

IBERIFIER — Iberian Digital Media Research and Fact-Checking Hub

Analysis of the impact of disinformation on political, economic, social and security issues, governance models and good practices: the cases of Spain and Portugal

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Project Coordinator: Ramón Salaverría Aliaga (UNAV)
Deliverable Task Leader: Ángel Badillo, Real Instituto Elcano

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Coordinator



Partners



List of participants

Participant	Type of Institution
Ángel Badillo Matos	Real Instituto Elcano
Félix Arteaga	Real Instituto Elcano
Vania Baldi	Obercom
Miguel Paisana	Obercom
Miguel Crespo	Obercom
Gustavo Cardoso	Obercom
María José Rementería	Barcelona Supercomputing Centre
Olivier Philippe	Barcelona Supercomputing Centre
Blanca Calvo	Barcelona Supercomputing Centre
Nataly Buslón	Barcelona Supercomputing Centre
Pablo Hernández Escayola	Fundación Maldita.es
Juan Gómez Romero	Universidad de Granada
Miguel Molina-Solana	Universidad de Granada

1. Executive summary and table of contents

1.1 Executive summary

This report is the result of a comparative study on the analysis of the impact of disinformation on political, economic, social and security issues, governance models and good practices in the cases of Spain and Portugal. The analysis is one of the strategic objectives of the IBERIFIER project (Iberian Media Research & Fact-Checking).

The study has identified the following five main challenges:

- 1) Frame and articulate the scenarios of disinformation, its socio-political repercussions and the institutional reactions set to face them in the two Iberian countries, in the framework of the policies, values and interests aligned by the European Commission.
- 2) Point out the specificities of the media markets, information systems, new journalistic practices and new habits of news consumption in both countries.
- 3) Highlight the digitalisation and platformisation processes in Spain and Portugal, pointing out the changes reflected in the dynamics of production and access to news.
- 4) Put into perspective the emerging phenomenon of polarisation in the political discourse, its relations with the computational logics that feed the distribution of news in the various online contexts and its repercussions on the media agenda.
- 5) Diagnose the conditions of financial sustainability of the media and social communication systems in the contexts under analysis, in addition to the levels of trust in the traditional media and in networked information.

We analyse some case studies on disinformation in the two countries (in electoral contexts, during the pandemic, during the war in Ukraine) that are emblematic of the media and political challenges that must be faced in order to help public opinion defend itself from disinformation campaigns.

Finally, we highlight in a comparative manner the common and divergent aspects between the two Iberian realities. In this respect, the difference in the relationship of trust the two countries have towards their national media stands out, with a high degree of mistrust in the Spanish case and a greater trust in the Portuguese.

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Specific acronyms used in this report

AFP: Agence France Presse, France

AI: Artificial Intelligence

API: Application Programming Interface

APM: Spanish Press Association, Madrid

CCN-CERT: National Cryptologic Centre Computer Emergency Response Team, Spain

CIS: Centre for Sociological Research, Spain

CNI: National Intelligence Centre, Spain

CNPIC: National Centre for the Protection of Critical Infrastructures, Spain

CSN: National Security Council, Spain

DESI: Digital Economy and Society Index, European Commission

DNR: Digital News Report, Reuters Institute & Oxford University, UK

DSN: Department of Homeland Security, Spain

EBU: European Broadcasting Union

EDMO: European Digital Media Observatory

EEAS: European External Action Service, EU

EFCSN: European Fact-Checking Standards Network

EGM: General Media Study, Spain

ERC: *Entidade Reguladora para a Comunicação Social em Portugal*, Portugal

FAPE: Federation of Associations of Journalists of Spain, Spain

IFCN: International Fact-Checking Network, US

INE: National Institute of Statistics, Spain

INGE: Special Committee on Foreign Interference in all Democratic Processes in the European Union, including Disinformation, European Parliament

IRA: Internet Research Agency, Russia

LOSC: Organic Law on Citizen Security, Spain

NATO StratCom COE: NATO Strategic Communications Centre of Excellence

NER: Named Entity Recognition

NLP: Natural Language Processing

PoC: Point of Contact, EU

RAS: Rapid Alert System

RSF: Reporters Without Borders

RTVE: Public Corporation of Radio and Television, Spain

SDG: Sustainable Development Goals

SIA: Social Impact Assessment

SICOR: Social Impact Coverage Ratio

SIOR: Social Impact Open Repository

SISM: Social Impact in Social Media

STEM: Science, Technology, Engineering and Mathematics

STS: Semantic Textual Similarity

2. A framework for assessing the social impact of disinformation

2.1 Little green men, non-contact wars and the hybrid nature of new conflicts

Disinformation and deception are inherent to the human condition. Historically they have been used to manipulate public opinion for power, revenge and financial gain. While not that new, the phenomenon gained more traction following the US election and, more recently, the COVID-19 crisis [1, 2]. It has become a national and international battleground in the struggle against disinformation [1, 3].

The perception of disinformation as a security problem in Spain and Portugal did not arise from their own experiences but rather from those of third parties, especially through the initiatives of the Council, the European External Action Service (EEAS), the European Council and the European Parliament [4, 5]. The general appreciation that the circulation of false information had become a large-scale problem dates from the second half of the 2010s and arose around two foci: the Russian invasion of Crimea in 2014 and the 2016 US presidential election.

In the first case, the Europeans discovered the Russian's ability to generate false information, both for internal and external consumption, to accompany and endorse their invasion of the Crimea on 18 March 2014. Of course, disinformation is a much earlier phenomenon, but it has always been linked to wars.

In more recent decades, the inclusion of disinformation among asymmetric tools can be traced back to the counterterrorism and counterinsurgency doctrines of the early 2000s, in which narratives are placed at the centre of battles as the decisive milestone that determines their ultimate outcome. The contenders are forced to win the minds and hearts of the opposing population to decide the course of the war and for that they need narratives that mobilise supporters and demotivate rivals [6].

