



SCIENCE COMMUNICATION IN GENERALIST TELEVISION NEWS PROGRAMMES IN SPAIN

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KEYWORDS

*Dissemination
Science
News
Television
Broadcast
Culture*

ABSTRACT

This study analyses the communication and dissemination of scientific news in daily news programmes on Televisión Española, Antena 3TV, and Telecinco in Spain. A quantitative methodology is proposed using an analysis sheet covering 273 programmes broadcast over a three-month period. The results show that the pieces are reports, broadcast on any day of the week, on diverse topics, with little reference to scientific sources (although with experts), with a diverse attitude, and science is presented as culture, service, or controversy. It is concluded that the presence of this content (1.83%) should be increased and given a more prominent place.

Received: 08/ 12 /2025

Accepted: 15/ 02 /2026

1. Introduction

Today, human beings face enormous scientific challenges. Following the impact of the response to a global pandemic a few years ago, we are now witnessing fears about how technological developments will affect us in many ways: from the cure of diseases through the use of genetics or nanotechnology, to the radical change expected in working conditions due to the widespread implementation of artificial intelligence.

In this context of human beings' need to know more and better understand the evolution of scientific advances and how they will impact people's daily lives, this research examines the dissemination of scientific information to the public through television, which continues to be one of the most widely consumed media worldwide along with social networks. More specifically, it examines the presence of this content in television news programmes in Spain, specifically in the second edition of the daily news (the evening edition), as this is the paradigmatic news content of the programming.

The general objective of the study is to analyse the scientific content in the news programmes of the three main generalist television channels in Spain, as described in the methodology section. This gives rise to the following specific objectives: to determine the number of items with scientific content in the selected programmes and whether there is any relationship between their greater or lesser presence depending on the day of the week they are broadcast (SO1); to analyse the position of these items in the programme schedule, as well as their duration (SO2); to establish the thematic (content) and typological characteristics of the items (SO3); to find out whether references are made to scientific sources of information and whether experts are included (SO4); and, finally, to carry out a comparative analysis between the three television stations under analysis (SO5).

In relation to these objectives, the following research questions arise: Will scientific content be included in the news programmes and will there be differences depending on the day of the week of broadcast? How much, at what point in the programme and for how long? What type of scientific content do they include and through what type of news item? Will scientific sources of information and/or the opinion of experts on the subject be included? And finally, will any of the channels deal with this scientific content more frequently or in a characteristic way?

2. Methodology

To achieve the above objectives, a quantitative analysis methodology has been designed by applying a model or analysis sheet to the flagship news programme of each selected television station. Thus, the second edition (the evening edition) of the news programme of the three main channels of the most important Spanish media groups is analysed: Televisión Española, Antena 3 Televisión (Atresmedia) and Telecinco (Mediaset). The second edition was chosen for analysis because, according to reports by Barlovento Comunicación (2025), this broadcast has the largest audience in the *access prime time* slot and, furthermore, as it begins broadcasting at 9 p.m., it contains all the relevant news from the entire day.

The sample to be analysed consists of all the news programmes broadcast by the three television stations in January, February and March 2024. This period was chosen because it includes special programming for the Christmas holiday season (in case there might be more scientific content during this period, when there is less normal activity, for example in politics). It mainly includes normal or regular programming for the season and, in addition, both daily news programmes (Monday to Friday) and weekend news programmes are analysed (for the reason mentioned above, in case there is a change in content depending on the daily schedule from Monday to Friday and the weekend schedule).

Thus, the sample consists of 273 programmes, totalling 170 hours and 23 minutes of broadcast time, which are viewed in detail via the online platforms of the television channels themselves: RTVE, Atresmedia and Mitele.

The analysis sheet included in Table 1 is applied to the broadcasts.

Table 1. Analysis sheet used in the research

Analysis item	Description
Broadcast date	Date of programme broadcast and day of the week
Channel	Channel on which the programme is broadcast
Duration	Total duration of the broadcast
Total number of news items	Total number of news items broadcast in the programme
Total number of science news items	Total number of science news items broadcast in each programme
Duration of science news items	Duration of each science news item within the broadcast
Position of the science news items in the total broadcast	Indicates in which of the three blocks each science news item is located within each programme
Type of item (report, short news item, etc.)	The type of piece corresponding to each science news item is indicated
References (studies, sources, etc.)	Indicates whether each scientific news item makes direct reference to any studies or official sources of information, such as universities, research groups, hospitals, etc.
Appearance of experts	Indicate whether each science news item features an expert explaining the information
Specific content: subject area	For each news item, indicate the subject area to which the information disseminated belongs.

Source: own elaboration, 2025.

With regard to the variable of the position occupied by the science news item in each programme, it should be noted that, as confirmed in the course of the analysis, the classic division of a news programme into: opening, summary, development of the news with blocks of national news, international news, economic news, cultural news, etc., and closing is no longer followed. For this reason, it was decided to establish a classification based on the total duration of each news programme, which was divided into three blocks. Thus, it is indicated whether the news item is located in the first, second or third block.

In relation to the specific scientific content of the news item and the area of knowledge to which it could be linked, the thematic areas proposed by the State Research Agency of the Ministry of Science, Innovation and Universities (2024) have been used. It should be noted that the scientific content of some news items falls within several areas of knowledge, therefore, when classifying them, it has been decided to unify areas.

To determine the type of news item, the classic classification of news genres has been used: news, interview, chronicle and report (Morán Torres, 1988, p. 10).

