



IMAGES OF A DANA: Television Programming on 29 October 2024 in Spain

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KEYWORDS

*Emergency journalism
Images
Social media Television
coverage Citizen
journalism Television
programming DANA*

ABSTRACT

This study analyses the television coverage of the DANA on 29 October 2024 in Spain, focusing on the extent and quality of the information broadcast, as well as the use of images. The DANA, an extreme weather phenomenon, severely affected the Valencian Community, resulting in over 200 fatalities and significant economic losses. While morning programmes issued warnings about the imminent risk, prime-time coverage was limited, with the exception of Código 10 on Cuatro. The majority of broadcast images were sourced from eyewitnesses. The study concludes with recommendations regarding image verification, ethical criteria, and the restructuring of programming to enhance emergency coverage.

Received: 15/ 04 / 2025

Accepted: 18/ 07 / 2025

1. Introduction

This study analyses the television coverage of the DANA on 29 October 2024 in Spain, focusing on the extent and quality of its news coverage and the use of images. The DANA, an extreme meteorological phenomenon, had a particularly severe impact on the Valencian Community in 2024, with over 200 fatalities and significant economic losses reported.

Emergency journalism plays a crucial role in disseminating critical information and raising public awareness. However, it faces challenges in verifying facts and contextualising events. Television, as the primary medium during crisis situations, exhibited a mixed response. Although morning programmes issued warnings about the imminent risk, coverage during the afternoon and prime time was limited, with the exception of *Código 10* on Cuatro.

The study highlights the role of images in television coverage. Most of the videos broadcast were not captured by reporters but by citizens and emergency services. These images, disseminated through social media, provided immediacy and authenticity.

Following the analysis, recommendations are presented that emphasize the need for image verification, the application of ethical criteria in their broadcast, and the restructuring of television programming to provide more effective coverage in emergency situations.

1.1. The DANA: An Adverse Meteorological Phenomenon

High-Level Isolated Depressions (DANA) are characterised by the formation of a cold air mass at high altitudes, isolated from the general atmospheric circulation. When this encounters warm surface air, particularly over the Mediterranean Sea, the thermal contrast can generate torrential rains, strong winds, and, at times, highly intense thunderstorms (Llasat et al., 2007).

In recent decades, Spain has experienced severe DANA episodes with tragic outcomes: in September 1971, river overflows in Catalonia caused losses to crops and industries and 14 fatalities (Llasat et al., 2007); in 1973, floods in Granada and neighbouring provinces resulted in over 150 deaths; and the breach of the Tous dam in Valencia due to the DANA of 1982 led to 38 deaths (Efeagro, 2024).

While the aforementioned precedents are severe, they are not comparable to the events in the Valencian Community on 29 October 2024. Torrential rains accumulated over 700 l/m² at some meteorological observatories, underscoring the extreme magnitude of this episode. The Poyo, Saleta, and Picasent ravines, which drain into the Albufera, flooded numerous towns in Valencia's Huerta Sur region. The majority of the over 200 fatalities were recorded in this area.

In response to the threat of DANAs, the Spanish Meteorological Agency (AEMET) and regional meteorological agencies have early warning systems to communicate risks. In a digital era with fragmented audiences (Webster and Ksiazek, 2012), AEMET disseminates information through a website, a mobile application, and various social media platforms, while also collaborating with the media to broadcast alerts to the public. Meanwhile, civil protection agencies coordinate prevention and emergency actions, including public alerts and communication of measures to be taken.

1.2. Emergency Journalism on Television

Emergency journalism is an area that addresses news coverage during crises or disasters, with a focus on ethical responsibility, accuracy, and rapid response capabilities. According to the literature, this type of journalism faces the challenge of balancing immediacy with fact-checking, while prioritizing the well-being of affected communities (Buoncompagni, 2024; Ewart and McLean, 2019).

Television plays a prominent role in emergency journalism, often becoming the primary source of information, providing crisis updates and influencing viewer behaviour. On the one hand, it assumes the function of delivering accurate information about events, and on the other, providing useful information to help the public cope with the emergency (Cobianchi, 2024).

While television coverage driven by spectacle and sensationalism has been criticized for lacking ethical responsibility (Ewart and McLean, 2019; Souza Mayerholz and Martínez Ravanal, 2011), the role of journalism in conveying emotional dimensions that foster a sense of community and unity, crucial after a disaster, has also been recognized (Buoncompagni, 2024; Joye, 2018).

Although television is a key medium for disseminating breaking news, it often falls short in contextualizing this information, as the causes and consequences of the emergency are frequently not

explored in depth (Miller and Goidel, 2009). In the context of emergencies and climate crises, the information provided by meteorologists working for television networks should contribute to public education, enabling citizens to gain knowledge about climate science, particularly climate change, and respond appropriately to such emergencies (Nese et al., 2012; Perkins et al., 2018).

In the Spanish context, the importance of journalistic narratives constructed by television around natural risks has been studied. These narratives influence citizens' education, culture, and risk prevention (Lozano et al., 2020). Interviews with editors of Spanish media have also explored crisis coverage, with particular interest in the use of sources in coordination with authorities managing the emergency (Mayo-Cubero, 2020). Additionally, studies have been conducted on specific crises, such as the television coverage of the 2017 Barcelona and Cambrils attacks (Luque-Ortiz and Sánchez-Ramiro, 2022; Sancho-Ligorred and Rodríguez, 2022).

1.3. The Role of Images

The significant advancement of technology has amplified citizens' ability to capture and share images of events of journalistic interest. Compared to images produced by television networks' own teams, videos and video calls provided by citizens play a prominent role in emergency journalism, offering unique perspectives, emphasizing the veracity of events, and imbuing them with profound emotional impact.