Labelled 'hybrid warfare' by Mattis & Hoffman at the beginning of this century and defined as 'complex irregular warfare' [7, 8], this new form of conflict is perhaps not as new as it may seem despite the recent profusion of texts, analyses and reports on the issue, as Hoffman himself recalls, pointing to the 'political warfare' described by Kennan in 1948 [9, 10], but it has been part of the geostrategic debate since the end of the first decade of this century, when organisations such as NATO, in 2009, incorporated it into their discourse. By combining conventional and irregular resources, hybrid wars need simultaneous attention on three fronts, 'the conventional battleground; the conflict zone's indigenous population battleground; and the home front and international community battleground' [11] and, in Mattis's words, Western countries were not sufficiently aware of this new scenario:

'While we are superior in conventional and nuclear warfare, we are not yet superior in irregular warfare. Throughout history, the "paradox of war" reveals that thinking adversaries avoid strengths and gravitate towards areas of perceived weakness. In this tradition, our current enemies clearly voted "No" to conventional military operations in which they are unprepared to confront us. Instead they attack in ways we consider irregular or asymmetric, but are anything but asymmetric to them. If we do not develop a culture where leaders and capabilities are well suited for irregular or hybrid warfare, while simultaneously maintaining our conventional and nuclear prowess, then we embolden our enemies and our forces must improvise on the battlefield to make up for any failure to anticipate changing challenges.' [12]

From the French Institute of International Relations, hybrid warfare was identified in 2015 as 'irregular', as opposed to the previous 'regular' mode of conflict on at least three levels:

(a) versus the tactical dimension of the organised disposition of troops, the guerrilla; (b) versus the separation of combatants and non-combatants, the diffuse barrier between one and the other; (c) versus the elimination of the enemy's weapons as a strategic objective, the weakening of the civilian population, 'psychological, economic and social action, subversion or terrorism are ways to steal popular support, while sabotage and guerrilla harassment can be used to erode the popular will' [13]. This simultaneous combination of military actions, population mobilisation and coordinated action of state diplomatic and information services was described by the head of the Russian Armed Forces, Valery Gerasimov, in 2013 in a famous analysis that made explicit the so-called 'Gerasimov doctrine':

'The emphasis of the methods of warfare used is shifting towards the large-scale use of political, economic, informational, humanitarian and other non-military measures, implemented with the use of the protest potential of the population... Asymmetric actions are widespread, making it possible to level the enemy's superiority in the armed struggle. These include the use of special operations and internal opposition forces to create a permanent front throughout the territory of the opposing state, as well as informational influence, the forms and methods of which are constantly being perfected.' [14]

The Russian invasion of Crimea in March 2014 showed many of the new features of these 'irregular' or 'hybrid' conflicts, with intensive use of disinformation and 'non-contact warfare', in which the fighting was conducted not by armies but by 'little green men' (soldiers in unidentified uniforms) accompanied by an avalanche of false information directed both at the population in conflict and the rest of the world. As stated in September 2014 by NATO's top official in Europe, General Philip M. Breedlove, the Russian operation in Crimea was 'the most amazing information warfare blitzkrieg we have ever seen in the history of information warfare' [15]. At the same time, a well-known analysis summarised: 'Russia "won" in Crimea recently through a campaign based principally on information warfare' [16]. Russia, on its part, accused Washington, in the same days, of hybrid attacks 'using financial and economic pressure, information attacks, using others on the perimeter of a corresponding state as proxies and of course information and ideological pressure through externally financed non-governmental organisations' [17].

There is a high consensus in considering the 2014 Crimea invasion as the first contemporary benchmark of this new form of hybrid conflict, with information as one of its backbones. Until then, the military considered disinformation among the new instruments of hybrid warfare (also the cyber-attacks against Estonia in 2007) but what is important for the EU is the demilitarisation of the campaigns that starts later as we count (we shall return to it later to explain the confusion about its civilian or military nature and the attribution of responsibilities). In the spring of 2014 *The Guardian* newspaper began detecting a spate of pro-Russian activity on its forums that it attributed to 'an orchestrated pro-Kremlin campaign' [18] and, for centres such as the Crime and Security Research Institute at Cardiff University, this is the point of intensification of the Internet Research Agency's activities in Europe [19]. The Defence Committee of the British Parliament in 2014 identified this 'Gerasimov doctrine' in Russian operations in Estonia (2007), Georgia (2008) and Ukraine (2014):

'In part because of the relative weaknesses in its conventional military capacity, Russia has increasingly focused on new and less conventional military techniques. These asymmetric tactics (sometimes described as unconventional, ambiguous or non-linear warfare) techniques are both more aligned to Russian strengths, and considerably more difficult for NATO to counter... This tactic is intended to influence the decision making of an adversary by providing

that adversary with information that will reflexively lead them to pursue particular courses of action.' [20]

The NATO Parliamentary Assembly acknowledged this situation when analysing the new international environment in 2015, 'nothing inherently new for the Alliance', while clarifying the new approach: 'Russia has employed and coordinated a wide range of tactics to achieve its objectives: from political and economic coercion, cyber-attacks, disinformation and propaganda, to covert and overt military action' [21].

A few months later, the 2016 US presidential election campaign consolidated international concern about the new information ecosystem and its foreign and domestic consequences. It was not for nothing that in 2016 the term post-truth was chosen Oxford word of the year and defined as follows: 'Relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief'.

At the same time, the 2016 US elections confirmed the hybrid combination of disinformation with cyberattacks in the Russian strategy, which even reached vote-counting systems [22, 23]. As expressed by the US judiciary in its investigation of the IRA and Concord, both Russian organisations 'knowingly and intentionally conspired with each other... to defraud the United States by impairing, obstructing, and defeating the lawful functions of the government through fraud and deceit for the purpose of interfering with the U.S. political and electoral processes, including the presidential election of 2016' [24]. The National Intelligence Director's 2017 report reached similar conclusions, in overwhelming terms:

'We assess Russian President Vladimir Putin ordered an influence campaign in 2016 aimed at the US presidential election. Russia's goals were to undermine public faith in the US democratic process, denigrate Secretary Clinton, and harm her electability and potential presidency... We also assess Putin and the Russian Government aspired to help President-elect Trump's election chances when possible by discrediting Secretary Clinton and publicly contrasting her unfavorably to him. All three agencies agree with this judgment. CIA and FBI have high confidence in this judgment; NSA has moderate confidence.' [25]

The so-called 'Translator Project' (*Переводчик*) was launched in 2014 to harm Hillary Clinton's campaign and favour Donald Trump's, according to special counsel Robert Mueller's report to Attorney General William Barr [26]. In addition to advertising campaigns paid for by IRA or Concord members in key electoral states, these organisations developed a web of fake accounts and identities on social networks dedicated, since 2014, to producing and disseminating false information aimed at influencing the US electorate in favour of Donald Trump. The disinformation campaigns were accompanied by cyber-attacks on the electoral systems of 39 states, according to some media reports [27], the hacking of Democratic Party servers and the theft of Hillary Clinton's emails released by Wikileaks in July 2016 [28, 29] carried out, according to the Mueller report, by Russian agents. 'Russia, if you're listening, I hope you're able to find the 30,000 emails that are missing', then asked Trump [30]. In short, the Justice Department report verified, in 2019, the role of the Internet Research Agency (IRA) –and other agents, such as Concord Consulting– in 'active measures' of disseminating false information 'supporting the Trump Campaign and disparaging candidate Hillary Clinton' through accounts on social networks such as Facebook, Twitter or Instagram 'as early as 2014' [26]. Facebook acknowledged to the US Congress that Russian accounts linked to the IRA reached 126 million people with their false information between 2014 and 2016, one-third of the total population [31].