The headlines (and the piece itself to provide context) are analysed to extract a general idea of how the information is presented, so that it can be determined whether the overall attitude in the piece is positive, neutral or negative (following previous analyses: Trabadelo-Robles & Pérez-Sánchez, 2025). If there are no headlines, then the analysis focuses on the presentation of the information in the piece by the programme's presenters.

Finally, it is interesting to study the approach, how science is presented in the pieces, so that, applying the taxonomy proposed by Moreno Castro (2011), it is established whether in the piece science is presented as culture (when it normally has the presence of experts and is preferably informative), as a service (when scientific and technical information useful to the individual citizen is presented), as entertainment/show (normally speculative news about future situations, in which visual effects and aesthetics prevail – close to science fiction), as decoration (when scientific news serves as decoration, to "close" the news programme), as controversy (when it refers to events that generate controversy, normally when applying technological advances in our lives) or as science fiction (possible future realities based on scientific and technological advances are presented, which are difficult to achieve with current means).

3. Reporting on Science

The dissemination of science has been widely discussed in scientific literature for decades. For example, a search in the Web of Science database for "science" AND "dissemination" yields more than 60,000 results; a search in Scopus returns almost 25,000 results, and a search in the Dialnet database ("dissemination" and "science") returns more than 3,500 results (searches conducted in July 2025). It is therefore a topic of great interest that is addressed from a wide range of disciplines and perspectives.

Research in this field is highly variable, and its rapid progress has encouraged it to be approached from a variety of perspectives and methodologies (Davies, 2020; Fähnrich, 2021). In this context, the traditional model of the discipline, the "deficit model" (Gregory & Miller, 1998), is identified, which conceived communication as a process of "correcting" the supposed ignorance of the public, emphasising scientific literacy and public understanding of science (Rodríguez, 2020; Schäfer et al., 2020). In the same vein, it is worth mentioning the more recent emergence of the "dialogue model" (Humm et al., 2020), favoured by digital transformation, which promotes new forms of collaboration and interaction between society and science (Metcalf et al., 2022). Also of notable interest is the diversification of current lines of research, which focus on the study of citizen science (Cooper, 2016; Mesía-Montenegro, 2021), science journalism, and the role of social media and social networks (Ojeda-Serna and García-Ruiz, 2022; Zaragoza and Roca Marín, 2020a). Similarly, the potential of audiovisual media, including fiction series, has been recognised as an ideal channel for the dissemination of scientific knowledge, a practice that is on the rise and often includes the collaboration of expert advisors in the scripts (Carcaboso-García et al., 2023).

With regard to research dealing with the analysis of television news programmes, there are works of great interest, such as Ruitiña's methodological proposal for narratological analysis (2011a and 2011b), in which he approaches the study of news programmes as a compendium of news items as short stories, with their narrative elements being the subject of analysis. In the same vein, it is worth mentioning research on the structuring of news programmes (Gómez-Giraldo et al., 2011) or Pestano (2008), which confirms the linear model of information presentation on generalist television; hence, this research analyses the place occupied by relevant pieces in the total news broadcast, considering it of interest to expose their possible implications, such as hierarchisation. Also of notable interest is the methodological proposal for quantitative and qualitative analysis of the journalistic message in news programmes by de Haro (2014), which proposes a very comprehensive analysis model with 13 indicators (continuity, renewal, informative breadth, volume, balance, interpretativeness, audiovisual narrativity, audiovisual discursivity, immediacy, image quality, editing quality, associativity, and graphic quality). Similarly, the taxonomy proposed by Moreno Castro (2011), already mentioned and used in the analysis, treats science in journalistic information as culture, service, entertainment, decoration, controversy, or fiction.

As for specific aspects and their treatment in news programmes, as is the case in this article, there are studies on a wide range of topics, mainly case studies, such as those analysing racial representation (Suing et al., 2023), immigration (Codinach, 2015), refugees (San Felipe Frías, 2018), violence (Fernández Villanueva et al., 2018), information pluralism (Sáez et al., 2022), the predominant role of news anchors (Grassau et al., 2019), political propaganda through the news (Fernández Ruiz, 2017; Panchana, 2019), disinformation (Blanco et al., 2023), technological aspects such as the use of augmented reality (Eguskiza-Sesumaga, 2019; Triguero-Oliveros and Sánchez-Calero, 2021), the treatment of energy issues (Mercado Sáez and Monedero Morales, 2017), journalistic coverage of video games in news programmes (Paredes-Otero, 2024) and even the use of music in the sports section and its relationship with infotainment (Rojas-Torrijos and González Ramos, 2022).

It is also possible to find research on scientific dissemination on television, such as the interesting analysis by Cros (2017), which focuses on scientific documentaries broadcast on television, or research on specialised health programmes, such as the article by Cano Orón et al. (2017) or even critical studies on the absence or marginal presence of such scientific dissemination (Giraldez Alvarez and Almeida, 2014; Ibarra Arias and Marta Lazo, 2024, Ibarra-Arias and Marta Lazo, 2025). However, in recent years in particular, there have been several studies related to two topics of great interest: on the one hand, those dealing with the information provided during the recent global coronavirus pandemic (Benalcázar Calle et al., 2022; Bonales Daimiel et al., 2020; Burgos, 2023; Velázquez Tamez and Serna-Zamarrón, 2020) and, on the other, those dealing with the climate crisis and environmental communication (Alonso González, 2021; Gaitán Moya and Piñuel Raigada, 2013; Montaña Montaña, 1998; Vicente Mariño, 2009), which, as will be seen, are often recurring themes in news programmes (public health and the environment).

