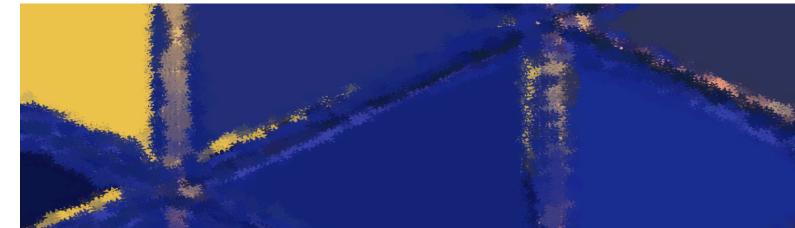


IBERIFIER – Iberian Digital Media Research and Fact-Checking Hub

Disinformation consumption patterns in Spain and Portugal

Report

February 2024



Disinformation consumption patterns in Spain and Portugal



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1. Introduction

The aim of this report is to analyse disinformation consumption patterns in Spain and Portugal. To do so, and first of all, we analyse the background and state of the question in a context of evolution of the forms of consumption, platforms, disinformation narratives and their adaptation to current events.

Subsequently, reports from Portugal and Spain on this issue are analysed and compared, paying special attention to the Eurobarometer and the Digital News Report published by the Reuters Institute.

Thirdly, the focus is placed on analysing the reports produced and published within the lberifier project, which contain documentation, comparative analysis, information, and knowledge acquired on consumption patterns.

Fourthly, specific reports on disinformation published in Spain and Portugal are studied, with special attention to the reports published on science disinformation by the FECYT Foundation (Spanish Foundation for Science and Technology) in Spain.

Finally, this report identifies possible trends and problems to be analysed in the coming years on this issue and closes with the main conclusions on the patterns of disinformation consumption in Spain and Portugal identified to date.

2. Background and state of the question

In recent years, we have seen how disinformation has become increasingly relevant when studying the democratic quality of countries and their resilience mechanisms. In this scenario, the crisis of democratic and media trust is making disinformation and digital propaganda an increasingly relevant tool of international geopolitical strategy.

This new ecosystem is intensified by a digital model of platforms, media, and social networks that favours the attempt to constantly, and increasingly emotionally, influence citizens' opinions.

Beyond the ideological aspect, disinformation consumption patterns are also explained by economic, algorithmic, and geopolitical criteria, as also from the point of view of message reception in such a diversified ecosystem.

In the field of social networks, it is possible to detect some behaviours that are recurrently repeated and that serve to identify reasons why people think or share false content. One of the most repeated motives is the simple desire for notoriety.

Another reason would be to harm others for ideological, cultural, economic, etc. reasons. This category ranges from economic fraud to slander.



In its legal meaning, the Dictionary of the Spanish Language defines 'swindling' as "committing any of the crimes characterised by profit as an end and deceit or abuse of trust as a means". On the other hand, according to Article 248 of the Spanish Penal Code, "those who, with a profit motive, use deception sufficient to produce error in another, inducing him to carry out an act of disposition to their own or another's detriment, commit swindling."

In the Portuguese case, there is an ample debate on the legal frameworks under which disinformation should be discussed and countered, and this discussion is often contextualised by the article 37 of the Portuguese Constitution, which safeguards the right of expression, the general opinion being that any legal framework must first and foremost safeguard this principle. As such, there is not, within the Portuguese legal framework, any rule or norm that specifically "provides for the type of action that disinformation can give rise to or encompass, nor, of course, the respective sanction." (ERC, Entidade Reguladora para a Comunicação Social, 2019). The Portuguese Penal Code does contain provisions and articles under which it is possible to punish crimes against the honour of both single and collective entities or crimes against the State and democracy.

From a legal point of view, disinformation can affect hate crimes, crimes against public health, slander and libel, disclosure of personal data, public disorder, and our rights as consumers. Those who disseminate falsehoods to defraud do so with the aim of obtaining illicit profit, regardless of the damage they cause to the deceived. Those who defame and slander, in this case, publicly undermining the honour and good name of others, also seek to harm.

On the other hand, although its hidden nature makes it particularly difficult to detect and, above all, to trace, part of the disinformation circulating in social networks may respond to geostrategic interests.

From a temporal point of view, disinformation consumption patterns are affected by events of great informative and emotional intensity, such as electoral processes, natural disasters, war conflicts, etc., but also by the development of part of the public sphere as an ideological battlefield within the so-called culture wars.

In relation to the study of the circulation of disinformation, it is increasingly common to analyse the mechanisms that are integrated in the consumption of disinformation depending on the social network (Facebook, X, TikTok, etc.), messaging systems (WhatsApp or Telegram) and the adaptation of these narratives to each support, strategy, and potential recipient.

The most sensationalist press, the most hyper-partisan websites, and the reproduction of certain polarisation strategies by certain media would also form part of the analysis of consumption patterns (Suau & Puertas-Graell, 2023).

We must point out that the study of consumption patterns is directly related to consumers' confidence in the media, social networks, public institutions, etc.



3. Analysis of common reports from Spain and Portugal. Eurobarometer and Digital News Report

3.1. Spain

3.1.1. Eurobarometer

To identify consumption patterns related to misinformation, the results of surveys related to issues intrinsic to this problem were extracted from the Eurobarometer, such as trust in the media and in national or international public institutions; frequency of news consumption; degree of participation in online debates; perception of exposure and identification of false content, etc.

It should be kept in mind that the data collected in successive reports do not tend to present an evolution in the different variables they analyse. That is to say, European citizens have not been asked the same questions every year, so variations cannot always be analysed chronologically. Likewise, there are some issues that have only been taken into account for the publication of a specific one-off or annual report, so the data is cross-sectional and not longitudinal.

According to the Eurobarometer, 84% of Spanish respondents considered that "false or altered information was a problem for democracy" (Flash Eurobarometer 464, dedicated to Fake News and Disinformation Online, 2018). This perception is relevant if we consider that Spain was in second place after Cyprus in this ranking and that the European average was 83%¹.

The media were trusted by 74% of those surveyed (the European average was 70%), who gave more credibility, in this order, to the press (65% of those surveyed), television (57%), digital press (47%), and videos found on the Internet (24%).

According to the report, "seventy-eight percent of respondents reported encountering fake news often or always, the highest European proportion, with 68% being the EU average" (Eurobarometer, 2018).

On the negative side, we found that Spaniards were the worst at identifying fake news, several points above the European average. Furthermore, Eurobarometer respondents attributed "responsibility to national authorities" in fighting disinformation (51%, the second highest value in the EU).

A few months later, in November 2018, Spaniards were the citizens most concerned about disinformation in the EU (with 77% of those surveyed, taking as a reference that the European average was 68%). Spanish respondents were concerned about electoral fraud (67%) and cyberattacks (74%), well above the average of European respondents (61% and 59%, respectively).

¹ See: <u>https://bit.ly/3HbMqob</u>



According to figures released by Eurobarometer 477 dedicated to Democracy and Electoral Processes, "Spain also ranked first in terms of concern about the influence of third parties on voters, with 71% compared to a European average of 56%. Spain also ranks first in Europe in relation to the possibility of manipulation of the final result (74%), buying and selling of votes, coercion of voters (71%) and duplication of votes (64%)."²

The Eurobarometer indicated that "the data reveal the lack of security of Spanish society in its electoral processes and in the diligence of those responsible for preventing risks (39%). "Finally," the report continues, "35% do not trust social networks to follow electoral debates, a perception that is among the highest in Europe, along with France, Cyprus, and Greece."

Echoing Eurobarometer 92 from autumn 2019, the report shows that 73% of Spaniards distrusted social networks, 83% found news that could be false, and 89% believed that fake news constituted a problem for democracy.³

In January and February 2022, the report continues (p. 38), "the Eurobarometer continued to confirm that Spanish respondents (81%) often encountered fake news in the media, that 54% believed they could identify disinformation, and that misinformation was a problem for the country and for democracy (82%). They are also among those most distrustful of the media across the EU, especially regarding social media (72%), the Internet (64%), television (65%), the written press (56%), and the radio (48%)" (Iberifier, 2023: 38).⁴

Echoing data obtained from Eurobarometers, the Iberifier report indicates (2023: 67) that "public media do not escape this distrust either. Since 2021, the Eurobarometer has asked about the perception of the independence of public media with respect to political pressure. While northern European countries have a high perception of the independence of their public media, among Spaniards, only 23% consider that public media are free of political interference, far from the European average of 39%. The degree of perceived independence of the media in general with respect to political or economic pressures is also, for Spain, one of the lowest values in the entire European series in 2022, with 28% agreement, far from the European average of 43%."

3.1.2. Evolution of trust in the media, platforms and public institutions or international entities

This variable is related to the user's perception of the veracity offered by the content of public or private companies and media that operate in their country. Between 2016 and 2022, all Spanish citizens were asked for three years if they could trust the media in their country. The average response was 41.3%.

⁴ See: <u>https://bit.ly/3Hd6K8N</u>



² See: <u>https://bit.ly/3RQebrh</u>

³ See: <u>https://bit.ly/4aT1B3w</u>

On the other hand, if they were asked about their tendency to trust the media, without indicating nationality, the average percentage of trust offered by the media dropped to 31.57%—almost 10 points. This question was asked six times between 2017 and 2023.

	2017	2018	2019	2020	2021	2022	2023
Positive	32%	36%	29%	33%	31%	28%	27%
Negative	65%	59%	67%	65%	No data available	No data available '	70%

Table 1. Spain. Tendency to trust all media by Spanish users

Source: Eurobarometer

In relation to the question about what specifically their level of trust is towards the media, only between 10 and 13% of respondents indicated high trust, between 56 and 58% low or none.

Table 2. Level of trust that Spaniards perceive they have towards the media

	2019	2021	2022
High	10%	12%	13%
Medium	32%	32%	29%
Low or none	58%	56%	58%

Source: Eurobarometer

In any case, whether we focus on the issue of credibility or trust in the media, it can be confirmed that, coinciding with the COVID-19 pandemic, their role as mediators of the social trust system is weakened.



Table 3. Level of confidence of the Spanish consumer in the Internet as a means ofcommunication

		2019	2021	2022
Internet as a means of	Tends to trust	21%	25%	22%
communication	Doesn't tend to trust	65%	59%	64%

Source. Europaronneler	Source:	Eurobarometer
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On the other hand, it can be seen how the Internet has not replaced traditional media as a trusted space for information in this period.

In 2017 and 2022, two specific Eurobarometers focused on media and news and asked about issues intrinsic to direct trust in news and media. In 2017, Spaniards were asked what criteria made them trust news published on social networks the most. First, citizens indicated that they generally did not trust news published on social networks (42%).

