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# THE DANA FLOODS IN VALENCIA ON TIKTOK:

## perceptions of disinformation during a climate crisis



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**ABSTRACT** – The isolated depression at high levels (DANA in Spanish) that struck Valencia in October 2024 drew attention to how disinformation can spread on social media during climate-related crises. This study analyzes how users with and without formal journalism training perceive content about the DANA and climate change on TikTok. Their perceptions are compared against the actual veracity of the content through several phases. The first phase involved asking three journalism graduates to record their perceptions of the profiles and falsifiability of 117 TikTok videos, which were selected using the keywords “DANA” and “climate change”. The next phase involved conducting a qualitative fact-checking process for the 36 videos flagged as disinformation, and the final phase included a sample of first-year university students and their perceptions of a subset of these videos. The results show the complexity of distinguishing between facts, opinions, and disinformation. The study highlights confusion about the origin of content as participants struggled to differentiate between private users, influencers, and media outlets.

**Key Words:** Disinformation. TikTok. DANA. Climate Change. Media Literacy.

### **DANA DE VALENCIA NO TIKTOK: percepção da desinformação em contexto de crise climática**

**RESUMO** – A depressão isolada em altos níveis (DANA, em espanhol) que impactou Valência, em outubro de 2024, destacou como a desinformação se intensifica nas redes sociais durante crises climáticas. Este estudo analisa como usuários com e sem formação formal em jornalismo percebem o conteúdo sobre a DANA e as mudanças climáticas no TikTok. As percepções deles são comparadas à veracidade real do conteúdo por meio de várias fases: inicialmente, três formados em jornalismo foram convidados a registrar suas percepções sobre o tipo de conta e a falsificabilidade de 117 vídeos do TikTok selecionados com palavras-chave (“DANA” e “mudanças climáticas”); em seguida, foi realizado um processo de verificação qualitativa para os 36 vídeos sinalizados como desinformação; finalmente, foram coletadas as percepções de uma amostra de estudantes de primeiro ano da universidade em relação a um subconjunto desses vídeos. Os resultados revelam a complexidade de distinguir entre fatos, opiniões e desinformação. O estudo destaca a confusão sobre a origem do conteúdo, já que os participantes tiveram dificuldades para diferenciar entre usuários particulares, influenciadores e meios de comunicação.

**Palavras-chave:** Desinformação. TikTok. DANA. Mudança climática. Literacia mediática.

### **LA DANA DE VALENCIA EN TIKTOK: percepción de la desinformación en un contexto de crisis climática**

**RESUMEN** – La depresión aislada en niveles altos (DANA) que impactó Valencia (octubre-2024) mostró que la desinformación se intensifica en redes sociales en crisis climáticas. Este trabajo analiza cómo usuarios con y sin formación en Periodismo perciben el contenido sobre la DANA y el cambio climático en TikTok. Se contrastan sus percepciones con la veracidad de las piezas mediante diferentes fases: al inicio, se pidió a tres titulados que registrarán sus percepciones sobre el tipo de cuenta y falsabilidad en torno a 117 vídeos de TikTok, seleccionados mediante palabras clave (DANA y “cambio climático”); después, se efectuó una verificación cualitativa de los 36 vídeos señalados como desinformación; finalmente, se recogió la percepción de una muestra de estos vídeos por parte de 65 universitarios de primero de Periodismo. Los resultados muestran la complejidad de discernir entre hechos, opiniones y desinformación. Se revela confusión sobre la procedencia de los contenidos: problemas para distinguir entre cuentas particulares, influencers y medios.

**Palabras clave:** Desinformación. TikTok. DANA. Cambio climático. Alfabetización mediática.

## 1 Introduction

The isolated depression at high levels (DANA in Spanish) in October 2024 that affected several provinces in eastern and southeastern Spain, particularly the Valencia region, drew attention to the impact of misinformation on social media during climate emergencies. In the days following the disaster, false reports were circulating about the extent of the damage, decontextualized images of meteorological phenomena that occurred in other places (or at other times) were attributed to the DANA and spread across social media, which included conspiracy theories about the origin of the meteorological phenomenon and its consequences. A report published by content verifiers within the framework of the European Iberifier project confirms that most of the fake reports that were debunked in Spain in the last quarter of the year were related to DANA (Pardal & Hernández, 2025). This flow of misinformation not only increased panic among citizens but also hindered the work of authorities and emergency services, who had to spend much of their time debunking rumors and then releasing official warnings.

Disinformation on social media during crises like this underscores the importance of investigating the phenomenon, especially on platforms like TikTok, whose algorithmic structure is based on the amplification of content through a highly personalized recommendation system and favors rapid viralization without information hierarchy (Alonso-López et al., 2021). Our interest in studying this platform stems from its growing importance in the digital information ecosystem, particularly among youths. The Digital News Report 2024 shows that nearly one in four users aged 18 to 24 use TikTok to get their news, a percentage that has grown significantly in recent years (Newman et al., 2024, p. 12).

Discussions in recent years about the limits of freedom of expression and the control of disinformation have intensified (Sánchez-Beato, 2022), especially after Donald Trump's second tenure as the president of the United States, which has resulted in the Meta company ending its fact-checking program (RTVE, 2025) and Elon Musk reformulating the community notes on X (2025). At the same time, the real impact of these measures continues to be questioned (Chuai et al., 2024), which makes it even more relevant to analyze how users perceive, interpret, and classify the messages they interact with in digital environments.

In terms of content that addresses climate change, we also observed that social media is where the majority of the population gets and shares information (Painter et al., 2018). Social networks have become an important forum for discussion on environmental issues (Cody et al., 2015) where different, and sometimes opposing, perspectives have a voice. One example of this is the conflict between the current scientific consensus on anthropogenic climate change and certain denialist groups (O'Neill et al., 2015).

Media literacy is widely recognized in academia as a fundamental strategy for combating misinformation. Various studies have highlighted how promoting critical thinking and analytical skills in citizens can mitigate the spread of fake news (Sádaba & Salaverría, 2023). However, this does not guarantee absolute protection against disinformation as disinformation strategies are becoming increasingly sophisticated and adapting to new technologies and digital platforms (Aguaded & Romero-Rodríguez, 2015).

This research studies the perception of misinformation on TikTok regarding a climate catastrophe and introduces the variable of user media literacy. Specifically, this research analyzes and compares the perception of TikTok content using the search terms “DANA” and “climate change” among media-literate users (with journalism studies) and an audience with no specific journalism studies, whose literacy level is unknown and therefore may represent a general audience. Furthermore, these perceptions are contrasted with the real nature of the videos in our sample using a content analysis focused on veracity and based on validated standards. Our sample includes videos from the platform’s general universe to emulate an ecosystem in which informative, opinionated, and misinformative elements coexist to help us understand how these are perceived by different audiences.

The available literature on TikTok and disinformation has focused primarily on dissemination dynamics and content characterization, but there are few studies examining the reception and perception of disinformation on this platform. This gap makes this study an exploratory approach to this phenomenon.

## 2 Reference framework

### 2.1 Concept and classification of information disorders

The phenomenon of disinformation is not new, but the digital environment introduces unprecedented dynamics and challenges with constantly evolving communication structures that make it difficult to identify and develop regulatory and educational responses (Wardle & Derakhshan, 2017). Academia has studied the issue from multiple perspectives, which has made it difficult to establish a single definition. In general terms, disinformation is understood as the intentional dissemination of false information with the intent to deceive and the potential to cause harm (Fallis, 2015; European Union, 2018). Despite the popularization of the term fake news, its use has been questioned for its reductionist nature, as it limits the phenomenon to a single format of news, when in reality, disinformation spreads across various channels, media, and formats. It also focuses on the final product without considering the production process, the agents involved, and their effects.