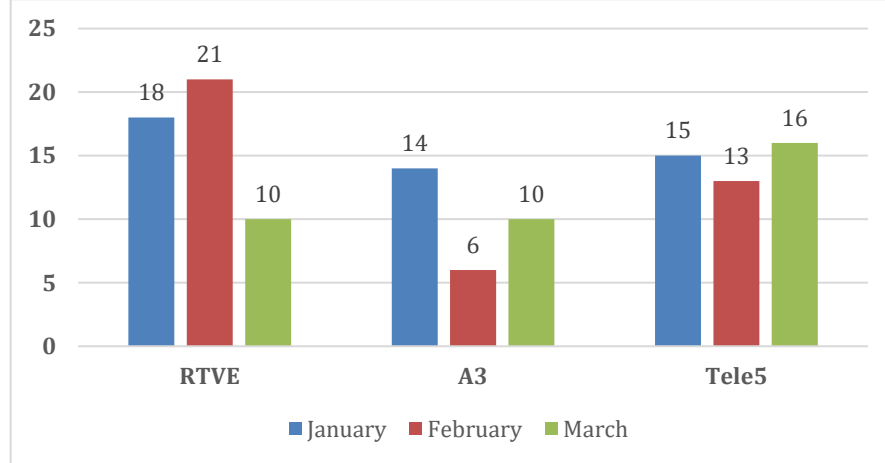
This research is justified by the need to understand and quantify the actual presence of information on science, in all its fields, in television news programmes (in the case of the main generalist television

channels in Spain). As mentioned above, no similar studies have been found, most of them being analyses of very specific cases, on specific disciplines, topics or aspects such as those mentioned above.

4. Results

Following the quantitative analysis, a total of 6,708 news items were detected in the 273 broadcasts studied, of which 123 corresponded to scientific news (1.83%). An analysis of the broadcasts by channel shows that Televisión Española has a total of 2,092 news items, of which 49 are scientific in nature, Antena 3 TV has a total of 2,682 items, of which 30 are scientific, and Telecinco broadcasts a total of 1,934 items in these news programmes, of which 44 are scientific in nature.

Figure 1. Total number of news items with scientific content per month and channel

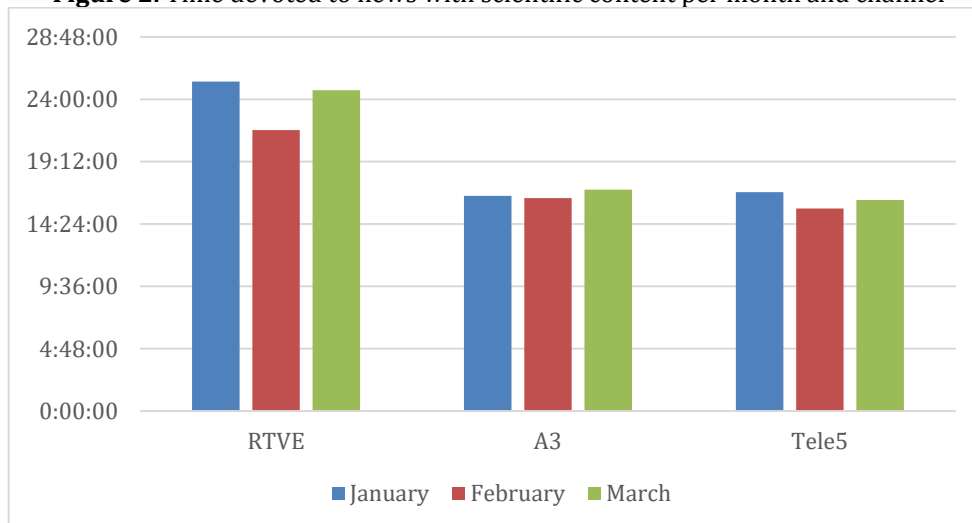


Source: own elaboration based on analysis data, 2025.

To illustrate this point, dividing the data by month and channel, Figure 1 shows that Televisión Española leads in terms of scientific news coverage in January and February (18 and 21 news items respectively), but in March Telecinco takes the lead with a total of 16 scientific news items.

Of the total 170 hours and 23 minutes, 3 hours and 37 minutes correspond to science news. If we divide the total number of hours broadcast by channel, we can see that Televisión Española broadcast a total of approximately 71 hours and 41 minutes, of which 1 hour and 46 minutes were devoted to science news. In the case of Antena 3 TV, out of a total of approximately 50 hours, 42 minutes were devoted to this type of news. The Telecinco channel, out of approximately 48 hours and 41 minutes, devoted 1 hour and 9 minutes. It can be seen that Televisión Española devoted the most time to scientific news in general during the period analysed, followed by Telecinco.

Figure 2. Time devoted to news with scientific content per month and channel



Source: own elaboration based on the analysis data, 2025.

Figure 2 shows a monthly breakdown by channel of the duration of scientific news items. It can be seen that each channel independently devotes a similar total amount of time in the months analysed. Individually, no specific month stands out, except in the case of Televisión Española, where there is a slight decrease in February.