They then recognised that the fact that the source was reliable, that is, that it was authored by a media outlet with a high reputation, was the first indicator that users had to measure whether a news item was reliable or not.

	2017
Trusted source (Media, brand, or organisation)	36
In general, I do not trust stories published on social networks	42
The story seems well referenced	13
You trust the person who shared it	13
You trust the social network where you have seen the story published	3

Table 4. Spain. When you see or read a story posted on a social network, what makes you consider it trustworthy?



In general, you trust the stories published on social networks	А	
in general, you trust the stones published on social networks	4	

Source: Eurobarometer

In 2022, Spaniards were asked about the news sources they trusted the most. In this case, public broadcasting stations were the source that Spaniards trusted the most (45%), followed by the written press both online and offline (44%). Only 5% of Spaniards believed that they could trust the news distributed by influencers on social media⁵.

Table 5. Spain. News sources you trust most (Maximum 3)

	2022
Public broadcasting stations (includes online)	45
Written press (includes online)	44
Private broadcasting stations (includes online)	36
People, groups, or friends that I follow on social media	13
Other online news platforms, including blogs and podcasts	11
YouTube or other video platforms	7
Influencers on social networks (YouTube, Instagram)	5
Others	6
Don't know	14

Source: Eurobarometer

3.1.3. Specific questions about disinformation from the Eurobarometer

In recent years, disinformation has gained great visibility among citizens, becoming a serious challenge for credibility and trust in the media, both in Spain and at the European level.

⁵ It should be taken into account to what age range of the population this question was asked, since an alteration could occur in the data if we consider that many people do not use this type of platform.



One of the first reports that began to include this problem is from 2018. That report revealed that —in Spain— almost eight out of ten Spaniards often found news items that they believed distorted reality or were even false. In the European Union as a whole, 68% of citizens said they identified this type of news. In this context, 52% of Spaniards and 58% of Europeans stated that it was easy for them to detect fake news.

In this regard, 83% of Spaniards and 76% of Europeans believed that this type of misinformation was a problem for democracy in general, and specifically almost eight out of 10 Spaniards believed that it is a problem in their country.

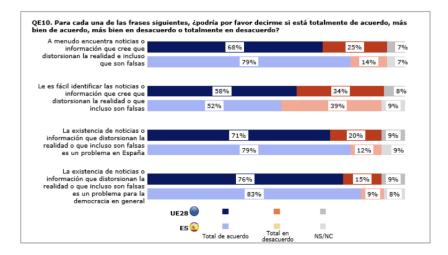


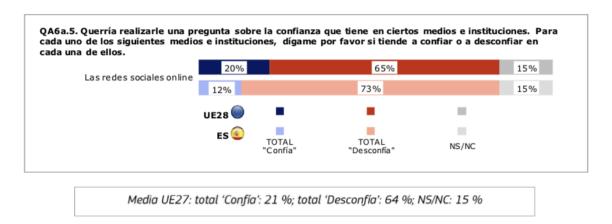
Image 1. Perception of misinformation as a problem for Spaniards.

Source: Eurobarometer (2018)

The 2019 data also began to include responses about the role of social networks. Since then, these have encouraged distrust among almost three out of every four Spanish citizens (73%), and among almost two-thirds of the entire European population (65%; 64% EU27).



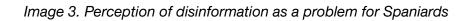
Image 2. Trust in social networks by Spaniards

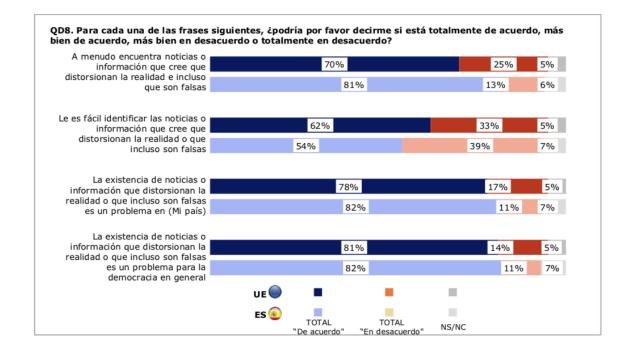


Source: Eurobarometer (2019)

The 2022 data continued to indicate that 81% of Spanish citizens often encounter news that, in their opinion, distorts reality or that they even consider false. In comparison, a majority of 70% of all European citizens claimed to have come across this fake news.

On the other hand, it was easy for 54% of Spaniards and 62% of EU citizens to detect this type of news. In relation to previous reports, the degree of agreement of Spanish citizens and the EU as a whole remains generally stable in all cases with variations of just one to three percentage points.





Source: Eurobarometer (2022)⁶

⁶ See: <u>https://bit.lv/4b4QjZW</u>



The issue of trust in the media is also included in the 2023 Eurobarometer. Asked about their level of trust in the media, in general, only one in four Spaniards claims to trust them (27%), compared to 70% who say they distrust them. Most Europeans also distrust the media, although in a lower proportion than the Spanish (58% of European citizens who distrust compared to 38% who trust).

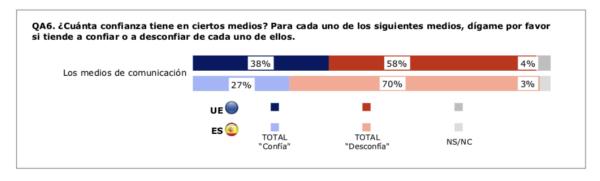


Image 4. Confidence in the media among Spaniards.

Source: Eurobarometer (2023)

7

Furthermore, for two-thirds of Spaniards (68%), information on political matters obtained from social networks "is not trustworthy," compared to only 21% who think it is reliable. Most Europeans also believe that political information on social networks "is not trustworthy," although somewhat lower than the Spanish (60%).

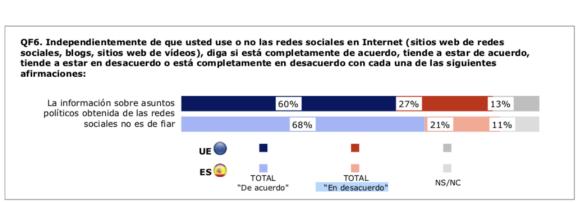


Image 5. Confidence in the media among Spaniards.

Source: Eurobarometer (2023)

⁷ See: <u>https://bit.ly/47INVoL</u>



The latest report also indicated that most Spaniards (78%, three points below the previous year) often encounter news that, in their opinion, distorts reality or that they even consider false. For their part, a lower proportion but still a majority (69%) of all European citizens claim to have encountered fake news.

At the same level as in the previous year's report, 55% of Spaniards and 61% among all EU citizens say that it is easy for them to detect this type of news. For both Spaniards and Europeans as a whole, this type of news or information that distorts reality is a problem for their respective countries (83% and 76%, respectively). Likewise, for another majority, 86% of Spanish citizens and a slightly lower 81% of EU citizens as a whole, these fake news stories are a problem for democracy in general.

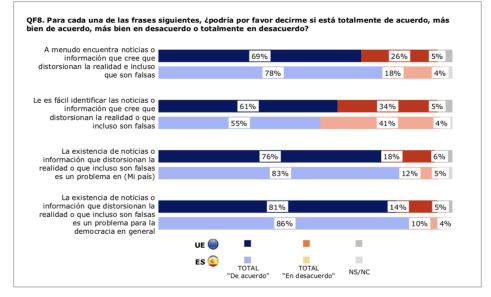


Image 6. Confidence in the media among Spaniards

Source: Eurobarometer (2023)

In any case, the evolution of consumption habits by channel or platform is perhaps one of the variables that explain the changes in disinformation consumption patterns. Especially if we take into account the exponential growth in the number of internet users and the number of social network users.

In this regard, the role of news aggregators has mainly become a fundamental space for the accidental consumption of misinformation through Google's Discover service or Microsoft's news front page and its Edge browser.



	2016	2022
Written press website/app	50	44
Social media	19	29
Search engines	19	-
News aggregators	11	17
Notifications	-	16
Shared by friends on messaging apps	-	15
Newsletter	-	9
Others	0	5
I don't access online news	-	11
Don't know	1	2

Table 6. Evolution of the services used to access online news

Source: Eurobarometer (2016-2022)

The economic criteria —registration, advertisements, the reputation of the outlet, the background analysis offered — have also been criteria on which the way of reading news online is evaluated.



	2016
It's free	72
No registration required	50
Opening or reading an article is not interrupted by ads	43
The service is offered by a newspaper or magazine with a good reputation	35
The service provides complete news coverage at a glance through an aggregator with a variety of news from journalistic sources	32
The service provides additional content behind objective news, such as editorial content, infographics, chat with a community or related articles	21
The service gives you access to information published by newspapers and magazines that you are not familiar with	14
Others	1
Don't know	1

Table 7. Important criteria when choosing the service you will use to read online news

Source: Barometer (2016)

Another element for understanding consumption patterns is reading time. Data from 2016 already indicated that 50% claimed to read only the headline.

Table 8. When you access news online via aggregators, social networks or browsers, whatdo you do most often?

	2016
Read the headline	50
Read the full article	44
I do not use social networks or aggregators or search engines to read news	5
Don't know	1

Source: Barometer (2016)



The 2022 data delved into the idea and pointed out issues such as relevance to the owner's own interests, trust in the outlet, and elements that seek to generate interest, such as whether they have a photo or video, how it has been shared, etc.

	2022
Headline seems relevant to my interests	46
You trust the media	45
Headline is catchy	20
Show an interesting photo or video	12
It was shared by a friend or acquaintance	22
It has a high number of shares, likes and comments	7
It has a hashtag that I follow	3
Others	5
None	7
Don't know	2

Table 9. Spain. What makes you open an online news article?

Source: Eurobarometer (2022)

Another fundamental element that is repeated is the distribution of responsibilities to combat disinformation. The media continue to be perceived as the most relevant actors in responding to a problem that affects the quality of our public sphere and trust in democratic systems.

	2018	2020
Journalists	52	-
National authorities	51	57
Press and broadcasting managers	40	60 (This year this section is called "the media")

Table 10. Spain. Responsibility when stopping the spread of Fake News



Citizens	36	22
Social media	25	34
Institutions of the European Union	33	-
NGO	11	-
Educational institutions		15
Others	2	3
All	2	-
None	1	-
Don't know	2	8

Source: Eurobarometer (2018-20)

The data on the perception of exposure and identification of misinformation has remained stable over the years, which tells us that the problem has not been mitigated nor has the need to establish medium- and long-term solutions.