In those same years, Russia may also have played a relevant role in the referendum for Scottish independence (2014), in the European elections in Greece (2014) [19] and the

Brexit referendum (2016), although as expressed by the parliamentary committee in charge of investigating it, 'the impact of any such attempts would be difficult – if not impossible – to assess' [32]. More direct was the British Prime Minister Theresa May, accusing Russia in 2017 of electoral interference and dissemination of fake news [33], despite the fact that the work of the parliamentary committee only noted some minor actions of the IRA [34]. Also, the French presidential election of May 2017 suffered a cyber-attack and disinformation operation, the *Macronleaks*, with the theft of tens of thousands of emails of Emmanuel Macron's campaign released two days before the second round by Wikileaks [35]. *Le Monde* picked up two years later the research of two analysts showing 'the coordinated involvement of two Russian state hacker units [Sandworm and FancyBear] in this attempt to destabilize the presidential election' [36]. Other actions in the previous decade in Estonia and Lithuania had already shown Russia's ability to combine hybrid warfare techniques to destabilise other states. But the cases of the Crimea invasion and the US presidential election are, because of their intensity and coincidence in time, the two key issues that make disinformation and hybrid warfare the centre of the geopolitical agenda and public opinion worldwide from 2014 onwards.

2.2 Some methodological issues

2.2.1 The concept of disinformation

It is essential, initially, to make certain conceptual distinctions, because the terms 'disinformation', 'fake news', 'alternative facts' or 'post-truth' have been used intensively in the past five years, often without precisely defining their scope.

We start from three essential elements: (1) an intention, preferably political, (2) a falsehood, and (3) a formal presentation with the appearance of truth, ie, we are talking about a phenomenon that involves 'intentional falsehoods spread as news stories or simulated documentary formats to advance political goals' [37]. However, not all hoaxes are necessarily disinformative, nor is all disinformation necessarily in the form of hoaxes: 'This can include false news, or it can involve more subtle methods, such as false flag operations, feeding inaccurate quotes or stories to innocent intermediaries, or knowingly amplifying biased or misleading information' [38]. The Council of Europe's report on what it calls 'information clutter' chooses to emphasise the combination of truthfulness and intent: there is misinformation (mis-information), harmful (mal-information), and harmful and false at the same time (dis-information) [39]. The basic definition focuses on misinformation and false statement. However, there is a distinction based on intent. When false information is shared but without intent to harm, it falls under the definition of disinformation. When the person, organisation or bot produces or shares a statement knowing it is false, it falls under the terminology of disinformation. Another type of false claim includes sharing information with the intent to cause harm, but information that is transferred from the private to the public sphere is disinformation. The latter is of less interest for this report [39].

Not only can the intention differ, but within each dimension, a different type of content can exist:

- a) Joke or parody. No intent to cause harm but potential to deceive
- b) Disconnection. The headlines or images do not correspond to the informative text
- c) Cheated. Misleading information about a subject or person
- d) Decontextualisation. Genuine information in a false context
- e) Impostor content. When false sources are cited, giving the appearance of truth
- f) Manipulated content. Information or images manipulated in order to deceive

g) **Manufactured Content.** Fake content is created to mislead and cause harm. [40]

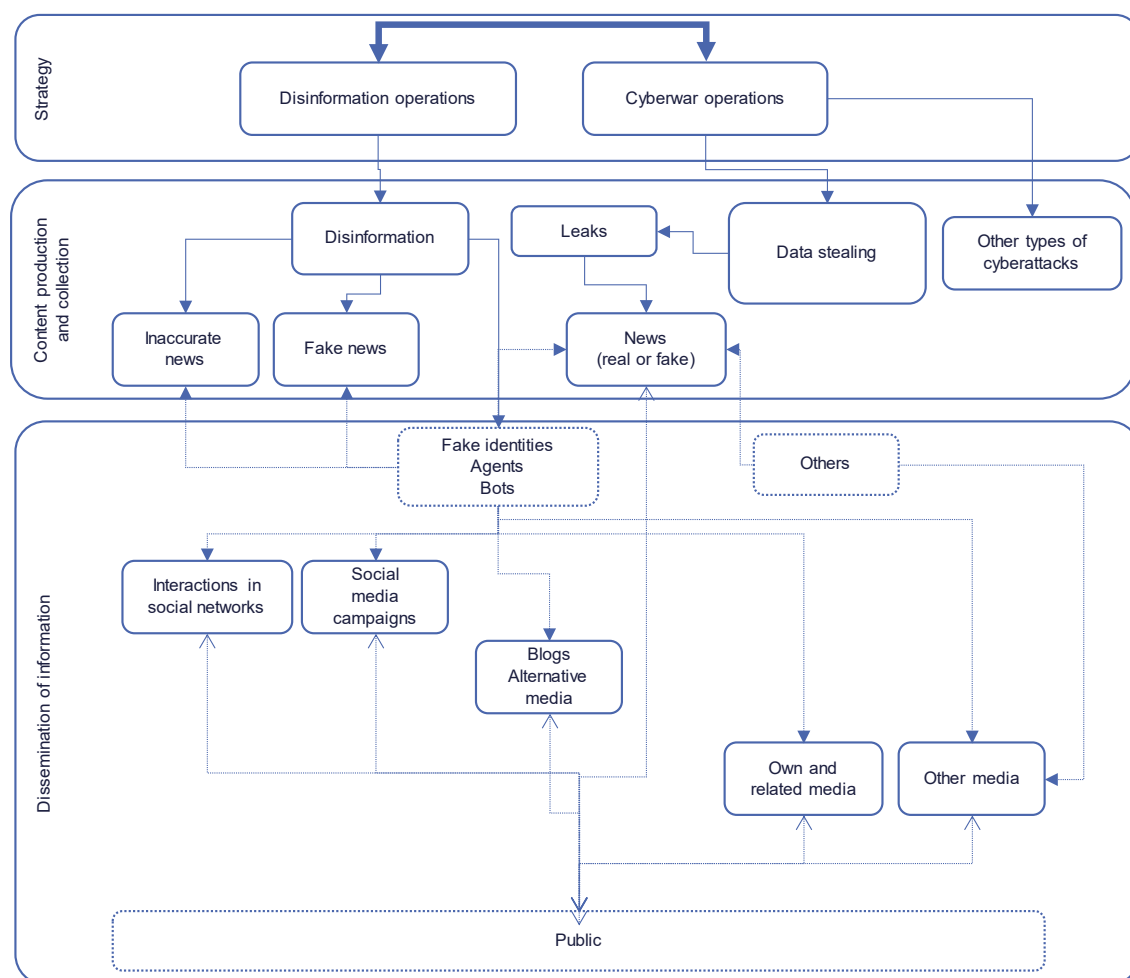
Not all disinformation necessarily takes the form of fake news, because in many cases the information (for example, leaked data or secret emails) may not be verifiable and may be disseminated only to cause reputational damage, or to create confusion and mistrust. It is doubtful to think of an organisation such as Wikileaks from journalistic parameters, when the leaks it disseminates have not received prior journalistic treatment, ie, they have not been reviewed or contrasted. Despite this, the theft of personal information –from Hillary Clinton's emails to the personal videos of the Finnish Prime Minister– can effectively serve the purposes of disinformation apparatuses without necessarily being false or verifiable. Is it possible to verify the veracity of the leaks published by Wikileaks about the US diplomatic service, the US Democratic Party or French President Emmanuel Macron? And yet, there is no doubt that their dissemination is part of disinformation strategies using different tools to achieve their ends. The interaction between cybercrime and the dissemination of disinformation is therefore very close.