Wardle and Derakhshan (2017) propose the term “information disorders” to encompass the different forms of disruption to the information ecosystem. This concept includes misinformation, which does not have a deceptive purpose but can generate negative consequences, malicious information (or malinformation), which is based on reality to cause harm, and disinformation, which is “information that is false and deliberately created to harm a person, social group, organization or country” (Wardle & Derakhshan, 2017, p. 20). In this study, we use the term “disinformation” to refer to both misinformation and disinformation, as there is no Spanish synonym that encompasses all of its nuances. We opted not to use the generic term “information disorders” as the subject of our study does not include malicious information.

Wardle (2017) also proposes a classification that includes various types of problematic content, from satire or parody (which can become misinformation if misinterpreted by the recipient) to completely fabricated content with harmful intentions. This model encompasses a disconnect between content and the elements that present it (such as headlines, images, or captions), misleading use of information, decontextualization, source impersonation, and content manipulation. In a systematic bibliographic review, Kapantai et al.

(2020) propose another classification that expands and modifies that of Wardle (2017), which includes fabricated content, imposter content or source impersonation, conspiracy theories, hoaxes, biased or polarized stories, rumors, clickbait, disconnection between content and other elements, fake reviews, digital harassment and pseudoscience.

Other authors also talk about information overload, that is, the overload of all kinds of content that makes it difficult to discern relevant and truthful data (Johnson, 2012), posing a risk to the right to information. While this right requires the transmission of verifiable and verified data, freedom of expression protects the expression of ideas regardless of their level of veracity (Spanish Constitution, 1978, art. 20). The convergence of both of these rights on social media creates some issues because even though the mass spread of opinions can hinder one's access to objective information, setting a limit would be an infringement on another constitutionally recognized right. This poses a challenge to traditional verification mechanisms and sometimes leads to disinformation being spread under the guise of freedom of expression.

Hybridization is not exclusive to content; it also extends to accounts and users, and has implications on the debate about social networks as a public sphere for democracy (Halpern & Gibbs, 2013; Loader & Mercea, 2011; Cerón, 2015). Historically speaking, the concept of "media" referred to traditional mass media (press, radio, television). However, at present, platforms like Facebook, YouTube, and TikTok play a pivotal role in distributing information, raising the question of whether they should be considered media outlets or simply technology companies. On one hand, digital platforms do not produce their own content; they only facilitate the distribution of user-generated content. Even so, Napoli (2023) points out how these platforms use algorithms to select, organize, and promote content, which makes them *de facto* media actors, yet they avoid the legal responsibilities of a traditional media outlet.

It is important to differentiate between verifiable information and non-falsifiable content. Only statements that are susceptible to empirical verification can be subjected to fact-checking and classified as true or false (Popper, 1963). Conversely, subjective opinions, beliefs, or interpretations are beyond the scope of factual verification (Wardle & Derakhshan, 2017). The proliferation of subjective discourses on social media intensifies this problem and erases the boundaries between verifiable information and narratives constructed from ideological or emotional perspectives (Kapantai et al., 2020).

## 2.2 TikTok: a breeding ground for misinformation?

Social media has become one of the main information gateways in Spain. According to the Digital News Report (Novoa-Jaso et al., 2024), access to digital news through the use of these platforms reached 29%, which is more than other traditional options such as search engines (21%) and websites or mobile applications (15%). With regards to younger audiences, this figure rose to 38%, a change in consumption dynamics largely due to the emergence of new generations of users who are accustomed to short, dynamic, and quickly assimilated content.

Informative videos – especially short videos – have become one of the preferred formats across most age groups. 72% of viewers between the ages of 18 and 24 said they consume informative content in short video format. Audiences aged 25 and over account for a considerable 60%. These figures place Spain as the country in southern and western Europe with the highest number of people consuming news videos (Novoa-Jaso, 2024). Audiovisual content-based platforms have capitalized on this trend, gaining greater relevance in the news space. One example here is TikTok, initially an entertainment-based platform, but it has now managed to become one of the main sources of information for people under 35 years of age (23%), trailing only behind Instagram (29%) and X (28%) (Sierra, 2024).

However, the opacity of its algorithm and the lack of control over the content it releases have turned TikTok into the perfect breeding ground for misinformation (Alonso-López et al., 2021). Despite new European regulations (Quintas-Froufe, 2024) and the platform's relative efforts with literacy actions such as #FactCheckYourFeed or educational profiles such as @TikTokTips, the network has been involved in some of the most relevant disinformation campaigns in recent years (Basch et al., 2021; Bösh & Divon, 2024). Research conducted by The NewsGuard (2022) revealed that 20% of search results on current affairs contain false information. The study (which analyzed 540 results on 27 different topics: the US election, covid-19, and the Russia-Ukraine war, among others) concluded that the top 20 results contained false claims, often ranking in the top five.

This rise in misinformation on platforms like TikTok has not gone unnoticed by audiences. According to the Digital News Report (Novoa-Jaso et al., 2024), 70% of respondents question the veracity

of content published online. This is six percentage points higher than in 2023 and the largest year-to-year increase on record. A study on scientific misinformation in Spain conducted by the FECYT (Federal Council of Science and Technology) (2022) showed that one in four people claimed they had received false information on scientific topics in the last week. These claims increase concerning topics such as climate change, vaccines, well-being, and nutrition.

### **2.3 Disinformation about climate change and the DANA in Valencia**

Calvo et al. (2025) explain three types of information disorders that occurred around DANA: structural, economic, and pragmatic. Structural relates to the key role that technology, more specifically social media, plays in spreading disinformation during times of crises. Platformization and the social impact of all types of actors and profiles figure in on how this content gets distributed in these contexts. The economic dimension is related to the media's prioritization of monetizing user attention, which can lead to sensationalism and ambiguity in their content. Lastly, the pragmatic dimension is marked by immediacy and the overproduction of information, which can result in journalism losing its credibility. With regard to DANA (and other contemporary events of great social impact), certain peculiarities also arise, such as the technicalization of conservative discursive strategies or the media's use of political polarization.

It is in this sense that Moreno-Castro (2025) argued that the media played a fundamental role as a public service during the initial hours of DANA by issuing effective disaster warnings; however, politicization and disinformation arose once the catastrophe was over, when the search for those responsible began. Sánchez Torres et al. (2025) also concluded that the spread of disinformation during the crisis was typical for this type of situation, with a particularly high volume in the days immediately following the event. These authors went on to say that the dominant narratives focused on institutional management and contributed toward a feeling of distrust, alarm, and polarization. What's more, social media was the main channel where this information was circulated, and where certain influential profiles played a key role.

An investigation carried out by López-Carrión and Llorca-Abad (2025) based on a content analysis of 185 reports published between October 28 and November 17, 2024, across 14 digital media platforms showed that disinformation about the DANA floods included hoaxes about the number of victims, conspiracy theories, and institutional attacks, mainly on the Government of Spain and the AEMET. This investigation also confirmed that the main channels of dissemination were social media, although more than one quarter of the sample did come from traditional media.