During emergencies, content generated by citizens can provide critical situational awareness for crisis response agencies. The widespread use of smartphones enables the rapid dissemination of images and videos that can assist authorities in assessing the situation on the ground with greater accuracy (Antoniou and Ciaramicoli, 2013; Long et al., 2023).

From a journalistic perspective, in the initial stages of a crisis, citizen-generated content is often the first information available, providing immediate insights and visual elements that can be crucial for shaping news reports in a timely manner (Wigley and Fontenot, 2010). Images and videos from citizens frequently capture raw, unedited moments that convey a sense of authenticity and immediacy, which can be more compelling than professional journalism (Ahva and Hellman, 2015; Cooper, 2017). Citizens typically capture scenes from the perspective of those directly affected by the crisis, offering firsthand accounts of survival that add depth and diversity to the news narrative (Lai, 2011; Wall, 2016).

While this content can be highly engaging, it often lacks the quality and ethical standards of professional journalism. Challenges arise from the large volume of citizen-captured images published during emergencies, which require time and effort for analysis (Goode, 2009). In this regard, it is common for videos to be of poor quality (Ahva and Hellman, 2015; Niekamp, 2010) or for the reliability of information from social media and citizen journalists to be questionable (Antoniou and Ciaramicoli, 2013). Professional journalists must verify these images and then determine which ones meet specific ethical standards and possess sufficient informational value to be broadcast.

The aim of this study is to evaluate how Spanish national television networks reported on the DANA of 29 October 2024, particularly with regard to coverage using images. The findings of this research will identify strengths and weaknesses in the media coverage of extreme events and propose recommendations for improving risk communication in the future.

The objectives of the research were as follows:

1. To provide a general evaluation of television coverage, considering the time dedicated, public service information, use of sources, and contextualization of the information.
2. To identify the images used to convey the DANA to viewers.
3. To evaluate the role of images obtained from eyewitnesses, victims, and civil protection services.

2. Methodology

The successive steps for the development of this study—definition of the sample, data collection, and qualitative analysis—are described below.

2.1. Definition of the Sample and Data Collection

The study examines the five national television channels that broadcast generalist programming; thus, the sample comprises the programming schedules of La 1 (TVE), Antena 3, Cuatro, Telecinco, and La Sexta. La 2 (Televisión Española) and thematic channels are excluded. Regional television channels are

also excluded. Consequently, the programming of the Valencian regional television channel, *À Punt*, is not analysed, despite its significant coverage of this DANA and its provision of some images and statements from local authorities to other media outlets.

The analysis is limited to the programming on 29 October 2024. From the following day, 30 October, television channels extensively covered the events, altering their schedules to include special programmes about the DANA. However, the behaviour of the television channels during the worst moments of the DANA, specifically on 29 October and particularly from midday onwards, is considered more relevant.

The research consists of a qualitative content analysis, focusing on programmes likely to include content about the DANA, such as news bulletins, current affairs analysis programmes, or magazines. Analysis of game shows, television series, or sports broadcasts from that day's programming is not relevant. The programming schedule used for this study can be consulted in Annex 1. Additionally, Annex 2 presents the chronology of the DANA.

For data collection, online platforms providing access to the archives of television programmes were used. Specifically, *RTVE Play* for La 1, *Atresplayer* for Antena 3 and La Sexta, and *Mitele* for Cuatro and Telecinco. In the case of *Atresplayer*, access to all programmes was not possible due to the platform's temporal restrictions.

2.2. Analysis of the Sample

For the qualitative analysis of the news coverage and images of the DANA, the following categories were considered:

For news coverage:

- Monitoring of the DANA and prominence given to the topic: time dedicated to DANA coverage; live connections with affected areas.
- Sources of information: authorities; experts; eyewitnesses; victims; other sources.
- Public service functions: alert information; factual information; safety information; messages of solidarity; other types of messages.
- Contextualization: explanation of technical or scientific terms; information on the causes and consequences of the phenomenon; information on similar events.

For images:

- Images used: identification of the most prominent images recorded on 29 October (images related to the El Ejido hailstorm or other impacts of the DANA from the previous day, broadcast on 29 October, are not studied).
- Origin of the images: produced by the channel; from social media; archival; other sources.
- Function of the images.

The viewing of the programmes was conducted by the article's author, who noted relevant aspects according to the analytical framework described above and captured images of interest. Using these notes, a qualitative analysis of the coded data was performed, identifying patterns, trends, and relationships between the different variables. The analysis considered the time slots of the programming, the chronological progression of events, the formats of the programmes, and the characteristics of each television channel.

3. Results

The results are presented descriptively, based on the two analysis blocks previously outlined: the news coverage of the DANA and the images used to present it to viewers.

3.1. News Coverage

In the early morning hours of 29 October, television channels broadcast images of the hailstorm in El Ejido (Almería) from the previous night, as well as other impacts caused by the DANA across various parts of Spain. *El Telediario matinal* de La 1 opened its headlines with the aforementioned hailstorm and then reported on the torrential rains from the previous night in Almería and the Balearic Islands, as well as weather forecasts, with a red alert for inland Valencia. The programme *Aruseros* on La Sexta also announced forecasts of rain and flooding, urging viewers to exercise "common sense." Similarly, the

Informativo matinal on Telecinco highlighted the El Ejido hailstorm and warned that the predicted rainfall for that day could cause flooding.

La Hora de La 1 conducted three rounds of live connections to report on the DANA's progression. These included contributions from meteorologist Andrés Gómez in Alzira (Valencia), a reporter in Santa Pola (Alicante), and a reporter in Hospitalet de L'Infant (Tarragona). Meanwhile, *La mirada crítica* on Telecinco reported on the previous day's rainfall and announced that it was the worst day of the DANA. At 9:00, *Espejo Público* on Antena 3 connected with a journalist in Valencia, who reported that some municipalities had cancelled classes, trains were delayed, and the port was closed.