On the other hand, the media used for disinformation –and the fake news itself– cleverly combine falsehoods with true facts in order to maintain the appearance of truth. In short, fake news is only a very small part of disinformation, which must be understood in a broader sense. As the head of Spain's Department of Homeland Security explained in Congress a few months ago, 'fake news are a very small part of disinformation', which we must understand more broadly:

'Disinformation and the creation of post-truth are not usually based on fake news, on false news, because when the false news is contrasted by a fact checker –which do a very important job– it falls with all its weight, but they are usually based on what we can call subinformation, which is a part of disinformation and which consists of eliminating or minimising some news and magnifying others; amputating them in their content or deliberately diminishing their importance.' [41]

It is sufficient to review the thematic agenda of the Russian foreign media to understand how the disinformation strategy is not limited to the dissemination of false news, but to a very precise discursive construction of the world, a story aimed at producing certain effects on the audiences. We can conceptually delimit the problem by saying that in disinformation, political organisations design influence operations to disseminate false, inaccurate or harmful news with the appearance of truth in order to produce a certain effect on audiences. This involves at least three levels of activity:

- a) A first level, strategic, of decision making and choice of means.
- b) A second level, operational, of information gathering and content production for the networks, a parallel and frequently linked to the disinformation apparatus, although independent (including the destruction of critical digital infrastructures, hacking of electoral computer systems or the theft of confidential information).
- c) A third and last level of dissemination of contents from both own resources of the agents of the previous levels and the intervention of other social actors, related or not, conscious or not of their participation in the circuit, such as national and transnational media, fake verifiers and accounts (of people or bots) in social networks. This is the only visible and traceable part of the process, the one that emerges into the public sphere and the one that can be combated with tools such as verification or training of audiences to identify fake news.

Figure 1. Disinformation analytic model

Source: the authors.

2.2.2 The different levels of impact

While being super extensive, the research on the impact of dis-misinformation (to consider both) is still recent. The different approaches represent a variety of methodologies, experiments and goals. Academic production is moving in all directions, and many new advances have been made in the past five years, mainly stimulated by the COVID-19 crisis. Concurrent with these advances, the latest development and discovery in the realm of AI, especially in NLP, gives new tools and new infrastructure to analyse and answer the different issues that disinformation poses to society. However, while research is prolific, some methodological problems still need to be answered. Often, they are created by the nature of the phenomenon studied rather than the researchers' lack of rigour or ingenuity.

Nevertheless, we will list a series of selected issues identified in the current state of research. This list is not exhaustive but aims to concentrate on the problem raised between disinformation, its study and the potential social impact it may have in general.

Since the 2016 US election [42], many studies have aimed to measure the impact of disinformation on society looking at the different forms of impact. Studies have shown disinformation creates more polarisation in debate, erodes the credibility of institutions [43] and media and impacts democracy in general [44]. On a more individual level, disinformation impacts the psychological states of the people exposed, increasing depression, fatigue and panic [45], and these impacts can even be unconscious [46].

Disinformation can also be deadly, such as when fake news spreads and there are, for instance, mob lynchings in India [47].

These studies have dealt with the impact of disinformation at the psychological, individual and societal levels but present issues about the definition of the impact itself [48].

In its report about possible legislation on disinformation, the European Commission listed the potential levels of impact and their respective areas.

Table 1. Harm caused by disinformation

Psychological harm	Financial harm	Societal harm
(S)extortion Defamation Intimidation Bullying Undermining trust	Extortion Identity theft Fraud Stock-price manipulation Brand damage Reputational damage	News media manipulation Damage to economic stability Damage to the justice system Damage to the scientific system Erosion of trust Damage to democracy Manipulation of elections Damage to international relations Damage to national security

In this approach, they are considered different types of harm and not only societal impact. This example shows how complex and challenging it is to quantify the damage and impact of disinformation and how different degrees of analysis and impact are frequently mistaken for a stricter definition of societal impact. The main issue lies in the size and scope of the impact. If the level of impact does not include a social level, it is often not a societal impact but the first step towards it.

Colley *et al.* [49] make reference to the issue and offer a description of the actual levels that are often conflated into the terminology of social impact:

- Spread (superficial online/offline behaviour towards dis/misinformation)
- Attitude change or reinforcement (eg, the psychological effects of dis/misinformation on beliefs, cognition)
- Behaviour change (eg, altering voting behaviour, disengagement from politics)
- Broader societal impact (eg, reducing institutional trust, undermining social cohesion) [49]

This distinction offers the first step into a more refined methodological definition of social impact. The differences are an increasing complexity regarding the scope of the impact and of the access to data and the methodology to study them adequately. Due to this increased complexity, the first levels are more often studied and measured than the last ones, with a broader societal impact.

Research on the impact of disinformation takes a different angle of comprehension and therefore reaches a different potential level of impact. Suppose an experiment is studying psychological changes due to dis-misinformation. In that case, evaluating the impact of these behavioural or psychological changes on society within the same study or experiment is impossible. When Szebeni *et al.* [50] studied the social psychological predictors of believing in disinformation before the Hungarian election, they found that political orientation is a strong correlator (among others) of believing in disinformation and real news if it aligns with the voter's political orientation. However, nowhere in the study do they try (understandably) to analyse the direct impact it has on the election results.

This is not to say that individual characteristics are not essential to understand the effects or the cause of disinformation –it has been proved in past studies [51-54]–, but it does not prove a social impact.

The same goes for studies that examine the election process and message during the elections [55-57]. When studying the type of communication of the various party leaders during the 2018 Andalusian elections, there is no question of a quantifiable or qualitative evaluation of the direct impact on the results [58].

The impacts in the studies mentioned above are often bound to the research project itself and are only an operationalisation of their current interest/research question. While it is not an issue to prove the impact of disinformation on society, it is difficult to have a common methodological perspective on disinformation and its social impact.

2.2.3 *Non-existence of impact*

But even if the goal is to link the evidence to a measure of social impact, it often needs to be revised. Not only is the type of impact often conflated into a generic impact on society when it deals with different levels, but research often assumes an impact that is not necessarily proved when discussing it [49].

For instance, even if people report an increase in disinformation exposure [59], the latter cannot explain a political shift in an election [60]. Even if there is evidence, it is still challenging to have a causal link. The authors make a case for vaccination in the same report [49]. While the impact of disinformation about vaccination has been extensively studied [61-64] and can be easily tracked down to disinformation, as with the appearance of polio in Pakistan [65], the reality is often more complex. For instance, French citizens have three times more distrust in vaccination than the rest of the world. In this case, distrust in vaccination is harder to explain with only disinformation [66].