Table 11. Spain. Perception of exposure, identification, seriousness of the problem for
their country and for democracy

		2018	2019	2021	2022	2023	
Level of exposure to	In agreement	79	83	83	81	78	
fake news	In disagreement	14	11	10	13	18	
Ability of identify fake	In agreement	52	55	57	54	55	
news (it's easy)	In disagreement	39	40	36	39	41	
Misinformation is a	In agreement	79	86	85	82	83	
problem in Spain	In disagreement	12	8	9	11	12	
Misinformation is a	In agreement	83	89	86	82	86	
problem for democracy	In disagreement	9	6	6	11	10	



Source: Eurobarometer (2018-23)

3.1.4. Reuters Institute data 2014-2023⁸

Digital news user behaviour and its relationship with disinformation has been a recurring topic in the "Reuters Institute Digital News Report Spain" since 2017, although certain trends can be identified in previous reports.

The reports have not only been analysed from the point of view of self-consumption, but also from the consumer profile and their own perception. In addition, key points that contribute to the spread of misinformation have been explored, such as the degree of confidence we have in ourselves when discerning whether news is false or real or the profile of the person who participates online most frequently.

"Reuters Institute Digital News Report," Spain alludes to disinformation for the first time in 2017. In this report, respondents are asked who they consider helps the most to differentiate between facts and hoaxes, and they are given the choice between news media or social networks.

In general, Spaniards declared that the news media (46%) protected them more in this sense than social networks (36%). However, there were significant differences between the age groups. Those over 65 years of age declared they felt less trust in social networks (22%) when it came to discerning between false and truthful information.

In 2018, RIDNR Spain wanted to delve into the level of unrest around misinformation and false content. 69% of Spanish users said they were worried when it came to differentiating true news from misleading news.

In 2019, this figure fell by 1%, and a variable related to age was added. Those most concerned were those over 45 years of age (70%), compared to 57% of those under 25. In 2020, 65% believed that they were wary of understanding what is false and what was true regarding the current information online.

Despite a decrease in this trend, Spain continues to be one of the countries that paid the most attention to this issue during 2020, although not as much as Brazil (84%) or the US (67%), characterised by high political polarisation.

These data are considered very high compared to the 46 countries analysed by RIDNR Spain, given that the total average is around 58%. In 2021, the percentage of those worried about disinformation remained the same, continuing the trend that older people are the most concerned about misinformation and young people the least.

⁸ Amoedo, Avelino; Moreno, Elsa; Negredo, Samuel; Kaufmann-Argueta, Jürg; Vara-Miguel, Alfonso (2023): *Digital News Report España 2023*. Pamplona: Servicio de Publicaciones de la Universidad de Navarra. <u>https://doi.org/10.15581/019.2023</u>



In 2022, respondents expressed concern about determining what is true and what is false in online news (62%). The trend continues downwards, and Spain is, behind Portugal, the European country with the greatest concern about misinformation.

_	2018	2019	2020	2021	2022
Level of concern about fake news	69%	68%	67%	67%	62%

Table 12. Level of concern about fake news in Spain between 2018 and 2021

Source: Reuters Institute Digital News Report

3.1.5. Evolution of trust in information

Trust in information is a question that began to be asked of Spanish news consumers in 2015, coinciding with the second instalment of the "Reuters Institute Digital News Report" in Spain.

The report distinguishes issues that have been identified as key to understanding an increasingly broad problem, such as disinformation.

As can be seen, one of the variables that can be identified on the issue of trust is the unconscious bias in the perception of people who underestimate the negative effects that the information transmitted by the media can have on themselves. These individuals believe that their media is more reliable than that of other citizens.

Table 13. Trust in the news that I consume vs trust in news in general

	2017	2018	2019	2020	2021	2022
News I consume	52%	48%	49%	42%	41%	37%
General News	51%	44%	43%	36%	36%	32%

Source: Reuters Institute



a. Highly polarised countries

According to the Edelman Trust Barometer report for 2023,⁹ Spain shares a high degree of political polarisation with the following five countries: Argentina, Colombia, the United States, South Africa, and Sweden.

Although we do not have figures for the five until 2021, there are notable trends that can also be observed. There is a great similarity between Spanish and US online news users.

Both share 2017 as the best year in terms of online information trust and have been experiencing greater distrust in parallel until 2022.

It is notable that despite this similarity, the US figures are on average around 8 percentage points lower than the Spanish figures, reaching a maximum difference of 13 points in 2017 and a minimum of 2 points in 2015.

	ESP	ARG	EE.UU.	SUD	SUE	COL
2022	33%	35%	26%	61%	50%	37%
2021	36%	36%	29%	52%	50%	40%
2020	36%	33%	29%	48%	38%	-
2019	43%	39%	32%	49%	39%	-
2018	44%	41%	34%	-	41%	-
2017	51%	39%	38%	-	42%	-
2016	43%	-	33%	-	40%	-
2015	34%	-	32%	-	-	-

Table 14. Trust in news by highly polarised countries

Source: DNR. Own elaboration

b. Age

Another issue that is identified regarding the growing trust gap is the generational one. As reflected in different studies, the age group with the least confidence in online news is those under 35 years of age, and the percentage of young people trusting online news decreases every year.

⁹ See: <u>https://bit.ly/301289x</u>



Overall, in this seven-year year-on-year analysis, the age group that feels least susceptible to being deceived is those over 45, despite the fact that they too have lowered their trust in online news. Specifically, those over 55 years of age are the ones who trust online information content the most.

	2022	2021	2020	2019	2018	2017	2016
18-24	24%	27%	26%	38%	30%	34%	35%
25-34	20%	28%	30%	33%	41%	39%	40%
35-44	29%	30%	33%	38%	45%	50%	46%
45-54	30%	39%	39%	44%	46%	56%	55%
55-64	42%	42%	41%	54%	47%	56%	52%
+65	41%	47%	43%	44%	50%	53%	52%

Table 15. Trust in news by age

Source: DNR. Own elaboration

c. Routes and itineraries for accessing information

When preparing the following table, it has been taken into account that the data collection has not been identical each year, given that the questions asked of the respondents could vary slightly. Despite this, the changes were not so profound that the data could not be compared, so it was decided to create the table accompanied by footnotes that indicate all notable dissimilarities.

As can be seen, social networks are the ones with the worst online reputation when it comes to trusting the informative news published there. In the vast majority of years, the source of misinformation that users fear most is social networks. Faced with this, search engines give them slightly more confidence.



	Social media	Search engines	Digital media websites and apps			TV, radio and printed newspapers		
			Digital News	R	Ρ	ΤV	R	Ρ
2021	24	30	-			-		
2020	23	32	29	30	39	45	40	39
2019	25	34	-			-		
2018	27/30 ¹⁰	38	36	46 ¹¹	43	52	49	54
2017	3 4 ¹²	-	38	51		58	61	51
2016	38	-	42	45		56	42	46
						53 ¹³		
2015 ¹⁴	7	-	-	4 ¹⁵	18 ¹⁶	36	11	10 ¹⁷

Table 16. Cross table between trust in news and access route to information

Source: DNR. Own elaboration

The medium that continues to generate the most trust among those interviewed is a very traditional one: television. The generations analysed in the period of time covering the years between 2015 and 2022 are characterised by having been born with television as their main medium, through which they have been informed of relevant historical events.

The year 2018 constitutes the turning point for access to news. Until that year, the reputation of the brand took precedence over algorithms or search engines. Starting in 2018, the user receives more news suggested by social media algorithms, search engines, and news aggregators than through searches carried out by oneself to find out about current events, either directly through the media brand or through search engines.

¹⁷ Also includes printed magazines.



¹⁰ If the user is asked in an agreement scale format "I think you can trust most of the news most of the time", by crossing with the usual access routes to them, we obtain 30% of users who say they trust news and who use social networks as a regular way to access news (Q6_2016, page 18) of the RIDNR 2018. However, if they are asked "I think I can trust the news I find on social networks in most cases", only 27% agree.

¹¹ TV/Radio websites included.

¹² Blogs are also included.

¹³ If users are asked about all traditional media (radio, TV and print).

¹⁴ This year the media that offered the most confidence out of 100 were calculated.

¹⁵ Also includes television websites.

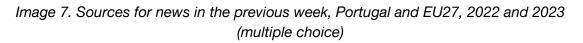
¹⁶ Also includes magazine websites.

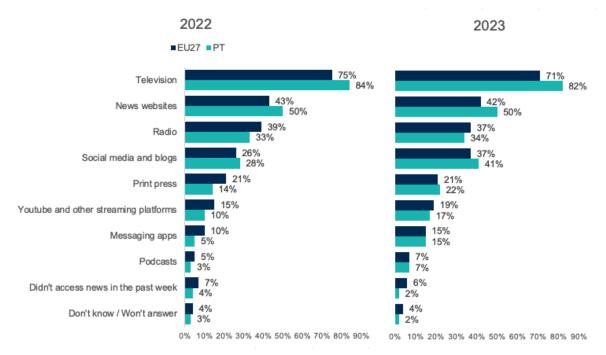
3.2. Portugal

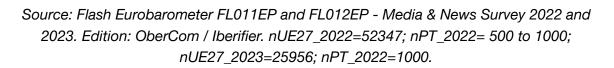
3.2.1. Eurobarometer (European Commission)

As in the previous section on Spain, in this headland we analyse the key indicators from the European Commission's Eurobarometer to characterise the Portuguese case, exploring the dimensions of access to news, trust in news and perception of disinformation.

a) Sources for news





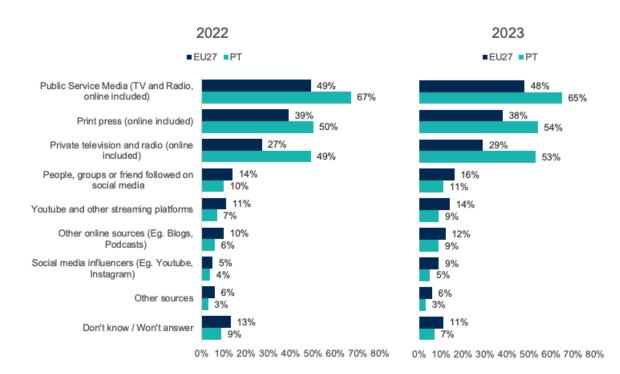


Like other data sources, the 2022 and 2023 Media & News Survey projects point to television as the most dominant and central medium in the media diets of the Portuguese, a trend that can also be seen in the 27 countries of the European Union as a whole but which is more pronounced in Portugal. In 2023, 82% of Portuguese used television to access news in the previous week, compared to 71% of EU citizens.