Around 10:30, the Emergency Coordination Centre (CCE) of the Generalitat reported the first rescues of individuals. From that time onwards, presenters and meteorologists on the channels began indicating that exceptional images of overflows and flooding caused by the DANA were available. Presenter Alfonso Arús on La Sexta reported that ravines were overflowing and that images of the flooding were emerging. He also explained that a red weather alert indicates a danger to human life. Similarly, *En boca de todos* on Cuatro noted that the red alert is the highest level and conducted a live connection with an inland Valencian town where rescues from vehicles had taken place and people were trapped in their homes. Additionally, this programme featured a live segment with the Las Rozas fire station, where a car was used to demonstrate how to escape if trapped by water. On Telecinco, *Vamos a ver* focused on the hailstorm's consequences in El Ejido, without connecting to other areas affected by the DANA.

Around midday, in *Mañaneros* on La 1, meteorologist Andrés Gómez, stranded on the A7 motorway near l'Alcúdia, reported the rescue of two people from the roof of a car. *Al rojo vivo* on La Sexta offered a round of live connections from two Valencian towns, as well as others in Málaga, Murcia, and Almería. At that time, flooding was occurring in Álora (Málaga), shifting the focus of attention there. From the newsroom, it was reported that a high-speed train had derailed in Álora. A connection was also made with AEMET spokesperson Rubén del Campo, who warned of a challenging afternoon and night. *Al rojo vivo* was the first programme to report the initial disappearance caused by the DANA: a lorry driver in l'Alcúdia (Valencia). In *Mañaneros* on La 1, at 13:30, a live feed from Álora was broadcast, where firefighters performed rescues using zodiac boats, and an interview was conducted with a rescued resident.

In the news bulletins of the various channels at 14:00 or 15:00, the DANA was the lead story. Reports covered the consequences of the rainfall and flooding, such as the disappearance of a lorry driver, rescues in various locations, people trapped on the A7 and A3 motorways, and the overflow of the Letur stream (Albacete). The 14:00 news bulletin on Cuatro began by reporting the red alert for rainfall in Valencia. It included live connections with three reporters in Valencia, Guadix (Granada), and El Ejido (Almería). Later, before transitioning to sports news, it reported the last-minute rescue of a family on a rooftop in Álora (Málaga) and reconnected live with areas affected by the DANA. From 15:00, *Informativos Telecinco* featured reporters in Valencia, reporting a helicopter rescue; Carcaixent, where streets were flooded and residents trapped in their homes; and El Ejido and Álora (Málaga). A second news round, before the programme ended, showcased "striking images" in Letur (Image 6) and offered a live connection in l'Alcúdia, where the search for a lorry driver continued. Telediario 1 connected with Carlet (Valencia), Málaga, and El Ejido. After covering other news, it returned to the DANA with live connections in the Valencian towns of Carcaixent and Sagunto, and again in El Ejido (Almería). In a news segment, the alert for the Poyo ravine and Magro river was mentioned, along with advice from a Valencian Community emergency technician on handling floods. Unlike Cuatro's bulletin, it also included images from Letur (Albacete).

The programming following the news bulletins was highly varied, and only one programme, *Todo es mentira* on Cuatro, could have included DANA coverage but instead addressed other current affairs. From 17:00, and *Y ahora Sonsoles* on Antena 3 resumed DANA coverage. At 17:30, *TardeAR* on Telecinco and *Más vale tarde* on La Sexta joined in updating DANA information and provided viewers with contact numbers. The Antena 3 and Telecinco programmes focused solely on rainfall and flooding information. La Sexta also covered other issues of the day.

Presenter Sonsoles Ónega was joined in the studio by meteorologist Roberto Brasero. Outside, a reporter conducted a live interview with the mayor of l'Alcúdia, Andreu Salom. In Álora (Málaga), another journalist gathered testimonies about the DANA and made a final connection from a sports hall

where people affected by the torrential rain were taking shelter. However, increasingly concerning reports began arriving from Valencia. The programme connected with residents of Requena and Utiel, who reported being trapped in their homes without electricity or, in another case, on the road atop their car. As the magazine approached its end, the collected testimonies became more harrowing: one woman reported losing a wall of her house, and another was unable to contact her daughter. The presenter announced that the centre of the Valencian town of Chiva had been devastated.

TardeAR, led by journalist Ana Rosa Quintana, interviewed several eyewitnesses and victims of the DANA in various towns. Some interviews were linked to the broadcast images. For instance, connections were made with the person who filmed the tornado in Alginet (Valencia), the owner of the van featured in the footage of the Letur flood (Image 6), and Javier Ballesteros, who recorded a helicopter rescue in Utiel. Among the many connections, notable ones included two friends of the missing lorry driver in l'Alcúdia, two people rescued from their first-floor home in Utiel, and those trapped in Chiva during the overflow of the Poyo ravine (Image 9).

Similarly to the aforementioned magazines, *Más vale tarde* on La Sexta featured reporters in affected areas and phone connections with residents. For example, it gave airtime to the owner of a flooded restaurant who showed the damage via his mobile phone; it also connected with Javier Ballesteros, who reported the rescue of a woman in Utiel (Image 8), and with a lorry driver trapped on the road due to flood-related closures. In this programme, lawyer Beatriz de Vicente provided advice to victims on claiming damages from insurance companies (Image 7). On La 1, the programme hosted by climatology expert Jacob Petrus, *Aquí la Tierra*, included information and images about the DANA (Image 6) but did not significantly alter its running order.