A recent systematic review on the impact of social media on democracy tried to answer these issues about causality in social media issues. While they found a clear association and causal link between digital media and political factors, including trust, polarisation and news consumption, they also caution against supposing there is a direct causal link between the influence of social media and indicators relevant to democracy [67].

The social phenomenon impacted by disinformation is often multicausal. The causal link will always be challenging to establish in these cases, but the difficulty is not inherent to the study of disinformation. Nevertheless, it must be considered when translating results from research or experiments into potential suggestions and recommendations. Added to this multicausal issue, the study of dis-misinformation is often focused on social media only.

2.2.4 *Mixed methods*

Measuring disinformation's social impact systematically and causally is a recurrent issue [67, 68].

As it is impossible to simulate the broad impact of disinformation on society in a controlled environment, the only resort is to analyse causality with observational data, limiting it to correlational evidence. In addition, the long-term social shift in value and quality of life is best measured by directly linking studies. Worse still, the inclusion of the social impact within a distinction between the offline and online worlds complicates the collection of relevant observational data.

However, despite these shortcomings, the quantitative analysis of the phenomenon is often privileged [69]. Translating this scale within an experiment or qualitative study is much more challenging. Still, it offers other advantages, such as developing an in-depth understanding of how disinformation effects play out and how people experience the consumption and diffusion of disinformation [70].

Some aspects of disinformation are only possible to analyse qualitatively. The causality of social impact could only be tracked by doing ethnographic work on each event based

on investigating the translation of the disinformation between the online world and the physical world (with all of these distinction issues).

The intentionality of disinformation is also challenging to assess by developing in-depth ethnographic work. While considering the intention of Russian bots is pretty self-explanatory, it becomes harder to distinguish when it is about the people who amplify their false claims [71, 72].

This is reflected by the suggestion of studying the impact of an event-based perspective to unveil the dynamic of disinformation at a deeper level of understanding.

However, mixed-method does not necessarily bring the best of both worlds, and compromises must be made. The most evident one is the volume of data collection. The volume of potential claims and persons affected by it with a qualitative process that focuses on a few but carefully analysed networks, actors, communities, etc., will dramatically limit the scope of the causal relation it is possible to establish.

Despite its profusion, the research on the social impact of disinformation is still in its infancy. The proper direction advocated is using a mixed methodology to provide an integrated vision of the issue while measuring the trade-off between scope and details.

2.2.5 *Excessive focus on social media*

The sharp increase in social media has been linked to disinformation [69]. Additionally, more people are relying on social media (and the internet in general) for [73], especially young people. Concentrating on social media makes sense.

On top of these changes in practice, social media are all built and conceived with the final goal of capturing data from users and selling ads. The algorithms propose content to keep users within their platform for the longest time possible. These algorithms not only participate in the problem of echo chambers but can amplify some disinformation by recommending content that is deemed false [74].

Another potential reason to explain the focus on social media is the data collection. Some platforms, especially Twitter and Youtube, can offer an easy way for data mining through their APIs. It allows researchers to collect metrics on the spread of disinformation. However, the APIs are not necessarily accessible or available on all social media. Some of them lack access. This leads to unbalanced research and focuses on a small number of platforms, not representative of the entire ecosystem or new actors.

The problem is that each platform gathers a different audience. For instance, TikTok mainly comprises young people between 18-29 years old (48% of US adults say they have used this social network), while only 22% of the 30-49 year olds reported the same [75].

So not only is there an issue with a sole focus on social media, but it is often exacerbated by focusing on the platform that gives easy API access to studying disinformation on one platform, missing the entire pan of the population. Cross-social media analysis is a direction that has to be taken.

To offer a global understanding of disinformation spreading, even before talking about social impact, the inclusion of different social media is crucial.

But API access is the main obstacle. The APIs, when they exist, can drastically restrict access to their data [68, 76]. Fortunately, the European Commission, with the EDMO programme, has worked on a code of practice with the different companies to agree on data access for the citizens and help future research to collect data [77].

In the future, we can hope to have better access to the different platforms of social media (at least those that signed the code). However, social media is not alone out there. They are a means of communication among others and can often serve as catalysts for other sources of information.

There is a close relationship between disinformation and social media [78]. While most of the research focuses on the spread of disinformation within social media, there is also a spread of disinformation within the traditional media that needs to be accounted for [79].

Moreover, the limitation of social media ignores the porosity between digital media and social media. As shown, digital newspapers and journalism, in general, are using social media as a source [80], using Twitter as a direct quote [81] or other social media such as YouTube or Facebook [82]. If the interaction were only in that direction, that would not pose a methodological problem. In such a scenario, studying social media should give good visibility to disinformation. However, the interaction goes both ways. The tweets are often nothing more than traditional media being retweeted [83].

2.3 Different conceptualisations of social impact

The methodological issues listed above concentrate on the practical aspects of the scientific study of disinformation. However, the conceptual definition of social impact has difficulties also.

In this regard, other research fields have turned their attention to the interrelation between the definition of social impact and its methodological implications.

Exposing the leading development in the scientific research on social impact in organisations and science will help to generate a better-suited reflection on what can constitute a measure of social impact and an attempt to adapt it to the context of disinformation.

Social Impact Assessment (SIA) has been actively developed for years [84, 85] and has a long tradition in research emphasising business models and philanthropic associations.

The complexity of the various situations associated with the broad interpretative definition of social impact has favoured the emergence of several frameworks developed for different purposes and actors [86-92]. For all these frameworks and theories, the idea remains to facilitate the work of the different stakeholders in assessing various impacts their business or actions may have, but, more importantly, to steer the evaluation from a purely economic reading of it.

Emerging from the same needs and theories, the research on scientific impact aims to measure scientific research's social (or societal) impact. Long gone is the time when scientific research could be done with the only assumption of a positive impact on society [93, 94]. Nowadays, a complete evaluation is needed to assess any subsidised research's potential positive and negative outcomes. While studying the impact of research has its methods and type of dissemination measurements, it relies heavily on pre-existing research on social impact from the organisational world. Besides that, it also uses the work of scientific dissemination and alt metrics development to measure the reach of authors and publications to assess the impact of the research of specific projects [95, 96].

While the research for SIA, both in organisations and scientific research, has been prolific, conjugating this field with disinformation is a new field.

The adaptation is complex. The study of social impact and disinformation is a relatively new phenomenon that extends into society. The solution to developing a holistic

comprehension of it is to merge the two fields into one. Setting a specific approach to segmenting the different aspects before integrating them into a unified framework will require defining the scope of the social impact to be assessed, which has yet to be improved.

When using frameworks to study an organisation's impact on society, it is relatively contained within the scope of the organisation itself and its objectives. The same idea applies to the scientific impact of research or of a project.