Climate change content on social media is superficial and appeals to emotion and not any explanation of evidence (De Lara et al., 2022; Nieto-Sandoval & Ferré-Pavía, 2023). Basch et al. (2022) expressed a major concern with regards to the spread of unverified content on TikTok, particularly information spread by individuals posing as health and environmental professionals. These authors emphasize the need for a critical assessment of the benefits and risks involved when these platforms are used for spreading scientific information. Recent reports (De Lara, 2023, pp. 100-101) on communication trends point to the need to communicate environmental issues more effectively by avoiding alarmism and focusing on the causes and contexts, to ensure that society is well informed even in the face of information overload and possible boredom, particularly among the younger generations.

Research on how climate change is portrayed on TikTok is scarce, although some common patterns have been identified. In general, climate change is a topical issue that causes concern and anxiety (Basch et al., 2022). Negative emotions have proven to be a powerful agent in the spread of disinformation (Al-Rawi, 2019), which is why they are often used as the basis for hoaxes and conspiracy theories. Disinformation about climate change appeals to users who are skeptical of “conventional science” (Baltasar et al., 2022) by reinforcing their prior beliefs and appealing to the emotional component, thus achieving a greater reach. According to Scheufele and Krause (2019), one of the possible causes for the rapid spread of scientific disinformation is the public’s lack of understanding about “basic scientific facts” and the “scientific process in general”. As such, they highlight the need to educate not only in media literacy, but also in the basic understanding of science.

### 3 Objectives, methodology, and research questions

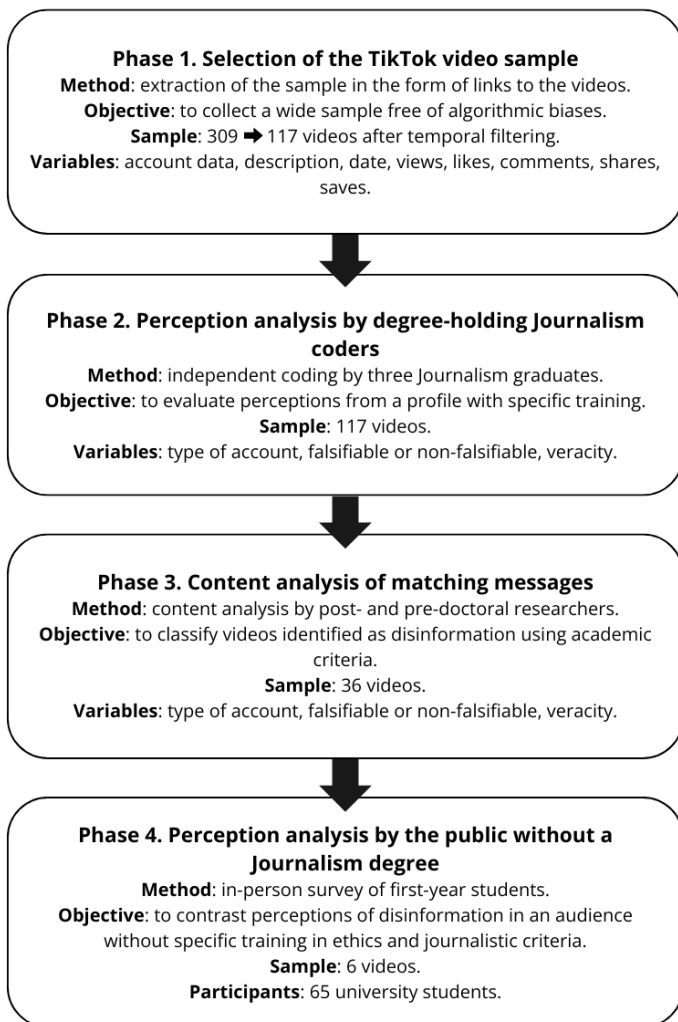
This research has two objectives. The first was to analyze the perception of content on TikTok using the search “DANA” and “climate change”. These perceptions come from users who have specific training in ethics, verification, and critical analysis of media discourse and from first-year university students with no specific training. Our second objective involved comparing these perceptions to the real nature of the videos, according to academic criteria, to determine whether their perceptions were accurate or not. The young people with different profiles were grouped into a first group made up of journalism graduates (n = 3) and a second group of first-year journalism degree students (n = 65) to see if they were able to identify the intentionality and veracity of the TikTok content during the week that the event occurred.

The research presents, in an exploratory manner, a dual and complementary approach as it not only analyzes the content of the videos on the platform regarding the event, but also the audience's perceptions. This approach reveals the emerging narratives (from verifiable information to informational disorder and conspiracies) and the ability of audiences (with varying levels of communication training) to distinguish between information, opinion, and disinformation. This approach is especially relevant on TikTok, where traditional media, influencers, and individual users coexist on seemingly equal terms. By integrating both perspectives, the research not only describes the type of content disseminated on this platform but also examines the impact it has on social perceptions.

The study was structured around four phases, each having its own corresponding research questions and complementary methodologies, which are outlined below.

## Figure 1

### *Descriptive table of the different methodological phases*



#### Phase 1: Selection of TikTok video samples

For TikTok data collection, an ad hoc profile was created. No searches or interactions with the content were performed until the final search in order to avoid generating information about the user that could influence the algorithm (cookies, search history, etc.). We conducted our search using the terms “DANA” and “climate change” together as a single entry, without quotation marks. We searched for

videos in the platform's "Popular" section using a desktop computer rather than from the app to facilitate data collection and subsequent analysis. The search was conducted on November 21, 2024, from Spain using the Brave browser, with Spanish set as the preferred language. We collected the videos by continuously scrolling the page until all the elements were loaded and recorded. We acquired an initial sample of 309 videos, from which we obtained the link to the video, the account name that uploaded the video and its followers, the description or text attached to the video, the date it was published, and the number of likes, views, comments, saves, and shares it received.

These categories were joined by the "Engagement" column, using the formula (Likes + Shares + Comments + Saves) / Views. This formula for calculating the engagement of each video was created based on previous quantitative studies conducted on TikTok (Li et al., 2021; Velarde-Camaqui et al., 2024; Zhu et al., 2019) that combined the variables of views, shares, comments, and likes. For our study, we expanded this formula to include the number of times a video was saved, as we consider this variable to be a form of user engagement. We filtered through the videos by publication date in order to analyze content that was created between Monday, October 28 (when the State Meteorological Agency, AEMET, published its first forecast warnings of heavy rains) and Saturday, November 2, 2024, the last day of the flood week. Once filtering was completed, we were left with a total of 117 videos (the actual number was 119, but we eliminated two as we were unable to access them at the time of encoding).

#### Phase 2: analysis by coders with a degree in journalism

We selected three coders of similar age (between 23 and 25) with the same educational background: journalism graduates. This group was composed of two women and one man, all of whom individually analyzed the 117 videos. Holding a university education in journalism equips graduates with theoretical and practical skills in areas such as ethics, verification, and critical analysis of media discourse. Most journalists with this type of background are considered to be media literate, capable of evaluating the quality of information, discerning the reliability of sources, and understanding the dynamics of the information ecosystem. That is to say, although media literacy is an interdisciplinary field that cannot be limited exclusively to communication training, it is safe to assume that

journalism graduates, given the body of theoretical and practical knowledge they have acquired, are well-prepared to practice it competently. According to Tucho et al. (2015), media education in journalism curricula is present in multiple subjects, providing future professionals with essential tools to interpret, produce, and distribute quality media content.