Following the alert sent to the mobile phones of Valencians (20:11) and after one death and other disappearances were confirmed, the evening news bulletins reported on the emergency situation in varying ways. Antena 3's news bulletin, the most watched that day (Barlovento, 2024), was presented by Vicente Vallés as a "special edition with public service information," focusing solely on the DANA. In contrast, *Telediario 2* on the public broadcaster dedicated approximately 18 minutes to coverage in two news rounds, as the lead story and the final story. Similarly, Telecinco's *Telediario* provided around 18 minutes of information between the start and end of the programme. However, *Noticias Cuatro* devoted about 37 minutes to DANA coverage, the majority of the bulletin.

La 1 opened its evening *Telediario* reporting that six people had disappeared in Letur (Albacete) and that the Military Emergency Unit (UME) had been deployed to Utiel. It then broadcast live from Chiva (Valencia), Caravaca de la Cruz (Murcia), Chamartín station (Madrid), and l'Alcúdia (Valencia). Additionally, meteorologist Silvia Laplana explained in the studio the progression of rainfall in recent hours and the forecasts. The presenters of *Antena 3 Noticias* were also joined in the studio by the channel's meteorologist, Roberto Brasero. This bulletin maintained a brisk pace, featuring live connections with affected areas, showing footage of events, and connecting by phone with eyewitnesses, mayors, and the Government Delegate in Castilla-La Mancha. It also revisited a particularly distressing testimony from *Y ahora Sonsoles*: that of a person stranded for hours on a car bonnet.

Noticias Cuatro opened its headlines with the collapse of the Picanya (Valencia) pedestrian bridge, noting that it was very recent footage. Live connections were made from Letur, Algemesí, Álor, Almería, and the A3 motorway, where a channel reporter was trapped in his car. At 20:30, it was reported that the Poyo ravine had overflowed and that residents in Paiporta had been asked not to leave their homes. Later, Telecinco broadcast live from the same locations as Cuatro, as these channels share staff for their news bulletins.

With the arrival of prime time, only one television channel continued DANA news coverage. *Código 10* on Cuatro reported until the early hours on the critical situation in which many people were preparing to spend the night. The presenters received dozens of live messages from people requesting help. They read out a message from the mayor of Utiel, Ricardo Gabaldón, and noted that, although an invitation had been extended to the president of the Generalitat, it had been declined. The programme gave airtime live to a reporter in Letur and, later, served as a voice for affected individuals connecting by phone or video call. People trapped in their homes, workplaces, or on top of their vehicles shared their situations and pleaded for help.

After midnight, *Código 10* broadcast a press conference by Mazón, recorded by the local outlet *A Punt*, confirming that fatalities had been found. In those final hours of 29 October, some misinformation about the DANA circulating on social media was already known. In this programme, it was debunked

that the 112 emergency number had stopped working or that residents near the Mijares river had to evacuate due to the relief of the Forata reservoir.

3.2. Images

To identify the images used to broadcast the DANA, we selected those most frequently repeated across various channels and programmes, which were also the ones most commonly chosen to accompany headlines. Some television programmes either did not specify the sources of the images or made a generic reference to “social media,” making it difficult to ascertain their origin. Thanks, in particular, to the fact-checking platform *Maldito Clima* (2024), the social media platforms where some of the videos identified in this study were published could be determined. Despite the wide availability of all types of audiovisual material, the television channels did not broadcast images that were false.

As explained in the methodology section, images from the previous day, such as those related to the El Ejido hailstorm, are excluded from the analysis. Following the initial reports from morning programmes, which showed the impacts caused by the DANA the previous day, by midday on 29 October, the following images, which received significant attention in the programmes at that time, were available to television channels:

- Málaga: overflow of the Guadalhorce river, cars swept away by the current, and rescue services operating with helicopters and boats, particularly in the town of Álora (Images 1, 2, and 3).
- Valencia: images of flooding in various towns. Specifically, a video from a Llobai resident who filmed a woman clinging to a palm tree to avoid being swept away by the water was widely circulated; a video by Valencia firefighters showing the rescue of a delivery driver in Alzira gained significant attention; in l'Alcúdia, images of a warehouse roof collapse were recorded by people present at the scene.

In general, the most prominent images were not obtained by the channels' reporters, who arrived at the scene later, but rather came from emergency services and citizens who witnessed the DANA's devastation. In the Álora rescues, the emergency services operating with helicopters captured aerial images that were also broadcast by television channels, given the significance of their informational content.

Image 1. Overflowing of the Guadalhorce river (video from social networks broadcast on *Noticias Cuatro*).



Source: Mitele

Image 2. Train derailment (Guardia Civil video broadcasted on *Antena 3 Noticias*)



Source: Atresplayer

Image 3. Rescue in Álora (broadcast on *Informativos Telecinco*)



Source: Mitele

In the case of the Valencian Community, the rescue of a delivery van driver was widely broadcast (Image 4). This sequence was recorded by the Valencia Provincial Firefighters' Consortium, which pixelated both the branding on the van and the face of the rescued person, following protocol to protect the victim's identity. However, once the video was shared on X, a rumour circulated on social media claiming that the supermarket's name on the van had been pixelated to make the company pay for advertising.

Image 4. Video of firefighters rescuing a driver broadcast on *Noticias Cuatro*, *Telediario 1* and *El Tiempo* on *Antena 3*.



Source: Mitele



Source: RTVE Play



Source: Atresplayer

The two videos of the warehouse roof collapse between l'Alcúdia and Carlet were published on X by the digital volunteer emergency team of the Valencian Community (VOST Comunitat Valenciana), without indicating authorship. The author of the video of the woman clinging to a palm tree in LLombai, which appeared in morning magazines and later in news bulletins (Image 5), is also unknown. Other images, less widely circulated, recorded on the morning of 29 October show flooding in Catadau and Algemesí.

Image 5. Video of a woman in LLombai broadcast on *Mañaneros* de La 1 and *Noticias Cuatro*.