The second most used source is the websites of news brands (50%), and the third is social networks and blogs (41%), which in the case of the EU as a whole have lower usage rates of 42% and 37% respectively.

Although the use of radio and print media is declining in favour of the digital aspects of the brands in these sectors, 34% of Portuguese accessed news via radio in the previous week, and in the case of print media, this proportion is 22%. Other sources, such as video streaming platforms (e.g., YouTube) already have usage rates of around 17%, just 5 percentage points behind the written press, and it is known that among younger people, particularly in the 18-24 demographic, video streaming platforms and social networks have considerably higher usage rates (Newman et al., 2023; Cardoso, Paisana and Pinto-Martinho, 2023).



b) Trust in News

Image 8. Trust in News by source, Portugal and EU27, 2022 and 2023

Source: Flash Eurobarometer FL011EP and FL012EP - Media & News Survey 2022 and 2023. Edition: OberCom / Iberifier. nUE27_2022=52347; nPT_2022= 500 to 1000; nUE27_2023=25956; nPT_2023=1000.

With regard to trust in news, the information provided by the European Commission in the Media & News Survey Barometers 2022 and 2023 corroborates a trend also mentioned in other sources: in Portugal, there is a structurally high level of trust in news in general, well above the values recorded in most EU countries and in these countries as

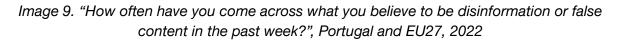


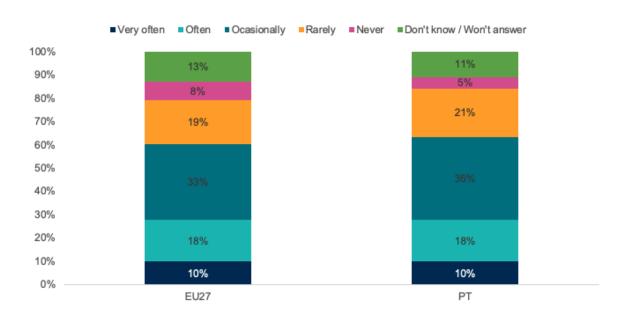
a group, but as in the case of the European Union, the trust indices vary according to the source.

Like most EU citizens, the Portuguese tend to trust information more, whether in traditional or online format, from actors in the television, press, and radio sectors, whether public or private. 65% of Portuguese trust news from the Public Media Service (e.g., RTP 1, RTP 2, or RTP 3 and RTP Notícias online / Rádio Antena 1), compared to 48% of respondents from the 27 EU countries. The written press is trusted by 54% of respondents in Portugal, compared to 38% in the EU27, and in the case of private television and radio, the Portuguese trust 53%. This is the case where there is the biggest discrepancy between the responses in Portugal and in the European Union, where trust values are around 29%, a difference of 24 percentage points.

It should be noted that the high levels of trust observed in the opinion of the public media are well known and have already been signalled (Newman et al., 2023), with Portugal being one of the countries whose citizens attribute the most importance to the public media service, in personal terms and for society in general (Cardoso, Paisana and Pinto-Martinho, 2023).

c) Perception of disinformation





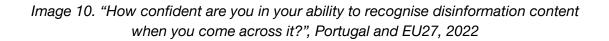
Source: Flash Eurobarometer FL011 EP - Media & News Survey 2022. Edition: OberCom / Iberifier. nUE27=52347; nPT= 500 to 1000.

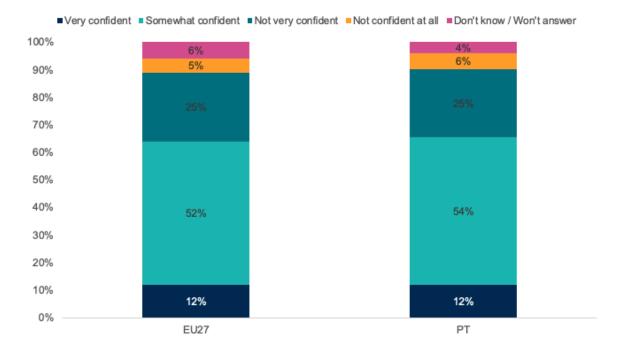


On the topic of disinformation and perceptions of the scale of this phenomenon, Portugal has stood out internationally as a country where citizens tend to be very concerned about disinformation, especially in online environments (see analysis of the Digital News Report data in the next section).

The Media & News Survey 2022 indicates that, in terms of the frequency with which citizens encounter disinformation or fake news content, Portugal is in line with the European Union. 28% of Portuguese and citizens of the 27 EU countries say they have come across fake news Very often or Often in the previous week.

A third, 33%, of those interviewed in the EU as a whole have come across this type of content occasionally, compared to 36% of the Portuguese, and it can be said that, in general, the Portuguese tend to come across disinformation content more often than the rest of Europeans, but by a very small margin.





Source: Flash Eurobarometer FL011 EP - Media & News Survey 2022. Edition: OberCom / Iberifier. nUE27=52347; nPT= 500 to 1000.

Also, in the indicators relating to confidence in personal ability to identify disinformation, Portugal shows very similar figures to those recorded in Europe 27; in both samples, 12% of those interviewed say they are very confident in this ability, while 52% of Europeans say they are somewhat confident, compared to 54% of Portuguese, a difference of 2 percentage points.



d) News avoidance

Active and voluntary news avoidance is an increasingly relevant phenomenon in contemporary media and journalism studies. A small but growing number of people in various countries actively and consistently avoid news (Toff, Palmer, and Nielsen, 2024). In fact, this active and voluntary avoidance of news is related not only to the content itself but also to identity, ideological, and infrastructural issues. Another particularly worrying aspect is that the people who are most likely to avoid news voluntarily are, as a rule, poorer and less educated, which could lead to a further increase in social inequalities in Western countries (Toff, Palmer and Nielsen, 2024; Toff and Nielsen, 2022).

In Portugal, other sources indicate that 34% of the Portuguese actively avoid news (Cardoso, Paisana, and Pinto-Martinho, 2023) and previous data for 2022, the year in which there was a sharp drop in interest in news in several countries globally (Newman et al., 2022), in Portugal there was not only a sharp and general drop but also more significant drops in interest in news among the poorest Portuguese, with lower incomes and less education.

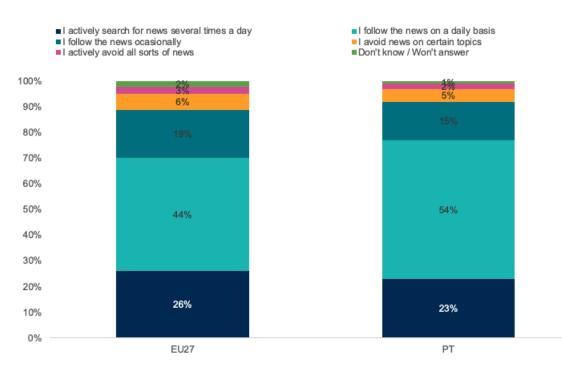


Image 11. Keeping up with the news and news avoidance, Portugal and EU27, 2022

Source: Flash Eurobarometer FL012EP - Media & News Survey 2023. Edition: OberCom / Iberifier. nUE27_2023=25956; nPT_2023=1000.

However, the data provided by the European Commission in the Media & News Survey 2023 indicates that the extent of the phenomenon of active news avoidance is residual,



with only 2% of Portuguese avoiding all types of news (3% in the EU27), 5% avoiding news on some topics (6% in the EU27), and 15% following news occasionally, compared to 19% of EU citizens in general.

In fact, the European Commission's data on active news avoidance presents a frankly more positive scenario than the Digital News Reports data analysed in the following section: 54% of Portuguese people follow the news daily and almost a fifth, 23%, do so several times a day, compared to 44% and 26% in the EU27, respectively.

It can therefore be said that 77% of Portuguese people follow the news very often, compared to 70% of European citizens, and that active news avoidance is, according to this source, residual in the case of both samples.

3.2.2. Digital News Report (Reuters Institute for the Study of Journalism - Global report and OberCom / Iberifier - National report for Portugal)

a) Sources for news

In terms of access to news, consolidated data from the Digital News Report Portugal, from 2015 to 2023, converges with data from the European Commission in its Media & News Survey, indicating that television is the most important means of accessing news for the Portuguese.

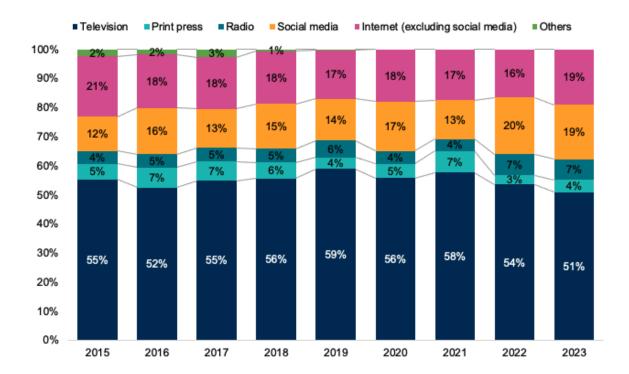


Image 12. Main sources for news in the past week, Portugal, 2015 to 2023



Source: Reuters Institute Digital News Report 2015 to 2023. Edition: OberCom / Iberifier. n2015=1049; n2016=2018; n2017=2007; n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011; n2023=2010.

In 2023, half of the population referred to it as the main way of accessing news in the previous week, compared to just 7% and 4% who used radio and the press for this purpose. It should also be pointed out that an analysis of 8 years of data points to a slow but consistent growth of the internet (excl. social networks) and, above all, social networks, in the context of the media diets of the Portuguese. In 2023, almost 40% of digital news consumers used these sources primarily, or 19% users for each.