In the social impact of disinformation, there is no control over the origin or the type of disinformation to be studied. Of course, in the case of a narrow research focused only on one kind of disinformation, it will be possible to deploy a tailored approach. The present goal is to gain a more generic approach to disinformation, and social impact methodologies provide a margin to define and operationalise the different impacts on society. To assess how disinformation impacts society, it is crucial to have a clear understanding of the concept of social impact.

2.3.1 Social impact on organisations

There are several theoretical and methodological frameworks to measure social impact. However, there is some fundamental consensus on the definition itself, at least at the core definition level. Overall, in the scientific impact on society, the impact is a way to formalise any actions an organisation can have on individuals and society, and how they live, work, play or interact. Defining an impact on society needs to differentiate between what was caused by the actions and what was not. Therefore, the central aspect of social impact is measuring and assessing whether an action has created a change within society.

The following definition concentrates on the impact and measurement aspect.

The terms impact and outcome are often used interchangeably. However, their meanings are distinct: impact is defined as a change in social, environmental or economic outcomes (positive or negative, expected or unexpected) that is directly attributable to an intervention, a programme or an investment. It is, therefore, not only a matter of defining indicators of resource consumption (inputs) and of outputs, specifying the relationships of efficiency and efficacy between them, but also of measuring the results and their contribution to changes in the outcomes. This distinction is important since the outcome may have resulted from some external cause, such as a general improvement in the economy [97].

The distinction between outcomes and impact occurs within measurement and assessment. Telling an action that has an impact will require measuring the direct outcomes and any more long-lasting effect on the population. This is why many Social Impact Assessment (SIA) frameworks exist. Each of them must be tailored to the specific environment of the organisations, stakeholders and type of actions to measure [88]. They differ in terms of objectives, relevant stakeholders and impacts, and the methods can also use different approaches between quantitative and qualitative methodologies [98].

2.3.2 Social impact of scientific research

The research on scientific impact has a slightly different history from the SIA for organisations. Before, citation was (and still is) the primary metric used to qualify the quality of scientific work. However, policymakers and payers, such as the European Commission, now require more metrics to see if the money invested has an effective return for the population [99].

The definitions also share the same core content as organisations' social impact studies. They are still centred on the modification of behaviours and habits within society as a distinct cause of the project itself:

An important purpose of evaluating the societal value of research is to emphasise and illustrate the contribution that research activities can make to economic progress, societal well-being or other public goods distinct from arguably more internal, epistemic contributions [100].

The idea is similar. Measuring the impact outside its initial scope is economical for a company and epistemic for scientific research.

They are also often, at least recently, embedded within larger frameworks or institutions that provide the main content of the elements to study. These frameworks –for instance, the SDG compass from the United Nations [101, 102] to which the IMPACT-EV from the European Commission adheres [99, 103]– give direction to the essential themes under scrutiny and can help to concentrate the current effort in the same direction.

Publication and knowledge share many similarities to disinformation spreads and impacts. This conceptual proximity helps translate some essential research concepts on scientific impact to the impact of disinformation on society.

The idea of science governance has developed its techniques and methods to assess an impact using the different notions inherited from the citation and publication methods of measuring impact. This notion of dissemination needed to be extended to further dimensions to avoid falling back to the old scientometric. These considerations echo the difficulties of studying the impact of disinformation. As seen above, the methods often focus on more accessible metrics and may overstretch the actual impact on society.

However, the problematic definition of social impact is present in research on scientific impact too. It can represent a broad spectrum of different social concepts, such as:

'human rights, social cohesion, economic cohesion, employment, human capital formation, public health and safety, social protection and social services, liveable communities, culture, consumer interests, security, governance, international cooperation, the role of SMEs, lessons learnt and success stories.' [99]

Similarly, the conception of social impact in disinformation is also concerned with general concepts such as democracy, trust or social cohesion. These concepts are difficult to define and measure. For instance, concepts such as trust and social cohesion are used to measure the social impact of disinformation from social media on democracy [67].

But the concepts carry issues of definition themselves. It is difficult to reach a consensus on the causal link between the two. They can sometimes be the cause or the result of the other [104, 105]. These elusive concepts make reaching a precise measure of social impact even more difficult.

2.4 Key findings

In the previous sections, the distinction was made between individual and societal impact. While the description helps to depict the current research and where the issues lie, there needs to be a methodological solution to the problem.

However, while not necessarily a perfect answer to this problem, some approaches break down social impact into several indicators rather than levels or types of impact and can be a step in the right direction. Such an approach will be developed in the last section (see 2.3).

The issues with social impact are described from a perspective where testing hypotheses and controlling variables are the pillars of the scientific method.

However, understanding disinformation and its impact on a country level requires a different development to assess its effects and potential perils. The comprehension and

study of the phenomenon in Spain and Portugal need a systematic understanding of each country's context and call for metrics that can paint global pictures while concentrating on particular issues that the two countries face.

A qualitative approach is required to describe and understand the different impacts of disinformation on citizens' lives. This method analyses how disinformation can develop within the technological and societal context.

But the context needs to be clarified as there is also a requirement to define what trust or democracy means and how to study it. As seen earlier, nebulous concepts can dilute the accuracy of assessing the impact of disinformation.

The solution lies in using existing indicators in the form of country statistics. These indicators give the right definition and allow us to see an evolution over time.

This report aims to give an understanding of some shortcomings when it comes to academic research on disinformation and social impact. It is not an exhaustive list but identifies the main shortcomings in the most recent literature.

While almost all of them can find a methodological solution, they can face the harsh reality of API access and the difficulty of developing a detailed and broad-scope study. At the same time, some of the issues identified have been problematic in other fields that have dealt with social impact long before the appearance of social media. Therefore, hoping for a clear and perfect answer will not be possible in that context. The following key findings give the overall view of the different aspects developed.

The following points were the main issues discussed:

- Different levels of impact: impact is not a homogeneous term, and its complexity can create a false sense of societal impact when it is measuring something at a different level and with different consequences.
- Multilevel of causality: while disinformation has an impact on society, the complexity of the phenomenon under study makes a causal link harder to prove.
- Multi sources of influence and data: while disinformation is intrinsically linked to social media, there is an absolute need to include other sources of information and ultimately measure in both the offline and online worlds.
- Mixed methodology: the potential resolution of the previous issues is possible through mixed methods. However, it is not a solution fit for all as it has limitations and can encompass traditional ethnographic work and NLP techniques.