Source: RTVE Play



Source: Mitele

Although a press conference by the president of the Valencian Community, Carlos Mazón, urging people to avoid travel was available from 12:00, it was not broadcast on national television channels. Similarly, a video by the AEMET spokesperson, published on social media at 12:27, received little attention. However, around 13:30 in Letur (Albacete), a resident filmed from their home the force of the water rushing through the street, sweeping everything in its path. A van was shown lodged between two buildings. This video was widely broadcast by various channels in different afternoon programmes, as well as in evening news bulletins. The owner of the van was interviewed on the programme *TardeAR* (Image 6).

Image 6. Video of van swept away by water in Letur.



Source: Mitele



Source: RTVE Play



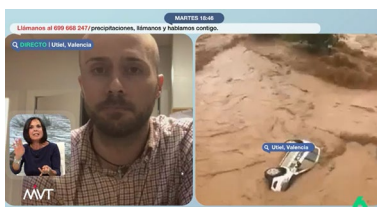
Source: Atresplayer

Following the videos from the Albacete locality, others shifted the news focus to the Valencian Community. According to *Maldito Clima* (2024), at 13:51, a video “circulating on WhatsApp” was

published, showing Utiel flooded at the level of the cooperative building; at 16:58, *AVAMET* published a video on X of a tornado between Carlet and Alginet, noting that the author was unknown; and at 17:37, *AVAMET* posted another video on X, this time of the Jalance bridge in Requena. These three videos were identified in the television programmes analysed.

Perhaps the locality with the most images broadcast in the afternoon of 29 October was Utiel, where the overflow of the Magro river produced striking sequences. A video of a local police car swept away by the current, of unknown authorship, was used to illustrate the DANA in afternoon magazines and to accompany headlines in evening news bulletins (Image 7).

Image 7. Video of the local police car swept away by the water in Utiel.



Source: Atresplayer



Source: RTVE Play

However, the Utiel video that received the most attention was recorded by a local resident, Javier Ballesteros, a primary school teacher and social media enthusiast. Ballesteros filmed the sequence of the rescue of a woman and her pets (Image 8). To explain the circumstances surrounding the recording of this video and to provide an account of the situation in Utiel, he appeared live via video call on the programmes *TardeAR* (Telecinco), *Más vale tarde* (La Sexta), *Antena 3 Noticias*, and *Código 10* (Cuatro), in order of appearance. Ballesteros also featured in a news segment on *Telediario 2* on La 1.

Image 8. Video of the rescue of a woman in Utiel with the author's intervention.



Source: Atresplayer



Source: Mitele

Around 18:30, the Poyo ravine overflowed in Chiva, and residents filmed the images from their homes. At 19:15, the X account of Pedro Salas Mateo uploaded several videos showing the force of the water sweeping away cars (*Maldito Clima*, 2024). These videos were also identified in the television programmes of that day, both in magazines and news bulletins (Image 9).

Image 9. Video of flooding in Chiva broadcast on *TardeAR* (Telecinco) and *Noticias Cuatro*.



Source: Mitele

As night fell, videos of overflows and flooding continued to be recorded. At 19:03, *AVAMET* published a video on X showing the current demolishing a pedestrian bridge connecting the towns of Picanya and

Paiporta, with the author unknown (*Maldito Clima*, 2024). This video was broadcast in programmes that were live at that time and, subsequently, in news bulletins. For example, *TardeAR* aired it at 19:30, and La 1 included it in *Telediario 2* (Image 10).

Image 10. Video of the collapse of the Picanya pedestrian bridge



Source: Mitele



Source: RTVE Play

Due to the inability of television channel reporters to reach the most affected areas, which were cut off, and because power outages in many localities prevented television crews from capturing images, some programmes connected with people trapped in their homes, who used their mobile phone cameras to show the situation. The magazine *TardeAR* provided images from Paiporta and Utiel in this way. Two female residents of these localities showed the state of the streets from their windows (Images 11 and 12).

Image 11. Video call with a neighbour from Paiporta.



Image 12. Video call with a neighbour from Utiel



Source: Mitele

The latest DANA images were broadcast by the programme *Código 10* on Cuatro. On the one hand, it provided general shots reflecting the scale of the event (Image 13) and, on the other, it also showed more detailed shots (Image 14). “Beastly is an understatement for the images we are seeing,” said the presenter, Nacho Abad.

Image 13. Panoramic view of flooding in *Código 10*



Image 14. Person on top of a car in *Código 10*



Source: Mitele

This programme broadcast a video of a woman being swept away by the current, with residents observing from the windows of their homes unable to rescue her, an agonising and striking image. Additionally, another “harrowing” image and a video sent by a woman before she disappeared were announced but were not ultimately broadcast. However, a video of the press conference of the President

of the Valencian Community, recorded by the local media outlet *À Punt*, was aired, in which he confirmed fatalities due to the DANA.

Finally, the role of meteorologists was noteworthy, first in alerting the population from the studio (Image 15) and, later, in contextualising the events as they unfolded. They all used weather maps to convey the information, but in one case, virtual reality was also employed. In the programme *TardeAR* on Telecinco, Mediaset's meteorologist, Rosemary Alker, explained, using a virtual image reconstruction, how the impacts would vary depending on the levels of accumulated precipitation (Image 16).

Image 15. Meteorological alert on *La hora de La 1*



Source: RTVE Play

Image 16. Virtual reality on *TardeAR*.



Source: Mitele

4. Discussion and Conclusions

The results of this research have allowed us to identify strengths and weaknesses of media coverage of extreme events and to propose recommendations for improving risk communication in the future. In this section, we present the discussion and conclusions in relation to the two blocks of analysis: news coverage and images.

4.1. Coverage with Successes and Shortcomings

In the early hours of programming on 29 October 2024, the television channels analysed acted responsibly in their role of informing and alerting the public about the arrival of a dangerous DANA. In this regard, it can be concluded that television played a significant role in issuing early warnings to the population about the risks associated with the DANA. However, this proactive media coverage was not crucial in enabling the public to take the necessary preventive measures to mitigate the impact of the storm.