There is a greater number of news items with scientific content in January than in February and March, although this does not correspond to a possible consequence of the Christmas holiday period and the likelihood of an increase in such content due to reduced political activity. This is not an effect of this because the new television season, and greater political activity, usually begins in mid-January, so the increase in relevant items should occur in the first half of that month. However, the results show that, in the first half of January, Televisión Española broadcasts 11 items, while in the first half of February there are 14 and in March 6; Telecinco broadcasts 5 items in the first half of January, compared to 9 in February and 9 in March, and Antena 3 TV broadcasts 6 items in the first half of January, compared to 5 and 2 in the first halves of February and March. In the latter case, although there are more pieces in the first half of January, there are 6 pieces out of a total of 14 (8 in the second half), so there are more pieces in the second half than in the first half of the month. The same is true for Telecinco, with 5 pieces in the first half and 10 pieces in the second half.

Taking into account the day of the week on which the programmes are broadcast, as shown in Table 2, the days with the highest number of programmes with scientific content are Thursdays (26), Tuesdays (20) and Wednesdays (19), and those with the lowest number are Fridays (11) and Saturdays (14).

By channel, Televisión Española broadcasts more on Thursdays and Tuesdays and Telecinco on Thursdays and Wednesdays, while Antena 3 TV broadcasts more at weekends (7 on Saturdays and 6 on Sundays) than on weekdays.

Table 2. Distribution of the number of science news items by day of the week of broadcast and channel

Day of the week	TVE	Antena 3 TV	Telecinco	Total
Monday	8	4	4	16
Tuesday	10	4	6	20
Wednesday	8	2	9	19
Thursday	11	3	12	26
Friday	3	4	4	11
Saturday	2	7	5	14
Sunday	7	6	4	17

Source: own elaboration, 2025.

With regard to the scientific news items and their characteristics, it can be seen that, of the total of 123 scientific news items, 49 were broadcast on Televisión Española, 30 on Antena 3 TV and 44 on Telecinco, which were included in the news programme as shown in Table 3.

Table 3. Distribution of number of news items by block and channel

Day of the week	Block 1	Block 2	Block 3	Total
Spanish Television	3	44	2	49
Antena 3 TV	-	3	27	30
Telecinco	-	14	30	44

Source: own elaboration, 2025.

As can be seen, in the case of Televisión Española, the bulk of science news is concentrated in the middle section of the broadcast (block 2), unlike Antena 3 TV and Telecinco, which place it in the final section (block 3).

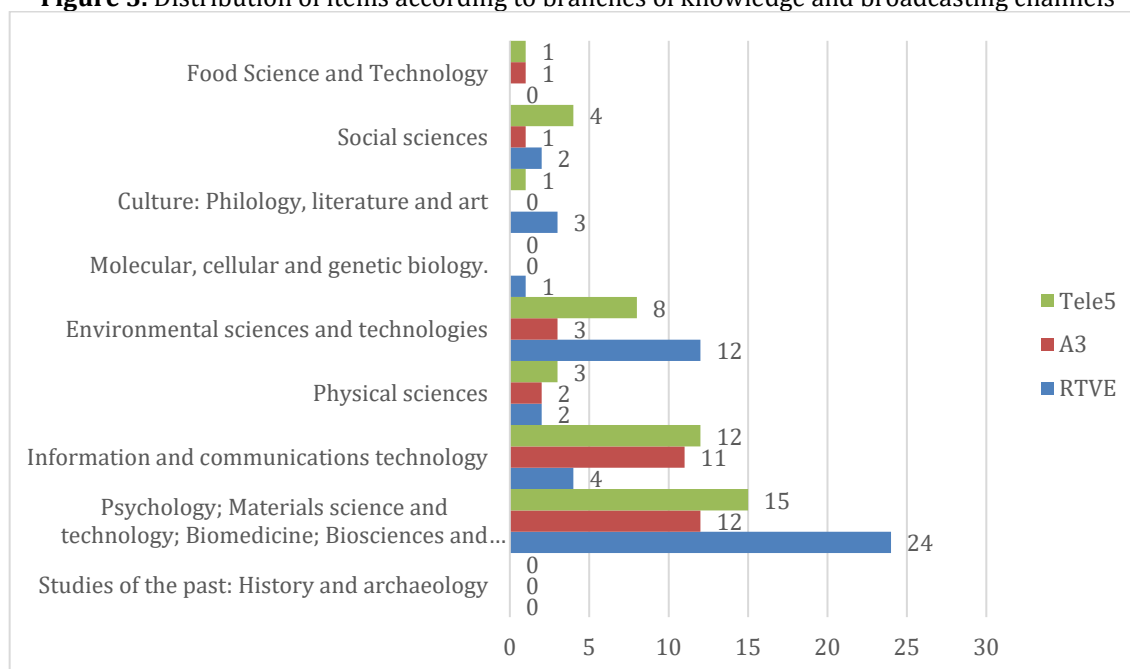
With regard to the subject areas covered by the news items analysed, we can list the following:

- Food science and technology.
- Social sciences.
- Culture: philology, literature and art.
- Molecular, cellular and genetic biology.
- Environmental sciences and technologies.
- Physical sciences.
- Information and communications technology.

- Psychology; Materials science and technology; Biomedicine; Biosciences and biotechnology (these branches of knowledge are independent, but it has been decided to combine them as indicated in the sources and methodology section).
- Studies of the past: History and Studies of the past: History and archaeology.

Figure 3 shows the proportion of areas of knowledge related to the news according to each television channel.

Figure 3. Distribution of items according to branches of knowledge and broadcasting channels



Source: own elaboration based on the analysis data, 2025.