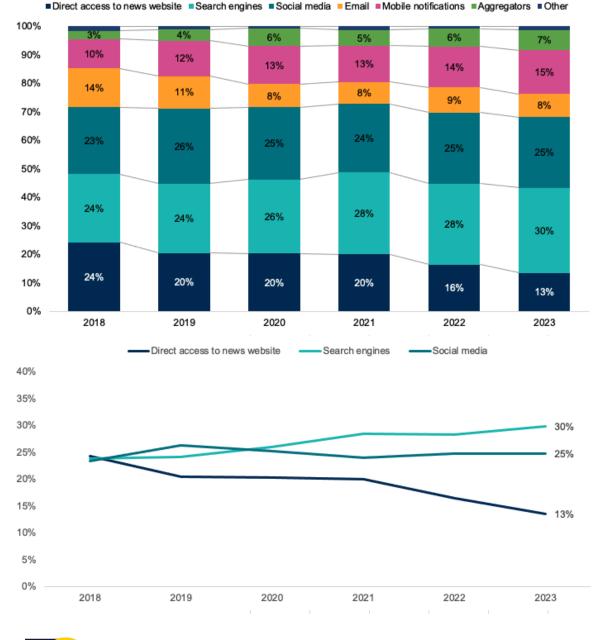


Image 13. Main gateway to online news, Portugal, 2018 to 2023

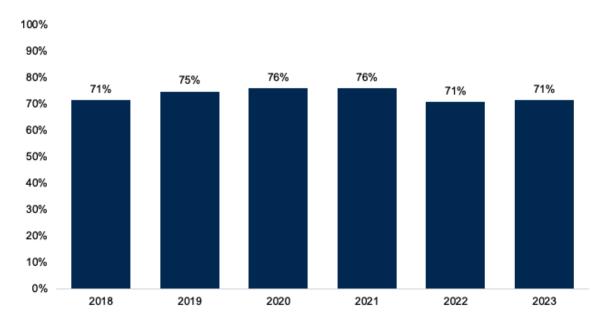
IBERIFIER Iberian Media Research & Fact-Checking

Source: Reuters Institute Digital News Report 2018 to 2023. Edition: OberCom / Iberifier. n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011; n2023=2010.

An analysis of the main ways of accessing news online, in digital format, leads to even greater concern about the health of the media ecosystem and its plurality, regarding the role of the various historic media sectors and the brands that represent them: access to news in digital format is increasingly indirect, with direct access to news brand websites becoming increasingly residual.

In 2015, 24% of Portuguese people used news websites as their main way of accessing digital news, and in 2023 that proportion fell to 13%, with more than 8 out of 10 accesses occurring indirectly. This growth in indirect access directly benefits the platform structures and large transnational companies that dominate the digital arena, namely Google and Facebook. In 2023, search engines would be the main gateway to news for 30% of Portuguese internet users and social networks for 25%.

This trend is particularly worrying in a context where most of the historic news brands —television, radio, and press— are facing serious challenges in adapting their digital business models with a view to their sustainability and survival. This change in media diets in recent years represents a substantial shift in the distribution of power in favour of the big digital platforms, which is increasingly reducing the room for manoeuvre and access to distribution for the historic brands.



b) Trust in news and concern regarding disinformation

Image 14. Concern about what is true and false on the internet, 2018 to 2023



Source: Reuters Institute Digital News Report 2018 to 2023. Edition: OberCom / Iberifier. n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011; n2023=2010. Note: the %'s shown refer to individual internet users who agree or totally agree with the statement "Thinking about online news, I worry about what is real and what is fake on the internet."

As stated in the previous section on Eurobarometer data, Portugal stands out in the context of the Digital News Report as one of the countries globally where people trust news the most, being surpassed in Europe only by Finland in terms of trust in news (Cardoso, Paisana, and Pinto-Martinho, 2023). In 2023, 71% of Portuguese say they trust news in general, while in 2019, 2020, and 2021, this indicator reached 75% to 76%.

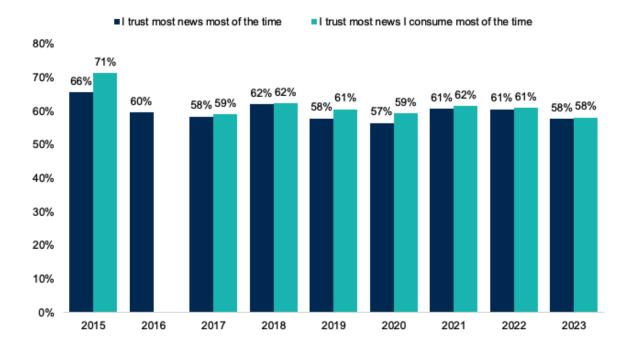


Image 15. Trust in news in general and in consumed news, Portugal, 2015 to 2023

Source: Reuters Institute Digital News Report 2015 to 2023. Edition: OberCom / Iberifier. n2015=1049; n2016=2018; n2017=2007; n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011; n2023=2010. ¹⁸

As is the case in most of the 46 markets studied as part of the Digital News Report, there is, however, a minimal discrepancy in Portugal between trust in news in general and the news consumed, in that those surveyed tend to trust the news they consume more than the news in general, i.e., their practices and choices of sources, brands, and formats also tend to reflect the patterns of trust attributed by users and consumers.

¹⁸ Note: The %'s shown refer to individual internet users who agree or totally agree that news in general and the news they consume can be trusted.



It should be noted, however, that demographics have a significant impact on confidence levels. In Portugal, the age variable has a particular impact in this regard, with Portuguese between the ages of 18 and 34 having lower levels of trust, and this trend is particularly relevant in the 18-24 demographic. This demographic is characterised by a greater dependence on social networks and the internet for information, and these diets may be related to a different relationship with news content in terms of trust.

	2015	2016	2017	2018	2019	2020	2021	2022	2023
18-24	60%	55%	51%	62%	48%	45%	53%	50%	52%
25-34	65%	57%	58%	56%	56%	49%	62%	53%	48%
35-44	67%	64%	63%	68%	57%	60%	54%	63%	52%
45-54	74%	64%	61%	63%	59%	62%	72%	66%	59%
55-64	64%	61%	58%	62%	60%	59%	61%	63%	63%
65 e +	60%	52%	55%	61%	63%	53%	56%	57%	66%

Image 16. Trust in news, by Age, Portugal, 2015 to 2023

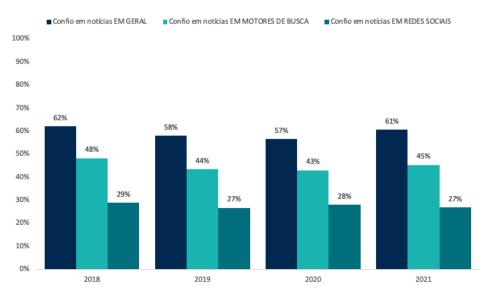
Source: Reuters Institute Digital News Report 2015 to 2023. Edition: OberCom / Iberifier. n2015=1049; n2016=2018; n2017=2007; n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011; n2023=2010. ¹⁹

Similarly, although indirect access to online news via search engines and social networks is on the rise in Portugal, it should be noted that, as news sources, both search engines and social networks are less trusted by the Portuguese than news in general. In 2021, 61% of respondents to the Digital News Report said they trusted news in general, compared to 45% who said they trusted news on search engines and 27% who said they trusted news on search engines and 27% who said they trusted news on social networks.

¹⁹ Note: The %'s shown refer to individual internet users who agree or totally agree that news in general and the news they consume can be trusted.



Image 17. Trust in news in general, in search engine news and social media news, Portugal, 2018 to 2021



Source: Reuters Institute Digital News Report 2018 to 2021. Edition: OberCom / Iberifier. n2018=2008; n2019=2010; n2020=2012; n2021=2101.²⁰

This data confirms another aspect that is central to analysing the contemporary digital news ecosystem: although the big indexing and network mediation platforms, namely Google and Facebook, dominate the digital distribution sphere, they tend to depend directly on news brands, journalists, and journalism to guarantee the presence in their spheres of quality news that consumers trust.

²⁰ Note: The %'s shown refer to Internet users who agree or totally agree that news in general, news consulted on search engines and news consulted on social networks can be trusted.



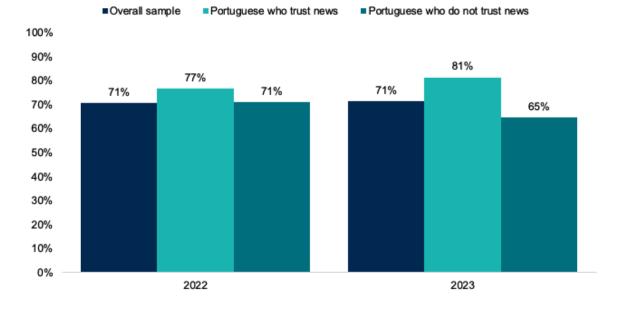


Image 18. Trust in news by concern about what is real and fake on the internet, Portugal, 2022 and 2023

Source: Reuters Institute Digital News Report 2022 and 2023. Edition: OberCom / Iberifier. n2022=2011; n2023=2010.²¹

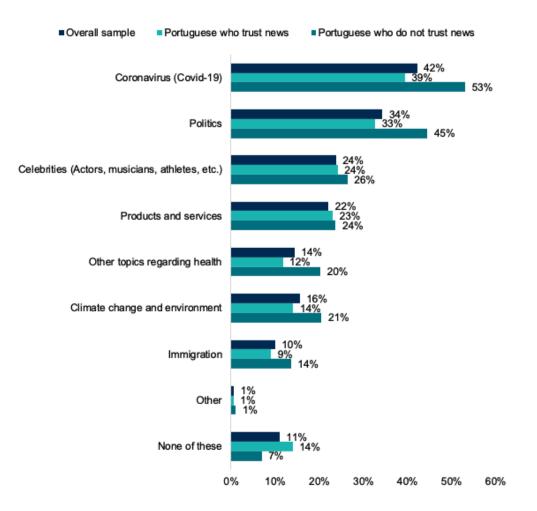
Moving on to the subject of disinformation, it should be emphasised that trust in news appears to have a substantial impact on the public's perception of disinformation on the internet. In a general context in which 71% of Portuguese say they are concerned about what is real and what is fake on the Internet, Portuguese who trust news are substantially more concerned about this phenomenon (81%) than those who don't trust news (65%).

This is a topic that has already been explored by Iberifier researchers, and for a deeper understanding of the relationship between trust and the perception of disinformation, it is essential to triangulate these two concepts with a third, related to media literacy issues, where consumers with higher literacy profiles tend to trust news more and, consequently, have greater sensitivity to the potential presence of disinformation content in online environments (Paisana, Pinto-Martinho, Cardoso, 2020).

²¹ Note: The %'s shown refer to Internet users who agree or totally agree that news in general can be trusted ("Portuguese who trust news") and who disagree or totally disagree that news in general can be trusted ("Portuguese who don't trust news").



Image 19. "In the past week, have you come across false or partially incorrect information regarding any of the following topics?", by Trust in news, Portugal, 2022 (multiple choice)



Source: Reuters Institute Digital News Report 2022. Edition: OberCom / Iberifier. n2022=2011.²²

Trust profiles also impact the perception of disinformation at a thematic level and can even accentuate other social fields such as politics, with news consumption being both a cause and a symptom of the dynamics of social or political polarisation. For example, Portuguese who don't trust the news are more likely to have encountered disinformation in the previous week related to Covid-19 (53% compared to 39% of Portuguese who trust the news), other health-related issues (20% compared to 12%), climate change or the environment (21% compared to 14%), and emigration (14% compared to 9%).