We consider that at least two factors may have contributed to the limited success of the alerts broadcast by television: media audiences and the absence of alerts from public authorities. Comparing the DANA of 1982 with that of 2024 reveals a fundamental difference in media consumption. In the 1980s, television and radio were the dominant media, with large and homogeneous audiences, facilitating the dissemination of alert messages to a significant portion of the population. However, today, the proliferation of television channels, streaming platforms, and digital media has fragmented audiences (Webster and Ksiazek, 2012), making it challenging to reach all citizens with the same effectiveness. Furthermore, beyond the warnings issued by AEMET, the absence of official communication directed at the public to highlight the severity of the situation and restrict travel may have been interpreted as an indication that the emergency was not of great magnitude.

In addition to anticipating the arrival of the DANA, Spanish television channels made efforts to contextualise the phenomenon and provide useful information to viewers. Meteorologists invited to the programmes clearly and simply explained what a DANA was and why it was associated with torrential rain and strong winds. Time was also dedicated to clarifying the meaning of alerts issued by the Spanish Meteorological Agency (AEMET), with particular emphasis on the severity of red alerts. In some cases, practical advice was offered for dealing with emergency situations. A notable example was a live demonstration of how to act if trapped in a vehicle during a flood, with the participation of an expert

firefighter. Such initiatives not only contributed to informing but also to educating the public about the risks associated with such phenomena, fostering a culture of prevention. In this sense, emergency journalism fulfilled expectations as outlined in existing literature (Lozano et al., 2020). Moreover, although verifying information during an emergency is challenging (Buoncompagni, 2024 Ewart and McLean), on 29 October, television channels consistently broadcast accurate information, avoiding giving credence to rumours or misinformation.

However, while the news coverage prior to the DANA's most severe impacts was effective, the response of television channels during the most critical moments was uneven. Antena 3 and Telecinco devoted the entirety of their afternoon magazine programmes to the DANA, whereas *Todo es mentira* on Cuatro did not address the topic; *Más vale tarde* on La Sexta included some other content; and La 1 limited its coverage to updating DANA forecasts in the programme *Aquí La Tierra*. The inclusion of live testimonies from individuals in the affected areas during afternoon programmes underscored the human dimension of the catastrophe. These live interventions not only provided firsthand information about the situation on the ground but also fostered a sense of empathy and solidarity among viewers. This function of emergency journalism has been recognised by authors such as Buoncompagni (2024) and Joye (2018).

Despite the severity of the situation and the evidence provided by images and testimonies from those affected, national television channels maintained their regular programming. The evening news bulletin on Antena 3 was dedicated exclusively to the DANA, but subsequent programming was not altered. Given its status as a public broadcaster, it is less understandable that La 1 did not adapt its schedule to provide a public service in these circumstances. Media outlets typically respond more swiftly to events that are formally convened and covered institutionally. In the absence of a press conference or official statement highlighting the severity of the situation before 9:00 p.m., television channels may have interpreted that a radical interruption of their programming was not justified. If so, this would demonstrate a high dependence on institutional sources, as previously noted in studies on journalism in Spain (Pérez Curiel et al., 2015). In any case, future research could further explore the decisions made by television channels regarding their coverage of the DANA.

4.2. Journalism with Social Media Imagery

The images used in the television coverage of the DANA on 29 October 2024 predominantly came from videos shared on social media. The authors were residents of the affected localities, as well as emergency services, which recorded both rescues and the damage caused by the storm. In some cases, fire brigades and the Guardia Civil captured aerial images from helicopters, providing a broader perspective of the catastrophe. Some of these visual sequences were broadcast across various television channels. We consider that the most frequently repeated and prominent images, which accompanied news headlines, played a significant role in framing the DANA and raising awareness among viewers (Ahva and Hellman, 2015).

Beyond the footage recorded by the professional teams of television channels, there was extensive use of audiovisual content generated by citizens and shared on social media. Videos recorded with mobile phones by residents of the affected areas provided firsthand evidence of the disaster's magnitude, complementing the information from official sources. While most television channels utilized this type of content, the authorship of the images was not always explicitly indicated, raising questions about copyright and informational transparency. Some channels, however, acknowledged the sources, thereby recognising the valuable contribution of citizens to news coverage.

The images produced by the channels themselves, obtained by professional journalists, were limited compared to the broadcast of social media imagery. In emergency journalism, the delayed arrival of media outlets to the scene is increasingly being supplemented by citizen journalism, as exemplified by the case of Javier Ballesteros, who appeared on four programmes across four television channels (Image 8). The use of videos from social media carries risks, as such information can sometimes be difficult to verify and may cause confusion (Antonioni and Ciaramicoli, 2013). Nevertheless, we observed that television channels relied on the X account of *AVAMET* and other more reliable sources sharing citizen-generated audiovisual material, which they deemed credible.

The role of professional journalists in this context was primarily to channel information from the studio, facilitating live connections with reporters and witnesses. Video calls became an essential tool for accessing isolated areas, enabling presenters to request that citizens show, in real time, the state of

streets, homes, or businesses. Without this technology, the visual coverage would have been far more limited and detached from the actual experience of the events.

In some cases, those who featured in these scenes or captured them became part of the news story, such as Luis, who lost his van and workshop in Letur, or Ballesteros, whose recording of a rescue led to interviews on multiple channels. Thus, the images themselves generated news stories. However, the use of some videos can be problematic, as there is a risk of sensationalist or tabloid approaches (Souza Mayerholz and Martínez Ravanal, 2011). Indeed, in the programmes analysed, high-impact videos were announced but ultimately not broadcast, as in the case of *Código 10*, which mentioned a video of a person recording themselves before disappearing.