It can be seen that the areas of Psychology; Materials Science and Technology; Biomedicine; Biosciences and Biotechnology are the most prominent on the three channels (51 items: 24 on RTVE. 12 on A3 and 15 on Tele5), followed by Environmental Sciences and Technologies in the case of Televisión Española (12 items), and Information and Communications Technology on Antena 3 TV and Telecinco (11 and 12 respectively).

In terms of the type of scientific news, the most common type of item in the programmes analysed is the report, with 102 items, followed by short news items with 18 and interviews with 3. If we quantify the distribution by channel:

- Televisión Española broadcasts a total of 42 reports and 7 short news items.
- Antena 3 TV broadcasts a total of 23 reports, 6 short news items and 1 interview.
- Telecinco broadcasts a total of 37 reports, 5 short news items and 2 interviews.

As for direct references in the news to scientific studies, research centres, researchers, etc., it can be seen that, of the total number of news items (123), only 45 have directly included a reference, compared to 78 that have not. However, the presence of experts in the news items can be highlighted, with a total of 94 news items that do include them and 29 that do not.

Table 4 shows the proportion divided by television channels, revealing that Telecinco makes the most references to information sources, but Televisión Española incorporates the highest proportion of experts in its news items.

Table 4. Number of news items with references to scientific sources and/or featuring experts

Channels	References to sources of information		Presence of experts in news items	
	Yes	No	Yes	No
Spanish Television	14	35	41	8
Antena 3 TV	12	18	20	10
Telecinco	19	25	33	11

Source: own elaboration, 2025.

Another characteristic of the pieces to be analysed is the attitude conveyed by the use of captions and the piece itself, as explained in the methodology (Figure 4 shows various screenshots as examples). Thus, according to Table 5, there are a total of 38 positive pieces, 39 neutral pieces and 46 negative pieces.

Table 5. Distribution of the number of scientific news items according to the attitude implied in the headlines/item

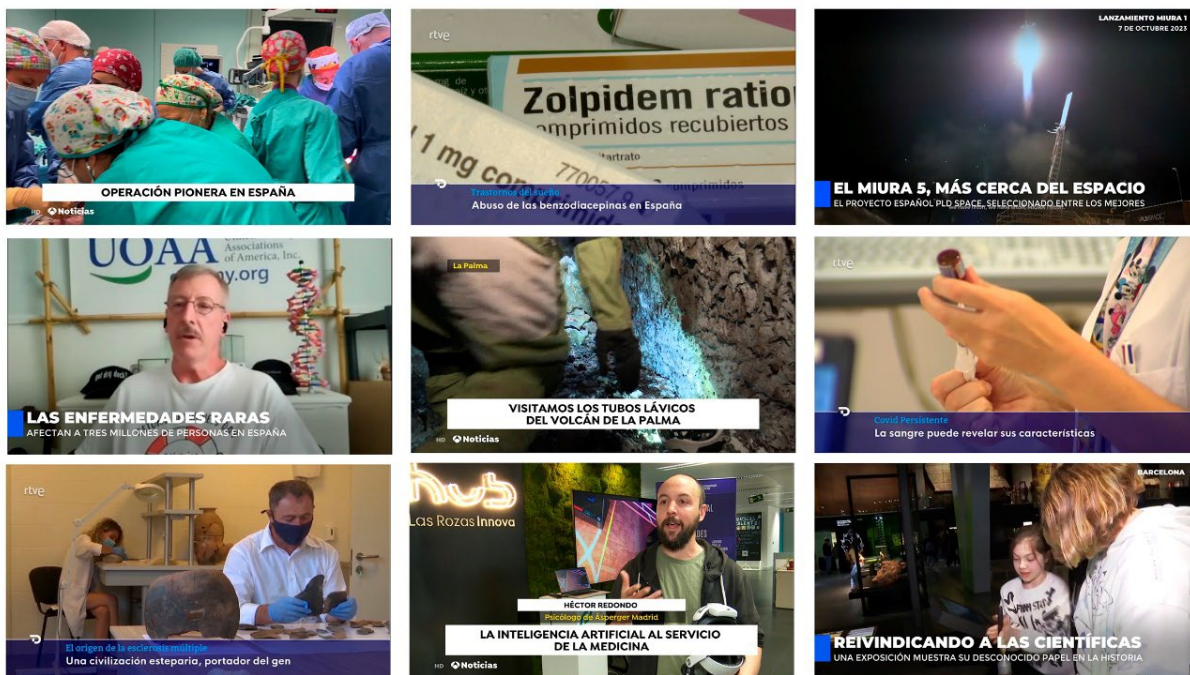
Attitude	TVE	Antena 3 TV	Telecinco	Total
Positive	10	12	16	38
Neutral	18	11	10	39
Negative	21	7	18	46

Source: own elaboration, 2025.

By channel, Antena 3 TV predominantly broadcasts positive (12) and neutral (11) items, while Televisión Española and Telecinco broadcast more items with a negative attitude (21 and 18 respectively). On Telecinco, the second most prevalent type is positive items (16), while on Televisión Española they are the least numerous (10).

It is noteworthy that, of the 44 items analysed broadcast by Telecinco, 13 did not include captions, of the 49 on Televisión Española only one did not have them, and all of the items on Antena 3 TV did have some captioning in the item itself. Longer items tend to include more than one caption.

Figure 4. Screenshots of some of the programmes analysed (with captions) as examples



Source: Screenshots of images broadcast by Antena 3 TV, Telecinco and Televisión Española.