These three qualified individuals carried out the coding based on their own criteria and were not asked to perform any checks. This is because the objective of this stage was not to determine the veracity of the content, but rather to record the coders' perceptions of the nature of the videos. Objective validation of veracity – the factual verification of the content – was conducted in a later phase, specifically applied to a subsample.

Before analyzing the videos, one of the coders conducted a pretest with one-third of the sample (39 videos) to assess comprehension of the code, which proved useful for collecting the information. The coding template was developed according to the following items, based on the coders' judgment:

a) The type of account posting the content is defined by the nature of the sender. There are three categories here: person, media, or influencer. Although academically limited definitions of what an influencer is (Campbell & Farrell, 2020) were used in later phases of this work, the definition of each parameter was not given so as not to interfere with the coders' perceptions about the type of account, since the parameter that was tested related to reliability.

b) Whether the statements can be verified or not; that is, whether the message falls within the scope of what is considered falsifiable.

c) The veracity of the video (here they could choose whether its primary purpose was to deceive or inform).

This phase contained two research questions:

R.Q. 1. Do literate coders agree on which content is falsified and which is opinionated?

R.Q. 2. Do they agree when it comes to identifying accounts as influencers, users, or media outlets?

Phase 3: content analysis of matching messages

We subsequently analyzed the content of the videos (which at least one of the three coders from the first stage identified as

disinformation). In addition to the eight videos identified as disinformation by all three coders, there were an additional 31 videos that at least one of the coders identified as disinformation. This brought our sample to a total of 39 videos; however, we ended up with a total of 36 because 3 of the videos were no longer visible on TikTok at the time of our analysis. This selection of videos corresponds to the objective of this analysis phase, which is to verify content that has been identified as disinformation, looking in-depth at its characteristics. This is a methodological limitation that focuses this part of the study on the content perceived as most problematic.

For operational purposes and in order to prioritize the analysis of disinformation, the content analysis focused exclusively on videos identified by some or all of the coders as disinformation. The rest of the sample was excluded but could be subject to analysis in future research. The verification analysis was conducted by three researchers with PhDs in journalism and one predoctoral researcher. Each researcher individually analyzed disinformation content (cataloged in a spreadsheet) and then pooled and observed nine other cases where there was no consensus. To reach a consensus on these nine specific cases, the discrepancies were resolved through two online group deliberation sessions lasting approximately one hour each. One of the hot topic issues was the fact that some of this content mixed falsifiable facts with opinion, which made it difficult to ascertain the main objective of the video.

We used a specific, verifiable content analysis form which had been previously tested in similar projects. Unlike the previous phase, which measured the perceptions of coders with journalism degrees, this analysis focuses on a rigorous content classification based on academic criteria and definitions. The parameters analyzed in the form were:

a) Account type: a distinction was made between news media and other types of accounts. News media are profiles that have a constant flow of current news content, as well as other defining features such as links to media outlet websites or brand identifiers. For other types of accounts, a distinction was made between individual users and influencers, using their number of followers as a differentiating criterion. This research established 10.000 followers as the threshold for a profile to be considered an influencer, based on the second step of Campbell and Farrell's (2020) classification.

b) Falsifiability analysis: to check whether the content of a

video can be verified or whether it is subjective or opinionated and therefore exempt from verification.

c) Veracity analysis: for the type of disinformation, a proposal was developed based on the categories established by Kapantai et al. (2020) in a systematic literature review, and by Wardle (2017). They were chosen based on their consensus between academia and industry, as well as the accuracy of their descriptions, which facilitates the unification of criteria for coders. The details of the veracity analysis are shown in table 1.

**Table 1**

*Verifiable content analysis sheet*

<b>Variable</b>	<b>Categories</b>
1. Account Tye	Normal user Influencer Media outlet
2. Falsability	Falsifiable Non-falsifiable
3. Veracity	Informs Disinforms
4. Assesment	In case of disinformation, a link to a fact-checker was attached.
5. Type of Disinformation	Fabricated content Fake Conspiracy Theories Biased or One-sided Rumors Clickbait; Deceptive Link Fake Reviews Trolling Pseudoscience Satire

This phase contained two research questions:

R.Q. 3. What are the characteristics of the videos identified as disinformation in the sample?

R.Q. 4. What type of accounts do they come from?

Phase 4: analysis conducted by the public with no specific journalism background

A sample of six videos was selected (table 2) for this final phase. They were selected based on the three coders' agreements obtained in phase 2 and the analysis of the real-world nature of the videos analyzed in phase 3. We limited this live experiment to six videos, in which the subjects are students, in order to avoid overloading attention. There are examples of other similar research studies that also limit the number of videos used for their experimental approaches in educational settings. For example, regarding the perception of disinformation, it was decided to present two pieces from Facebook in the case of Bode and Vraga (2017) or a specific audiovisual fragment viewed by students in the work of Ramos and Méndez (2020) on the analysis of the integration of audiovisual resources for the development of audiovisual competence.

The selected videos were structured into the following two sections: 1) information/disinformation and 2) information/opinion. The first section aims to determine whether respondents are able to differentiate between information and disinformation. To do this, we posed the question "Is the video's main purpose to inform or deceive?" The second section aimed to determine whether users differentiate between informative and opinionated content. To do this, we posed the question "Is what is being told or explained in the video informational or opinionated?" It should be noted that, in the first block, general terms such as "deceive" rather than "misinform" were used to formulate the questions, as the participants lack specific training in journalism and may have misunderstood or been unfamiliar with terms such as "disinformation". Additionally, in order to assess whether users are able to recognize the type of source that posted the content, they were asked to specify whether the account was a media outlet, an influencer, or a regular user.

Since falsifiability is necessary to determine whether the content in section 1 is information or disinformation, all the selected videos fit this category. Two of these videos were perceived by the coders as disinformation, and the other two videos as information. One of the videos was unanimously identified as disinformation by the coders and the academic analysis (No. 3) and the other was not (No. 1). For the informative videos, one (No. 2) was selected unanimously and the other was classified as informative in the analysis, but not unanimously (No. 4). Regarding the type of account, we attempted to provide variety among the three established types. For the videos in section 2, we chose a non-falsifiable video (No. 5) and a falsifiable

and informative video (No. 6). In both cases, there was unanimous agreement among coders and analysts.

**Table 2**

*Analysis of videos for the public with no journalism background*

Questionnaire Block	Nº	Falsifiability	Perception	Agreement among coders	Account type
Block 1. Information / Desinformation	1	Falsifiable	Disinforms	No	Influencer
	2	Falsifiable	Informs	Sí	Media
	3	Falsifiable	Disinforms	Sí	User
	4	Falsifiable	Informs	No	Media
Block 2. Information / Opinion	5	Non-falsifiable	Opinion	Sí	User
	6	Falsifiable	Information	No	User

The survey was conducted in-person in March 2025 with a group of 65 first-year journalism students aged between 18 and 20. None of these students had any specific training in ethics or fact-checking. 44 of these participants identified as female, 19 as male, and two preferred not to say. The objective of this phase was to analyze their ability to detect disinformation, as well as to assess this group's perception and level of agreement compared to that of media-literate users.

This phase contained two research questions:

R.Q. 5. Can respondents differentiate between opinionated, informative, and misinformative content?

