maldita.es (2021, November 23). Veinte sesgos que influyen en nuestra manera de ver el mundo y de tomar decisiones. *Maldita.es*. Retrieved from https://maldita.es/malditateexplica/20211123/sesgos-mente-afectan-decisiones-prejuicios/

Masip, P. & Palomo, B. (2020). Información, sobreinformación y desinformación en tiempos de pandemia. In *Cartografía de la comunicación postdigital: medios y audiencias en la sociedad de la Covid-19* (pp. 177-199). Cizur Menor: Aranzadi Thomson Reuters.

McIntyre, L. (2018). *Postverdad*. Madrid: Cátedra.

Morejón-Llamas, N. (2023). Características y ejes discursivos de la desinformación y el proceso de *fact-checking* sobre las vacunas COVID-19 en Latinoamérica. *Revista Española de Comunicación en Salud*, 47-61. https://doi.org/10.20318/recs.2023.7005

Naeem, S. B., Bhatti, R. & Khan, A. (2021). An exploration of how fake news is taking over social media and putting public health at risk. *Health information and libraries journal*, *38*(2), 143-149. https://doi.org/10.1111/hir.12320

Palau-Sampio, D. & Carratalá, A. (2021). Checking Verifications: Focus and Scope of Collaborative Projects to Monitor Election Campaigns in France, Brazil, and Spain. *Politics of Disinformation: The Influence of Fake News on the Public Sphere*, 105-118. https://doi.org/10.1002/9781119743347

Pamment, J. & Lindwall, A. (2021). *Fact-checking and Debunking*. Riga: NATO Strategic Communications Centre of Excellence.

Parisier, E. (2012). *Il filtro* (Vol. 772). Il Saggiatore.

Pierri, F., Luceri, L., Jindal, N. & Ferrara, E. (2022). Propaganda and Misinformation on Facebook and Twitter during the Russian Invasion of Ukraine. *arXiv preprint arXiv:2212.00419*. Retrieved from https://arxiv.org/pdf/2212.00419.pdf

Poynter Institute (2020). CoronaVirusFacts Alliance. Retrieved from https://www.poynter.org/coronavirusfactsalliance/

Rodríguez-Pérez, C., Seibt, T., Magallón-Rosa, R., Paniagua-Rojano, F. J. & Chacón-Peinado, S. (2023). Purposes, Principles, and Difficulties of Fact-checking in Ibero-America: Journalists' Perceptions. *Journalism Practice*, *17*(10), 2159–2177. https://doi.org/10.1080/17512786.2022.2124434

Rogers, K. (2020). How Bad Is The COVID-19 Misinformation Epidemic? *FiveThirtyEight.* Retrieved from https://acortar.link/dOoP5N

Rosenberg, H., Syed, S. & Rezaie, S. (2020). The Twitter pandemic: The critical role of Twitter in the dissemination of medical information and misinformation during the COVID-19 pandemic. *CJEM, 22*(4), 418-421. https://doi.org/10.1017/cem.2020.361

Rosińska, K. A. (2021). Disinformation in Poland: Thematic classification based on content analysis of fake news from 2019. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 15*(4), Article 5. https://doi.org/10.5817/CP2021-4-5

Ruiz-Incertis, R., Sánchez-del-Vas, R. & Tuñón-Navarro, J. (2024). Análisis comparado de la desinformación difundida en Europa sobre la muerte de la reina Isabel II. *Revista de comunicación*, *23*(1), 507-534. https://doi.org/10.26441/RC23.1-2024-3426

Salaverría, R., Buslón, N., López-Pan, F., León, B., López-Goñi, I. & Erviti, M. C. (2020). Desinformación en tiempos de pandemia: tipología de los bulos sobre la Covid-19. *El profesional de la información (EPI)*, *29*(3). https://doi.org/10.3145/epi.2020.may.15

Sánchez-del-Vas, R. & Tuñón-Navarro, J. (2023). La comunicación europea del deporte en un contexto desinformativo y post-pandémico. In E. Ortega-Burgos & M. M. García Caba (Eds.), *Anuario de Derecho Deportivo 2023* (pp. 85-104). Valencia: Tirant lo Blanch.