The last variable in the analysis used in the research refers to the way in which science is presented. It indicates whether it is presented as: culture, service, entertainment, decoration, controversy or fiction. Once the analysis has been carried out, the results are shown in Table 6.

Table 6. Distribution of the number of science news items according to the way science is presented

Science is presented as...	TVE	Antena 3 TV	Telecinco	Total
Frills	0	1	1	2
Science fiction	0	3	2	5
Controversy	12	3	5	20
Culture	26	11	22	59
Show	3	3	2	8
Service	8	9	12	29

Source: own elaboration, 2025.

It can be seen that in almost half of the articles (59 out of 123), science is presented as culture, i.e. when the information includes experts and the main function is informative, with the aim of making the audience aware of some scientific fact of interest. In second place (29 pieces) are those in which science is presented as a service, when scientific and technical information useful to individual citizens is presented (for example, the emergence of a new vaccine or a new relevant diagnostic test). Also noteworthy are the 20 pieces in which scientific information generates controversy (such as the news that being slightly overweight could be beneficial or the new capabilities of artificial intelligence).

5. Discussion and Conclusions

Although it is true that during the period analysed there were no scientific cases of global interest that had to be covered in the news, unlike what happened, for example, during the pandemic, when a large number of news items were devoted to its impact (González Conde et al., 2022), it is confirmed that during the period analysed, science does not occupy a significant amount of space-time in the news, only 1.83% of the total time, so its presence should be increased if the aim is to really spread science more among the public through this specific medium (in line with what Moreno Castro pointed out in 2011).

In relation to the research question posed at the beginning about whether there would be differences depending on the days of the week of broadcast, as there is less political activity, one might expect more scientific content to be included at weekends. However, the results show that this is not generally the case, as the days of the week with the most scientific content are Thursdays, Tuesdays and Wednesdays. The analysis shows that most of the items reflect current events (see Annex 1), so they are included in the news programmes when the event of interest takes place and are not relegated to other days of the week. However, it is true that Antena 3 TV does broadcast more news at weekends (6.5 items per day on average) than during the week (3.4).

There are very few cases in which scientific news is included in the news summary. Only Televisión Española includes three news items in the first block. On the contrary, most items are placed in the middle and end of the programmes, probably because science is not at the centre of the news agenda, with political issues taking centre stage in the first third of the programmes.

The scientific content in the news programmes analysed is based on covering current events, for example, the presentation of a report on insomnia, the latest scientific and technological developments at a specific event, or the announcement of a medical milestone, such as a uterus transplant between mother and daughter (in adulthood) so that the latter can become a mother. There are also pieces associated with "world day" events, for example, rare diseases, cancer or obesity, where the latest data on these topics is provided.

These are usually pieces on various disciplines, although the predominant subject areas are psychology; materials science and technology; biomedicine; biosciences and biotechnologies (51 pieces); environmental science and technology (23 pieces); and information and communications technology (27 pieces). They are mainly presented in the form of reports (83% of the items). It is striking that there are only three interviews (none on Televisión Española), although this is perhaps understandable given the time constraints of the news programme, with interviews being more suitable for other television formats (such as talk shows).

With regard to the data and sources used in the news items, not referring to audiovisual production sources (Caldera-Serrano and Vázquez de Ágredos, 2023; González Pérez et al., 2025), but purely scientific ones, it can be seen that only 45 pieces include scientific sources (37%), with Telecinco doing so the most. As for the presence of experts, most pieces do include them (76%), with Televisión Española standing out (84%). In any case, it is understood that the information should be based more on scientific sources and experts, as has been pointed out in other studies, such as those by Piñuel and López (2022) or Teso and Piñuel (2013) on climate crisis communication.

In terms of the comparative analysis between channels, there are not many substantial differences and there are quite a few similarities. However, it is worth mentioning that Antena 3 TV broadcasts the fewest items (30) and does so more at weekends, while Televisión Española and Telecinco broadcast more items (49 and 44) and concentrate their broadcasts more in the first half of the week (including Thursday). There are also slight differences in the location of the items (Televisión Española concentrates them in the middle block, while the other channels do so in the last block) and only

Televisión Española does not include interviews, although it is the channel with the highest presence of experts in the items (84% of the items) compared to Telecinco (75%) and Antena 3 TV (66%).

In short, after having carried out the main objective of analysing the scientific content in the news programmes of the three main generalist television channels in Spain, it can be concluded that science communication is carried out in a similar way and that its presence should be increased. Science is usually included in the news programmes on any day of the week, in the middle or at the end of the programme, and the topics are mainly related to the areas of psychology; materials science and technology; biomedicine; biosciences and biotechnologies, in the form of reports, with little reference to scientific sources, although experts are often consulted, with a diverse attitude (negative, neutral or positive), and science is almost always presented as culture, service or controversy.

As for future lines of research, the aim is to continue analysing the communication of science in the news, so that it can be observed whether or not the presence of this content increases and whether or not the way it is approached changes, given its relevance to the public.