R.Q. 6. How do respondents classify the type of accounts?

## 4 Analysis of results

### 4.1 Perception among media-literate users

68.4% of media-literate users agreed on the classification of videos as factual or opinion. When they agreed, they almost always considered the content verifiable (77 out of 80 cases). The

high percentage of disagreement (37 videos, 31.6%) among coders suggests ambiguity in the content.

One video where no consensus was reached as to whether it was falsifiable or misleading was the one published by the account @ferfomo, which showed flooded streets, partially submerged vehicles, and residents dealing with the consequences of the rain. A text superimposed on the video reads, “This is how it all began”, accompanied by two crying emojis. The scenes reflect verifiable facts. The images do correspond with those from the DANA floods in Valencia, which suggests an informative component. Although the music and emoticons can influence emotional perception, they are not a determining factor in classifying the video as opinion-based, since the main purpose is to offer images of the catastrophe.

An even lower level of consensus was reached by the users regarding their perceptions of the purpose of the video. Full consensus among the three coders on identifying disinformation occurred in only seven videos. Moreover, partial consensus (two of the three coders indicated disinformation) was reached for a further 7 videos, while a significant number of videos (23) were classified as disinformation by a single coder. The level of consensus on videos whose purpose was to inform was much higher: a total of 76 videos. These results show the variability in the perception of information and disinformation, even among media-literate individuals. The low overall consensus reflects the complexity of defining and detecting disinformation, as well as the influence that subjective factors have on content assessment. The high number of videos classified as disinformation by the single coder indicates the need to consider the possibility of individual bias.

Consensus among the three coders on whether the accounts were from media, people, or influencers was 70%. One example of an account that was not agreed on (among the three coders) and the subsequent content analysis was the video posted by @grubbymask, who describes himself as a content creator who offers political, economic, and social criticism. The account has 22.300 followers and is considered to be a micro-influencer. Two of the coders classified this account as a person, while the third coder classified it as a media outlet. This disparity suggests a difficulty in identifying the nature of the accounts, an aspect related to the reliability and accuracy required from an informational perspective.

## 4.2 Assessing media-literate users' perceptions of disinformation

Journalism PhDs and researchers conducted an in-depth analysis of 36 videos that were identified as disinformation by at least one literate user; their responses were then compared with the reality of the videos as determined by academic criteria.

The coders' criteria corresponded with the analysis for 25 (69.4%) of these 36 videos in the disinformation variable, and did not correspond with the remaining 11 (30.6%) videos. There were six videos containing unfalsifiable content and were therefore identified as information/disinformation. Four videos were identified as informative when analysis showed them to be misinformative, and there was one video identified as disinformation when in fact it was information. When identifying information or opinion, media-literate users were mostly correct (two or more coders) in 27 cases, and wrong in 9. Five of the seven videos that media-literate users unanimously agreed on as disinformation did, in fact, contain disinformation, while the other two did not. These last two videos were not regarded as containing falsifiable content, so they were not susceptible to disinformation.

These last two videos are worth taking a look at as they share almost identical structures and purpose. The post shared by user @hkiri82\_1\_ shows panelist Belén Esteban commenting on a statement issued by climate change denier Miguel Bosé, who states that "people need to wake up and stop thinking that this is due to climate change, there is no such thing". This video has received 25.800 likes and 800 comments. The second video involves statements issued once again by singer Miguel Bosé, this time with a sticker superimposed on the video that was to represent weariness, which was shared by @unadelpobla06. Belén Esteban's voice also appears over the video, speaking out against these denialist statements. The audio reads: "Sick of Miguel Bosé's repetitive speeches about the DANA (National Climate Change Administration) in Valencia and his denial of climate change. Stop thinking, Bosé!" The video has received 472 likes and 201 comments.

The verification analysis indicates that, of the 39 videos identified by users as disinformation, 7 were not actually verifiable content as they shared opinions but not information. Even for highly literate people, distinguishing the intent of messages is difficult in a world of content where the lines between opinion and information are blurred.

There were 7 videos classified as informational clutter by all coders, and the predominant type of clutter was varied. Each video represented a different type of disorder, but the most recurrent ones were “Biased or one-sided” (4), “Deceptive connection” (4), and “Conspiracy theories” (4). This shows a pattern among the narratives to try and distort reality, omit key information, or promote conspiracies surrounding the DANA in Valencia.

The prevalence of the “Conspiracy Theories” category reinforces that these videos have amplified alternative narratives that seek to discredit the scientific consensus. One example of a video classified as conspiracy came from user @guyfawkes, whose description reads: “What a coincidence... right? #dana #valencia #climatechange #negativeprimado #predictiveprogramming #naturaldisasters”<sup>1</sup>. The video shows footage from a Netflix series released months before DANA occurred, which explored the impact that a similar climate event had on a hospital and its emergency department. With captions like “What a coincidence...” and questions containing confusing terms like “Predictive programming/negative priming?” this video suggests that an event of this nature had been predicted and that nothing was done to prevent it. A screenshot was included at the bottom of the video from the State Meteorological Agency (AEMET) informing of the rainfall in the affected areas on October 29. This is a common disinformation technique that incorporates real data mixed with decontextualized content and suggests unfounded theories to the viewer.

Along these same lines, other publications connected the DANA to alleged deliberate climate interventions (geoengineering or “chemtrails”), thus diverting the conversation from legitimate meteorological analysis. Videos containing fake images generated by artificial intelligence have also been detected. One example of a hoax (that was later debunked) was a video published by the media outlet @distribotv, which has 49.900 followers. This video shows a local farmer on television claiming that the radar that was supposed to warn them of the catastrophe was not working. This is a false claim, which was denied by the AEMET (Mexico City Meteorological Agency): “The Valencia radar has been operating without any problems throughout the entire event”. In this case, the account that published the video with the farmer’s claim was a television channel owned by journalist Jesús Ángel Rojo, which had reached 2.800.000 views at the time of our analysis.

With regards to the other videos classified as disinformation, there is one by user @mehar20241 that stands out, as it shows flooding in an Asian country and tries to pass it off as if it were Valencia. This video, at the time of our analysis, had more than 3 million views despite the account having only 600 followers.

### **4.3 Results of the survey on disinformation among university students with no specific journalism background**

Students were first shown four videos and then asked to give their perceptions of the type of account it was and the intention of the video. They reached a consensus of 50% for all these videos. There are a few nuances in some of the questions that need to be addressed. In video 1, identified in our own analysis as disinformation, 32.3% (n = 21) of the sample indicated that the video intended to inform, even though it explicitly denies any relationship between climate change and the DANA, and claims the catastrophe was the fulfillment of a biblical prophecy. This video was classified as “Pseudoscience” as it undermined the validity of the scientific explanation for a phenomenon and offered an unscientific version. The respondents’ confusion may stem from the fact that the video itself contains a number of narratives, including verifiable information about the DANA, criticism of conspiracy theories about the phenomenon (such as the HAARP project), and disinformation using denialist rhetoric that undermines the validity of climate change.

Video 4 (which our content analysis determined contained informative content) contains statements made by two well-known Spanish singers about conspiracy theories. 15% of respondents (n= 10) believed that the video was intended to deceive. Although there was nothing in the video that could be classified as a lie or misleading, the user may have perceived it as deceptive due to the generalizations it made and the sensationalist tone in which the message was conveyed.