3. Spain

3.1 Background and context

3.1.1 *The problem of disinformation in Spain in the European context*

While the context of the emergence of hybrid conflicts was developing, the Spanish public and private perception was not mobilised until the end of 2017 when disinformation campaigns were noted in connection with the illegal referendum on independence in Catalonia. Perhaps not yet perceiving the true dimension of the risk, Spain did not participate in 2014 in the creation of the NATO StratCom Center of Excellence (NATO StratCom COE) [106]. It has been more sensitive to the initiatives of the European Council in the face of Russian disinformation campaigns, starting with the decision of the Council to create within the EEAS a working group in charge of designing a plan 'to challenge Russia's ongoing disinformation' [107], from which first emerged the Action Plan on Strategic Communication of 2015, focused on improving public diplomacy and communication in the east of the EU [108] and a Hybrid Fusion Cell devoted to collecting the large amount of information permanently generated by European institutions [109]. The StratCom Task Force launched a website to showcase its work (euvdisinfo.eu) and a register of disinformation initiatives in favour of the Russian government: it has since registered more than 14,000. The European Commission then spoke of a new environment of 'hybrid threats', among which disinformation appears as a tool 'to try to radicalise people, destabilise society and control political discourse' [108].

Once again, the reference is Russia and the emergence of a hybrid warfare model deployed by the superpower after revisiting and updating some of its Cold War tools – among them agit prop, maskirovka (маскировка) and the Spetsnaz special forces (Войска специального назначения)– and transforming them into a new-generation warfare that combines instruments of many types without the need for direct armed conflict (hence the term 'hybrid'). In fact, during the Cold War, disinformation was part of the 'active measures' that the Soviet Union used as part of its war strategy: 'since Lenin, the militarisation of information has been commonplace in Russian military strategy' [110].

In 2016 the EU considered disinformation a strategic communication problem and included disinformation campaigns among hybrid threats [111, 112], requesting Member States to develop prevention mechanisms. Spain contributed to the work of the EU Hybrid Intelligence Fusion Cell and the Hybrid Threat Countering Centre of Excellence (Hybrid CoE) in Helsinki [113], created for this purpose.

The National Security Strategy (Estrategia de Seguridad Nacional) 2017

Throughout 2017 there were concerns about the risk of a repeat of Russian interference in the European elections in the Netherlands, France and Germany. In November 2017 the Minister of Defence proposed the creation of a working group in the Congressional Defence Committee between deputies and the media to address 'information warfare' that began to function in April 2018 until the end of the legislature. The concern coincided with confusion about the nature of disinformation and thus, the National Security Strategy of December 2017 [114] already included disinformation but not as a particular security problem but as part of the technological risks associated with cyberspace and without proposing specific objectives or lines of action. This inclusion was the result of European initiatives, but also of the first symptoms of disinformation perceived in Spain in connection with the political situation in Catalonia. The National Security Strategy justified its inclusion by the impact of these actions 'perpetrated by both state and non-state actors' in 'the mobilisation of opinion and political destabilisation', which impacts

'on National Security, amplifying complexity and uncertainty, and also puts at risk the very privacy of citizens' [114].

Initially attributing its competence to the National Cybersecurity Council (CNC) [115], it addressed disinformation for the first time at its December 2017 session, when the Government did not have a comprehensive perception of the phenomenon despite the fact that, as will be seen in the case-study, numerous indications were available on occasion of the 2017 elections in Catalonia. Without a greater understanding of disinformation, the responsibility for fighting it was not attributed to any of the bodies that claimed competence because of their association with war, the Ministry of Defence (MD) [116], the National Cryptologic Centre because of its relationship with cybersecurity (CCN-CERT) [117] or the National Intelligence Centre (CNI) [118] because of the nature of its threats.

In February 2018 the government, through its Vice-president and the Director of the CNI, warned of the danger of disinformation of which fake news was only the tip of the iceberg and that it seriously threatened 'the decision-making process', so that countermeasures should be taken [119, 120]. In May 2018 responsibility for combating fake news was provisionally given to the National Cybersecurity Council, while it was being considered which body was responsible for combating disinformation campaigns. Meanwhile, the National Cryptologic Centre distanced itself from its management and its annual 'Threats and Trends' report in its 2018 edition did not include disinformation, thus unlinking disinformation from cybersecurity. The latter remained in the area of hybrid threats under the responsibility of the Ministry of Defence, which had a Joint Cyber Defence Command, and the Ministry of Foreign Affairs, which had an ambassador for cybersecurity and hybrid threats [121].

The European Commission's Action Plan against Disinformation in 2018

At the end of 2017 the EU launched a public consultation on the problem of fake news and disinformation online while launching a high-level expert group and launching a European Eurobarometer survey on the subject [122]. In December 2018, the Action Plan against Disinformation [4] drawn up by the EEAS and the European Commission – which the European Council had commissioned in 2015– was adopted with the aim of protecting electoral processes and strengthening the resilience of the population, preceded by the high-level expert report commissioned by the Commissioner for the Digital Economy and Society [123] and by the Communication titled 'Tackling online disinformation: a European approach' [124] that, among other measures, took up the recommendation of the expert report on the creation of a Code of Best Practices first adopted in 2018 and revised in June 2022 [77, 125], for example to provide more detailed information (Commitment 26), cooperate with research on disinformation (Commitment 28) and maintain a Transparency Centre Website (Commitment 34), among many others. The idea of self-regulating the core issues of digital services appears explicitly in Articles 35 and 36 of the new Digital Single Market Regulation, in which the Commission proposes 'the development of codes of conduct at Union level... taking into account in particular the specific difficulties involved in acting against different types of illegal content and systemic risks' [126].

The Plan continued to consider disinformation as part of hybrid warfare and called on each Member State to designate a point of contact with the Rapid Alert System (RAS), within the scope of strategic communication (STRATCOM). The Communication 'Increasing resilience and bolstering capabilities to address hybrid threats' [127] finishes defining the frenetic activity of the Commission in 2018, incorporating disinformation into the threats to the European future, 'hybrid, chemical, biological, radiological and nuclear' [127]. The European Strategic Agenda 2019-24, approved by the Council in 2019, summarises:

'We must protect our societies from malicious cyber activities, hybrid threats and disinformation originating from hostile State and non-State actors. Addressing such threats requires a comprehensive approach with more cooperation, more coordination, more resources and more technological capacities.' [128]

The basis of the system, coordinated from the European External Action Service, can be summarised as: (1) detecting threats quickly; (2) ensuring that online platforms comply with a code of good practice that commits them to detecting disinformation campaigns; and (3) coordinating as much as possible the response of the Union and member countries to any detected threats. In July 2019 the Council also created a Horizontal Working Group on Enhancing Resilience and Countering Hybrid Threats [129], with the aim of strengthening the resilience of Member States and societies and acting on improving strategic communication and countering disinformation, with broad competences in the challenge of disinformation and with the support of the Commission's Joint Research Centre.

By then the Hybrid Fusion Cell already considered Russian disinformation as the greatest threat to the EU: 'according to the EU Hybrid Fusion Cell, Russian disinformation poses the biggest threat to the EU because it is systematic, well-resourced and different in scale from other countries' [4]. Spain, however, still did not formally assume this threat.