6. Acknowledgements

The research activity that gave rise to this article has been co-financed at 85% by the European Union, the European Regional Development Fund, and by the Regional Government of Extremadura. Managing Authority: Ministry of Finance. Grant file number: GR24014



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Appendix I: Captions present in the pieces analysed

Name of the video	Captions
A3-20240103-01	"Being a little overweight could be good"
A3-20240103-02	"Stress affects breast milk"
A3-20240109-01	"Technological innovations in Las Vegas"
A3-20240111-01	"Waste", "microplastics invade beaches"
A3-20240112-01	"The latest technological developments"
A3-20240113-01	"The effects of influenza A", "studying the correct use of antibiotics after influenza A"
A3-20240116-01	"An app to prevent minors from accessing pornography", "the experts' opinion"
A3-20240118-01	"Deposits of frozen water on Mars"
A3-20240122-01	"An AI specialising in mathematics"
A3-20240127-01	"Handwriting is good for the brain"
A3-20240128-01	"Pollen levels skyrocket"
A3-20240128-02	"Detecting colon cancer with blood"
A3-20240129-01	"First accidental transmission of Alzheimer's disease"
A3-20240130-01	"A chip in the brain", "Elon Musk announces the implantation of the first brain chip", "Elon Musk's brain chip"
A3-20240203-01	"Obesity and its effects on mood", "New drugs against obesity"
A3-20240204-01	"María Neira", "Director of the WHO Department of Public Health", "live", "World Cancer Day"
A3-20240205-01	"The first mixed reality glasses"
A3-20240211-01	"International Day of Women and Girls in Science"
A3-20240215-01	"New US mission to the moon"
A3-20240216-01	"The AI revolution continues," "AI capable of creating videos from text"
A3-20240302-01	"Artificial intelligence at the service of medicine"
A3-20240315-01	The consequences of persistent COVID
A3-20240316-01	"Health associated with meal times"
A3-20240324-01	"We visit the lava tubes of the La Palma volcano"
A3-20240325-01	Pioneering operation in Spain
A3-20240326-01	Will we have digital twins?
A3-20240329-01	AI in the domestic sphere
A3-20240330-01	40% of young people suffer from insomnia
A3-20240330-02	Life in Singapore, with artificial intelligence
A3-20240330-03	"Anosmia: living without smell", "regaining your sense of smell"
T5-20240103-01	No captions (prototype mobile phone for older people)
T5-20240111-01	No captions (simulation of plastic spill in the Cantabrian Sea) Viana do Castelo / Galicia
T5-20240111-02	No captions (more on plastic pollution in the sea: Cadiz and the Canary Islands)
T5-20240112-01	No captions (jacket to feel like a video game character)
T5-20240113-01	No captions (World Depression Day)
T5-20240117-01	No captions (the role of AI in shopping based on consumer purchasing power)
T5-20240118-01	"Water on Mars. Large masses of ice discovered beneath the Martian surface"

T5-20240120-01	"Teachers' mental health. Four out of ten professionals have experienced symptoms of depression"... José Ribagorda, teachers' mental health, depression or anxiety - 38%, suicidal thoughts - 13% (at the end, a positive piece of information in another caption: according to the report, the fifth country that trusts teachers the most)
T5-20240120-02	No captions (report on Pompeii)
T5-20240123-01	Medical milestone (uterus transplant from grandmother to mother)
T5-20240126-01	Iris for cryptocurrencies, [giving people the opportunity to distinguish themselves from 'bots' in the digital world]
T5-20240128-01	"Effect of climate change" (day of action against global warming)
T5-20240128-02	Miura 5, closer to space
T5-20240130-01	Neuralink (Elon Musk's brain chip)
T5-20240131-01	Service robots
T5-20240201-01	Psychology apps
T5-20240201-02	"Emotional robots. The project is the result of collaboration between the UMH in Elche and the UP in Cartagena." (Hello, Benji. It's good to see you again.)
T5-20240202-01	Cancer survivors (World Cancer Day)
T5-20240204-01	Cancer on the rise
T5-20240206-01	No captions (mixed reality glasses)
T5-20240208-01	Unwanted loneliness, 1 in 4 young people
T5-20240211-01	"Vindicating women scientists. An exhibition shows their unknown role in history" (International Day of Women and Girls in Science)
T5-20240215-01	Record population, 48.5 million
T5-20240215-02	No captions (US sends a landing module to the moon)
T5-20240228-01	"Frontier [world's largest computer] spends €20 million on electricity per year", "efficient cooling system reduces the bill", "AI also consumes millions of litres of water per day", "AI emits millions of tonnes of CO2 into the atmosphere"
T5-20240228-02	No captions (virtual twin -digital-)
T5-20240229-01	Ultra-processed
T5-20240229-02	"Rare diseases. They affect 3 million people in Spain." World Rare Disease Day
T5-20240302-01	No captions (virtual reality to help patients with rare diseases)
T5-20240304-01	Infertility
T5-20240304-02	"The rate of childhood obesity has quadrupled in 30 years." (World Obesity Day)
T5-20240305-01	"Gender gap in the classroom. One girl for every three boys would study a STEM degree." Gender gap in mathematics
T5-20240313-01	"Limits on facial recognition. It may only be used in emergencies or with a court order." AI ethics (in the background)
T5-20240313-02	"We enter a lava tube. These conduits reached temperatures of up to 800 degrees," "Scientists from Spain and Portugal are working on the Microlava project."
T5-20240313-03	No captions (9 scientists in Utah due to its resemblance to Mars)
T5-20240314-01	No captions (synthetic meat industry)
T5-20240315-01	Young people and sleep (World Sleep Day)
T5-20240318-01	The glucose curve (on set)
T5-20240319-01	"The new B200 GPU is the world's most powerful microchip," "the new superchip will enable more powerful and environmentally friendly AI" (the race for the nanochip)
T5-20240321-01	Modified pig kidney (animal organ transplants in humans)
T5-20240323-01	A gesture for the planet
T5-20240325-01	"Pioneering operation. Heart tumour removed from unborn baby" (tumour in a premature baby)
T5-20240326-01	57.8% reservoirs in Spain (drought in Spain)
T5-20240327-01	Cracks from the eruption (faults on the island of La Palma)