More than 80% of respondents agreed on the type of account for the first three videos. There was less of a consensus, however, for the fourth video: 61% (n = 40) claimed it came from an influencer, 27.7% (n = 18) from a media outlet, and 10.8% (n = 7) claimed it was a private account. Comparing this data to the analysis of the accounts based on objective parameters shows that the majority of respondents

correctly identified cases 2 and 3, but not cases 1 and 4. 92.3% of respondents identified video 1 as a personal account influencer with more than 125.000 followers, while 61.5% identified video 4 as a media outlet influencer. This distinction is notable because both videos have a similar format: an individual speaking to the camera in close-up, with a transparency behind them and added subtitles.

For videos 5 and 6, respondents were only asked to identify whether the purpose of the video was informative or opinion-based. The results show a greater difference of opinion for video 5, which is mainly opinionated, than for video 6, which is mainly informative. In video 5, unanimously classified as non-falsifiable, a woman recounts her experience of the natural disaster and shares her perspective. 69.2% of respondents considered this video to be opinion-based, while the remaining 30.8% considered it to be information. For video 6, identified as falsifiable because it explains the causes for the overflow of the Poyo ravine and part of the Turia River, 89.2% of respondents considered it informative, while 10.8% considered it opinion-based.

## 5 Discussion and conclusion

TikTok is a platform used by young people to inform themselves about the world, and as such, it's important to reflect on the types of content that predominate on this social network. It contains messages published by media outlets and messages disseminated by influencers or individuals. It is also important to examine how these types of content are received by a diverse audience. Below, we reflect on the main findings of this preliminary research based on the six research questions posed in the different phases of the study.

The results show that media-literate coders mostly agree when differentiating between factual and opinion-based information (R.Q.1). When in agreement, it is almost always about verifiable content, which demonstrates their ability to apply critical thinking and verification criteria. However, they did disagree on one-third of the videos, which shows the differences in understanding often ambiguous material, especially videos that blend verifiable images of DANA with emotional elements. Content clarity appears to be compromised in hybrid formats that integrate characteristics of

informative discourse with rhetorical strategies of opinion, such as emotional intonation. This finding relates to the need to distinguish, as Popper (1963) and Wardle & Derakhshan (2017) point out, between falsifiable and non-falsifiable content, the latter being immune to fact-checking processes.

Similar to content identification, there was disagreement on identifying hybrid accounts (R.Q.2). This is due to the nature of micro-influencers, who use elements that are common to both individual users and traditional media. These difficulties in categorizing hybrid accounts coincide with what is observed by Basch et al. (2021) in their analysis of disinformation on TikTok during the covid-19 pandemic. The study suggests that the ambiguity surrounding accounts and users makes it difficult for recipients to identify reliable information, something that depends not only on the content but also on how the sender's image is constructed in increasingly complex digital environments.

Analyzing the type of disinformation most frequently resulted in the following types: "Biased or One-Sided", "Deceptive Connection", and "Conspiracy Theories". This reinforces the idea that TikTok is an advantageous space for spreading climate disinformation (R.Q.3). This recurrence points to patterns of disinformation that seek to distort reality by omitting information or providing alternative narratives. This is in line with what López-Carrión and Llorca-Abad (2025) describe, who highlight that hoaxes during the DANA mainly circulated conspiracies, falsification of the number of victims, and institutional attacks.

The spread of these types of narratives on TikTok confirms the importance of conspiracy frameworks in the circulation of misleading information. The combination of information bias, misleading connections, and conspiracy theories can hinder the public's understanding of climate change and its consequences. A high degree of sophistication is observed when creating fake content, which often incorporates paralinguistic elements such as the choice of emotional music or a dramatic tone. This type of content generally mixes truthful elements with manipulated information.

The videos classified as disinformation came from both private accounts and influencers, although one was published by a media outlet (R.Q.4). This is particularly worrying as it reflects a serious lack of reporting accuracy that not only erodes the credibility of journalism but also demonstrates an ideological use of information that overrides a commitment to truth and journalistic professionalism.

This finding confirms what Sánchez Torres et al. (2025) reported, who show that social media is the main channel for spreading hoaxes.

The results suggest that, in the TikTok environment characterized by overabundance, hybridization, and rapid dissemination of narratives, it is difficult to distinguish the purpose of some messages (R.Q.5). This is true even among users with specific communication training. According to Kapantai et al. (2020), subjective discourses and ideological frameworks erode the boundaries between verifiable information and constructed narratives, making it difficult to identify disinformation even among young audiences. The problem is exacerbated when users use these platforms as their primary source of information (Newman et al., 2024, p. 12), assuming that they fulfill the same function as traditional media but do not consider the ambiguity of the formats or the lack of editorial filters.

These findings indicate that the infoxication coined by Johnson (2012) more than a decade ago has gained ground due to the growth of platforms. Information overload makes it difficult to discern relevant and truthful data (Johnson, 2012). Opinions, accessible to everyone and free from standards of truthfulness, become blurred and intertwined with facts, which is challenging to traditional verification mechanisms. This means that some users may look at specific circulated content as a source of information when it is actually only assessments or opinions that are amplified through comments and shared as if factual data.

The ideas that emerge from this preliminary analysis reinforce those suggested in other studies on fact-checking (Ufarte-Ruiz et al., 2018) and the need to prepare not only journalists, but also users, to develop in a constantly evolving environment. It is important that education and training encourage a critical mindset and help develop the skills and attitudes needed for people to question, analyze, and evaluate ideas, arguments, and beliefs in a thorough and reasoned manner. European authorities have already recognized the importance of combating disinformation by proposing to strengthen the legal framework and hold digital platforms responsible for algorithmic decisions, in addition to increasing investment in media literacy to promote citizen responsibility in identifying reliable information (Sádaba & Salaverría, 2023).

In this sense, research on fact-checking has shown that the fight against disinformation must involve training users themselves

(Sádaba & Salaverría, 2023), reinforcing their skills to decode not only the what, but also the who and the why. In a media ecosystem characterized by an overabundance of information and the constant circulation of hybrid narratives, it is essential to provide citizens with critical tools that allow them to discern between verifiable content and manipulated discourse (Aguaded & Romero-Rodríguez, 2015). Insights obtained from the findings point to the importance of developing strategies to evaluate information on social media and improve media literacy for both journalists and the general public. A literacy program that, according to the results, emphasizes the traditional foundations of journalism and enables the distinction between commentary and facts, a distinction that, with the arrival of digital platforms, seems more necessary than ever (Massot, 2017).

Regarding account identification, the majority of respondents in the third phase correctly identified the selected videos (R.Q.6). However, a high percentage of incorrect identification was observed in two of the six videos. These two misidentified videos share common characteristics: an individual speaking to the camera in close-up with a transparency behind them and added subtitles. This is a common format that homogenizes the differences between content authors and undermines transparency about the origin and purpose of messages. What does the public understand an influencer to be, and what does it understand journalistic media to be? The answer to this profound debate is not the subject of this research, but the results do point to the difficulty in delimiting and identifying one from the other, with the following caveat: if social media becomes a space in which to spread unmediated or biased content, then democratic support can be undermined (Cerón, 2015).