Additionally, from television studios, the situation was contextualised with the help of the channels' meteorologists and weather maps. From a visual perspective, media outlets could have been more proactive in generating this contextual content, such as the virtual reality recreations by Telecinco, thereby contributing to the coverage with educational and preventive value, which some authors, such as Lozano et al. (2020), consider desirable.

4.3. Recommendations

Although guidelines for the practice of emergency journalism already exist (Ewart and McLean, 2019), the results of this study lead us to propose several recommendations for the use of videos sourced from social media:

- Sourcing videos from social media. Prioritise social media accounts of reliable sources, such as public institutions and emergency services.
- Verification of social media videos. To this end, information should be cross-checked with official sources or individuals knowledgeable about the recorded events.
- Selection of videos for broadcast. This selection should be guided by ethical criteria that, among other aspects, protect the dignity and privacy of victims. It would be advisable for media outlets' ethical codes to specify these considerations.
- Source attribution. Indicate the original source of the images.
- The video as a news story. An image constitutes an entire story; images themselves tell stories, which can be complemented with contextual information through the testimonies of those involved or witnesses behind the camera.
- Contribution from professional journalism. Professionals deployed to the scene and those reporting from the newsroom or studio can enrich coverage with complementary and contextual audiovisual information.

Finally, given that television channels generally lacked agility in adapting their programming schedules on 29 October 2024, it is suggested that internal protocols be reviewed to enable rapid and flexible responses in emergency situations.

5. Acknowledgements

This paper was developed within the framework of the Iberifier Plus project, co-financed by the European Commission under the agreement Call DIGITAL-2023-DEPLOY-04, European Digital Media Observatory (EDMO) - National and Multinational Hubs; reference: IBERIFIER Plus - 101158511.

Annex 1

Table 1. Schedule for 29 October 2024

TIME	La 1	Antena 3	Cuatro	Telecinco	La Sexta
6:00	Telediario matinal	Noticias de la mañana (no access)	Puro Cuatro	Informativos Telecinco: el matinal	Remescar, cosmética al instante
7:00			Love Shopping TV		Aruser@s
7:30			Toma salami		
8:00	La hora de La 1: La hora de la actualidad		Alerta cobra		
8:30				La mirada crítica	
9:00		Espejo Público			
10:00					
10:30			En boca de todos	Vamos a ver	
11:00	Mañaneros				Al Rojo Vivo
13:00					
13:30		Cocina abierta de Karlos Arguiñano			
14:00	(Informativos territoriales 1) Extramañaneros	La ruleta de la suerte	Noticias Cuatro 1		
14:30					laSexta Noticias (no access)
15:00	Telediario 1	Antena 3 Noticias 1 (no access)	El desmarque Cuatro El tiempo	Informativos Telecinco	laSexta Noticias Jugones
15:30		Deportes	Todo es mentira	El desmarque Telecinco el Tiempo	laSexta Meteo
16:00	(Informativos territoriales 2) El tiempo	Tu tiempo con Roberto Braserio		El diario de Jorge	Zapeando
16:30	La moderna	Sueños de libertad			
17:00		Y ahora Sonsoles			
17:30	La Promesa			TardeAR	Más Vale Tarde

18:00	Fútbol amistoso Selección femenina				
18:30			Lo sabe, no lo sabe		
19:00			Boom!		
20:00	Aquí la Tierra	Pasapalabra	Noticias Cuatro 2	Reacción en cadena	laSexta Noticias 20h (no access)
21:00	Telediario 2	Antena 3 Noticias 2	El desmarque Cuatro noche El tiempo	Informativos Telecinco 21:00	laSexta Clave: El otro Informativo de laSexta (no access) LaSexta Meteo LaSexta Deportes
21:30		Deportes Tu tiempo con Roberto Braseró	First Dates	El desmarque Telecinco El tiempo	El intermedio
22:00	La Revuelta	El Hormiguero		Gran Hermano	
22:30					Pesadilla en la cocina
23:00		Hermanos	Código 10		

Annex 2

Table 2. DANA chronology

7:31	Aemet increases the rainfall warning from orange to red. According to the National Plan for the Prediction and Monitoring of Adverse Meteorological Phenomena, the red level is to be interpreted as "extraordinary danger". Recommendation: Take preventive measures and ACT according to the indications of the authorities. Keep informed of the latest weather forecast. Do not travel unless strictly necessary. Very serious or catastrophic damage to people and property, especially those vulnerable or in areas exposed to the phenomenon, may occur.
7:45	The Emergency Coordination Centre (CCE) of the Generalitat establishes situation 1 for rain in the Ribera Alta.
8:04	The AEMET warns on networks that the southern coast of Valencia is suffering torrential rains, with accumulations of more than 90 litres per square metre in one hour that could "cause flooding and flooding".
8:45	AEMET Comunitat Valenciana uploads a video of the flooded streets of Catadau to X.
8:53	The Confederación Hidrográfica del Júcar (CHJ) warns in X that in the last four hours more than 120 l/m ² have accumulated in Carlet, 110 in Cortes de Pallás and more than 100 in Dos Aguas, all municipalities in Valencia. The President of the Generalitat Valenciana, Carlos Mazón, shares the emergency plan in places with red level and calls for caution through the social network X.
9:30	The Government Delegate in the Valencia Region, Pilar Bernabé, holds a telematic meeting with mayors in the risk area and brings together the resources of the Central Administration: UME, Guardia Civil, National Police, Civil Protection, DGT. This meeting was announced on the social network X at 9:14h.
9:41	AEMET extends the red warning to "a good part of the province of Valencia".
10:30	Emergencias de la Generalitat reports the first rescues of people in vehicles in La Ribera. The fire brigade of the province of Valencia reported in X that they had managed "more than 50 warnings due to the storm, mainly for rescues in vehicles and homes". At this time CCE publishes a video on X showing flooded streets in Vall d'Alcalans, where "between 150 and 200 l/m ² had fallen in two hours".
11:00	The Government Delegate in the Valencia Region, Pilar Bernabé, holds a press conference to discuss the situation of the DANA. She talks about the restoration of traffic on some of the roads that were cut off earlier in the day and highlights the red alert issued by AEMET.
11:45	The Emergency Coordination Centre (CCE) issues a special hydrological alert warning to the municipalities in the Magro river basin. It reports roads cut off and people trapped.
11:55	The Confederación Hidrográfica del Júcar (CHJ) reports significant increases in the flow of water in watercourses and ravines: Barxeta, overflowing as it passes through Pobla Llarga and with a large flow in Carcaixent; ravines overflowing in the area around Manuel; "considerable flooding" in the river Albaida and a significant increase in the flow of the river Magro.
12:00	Complicated situation on the roads of La Ribera. The fire brigade of the Provincial Council begins to carry out rescues in L'Alcúdia.
12:05	Mazón reports on the DANA. He estimates that the storm will subside at 18:00 and reports on the damage caused by the rains in the areas that feed the Magro river and the Poyo ravine.
12:09	CHJ informs Civil Protection of the increase in the flow of the Poyo ravine to 264 m ³ /s. The integrated operational coordination centre (CECOPI) activates the hydrological alert in the municipalities along the banks of the Poyo.
12:10	The AEMET informs the media of the red alert and that flooding is already occurring. It is requested to take shelter and get out of danger. An unequivocal video is sent to the media and social networks about of the associated risk level.