Science communication in generalist television news programmes in Spain

TVE-20240101	"25 years as a World Heritage Site". "The cave treasures of Teruel"
TVE-20240107-01	"Aphantasia, living with mental blindness"
TVE-20240108-01	"Mission to the moon. NASA will land on the moon 52 years later"
TVE-20240108-02	"First pan-Hispanic dictionary of medical terms. It contains more than 70,000 terms" pan-Hispanic dictionary of medical terms
TVE-20240109-01	"2023, the hottest year in history. Average temperature of 14.98 degrees, a record since records began"
TVE-20240109-02	"Technology: CES returns to Las Vegas."
TVE-20240110-01	"The neurons behind schizophrenia. Altered functions found in MRIs"
TVE-20240111-01	"The environmental problem of pellets" pellet spill all the keys (next to a QR code)
TVE-20240111-02	"The origin of multiple sclerosis. A steppe civilisation, carrier of the gene"
TVE-20240114-01	"Drought in Spain", "45.85% 2 points", "average reserve in Spain"
TVE-20240115-01	No captions (AI to manipulate public opinion in electoral processes)
TVE-20240116-01	"Archaeological disaster. An irrigation ditch causes irreparable damage"
TVE-20240117-01	"Electroconvulsive therapy. Its use in the past has been controversial", "It is performed in hospitals and under anaesthesia" a controversial therapy
TVE-20240118-01	"Long Covid. Blood may reveal its characteristics"
TVE-20240119-01	"Japan reaches the moon. The module lands but fails"
TVE-20240125-01	"Sexually transmitted infections. Diagnoses increase among young people"
TVE-20240129-01	Transmission of Alzheimer's disease. Observed in five patients in the United Kingdom." "Alzheimer's disease"
TVE-20240130-01	"A chip in the human brain. Elon Musk announces that he has implanted the device", "Excitement in the scientific community"
TVE-20240201-01	"Fentanyl for therapeutic use", "addicted to fentanyl"
TVE-20240203-01	"Drought in the Mediterranean region. Spain, Italy and Morocco among the most affected", "The main cause is climate change", "Concerns about the impact on ecosystems"
TVE-20240208-01	"Young people who feel lonely. Going out and meeting friends, a key factor", "foreign origin increases the risk by 72%", "8% have suffered bullying at school", "it is difficult to identify and make it visible" "young people and loneliness"
TVE-20240209-01	"Sleep disorders" "Benzodiazepine abuse in Spain"
TVE-20240211-01	"The environmental impact of wars. Ukraine accuses the Russian army of ecocide"
TVE-20240211-02	"Women in science. Only 33% of researchers are women" (International Day of Women and Girls in Science)
TVE-20240212-01	"Migratory animals in danger. One in five species may become extinct", "97% of migratory fish at risk"
TVE-20240212-02	"Colombian birds poisoned. Some farmers are poisoning condors"
TVE-20240213-01	"Heat in the Mediterranean Sea. 60 days with higher than usual temperatures"
TVE-20240213-02	"Polar bears at risk of starvation. The Arctic thaw period is increasing."
TVE-20240214-01	"Effects of smoking. Smoking alters the immune system." "Tobacco: long-term damage"
TVE-20240214-02	"Regulation of medical cannabis. Health authorities begin the process", "The United Kingdom approved its use in 2018", "Belgium maintains its ban" "medical cannabis"
TVE-20240215-01	"Childhood Cancer Day. They have a survival rate of 60-70%"
TVE-20240215-02	"Underwater mines. An alternative to traditional ones?"
TVE-20240216-01	"New challenge for AI"
TVE-20240220-01	"New migraine medication. It is preventive and acts against acute pain." "Medication against migraine"
TVE-20240220-02	"Living with ALS. A very costly disease for patients", "they are calling for a law to guarantee their care"
TVE-20240220-03	"Down syndrome in prehistory. A study says they were buried with care."
TVE-20240221-01	"The secret to egg longevity. A possible key to infertility discovered."
TVE-20240226-01	"Childhood obesity. A sports programme to combat obesity." What are our children eating?
TVE-20240229-01	"Ultra-rare diseases. Access to treatment becomes more complicated." World Rare Disease Day

TVE-20240302-01	"Mental health in children and adolescents"
TVE-20240303-01	"Botanical illustrators. Five centuries of women artists" women illustrate botany
TVE-20240305-01	"Women and mathematics. 5.5% are scientific and technical workers"
TVE-20240307-01	"Bile duct tumours. A little-known and rare form of cancer", "ATUVIBI, a new patient association, is born". Bile duct cancer
TVE-20240313-01	"First artificial intelligence law. Passed by a large majority in the European Parliament", "watermark for content created with AI", "prohibits facial recognition, with exceptions" artificial intelligence law
TVE-20240314-01	Menopause and medication
TVE-20240324-01	"Tuberculosis vaccine. The University of Zaragoza leads the research"
TVE-20240327-01	"La Palma volcano. Faults responsible for the eruption discovered"
TVE-20240327-02	"Three lynx cubs born in a haystack. A farmer from Toledo found them in his barn"
TVE-20240331-01	"Anorexia and bulimia are starting earlier. They are being detected at younger ages," "workshops against childhood anorexia"

Source: own elaboration based on the videos.