This research is not without its limitations, but its results are developments that warrant further investigation. This is added to the set of variables that can distort perceptions in reception studies and that may have been overlooked in the methodological approach. Likewise, there are still necessary approaches to address; for example, taking a more in-depth look into the relationship between consensus and verification of the sample videos, and focusing on content analysis to complement the findings. It should be noted that, although there are many studies on information disorders that focus on news, few focus on the entire content without differentiating news from other types of messages. This is interesting since, as we have seen, distinguishing between the two

is complex and involves considerations that do not match the rate of consumption on these platforms.

Added to this set of limitations is the fact that studies on disinformation that focus on how people perceive content are lacking when compared to those that focus on analyzing the content itself, which makes it difficult to develop and base a methodology based on previous works. However, this limitation does lead toward an interesting pathway: it allows us to approach the topic from a perspective that has not been thoroughly explored to date and complements the findings offered by other studies that also address the challenges posed by the growth of TikTok and short-form video as the preferred option for information among youths.

## NOTES

1 The hashtags have been translated into English for this version.

## REFERENCES

- Aguaded, J. I., & Romero-Rodríguez, L. M. (2015). Mediamorfosis y desinformación en la infoesfera: Alfabetización mediática, digital e informacional ante los cambios de hábitos de consumo informativo. *Education in the Knowledge Society (EKS)*, 16(1), 44–57. DOI: 10.14201/eks20151614457
- Alonso-López, N., Sidorenko-Bautista, P., & Giacomelli, F. (2021). Beyond Challenges and Viral Dance Moves: TikTok as a Vehicle for Disinformation and Fact-checking in Spain, Portugal, Brazil, and the USA. *Anàlisi: Quaderns de Comunicació i Cultura*, 64, 65–84. DOI: 10.5565/rev/analisi.3411
- Al-Rawi, A. (2019). Viral News on Social Media. *Digital journalism*, 7(1), 63–79. DOI: 10.1080/21670811.2017.1387062
- Baltasar, C., Maceiras, S. D. A., Martín, A., & Camacho, D. (2022). Analysis of Climate Change Misleading Information in TikTok. *Proceedings of the 1st Workshop on Counterterring Disinformation with Artificial Intelligence (CODAI) / 27th European Conference on Artificial Intelligence (ECAI)*. Universidad Politécnica de Madrid.
- Barreda Ángeles, M., Ferrándiz Bofill, X., & Costa Martínez, A. (2014). Efectos de la televisión en alta definición sobre la atención y la selección de contenidos por los espectadores: Una aproximación experimental. En Espacios de comunicación. *Proceedings of the IV*

*Congreso Internacional de la Asociación Española de Investigación de la Comunicación*. Asociación Española de Investigación de la Comunicación (AE-IC).

Basch, C. H., Meleo-Erwin, Z., Fera, J., Jaime, C., & Basch, C. E. (2021). A Global Pandemic in the Time of Viral Memes: COVID-19 Vaccine Misinformation and Disinformation on TikTok. *Human Vaccines & Immunotherapeutics*, 17(8), 2.373–2.377. DOI: 10.1080/21645515.2021.1894896

Basch, C.H., Yalamanchili, B., & Fera, J. (2022). #Climate Change on TikTok: A Content Analysis of Videos. *Journal of Community Health*, 47, 163–167. DOI: 10.1007/s10900-021-01031-x

Bode, L., & Vraga, E. K. (2017). See Something, Say Something: Correction of Global Health Misinformation on Social Media. *Health Communication*, 33(9), 1.131–1.140. DOI: 10.1080/10410236.2017.1331312

Bösch, M., & Divon, T. (2024). The sound of disinformation: TikTok, Computational Propaganda, and the Invasion of Ukraine. *New Media & Society*, 26(9), 5.081–5.106. DOI: 10.1177/14614448241251804

Calvo, D., Llorca-Abad, G., & Cano-Orón, L. (2025). *Bulos y barro. Cómo la DANA ejemplifica el problema de los desórdenes informativos*. Los Libros de la Catarata.

Campbell, C., & Farrell, J. R. (2020). More than Meets the Eye: The Functional Components Underlying Influencer Marketing. *Business Horizons*, 63(4), 469–479. DOI: 10.1016/j.bushor.2020.03.003

Ceron, A. (2015). Internet, News, and Political Trust: The Difference between Social Media and Online Media Outlets. *Journal of Computer-Mediated Communication*, 20(5), 87–503. DOI: 10.1111/jcc4.12129

Chuai, Y., Tian, H., Pröllochs, N., & Lenzini, G. (2024). Did the Roll-Out of Community Notes Reduce Engagement With Misinformation on X/ Twitter? *Proceedings of the ACM on Human-Computer Interaction*. ACM. DOI: 10.1145/368696

Cody, E. M., Reagan, A. J., Mitchell, L., Dodds, P.S., & Danforth, C. M. (2015). Climate Change Sentiment On Twitter: An Unsolicited Public Opinion Poll. *PLoS one*, 10(8), 1–18. DOI: 10.1371/journal.pone.0136092

Constitución Española. (1978). Art. 20.

De-Lara, A., Erviti, M. C. & León, B. (2022). Communication Strategies in the Climate Change Debate on Facebook. Discourse on the Madrid Climate Summit (COP 25). *El Profesional de la información*, 31(2), 1–16. DOI: 10.3145/epi.2022.mar.02

De Lara, A. (2023). Comunicación científica. In J. A. García-Avilés, F.

Arias, A. De Lara, M. Paisana, M. Carvajal, C. Foá, A. García-Ortega, D. Margato, M. Crespo, B. Quiles & J. M. Valero. (Eds.), *Análisis de las tendencias e innovaciones en el ecosistema mediático de España y Portugal (2025-2030)* (pp. 59–62). Iberifier.

European Commission. (2018). *Code of Practice on disinformation*. European Commission. Retrieved from <https://digital-strategy.ec.europa.eu/en/library/2018-code-practice-disinformation>

Fallis, D. (2015). What Is Disinformation? *Library Trends*, 63(3), 401–426. DOI: 10.1353/lib.2015.0014.

FECYT. (2022). *Desinformación científica en España*. Spanish Foundation for Science and Technology. Retrieved from [www.fecyt.es/publicaciones/desinformacion-cientifica-en-espana](http://www.fecyt.es/publicaciones/desinformacion-cientifica-en-espana)

Halpern, D., & Gibbs, J. (2013). Social Media as a Catalyst for Online Deliberation? Exploring the Affordances of Facebook and YouTube for Political Expression. *Computers in Human Behavior*, 29(3), 1.159–1.168. DOI: 10.1016/j.chb.2012.10.008

Johnson, C. A. (2012). *The Information Diet: A Case for Conscious Consumption*. O'Reilly Media.