12:20	Hydrological alert from the Emergency Coordination Centre, after receiving information from the CHJ, in the municipalities in the area of the Poyo ravine. The warning is due to the increase in the flow in RibaRoja del Túria. The warning is published on social networks.
12:27	AEMET publishes a video in which its spokesman, Rubén del Campo, warns the population once again: "The red warnings represent extreme danger, and while we were preparing this video they have spread from the province of Valencia to the province of Malaga". Around this time, the municipalities are losing power and telephone coverage.
13:14	Carlos Mazón launches a message on his X account that includes a video fragment of his appearance from the Palau de la Generalitat, stating that "emergency situation 1 is in the region of Ribera Alta" and that there is a "red alert for rain throughout the coast and inland north of the province of Valencia that will be in force, in principle until 18.00 hours". He points out that "at the moment there is no evidence of personal injury at this time of the morning" but "there are reports of vehicles trapped, as well as a house affected in the municipality of Turís". He concludes by indicating that "according to the forecast, the storm is moving towards the Serranía de Cuenca, so it is expected that at around 18.00 hours its intensity will decrease throughout the rest of the Valencian Community". This tweet was deleted by his communications team shortly afterwards.
13:20	The CHJ reports a flow of 120 m ³ /s in El Poyo with a downward trend. According to the videos of X user @svs500, at 13:29h "the Poyo wadi was already full and overflowing in Polígono Oliveral in an area that had flooded fields and roads", in Riba-roja de Túria. "Firefighters were already rescuing".
14:30	The AEMET issues a special warning, with a very high degree of probability (>70%), raising the amount of rainfall that could be reached: between 150 and 180 mm between 12 and 24 hours, with intense storms in the area of the Strait, Eastern Andalusia, Murcia, eastern Castile-La Mancha and the Valencian Community. At this time, flooding and UME rescues are taking place.
15:00	The UME is officially requested to intervene in the region of Utiel-Requena, based on the activation of emergency level 2. This situation requires the creation of the Integrated Operational Coordination Centre (CECOPI), with representatives of the Government, State Forces and Corps, the Provincial Council of Valencia, the Firefighters' Consortium and other agencies. It is convened for five o'clock in the afternoon. The Generalitat Valenciana raises the alert to level two in three regions: Utiel, Requena and La Plana.
17:00	The meeting of the Integrated Operational Coordination Centre (CECOPI) begins.
17:35	Emergencies launches the hydrological alert on the Magro and Júcar rivers from their confluence in Algemesí, indicating that "there may be widespread overflows" in "areas close to the river" in the municipalities from Algemesí to Cullera.
17:56	The Confederation reports that the Forata reservoir has begun to spill and flows of over 1,000 m ³ /s are expected in the river Magro.
18:04	Scenario 2 of the Emergency Plan for the Forata Dam is declared (risk of breakage or serious damage to the dam).
18:30	The Poyo ravine in Torrent overflows and reaches ground zero. Picanya, Paiporta, Benetússer, Sedaví, Massanassa and Catarroja are flooded. The consequences are already catastrophic, with bridges uprooted by the force of the water and thousands of people trapped on the V-30 and in shopping centres. The watercourse is rising at 2000 m ³ /s, four times the normal flow of the Ebro.
19:03	AVAMET publishes on X the video of the fall of the Picanya pedestrian bridge
20:00	Councillor Pradas receives a call from the Secretary of State for the Environment, Hugo Morán, who is concerned that "there is a high risk of Forata breaking down". The councillor declares that it is at that moment "when a technician informs us that there is a mechanism called Es-Alert".
20:12	The Generalitat launches the alert by SMS to residents so that they do not go out on the streets or move around the province.

20:36	The Generalitat asks the Defence Department for the UME to act throughout the province of Valencia.
	A second alert is sent to mobile phones, for the regions of Ribera Alta, Ribera Baja, Hoya de Bunyol and
21:03	L'Horta Sud.
	President Mazón appears for the first time. He speaks of "lack of information" and does not confirm
21:20	human losses.
23:50	President Mazón appears for the second time. He acknowledges that there will be deaths.

Source: own elaboration, 2025

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