In fact, the biggest differences in the perception of the presence of online disinformation between those who trust news and those who do not tend to be found in more central

²² Note: The %s shown refer to Internet users who agree or totally agree that news in general can be trusted ("Portuguese who trust news") and who disagree or totally disagree that news in general can be trusted ("Portuguese who don't trust news").



and urgent topics on the media agenda, as opposed to soft topics such as products and services or celebrities.

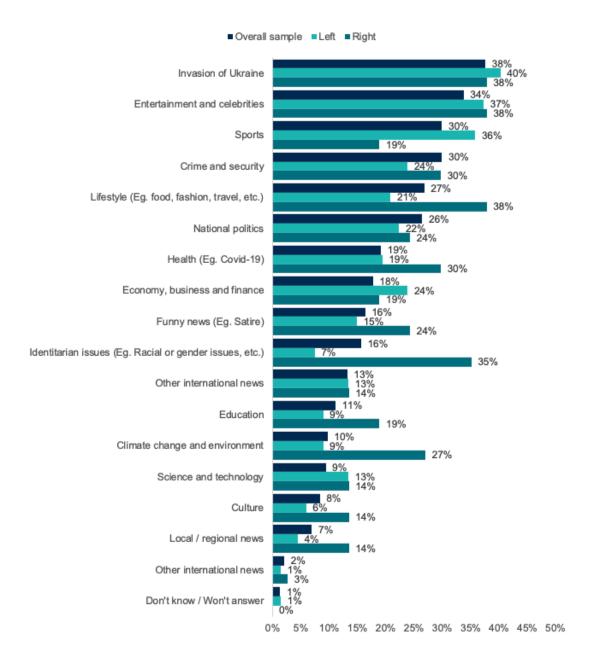


Image 20. "Which news topics or themes do you usually avoid actively?", Overall sample and by Political orientation, Portugal, 2023

Source: Reuters Institute Digital News Report 2023. Edition: OberCom / Iberifier. n2023=2010.

A similar pattern can be identified when crossing active news avoidance with political orientation. As described at the end of the section on Eurobarometer data, and even



though the European Commission's data does not say so, data from the Digital News Report Portugal 2023 indicates that 34% of Portuguese actively avoid news. Of these, 49% say they avoid news by reducing the frequency with which they access it, and 41% say they avoid accessing news sources at all (Cardoso, Paisana, and Pinto-Martinho, 2023).

Among the Portuguese in general, the most avoided topics are the Invasion of Ukraine (38% say they actively avoid it), Entertainment and celebrities (34%) and Sport (40%). However, a cross-check of these indicators points to the existence of an active avoidance of news by Portuguese who identify themselves as right-wing, in Lifestyle topics (38% compared to 21% of left-wing individuals), those related to Identity causes (e.g. racial and gender issues) (35% compared to 7%), Health (30% compared to 19%), or the Environment and climate change (27% compared to 9%).

In other words, issues of interest in news, trust, perception of disinformation, and other phenomena such as active news avoidance are closely linked to the general perception of news content and the relationship consumers establish with it. In addition, they are also a very relevant factor in the dynamics of recognising systems of polarisation and fracture within contemporary societies, Portugal being no exception.



4. Analysis Iberifier reports regarding news consumption patterns

4.1. Analysis of the Impact of Disinformation on Political, Economic, Social and Security Issues, Governance Models and Good Practices: The cases of Spain and Portugal

The Iberifier report echoes the CIS barometers and focuses on the fact that, when asked what the main problems affecting the country are, "misinformation did not enter the spontaneous responses until February 2022, the date on which 2.4% (1.7% in March and 2% in April) of those surveyed pointed out the manipulation. The report explains that the differences in the figures are because the CIS does not specifically ask, not because of misinformation but because of what general problems concern Spaniards" (2023: 40).

The study echoes data from the report *Facebook's Climate of Deception: How Viral Misinformation Fuels the Climate Emergency* (2021) by Avaaz²³. It states that "Spain has a small number of suspicious pages and profiles on Facebook." And continues: "The chapter of the 2018 Digital Report on Spain shows that only three out of 10 digital users are aware that algorithms select the news that appears on Facebook. "It reiterates the aforementioned perception that 69% of Spanish Internet users have difficulties discriminating between false information from true information" (2023: 41).

The text ensures that "in the case of Spanish users, the use of social networks and messaging is due to very diverse reasons. The recent Eurobarometer survey provides some clues about the most common functions and specialisations of the use of certain networks. WhatsApp is used, above all, for personal messages and news tracking; Facebook for messaging and multimedia content, and Twitter for news tracking. In any case, in Spain, more than 40% of users of each network use them to follow news, very close to the European average of 44.8%. The report also assures that "in Spain, the dominance of Meta is very significant both in messaging services and in social networks" (2023: 45-46).

According to the Iberifier study, "a second factor that helps understand the potential vulnerability of Spanish society to external disinformation campaigns is the penetration of digital networks (fixed and wireless infrastructures) and their use by the population, especially to receive news and use social networks" (2023: 60). The text states (ibidem) that "in terms of infrastructure, the growth of networks in the last decade has been dizzying. Spain ranks ninth among the 27 EU Member States according to the Commission's 2021 Digital Economy and Society Index (DESI) (82%, compared to the European average of 77%). From 27.8 million fixed broadband connections available in 2011, Spain has grown to 88.6 million in 10 years. Of them, 77.9 million are actually installed, and 67.9 million in FTTH (*Fiber to the Home*, that is, with maximum availability of fixed bandwidth) are available for use by homes and companies.

²³ See: <u>https://bit.ly/3RRXeNi</u>



"Spain is, therefore, a country with an extraordinary fixed broadband infrastructure available," the study says. "At the household level, the number of residential broadband connections has now exceeded 14 million, out of a total of 18.7 million homes. In the last 10 years, the number of mobile lines (voice and data) has increased from 13.9 million in 2011 to 49.4 million in 2021, for a resident population of 47.3 million people. If we add these figures to the population and household data from the National Institute of Statistics (INE), in 2020, 72% of households had a residential broadband connection, and the number of mobile voice and data lines was equivalent to 104.3% of the population."

"It is important to highlight," the study emphasises (ibidem), "that network operators do not have the capacity to influence the content that circulates through them, neither with the aim of combating misinformation nor for any other purpose, such as promoting the circulation of content of some platforms over others, the well-known principle of network 'neutrality'."

And the report concludes: "Article 3 of the European regulation makes this 'Open Internet' principle clear: 'Internet access service providers will treat all traffic equally when providing Internet access services, without discrimination, restriction, or interference, and regardless of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.

Using data from different sectoral reports, it is said that: "In terms of use, the data show parallel growth: compared to 65% of Spaniards who used the Internet at least once a week in 2012, in 2021 the figure reached 92% (the European average is 87%), with daily use of 86% (and a European average of 80%).

In 2019, only 8.4% of Spaniards said they had never used the Internet, compared to the European average of 9.5%. The data indicate an unstoppable growth in Internet use in Spain: in the country's largest media consumption survey, the General Media Study (EGM), daily Internet use had risen from 42.5% of the population in 2011 to 84.3% in 2021.

The device most used to access the Internet is the smartphone (94.7% in 2021), well above television sets (55.1%) and laptops (54.1%). In the first year in which the EGM asked this question, 2012, the main Internet access device was the laptop (58.6%), followed by the desktop computer (54%), and the smartphone (31.6%)." (pp. 61 and 62)

In relation to the impact of the pandemic in the Spanish context, the monitoring carried out by the Cybersecurity Coordination Office of the Ministry of the Interior detected 291 relevant cyber hoaxes and the creation of more than 1.5 million accounts on social networks during the first three months (López Fonseca, 2020).

Regarding government decisions, disinformation also represented a weapon of political confrontation, as revealed by the CIS special barometer of April 2020, which reflected that 47.8% of those consulted had little (29.8%) or no (18%) confidence in the government's management, compared to 46.5% who had a lot (10.5%) or a lot (36%) confidence. On the other hand, the same barometer showed practical unanimity (91.4%) in favour of large agreements (CIS, 2020).



In his research, Salaverría maintains that misinformation about COVID-19 spread to social networks and messaging applications and was not limited to the national or international political sphere but represented an 'avalanche of misinformation in the medical and health area' (2021: 20).

Along these lines, a study focused on the quantification of hoaxes generated during the first six months of the pandemic reveals that 46.7% of verifications in Spain and Latin America were carried out on misinformation related to scientific information and health, and 22% about misinformation regarding the symptoms, routes of infection and characteristics of the virus (Noain, 2021).

In any case, due to the existing political tension, the pandemic sparked a controversial debate from the moment the Centre for Sociological Research asked Spanish citizens whether 'total freedom' of information about the pandemic should be maintained or only that of the 'official sources'. The data reveal that 66.7% of respondents chose to support the restriction of unofficial information, compared to 30.8% who opposed any restriction. This controversy served to bring to light the opposition of the FAPE (Spanish Federation of Press Associations) and APM (Madrid Press Association) press associations to restricting freedom of information under the excuse of avoiding hoaxes (Marcos, 2020).

Badillo-Matos et al. (2023) also warned that "the pandemic had the negative effect of multiplying the fronts of disinformation through campaigns in the political, diplomatic, economic, scientific, and social spheres, among others, a true 'infodemic' or 'disinfodemic'. However, it had the positive effect of increasing social awareness about the phenomenon and its possible effects" (Badillo-Matos et al. 2023: 87-88). Furthermore, the Iberifier report confirms the repetition of patterns present in previous campaigns to exploit the effects of the pandemic against usual objectives. However, learning from the mistakes made in the fight against disinformation during the pandemic led the responsible authorities to expand the role of civil society.

Among the findings obtained in the latest research, the repetition of certain false statements by different social actors is striking (Kessler, Rizzo, and Kelly, 2019), and the fact that they reappear after a certain time, requiring new verification.

A phenomenon that, according to Badillo-Matos et al. (2023), can be presented explicitly (if a media outlet republishes the news) or implicitly (when someone uses false facts in their argument.) In any case, if the statement survives the refutation to the point of being used again, it shows the potential impact of the false statement on the collective imagination. Sometimes, these may be statements that are difficult to detect, as they are not simply a cut-and-paste, but rather paraphrases or partial modifications of the original version.