Sánchez-del-Vas, R. & Tuñón-Navarro, J. (2024). Disinformation on the COVID-19 pandemic and the Russia-Ukraine War: Two sides of the same coin? *Humanities & Social Sciences Communications, 11*(1). https://doi.org/10.1057/s41599-024-03355-0

Singer, J. B. (2019). Fact-checkers as Entrepreneurs. *Journalism Practice*, *13*(8), 976-981. https://doi.org/10.1080/17512786.2019.1646613

Stencel, M. & Luther J. (2020). Update: 237 fact-checkers in nearly 80 countries… and counting. *Duke Reporters' Lab*. Retrieved from https://acortar.link/MC9tef

Sundar, S. S., Molina, M. & Cho, E. (2021). Seeing Is Believing: Is Video Modality More Powerful in Spreading Fake News via Online Messaging Apps? *Journal of Computer-Mediated Communication*, *26*(6), 301-319. https://doi.org/10.1093/jcmc/zmab010

Suter, V., Shahrezaye, M. & Meckel, M. (2022). COVID-19 Induced Misinformation on YouTube: An analysis of user Commentary. *Frontiers in Political Science*, *4*. https://doi.org/10.3389/fpos.2022.849763

Tuñón-Navarro, J. & Sánchez-del-Vas, R. (2022). Verificación: ¿la cuadratura del círculo contra la desinformación y las noticias falsas? *adComunica. Revista Científica de Estrategias, Tendencias e Innovación en Comunicación, 23*, 75-95. https://doi.org/10.6035/adcomunica.6347

Tuñón-Navarro, J., Sánchez-del-Vas, R. & Sáenz-de-Ugarte, I. (2024). *Desinformación y censura en conflictos internacionales: Los casos de Ucrania y Gaza* (ed. & coord. V. Palacio). Fundación Alternativas. Documento de trabajo No. 236/2024. Retrieved from https://acortar.link/wsRkoO

Tuñón-Navarro J. (2008). La activación europea de las regiones legislativas: (análisis comparado de las estrategias de Canarias, Escocia, Toscana y Valonia). Doctoral dissertation, Universidad Complutense de Madrid. Retrieved from https://eprints.ucm.es/id/eprint/8715/1/T30787.pdf

Tuñón-Navarro, J. (2021a). *Europa frente al Brexit, el populismo y la desinformación. Supervivencia en tiempos de "fake news"*. Valencia: Tirant lo Blanch.

Tuñón-Navarro, J. (2021b). Desinformación y *fake news* en la Europa de los populismos en tiempos de pandemia. In D. Teira & C. Elías (Coords.), *Manual de periodismo y verificación de noticias en la era de las "fake news"* (pp. 249-284). Universidad Nacional de Educación a Distancia. https://doi.org/10.5944/m.periodismo.verificacion.2021

Tuñón-Navarro, J., Sánchez-del-Vas, R. & Ruiz-Incertis, R. (2023). La regulación europea frente a la pandemia desinformativa. In J. A. Nicolás & F. García-Moriyón (Eds.), *El reto de la posverdad. Análisis Multidisciplinar, Valoración Crítica y Alternativas* (pp. 129-150). Tijuana: Sindéresis.

Vinhas, O. & Bastos, M. (2023). WHEN FACT-CHECKING IS NOT WEIRD: CHALLENGES IN FACT-CHECKING BEYOND THE WESTERN WORLD. *Selected Papers Of Internet Research*. https://doi.org/10.5210/spir.v2022i0.13104

Vosoughi, S., Roy, D. & Aral, S. (2018). The spread of true and false news online. *Science*, *359*(6380), 1146-1151. https://doi.org/10.1126/science.aap9559

Waisbord, S. (2018). Truth is What Happens to News. *Journalism Studies*, *19*(13), 1866-1878. https://doi.org/10.1080/1461670x.2018.1492881

Wardle, C. (2017, March 14). *Noticias falsas. Es complicado*. First Draft. Retrieved from https://firstdraftnews.org/articles/noticias-falsas-es-complicado/

Wardle, C. (2018, July 9). Information Disorder, Part 3: Useful graphics - First Draft. *Medium*. Retrieved from https://medium.com/1st-draft/information-disorder-part-3-useful-graphics-2446c7dbb485

Weber, J. (2021, February 15). ¿Por qué algunas personas creen en las noticias falsas? *dw.com*. Retrieved from https://www.dw.com/es/por-qu%C3%A9-algunas-personas-creen-m%C3%A1s-f%C3%A1cilmente-en-las-noticias-falsas/a-56577587

Weeks, B. E. & Garrett, R. K. (2014). Electoral Consequences of Political Rumors: Motivated Reasoning, Candidate Rumors, and Vote Choice during the 2008 U.S. Presidential Election. *International Journal of Public Opinion Research*, *26*(4), 401-422. https://doi.org/10.1093/ijpor/edu005

Wetzelhütter, D. & Martin, S. (2021). *Pandemic (Im)Possibilities* (Nº 46). European Sociological Association. Retrieved from https://www.europeansociology.org/issue-46-pandemic-impossibilities-vol-2/mediating-covid-evolution-fake-news-context-coronavirus

Zadroga, M. (December 4th, 2023). *The disinformation landscape in Poland - EU DisinfoLab*. EU DisinfoLab. Retrieved from https://www.disinfo.eu/publications/disinformation-landscape-in-poland/

ISSN 2386-7876 – © 2024 Communication & Society, 37(4), 1-19