Kapantai, E., Christopoulou, A., Berberidis, C., & Peristeras, V. (2020). A Systematic Literature Review on Disinformation: Toward a Unified Taxonomical Framework. *New Media & Society*, 23(5), 1.301–1.326. DOI: 10.1177/1461444820959296

Li, Y., Guan, M., Hammond, P., & Berrey, L. E. (2021). Communicating covid-19 Information on TikTok: A Content Analysis Of Tiktok Videos from Official Accounts Featured in the covid-19 Information Hub. *Health Education Research*, 36(3), 261–271. DOI: 10.1093/her/cyab010

Loader, B. D., & Mercea, D. (2011). Networking Democracy? Social Media Innovations and Participatory Politics. *Information, Communication & Society*, 14(6), 757–769. DOI: 110.1080/1369118X.2011.592648

López-Carrión, A. E., & Llorca-Abad, G. (2025). Desinformación durante la crisis producida por la DANA de 2024 en España: análisis, características, tipologías y desmentidos. *Revista Mediterránea de Comunicación*, 16(2), e29303. DOI: 10.14198/MEDCOM.29303

Massot, J. (2017, December 26). *'Fake news': cuando la opinión vale más que los hechos*. La Vanguardia. Retrieved from [www.lavanguardia.com/cultura/20171226/433873048868/fake-news-noticias-falsas-ano-2017-opinion-hechos.html](http://www.lavanguardia.com/cultura/20171226/433873048868/fake-news-noticias-falsas-ano-2017-opinion-hechos.html)

Moreno-Castro, C. (2025). El valor de la información periodística como servicio público durante la dana en Valencia (2024). *Estudios sobre el Mensaje Periodístico*, 31(2), 555–563. DOI: 10.5209/emp.102084

Musk, E. [@elonmusk]. (2025, February 20). *Unfortunately, @CommunityNotes is increasingly being gamed by governments & legacy media* [Tweet]. X. Retrieved from <https://archive.li/VZX7V#selection-559.0-571.61>

Napoli, P. M. (2023). What is Media Policy? *The ANNALS of the American Academy of Political and Social Science*, 707(1), 29–45. DOI: 10.1177/000271622312113

Newman, N., Fletcher, R., Robertson, C.T., Arguedas, A.R., & Nielsen, R. K. (2024). *Digital News Report 2024*. Reuters Institute. Retrieved from <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2024>

NewsGuard. (2024, June 13). *Beware the “New Google”: TikTok’s Search Engine Pumps Toxic Misinformation To Its Young Users*. Retrieved from [www.newsguardtech.com/misinformation-monitor/september-2022/](http://www.newsguardtech.com/misinformation-monitor/september-2022/)

Nieto-Sandoval, A. G., & Ferré-Pavia, C. (2023). TikTok y cambio climático: comunicar sin fuentes ni soluciones. *Revista De Comunicación*, 22(1), 309–331. DOI: 10.26441/RC22.1-2023-2994

Novoa-Jaso, M. F., Sierra, A., Labiano, R., & Vara-Miguel, A. (2024). *En Digital News Report España 2024. Calidad periodística y pluralidad: claves para la confianza informativa en la era de la inteligencia artificial (IA)*. Servicio de Publicaciones de la Universidad de Navarra.

O’Neill, S., Hywel, W., Kurz, T., Wiersma, B., & Boykoff, M. (2015). Dominant Frames in Legacy and Social Media Coverage of the IPCC Fifth Assessment Report. *Nature Climate Change*, 5(4), 380–385. DOI: 10.1038/nclimate2535

Painter, J., Kristiansen, S., & Schäfer, M. (2018). How ‘Digital-Born’ Media Cover Climate Change in Comparison to Legacy Media: A Case Study of the COP 21 Summit in Paris. *Global Environmental Change*, 48, 1–10. DOI: 10.1016/j.gloenvcha.2017.11.003

Pardal, F., & Hernández, P. (2025). *Spain & Portugal Fact-Checking Brief Q4*. Iberifier. Retrieved from [https://iberifier.eu/app/uploads/2024/03/IBERIFIER\\_FactChekingReport\\_2023\\_Q4.pdf](https://iberifier.eu/app/uploads/2024/03/IBERIFIER_FactChekingReport_2023_Q4.pdf)

Popper, K. R. (1963). *Conjectures and Refutations: The Growth of Scientific Knowledge*. Routledge.

Quintas-Froufe, N., González-Neira, A., & Fiaño-Salinas, C. (2024). Corporate Policies to Protect Against Disinformation for Young Audiences: The Case of TikTok. *Frontiers in Communication*, 9, 1–10. DOI: 10.3389/fcomm.2024.1410100

Ramos, M. M., & Méndez, M. M. (2020). La influencia de los recursos audiovisuales para el aprendizaje autónomo en el aula. *Anuario Electrónico de Estudios en Comunicación Social “Disertaciones”*, 13(1),

97–117. DOI: 10.12804/revistas.urosario.edu.co/disertaciones/a.7310

RTVE. (2025, January 7). *Meta elimina su sistema de verificación de datos por terceros en Estados Unidos*. RTVE Noticias. Retrieved from [www.rtve.es/noticias/20250107/meta-abandona-sistema-verificacion-datos-por-terceros-estados-unidos/16397475.shtml](http://www.rtve.es/noticias/20250107/meta-abandona-sistema-verificacion-datos-por-terceros-estados-unidos/16397475.shtml)

Sádaba, C., & Salaverría, R. (2023). Combatir la desinformación con alfabetización mediática: análisis de las tendencias en la Unión Europea. *Revista Latina De Comunicación Social*, 81, 1–17. DOI: 10.4185/RLCS-2023-1552

Sánchez-Beato, E. J. (2022). Control de la desinformación versus libertad de expresión en un estado democrático. *Ius Humani. Revista de Derecho*, 11(2), 101–140. DOI: 10.31207/ih.v11i2.306

Sánchez Torres, M., Magallón Rosa, R., & Pastor Marín, F. M. (2025). Desinformación y catástrofes naturales. El caso de la Dana de Valencia en 2024. *AdComunica*, (30), 105–131. DOI: 10.6035/adcomunica.9015

Sierra, A. (2024). WhatsApp desplaza a Facebook como red social informativa líder en España. In M. F. Novoa-Jaso, A. Sierra, R. Labiano & A. Vara-Miguel (Eds.), *Digital News Report España 2024* (pp. 94–101). Servicio de Publicaciones Universidad de Navarra.

Scheufele, D. A., & Krause, N. M. (2019). Science Audiences, Misinformation, and Fake News. *Proceedings of the National Academy of Sciences*. National Academy of Sciences. DOI: 10.1073/pnas.180587111

Tucho, F., Fernández-Planells, A., Lozano, M., & Figueras-Maz, M. (2015). La educación mediática, una asignatura pendiente en la formación de periodistas, publicitarios y comunicadores audiovisuales. *Revista Latina de Comunicación Social*, (70), 689–702. DOI: 10.4185/RLCS-2015-1066

Ufarte-Ruiz, M., Peralta-García, L., & Murcia-Verdú, F. (2018). Fact checking: un nuevo desafío del periodismo. *El Profesional de la Información*, 27(4), 733–741. DOI: 0000-0002-7713-8003

Velarde-Camaqui, D., Viehmann, C., Díaz, R., & Valerio-Ureña, G. (2024). Características de los videos que favorecen el engagement de los divulgadores científicos en TikTok. *Revista Latina de Comunicación Social*, 82, 1–18. DOI: 10.4185/rlcs-2024-2232

Wardle, C. (2017, February 16). *Fake News. It's Complicated*. First Draft News. Retrieved from <https://firstdraftnews.org/articles/fake-news-complicated/>

Wardle, C., & Derakhshan, H. (2017). *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Council of Europe. Retrieved from <https://rm.coe.int/information-disorder->

toward-an-interdisciplinary-framework-for-research/168076277c

Zhu, C., Xu, X., Zhang, W., Chen, J., & Evans, R. (2019). How Health Communication via Tik Tok Makes a Difference: A Content Analysis of Tik Tok Accounts Run by Chinese Provincial Health Committees. *International Journal Of Environmental Research And Public Health*, 17(1), 1–13. DOI: 10.3390/ijerph17010192

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