On the other hand, recent studies have shown that this type of false information can spread in different countries (Saby et al., 2021) and in different languages (Nakov et al., 2021). Therefore, in conclusion, Badillo-Matos et al. state that in the case of Spain and Portugal, "[...] Trust in the media appears as a distinctive variable between both countries that should be followed closely in the coming years to verify the role it is playing in the evolution of the phenomenon of disinformation [...] Likewise, it is of particular importance to reevaluate in the coming years the role that the Portuguese and Spanish-speaking communities play in the global circulation of disinformation and, in our particular case study, in the impact on the societies of Spain and Portugal" (2023: 136).

5. Analysis of specific reports from Spain and Portugal

5.1. Spain

FECYT report on disinformation and science

5.1.1 Disinformation and science

Since 2020, coinciding with the start of the pandemic, narratives related to misinformation, science, and health have increased significantly.

In this context, in the years 2021 and 2023, the Ministry of Science and Innovation commissioned both its Multidisciplinary Working Group (GTM) expert in COVID-19 and the Spanish Foundation for Science and Technology (FECYT) to analyse the phenomenon of science misinformation in Spain and its future consequences.

Three reports emerge from this request. The first is understanding and combating misinformation about science and health. And, subsequently, two reports of results derived from the Social Perception of Science and Technology Survey, corresponding to the years 2022 and 2023.

There are different factors that influence the level of concern about misinformation in the population. On the one hand, those who support conspiracy theories about how the world works show greater concern about this issue. On the other hand, people who trust institutions and have a higher level of scientific knowledge are also more concerned about the effects of misinformation. In contrast, those who believe that science has both benefits and harms show less concern than those who believe that the benefits outweigh the harms.

These results, although they seem contradictory, can be explained by the different interpretations that different groups of the population have about what constitutes disinformation and why its spread is worrying.



a. Access route

A large percentage of Spanish users resort to social networks as a source of information on scientific matters. These data contrast with the data offered by other studies (RIDNR, Eurobarometer, 2022) that affirm that social networks are the source of information that they least trust or least tend to trust.

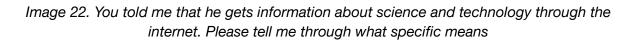
Image 21. Medium or contact to obtain information about the proposed topics. Thinking about the last time you searched or asked for information about (topic), who or what did you turn to?

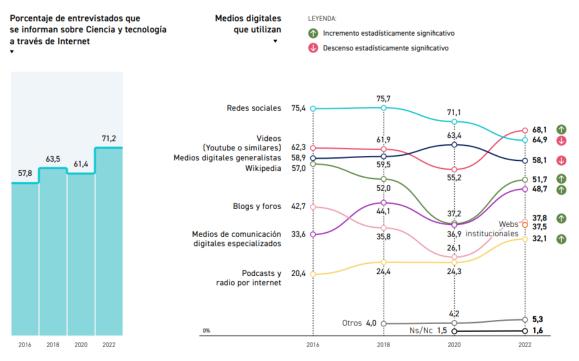


Source: Science Disinformation in Spain. FECYT (2022)

Followed by social networks, Spaniards turn to family, friends, or acquaintances (between 29.7% and 45.7% of the time, depending on the field) and popular science or technical books or magazines (between 21.4% and 29.5%, depending on the topic and the media).







Source: Social Perception of Science and Technology. Fecyt 2022

In the following table, we can see the percentage of Spanish users receiving information on various science issues. That is, to what degree they receive news about these topics involuntarily through social networks, instant messaging applications, and conversations with other people.

Food and physical well-being is the category in which the most data is obtained involuntarily (42.2%), followed by medicine and health $(37\%)^{24}$.

²⁴ UN (n.d.): Objetivos de desarrollo sostenible. <u>https://bit.ly/3S2WFR0</u>

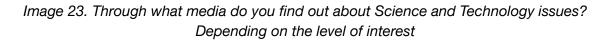


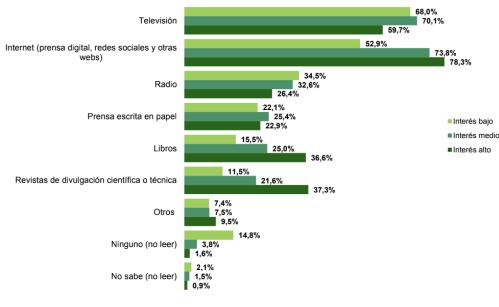
Table 17. Reception of information on topics related to the topics consulted. Question: "Thinking about the last 7 days, have you received information about... through your social networks, instant messaging applications or in conversations with other people?"

	Ciencia y tecnología	Medicina y salud	Medio ambiente y ecología	Alimentación y bienestar físico
Sí	29,9%	37%	25,6%	42,2%
No	64,9%	58,7%	69,5%	53,8%
No lo sé	4,7%	3,8%	4,4%	3,7%
Prefiero no contestar	0,4%	0,4%	0,5%	0,4%

Source: Science Disinformation in Spain FECYT (2022)

Once again, the Internet is positioned as a favourite medium when it comes to obtaining information on science and technology issues. Television would be the second form of access to information that the respondents would first take into account, and in this case, there would be a certain correlation between the perception of trust towards this medium (RIDNR, Eurobarometer).





Source: FECYT (2023)



Regarding the year-on-year evolution between 2010 and 2022, the following can be observed: As had been announced, consumption through digital platforms would increase, especially between the years 2020 and 2022. This is because the consumption of videos, Wikipedia, digital media specialising in science and technology, blogs, forums podcasts, internet and radio.

However, and although it is not highlighted in the original graph, it is worth noting that since 2018, the limit of 48.1% of the population that uses social networks as a source of scientific and technological information has not been exceeded.

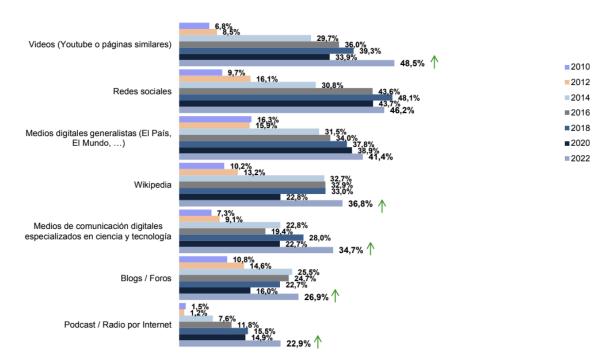


Image 24. Media used on the Internet to obtain information about Science and Technology. Evolution between 2010 and 2022

Source: FECYT (2023)



a. Perceptions and behaviours about misinformation

The following illustration shows the percentages of people receiving false information on a specific matter related to science and technology. It is about associating the dissemination of false information that reaches the consumer with certain causes.

Although you cannot obtain a response directly from the creator, nor is it possible to know which subjects the results algorithm of certain social networks prioritises, you can contextualise the historical moment in which the disinformation was distributed.

In any case, the issue about which Spaniards perceived the most misinformation was about COVID-19, followed by climate change and nutrition and well-being.

The first issue was inevitable given the moment in which the data was received —it was an almost global circumstance that affected the environment and routines—, the second is derived from a greater presence of the 2030 Agenda and extreme climate contexts, and the third is a growing topic with an enhancing effect on the part of social networks. They consider the issue about which they received the least misinformation to be homoeopathic treatments²⁵.

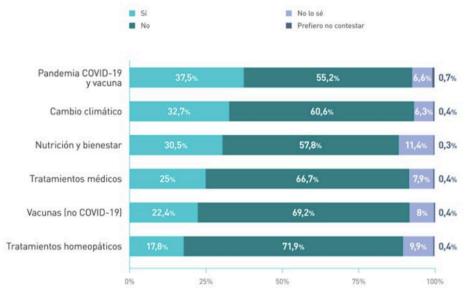


Image 25. Thinking about the last 7 days, have you received any information or news that you think may be false about...?

Source: Science Disinformation in Spain. FECYT (2022)

²⁵ Agencia SINC (February 28, 2019) El Gobierno lanza una campaña contra las pseudoterapias y pseudociencias. *Público*. <u>https://bit.ly/3TXNjIG</u>

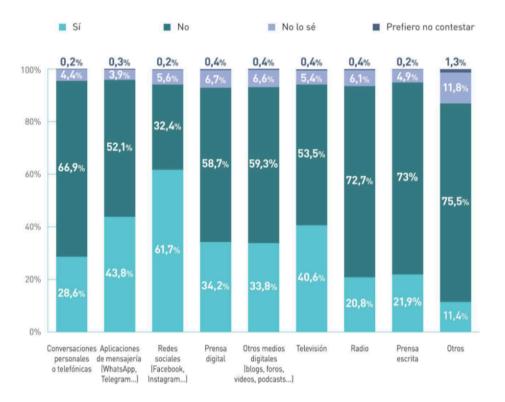


b. Source

Users perceive that they receive false information first through social networks (61.7%). These data coincide with the little trust they arouse as a source of information (RIDNR, Eurobarometer).

Secondly, instant messaging applications are the means by which Spaniards perceive that they receive the most false information (43.8%). Actually, these data coincide with the different studies, taking into account that most verifications carried out by fact-checkers come from messages that browse these same sources.

However, it is necessary to highlight that 40.6% of Spaniards perceive that they receive fake news from television, a medium that, in principle, has more capacity to select the content that is broadcast.



Imagine 26. Means of receiving information perceived as false

Source: Science Disinformation in Spain. FECYT (2022)



The following graph shows how media literacy significantly influences the ability to distinguish the veracity of scientific headlines presented in the survey. Those citizens who have better knowledge about how the media work are able to better identify true information. Furthermore, those who have an ambivalent or negative opinion about the contributions of science have more difficulty distinguishing true from false information compared to those who have a positive opinion about the impact of science.

On the other hand, trust in institutions is positively related to the capacity for discernment. Finally, it is observed that political positions further to the right of the ideological scale have a lower ability to identify true and false information, while women and younger people have a greater ability to identify true information.

Until the arrival of the COVID-19 pandemic, most studies on disinformation had focused on the field of politics. There was a shortage of research dedicated to analysing the processes and effects of misinformation in the science and health field.

1. New phenomena: Denialism

The people interviewed expressed their degree of agreement with a series of statements, and a clear majority is observed in terms of their agreement with:

- 1. The extinction of some species of animals and plants (87.0%).
- 2. Climate change is caused by human activity (80.4%).
- 3. The evolution of the human species from other species (79.9%).

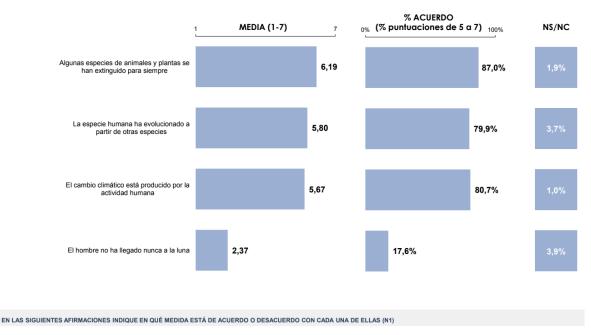
Furthermore, there is a high degree of disagreement (71.5%) with the statement that man has never reached the Moon.

Image 27. Degree of agreement with the following statements based on sex, age, educational level, habitat size and household income

	TOTAL	SEXO		EDAD						
		Hombre	Mujer	De 15 a 24 años	De 25 a 34 años	De 35 a 44 años	De 45 a 54 años	De 55 a 64 años	De 65 y más año	
Algunas especies de animales y plantas se han extinguido para siempre	6,19	6,20	6,18	6,05	6,19	6,22	6,17	6,27	6,20	
La especie humana ha evolucionado a partir de otras especies	5,80	5,77	5,82	5,80	5,80	5,89	5,85	5,74	5,69	
El cambio climático está producido por la actividad humana	5,67	5,58	5,76	5,85	5,73	5,75	5,59	5,65	5,53	
El hombre no ha llegado nunca a la luna	2,37	2,35	2,39	2,33	2,53	2,52	2,31	2,31	2,24	

	TOTAL	HOMBRES							MUJERES						
		De 15 a 24 años	De 25 a 34 años	De 35 a 44 años	De 45 a 54 años	De 55 a 64 años	De 65 y más años	De 15 a 24 años	De 25 a 34 años	De 35 a 44 años	De 45 a 54 años	De 55 a 64 años	De 65 y más años		
Algunas especies de animales y plantas se han extinguido para siempre	6,19	6,12	6,16	6,19	6,14	6,25	6,33	5,99	6,22	6,25	6,20	6,29	6,06		
La especie humana ha evolucionado a partir de otras especies	5,80	5,85	5,67	5,91	5,76	5,73	5,72	5,76	5,91	5,87	5,94	5,75	5,66		
El cambio climático está producido por la actividad humana	5,67	5,82	5,54	5,70	5,48	5,53	5,50	5,88	5,89	5,79	5,71	5,76	5,57		
El hombre no ha llegado nunca a la luna	2,37	2,37	2,55	2,49	2,21	2,39	2,20	2,30	2,52	2,55	2,41	2,23	2,30		





Source: Social perception of science and technology in Spain. FECYT (2022)

Beyond the data collected in the FECYT report, most of the studies on disinformation and science in the international academic sphere focus precisely on the media and social networks. However, it would also be interesting to assess what is happening with scientific institutions, predatory journals, biases in research, researchers' conflicts of interest, and other issues related to science, which sometimes prevent citizens from trusting the messages they receive.

It is indeed easier to measure, analyse, and study the messages disseminated by the media and social networks about science, constructing hyperbole, exaggerations, distorted conclusions, and dogmatic discourses, which do nothing to establish a climate of trust between the audience and scientific institutions, as stated by West & Bergstrom (2021).

Qualitative studies in Spain also found that citizens must understand how science works to identify messages better and draw accurate conclusions to make personal and relative decisions in their daily lives (Moreno et al., 2020). These conclusions from previous studies could be extended to any other topic. It is essential to know how politics, the economy, ecosystems, etc. work to be able to frame the information that is received in increasingly fragmented ways and to be able to reinterpret it in a balanced and non-polarised context.



5.2. Portugal

EUDisinfoLab - Disinformation landscape in Portugal

This study provides an insight into the Portuguese situation regarding disinformation phenomena, cross-referencing this analysis with a broader understanding of the health of the media ecosystem and issues of political polarisation.

In fact, the authors point to Portugal as a country that is still not very polarised and where intentional, deliberate, and widespread disinformation campaigns have not yet been identified. However, they add that there is a substantial substratum on the social media horizon that is dominated by small, more radicalised parties that can adopt far-reaching strategies based on disinformation.

Thus, disinformation is mainly an "imported phenomenon," and fact-checker Polygraph points out that most disinformation campaigns are translations or adaptations of content that has gained relevance in other countries, for example, related to Covid-19 or the invasion of Ukraine. In thematic terms, it should also be added that, in terms of concern for themes, the topic of corruption is the one that motivates the most information manipulation campaigns in Portugal.

Despite the positive scenario, the authors also note that issues of disinformation, particularly manipulated or out-of-context information, have grown and will tend to grow due to the economic and sustainability weaknesses of the Portuguese media ecosystem.

6. Conclusions

Despite the initial surge of disinformation phenomena surrounding electoral and political events with global implications, such as the 2016 U.S. Presidential election or the Brexit referendum in the UK (also in 2016), in the following years we have witnessed sustained and consolidated disinformation trends regarding a wide range of topics, such as the 2020 Covid-19 pandemic or the 2022 invasion of Ukraine by the Russian Federation.

Even though these separate events have in common the fact that their impact is a factor in the generation of misinformation and disinformation phenomena, we have also witnessed severe changes in their intrinsic features: in terms of the platforms and sources from which they originate, the topics, the formats of false content that circulates and becomes viral (originally text and image-based content, and now video), and of the stakeholders involved in the creation and spread of disinformation.

2024 is a particularly sensitive year when it comes to the potential growth of disinformation, scale-wise: globally, more than 40 countries will be going through electoral processes; there are two local and regional armed conflicts, in Ukraine and the Middle East; and also a potentially critical situation developing around the sovereignty of Taiwan.



As evidenced by Iberifier Fact-checking partners over the course of the past 3 years, mis-/ disinformation regarding foreign events have a significant impact in the information flow in Spain and Portugal: not only do trending topics at a global and European level also find traction in the two countries, the identified disinformation content also follows the trends when it comes to its typologies, formats and intentionality frameworks (Eg., the use of images and video from other conflicts to illustrate information or content regarding the Invasion of Ukraine or the Israel-Hamas war in Gaza).

As an somewhat new factor, adding to the complexity of the considerations made above, we are witnessing the rise of a potentially disruptive new technology with the massification of Artificial Intelligence, a threat that can be summed up in two dimensions:

a) The rise and improvement of generative models of text, image, sound, and video content may significantly contribute to the higher quality of disinformation content and, therefore, to its credibility among audiences.

b) At an economic, political, and regulatory level, the rise of AI poses significant threats to national and transnational political frameworks as it arrives at a time when countries and regional political unions such as the EU are still trying to produce effective legal frameworks to mitigate the disruptive effects of online platforms.

The analysis of disinformation consumption patterns comprised in this report corroborates an idea that has been identified in previous Iberifier and third-party reports: despite the historical, cultural, and social proximity between the two countries, when it comes to the structure of the media ecosystem and to the relationship established between the Spanish and the Portuguese with media and news, in particular, there are stark differences, which are very clear when analysing indicators such as trust, with Spain being one of the countries where people trust news the least, and Portugal being consecutively highlighted as one of the most news-trusting countries on a global scale.

However, when it comes to the typology of disinformation phenomena, we witness in both countries some converging trends: in terms of content structure, topicality, and, very important, at a political level, a very relevant overlay of disinformation spread with potential polarising political instances, such as the rise of radical political parties or other inorganic movements.

As recommendations for future steps and research, it is advised that subsequent efforts focus both on a logic of *continuity* and *innovation* in terms of approach. *Continuity*, as in future academic, regulatory, political, or industry approaches should focus on the study, evaluation or mitigation of already identified trends, such as:

- Development of studies that allow us to delve deeper into theories such as "Nobody fools me perception" and other psychological or socially driven frameworks that subjectively frame the perception of audiences;
- 2. Consumption of misinformation in information and news fatigue scenarios, where well-studied phenomena such as the drop in interest in news or news avoidance are clearly visible.



- 3. Consumption of disinformation in electoral processes, both of past and future events, with 2024 being one of the most electorally and politically sensitive time frames in years.
- 4. Circulation of disinformation content on social networks, not just from the demand side but also from the supply side, with a particular focus on radicalised actors, internal or external, looking to interfere with national or regional elections or trying to frame public opinion regarding globally relevant issues.
- 5. Persistence of both multidisciplinary and multi-institutional approaches, via the promotion of the convergence of civic-society institutions in detriment of isolated, "island"-logic approaches.
- 6. Increased investment in media and news literacy among the population, particularly of vulnerable groups such as minorities, the younger and the older generations.
- 7. Convergence on political and regulatory frameworks that promote and safeguard the survivability, sustainability, plurality, and independence of journalists and news brands (both public and private).

Future approaches must also follow an *innovation*-focused approach, as disinformation phenomena are likely to retain their mutating characteristics alongside their already mapped and studied features, such as:

- 1. Identify trends related to topics by country, distinguishing Spain and Portugal: not only dimension-related (eg., political, scientific, social, economic, etc.) but also theme-related (eg., immigration, armed conflicts, identitarian issues such as race and gender, etc.).
- 2. An increased transnational approach based not only on the geographical boundaries of both countries but also on the assumption that the Spanish and Portuguese languages are a unifying factor for 645 and 236 million people worldwide, respectively and therefore, misinformation and disinformation are likely to overcome country borders and become multi-country, language-induced phenomena.
- Identify possible routes of virilization of misinformation through different platforms (eg., Telegram, WhatsApp, Facebook, Twitter, TikTok, etc.), mapping trends among different social media platform typologies (eg., behavioural and content patterns on Facebook will largely differ from those identified on messaging apps such as WhatsApp or others).
- 4. Critically and urgently develop academic research and regulatory frameworks that study and tackle the threats of Artificial Intelligence while allowing for the maximisation of its benefits, both for civil society and journalists and news brands, in particular.



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IBERIFIER – Iberia Media Research & Fact-Checking

IBERIFIER is a digital media observatory in Spain and Portugal funded by the European Commission, linked to the European Digital Media Observatory (EDMO). It is made up of thirteen universities, five fact-checking organizations and news agencies, and five multidisciplinary research centers.

Its main mission is to analyse the Iberian digital media ecosystem and tackle the problem of misinformation. To do this, it focuses its research on five lines of work:

1. Research on the characteristics and trends of the Iberian digital media ecosystem.

2. Development of computational technologies for the early detection of misinformation.

3. Fact-checking of misinformation in the Iberian territory.

4. Strategic reports on threats of disinformation, both for public knowledge and for the authorities of Spain and Portugal.

5. Promotion of media literacy initiatives, aimed at journalists and informants, young people and society as a whole.

For more information look for the project website <u>iberifier.eu</u> and the Twitter account <u>@iberifier</u>.

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