The creation of the interministerial working group in 2019

The National Cryptologic Centre (CCN-CERT), under the CNI, was in charge of preparing the first descriptive document on disinformation in Spain in February 2019, 'Disinformation in cyberspace' [130]. This Guide described the behavioural pattern of threats, the advantages of this type of actions due to the difficulty of attribution, the exploitation of political and social conflicts, and their infiltration of traditional media. The Spanish vulnerability to news manipulation was due to the fact that 90% of the population between 16 and 65 uses the Internet, which increases the perimeter of exposure to more than 20 million citizens. The Guide pointed out that disinformation undermines citizens' trust in information, in the media and in democratic channels, which puts governance at risk.

The Guide provided an initial disclosure of the methodology of disinformation campaigns. It combined the detection of a country's political and social vulnerabilities, the development of 'transmedia' narratives tailored to different audiences, the control of a network of disinformation tools and the automated use of social networks (bots). To counteract and nullify disinformation campaigns, CCN-CERT proposed to discriminate legitimate from illegitimate influence on issues where there was social and political polarisation, to update objectives and procedures to assess their impact and to articulate information campaigns. Unlike the European Commission, which identified disinformation with fake news, the Guide collected a combination of tools including fake news, deep fake news, malicious headline approaches, digital platforms dedicated to disinformation, controlled discussion forums, malicious digital profiles and automated accounts, as well as fake identities, guest stars, paid advertisements and confirmation algorithms.

Table 2. Timeline summary of public policies and actions on disinformation at different levels (2015-22)

Year	EU	Spain	Others
2015	<ul style="list-style-type: none"> • Stratcom Task Force • euvsdisinfo.eu • Action Plan on Strategic Communication [108] 		

Year	EU	Spain	Others
	<ul style="list-style-type: none"> COM(2015)192 Digital Single Market Strategy [131] 		
2016	<ul style="list-style-type: none"> JOIN(2016)18 Joint Framework on countering hybrid threats: a European Union response [132] 		
2017		<ul style="list-style-type: none"> National Security Strategy [114] 	<ul style="list-style-type: none"> Hybrid CoE [113] OSCE OAS ACHPR UN Joint Declaration on Disinformation [133]
2018	<ul style="list-style-type: none"> Public Consultation [134] Eurobarometer 464 [122] HLEG Report [123] COM(2018)236 Tackling online disinformation: a European approach [124] JOIN(2018)16 Increasing resilience and bolstering capabilities to address hybrid threats [127] 1st Code of Practice on Disinformation [77] Rapid Alert System (RAS) JOIN(2018)36 Action Plan against Disinformation [4] 	<ul style="list-style-type: none"> Working Group on Disinformation in the Parliament (<i>Congreso de los Diputados</i>) 	
2019	<ul style="list-style-type: none"> Horizontal Working Party on Enhancing Resilience and Countering Hybrid Threats [129] 	<ul style="list-style-type: none"> Guide CCN-CERT [130] Permanent Commission against Disinformation [135] 	
2020	<ul style="list-style-type: none"> COM/2020/790 European democracy action plan [136] COM/2020/825 Regulation Digital Single Market services [126] INGE1 (EP) [137] 	<ul style="list-style-type: none"> Presentation on Disinformation and Fake News (Joint Commission) [138] 	
2021	<ul style="list-style-type: none"> COM(2021) 262 Guidance on Strengthening the Code of Practice on Disinformation [139] 	<ul style="list-style-type: none"> External Action Strategy (2021-2024) [140] National Cybersecurity Strategy [141] Procedure for Combating Disinformation [142] National Security Strategy [143] Expert Forum 	
2022	<ul style="list-style-type: none"> 2nd Strengthened Code of Practice on Disinformation [125] Media and Audiovisual Action Plan [144] INGE2 (EP) [145] Eurobarometer FL011EP [146] Digital Services Act, Digital Markets Act (prev. 2022) 	<ul style="list-style-type: none"> Forum against Disinformation Campaigns [147] 	<ul style="list-style-type: none"> Resolution HRC UN [148]

Source: the authors.

In reaction to the EU Disinformation Action Plan of December 2018, the National Security Council created an interministerial working group and an action procedure. The former included the Presidency of the Government (Department of National Security and the Directorate of Analysis and Studies) and the Ministries of Defence (CNI), Foreign Affairs (Directorate of Communication and Diplomatic Information), Interior (CNPIC) and Economy (State Secretariat for Digital Advancement). The Secretariat of State for

Communication in the Presidency became the Single Point of Contact (PoC) with the EU to coordinate the tasks of the group called the Permanent Commission against disinformation. In the second, an action procedure was drawn up in March 2019 to adapt the structure and operation of the fight against disinformation in Spain to that of the EU Action Plan.

In March 2019 the then Spanish Minister of Foreign Affairs, Josep Borrell, brought to the Council of Ministers a report on the phenomenon of disinformation and the global threat it posed to freedom and democracy [135]. The presentation explained the initiatives of the European Commission before and after the Action Plan against Disinformation approved by the Commission in December 2018, including the creation of the Rapid Alert System (RAS) among Member States and an inter-ministerial Permanent Commission against Disinformation in view of the electoral appointments of 26 May 2019 (in Spain, local elections throughout the country and numerous regional elections were called on that day, along with the elections to the European Parliament).

From then on, the Government began to adopt measures related both to the security of the electoral processes and to the fight against disinformation campaigns. The Government assumed that disinformation campaigns existed and that they sought to deliberately distort information in order to influence public opinion and achieve a specific purpose, as explained by General Ballesteros Martín in his appearance before the Joint Commission on National Security:

'[Disinformation campaigns] are nothing more than a set of acts or efforts that seek to deliberately distort reality in order to influence public opinion and to achieve a specific end. That is why those who work looking for and trying to detect disinformation campaigns know that fake news can be a symptom, but it is certainly not the key to detecting disinformation campaigns. To deal with disinformation campaigns, it is necessary to identify their origin –and here comes the difficulty of attribution–, their means of propagation, the extent of their dissemination and their purpose. The most common objectives usually pursued by disinformation campaigns can be divided into four groups. In the first group are those that pursue economic ends. In the second group are those that seek to discredit the credibility, trust or reputation of a State, an institution or an organisation, thus making it unstable and weak. In the third group are those that promote polarisation, which contribute to aggravate already existing tensions by introducing spurious content or exploiting an existing debate, trying to push positions to extremes. In the fourth group are so-called influence operations, which aim to undermine the reputation and national security of a state. They can be carried out by hostile actors, whether state or non-state, but can sometimes use proxy –even domestic– influence agents, even influence organisations, ie, a mix of hybrid influence and communication techniques, including espionage.' [41]

Following EU recommendations to protect elections [149], Spain set up a special cybersecurity device for the European Parliament elections in May 2019 despite the fact that its electoral system had not registered cyberincidents due to the fact that vote counting is done manually and that processing the results requires CCN-CERT certification. The device was led by the Secretary of State for Security, who coordinates the security of the electoral processes, with the cooperation in communications of the Secretary of State for Communications of the Presidency at La Moncloa and of disinformation at the Department of National Security. [150]

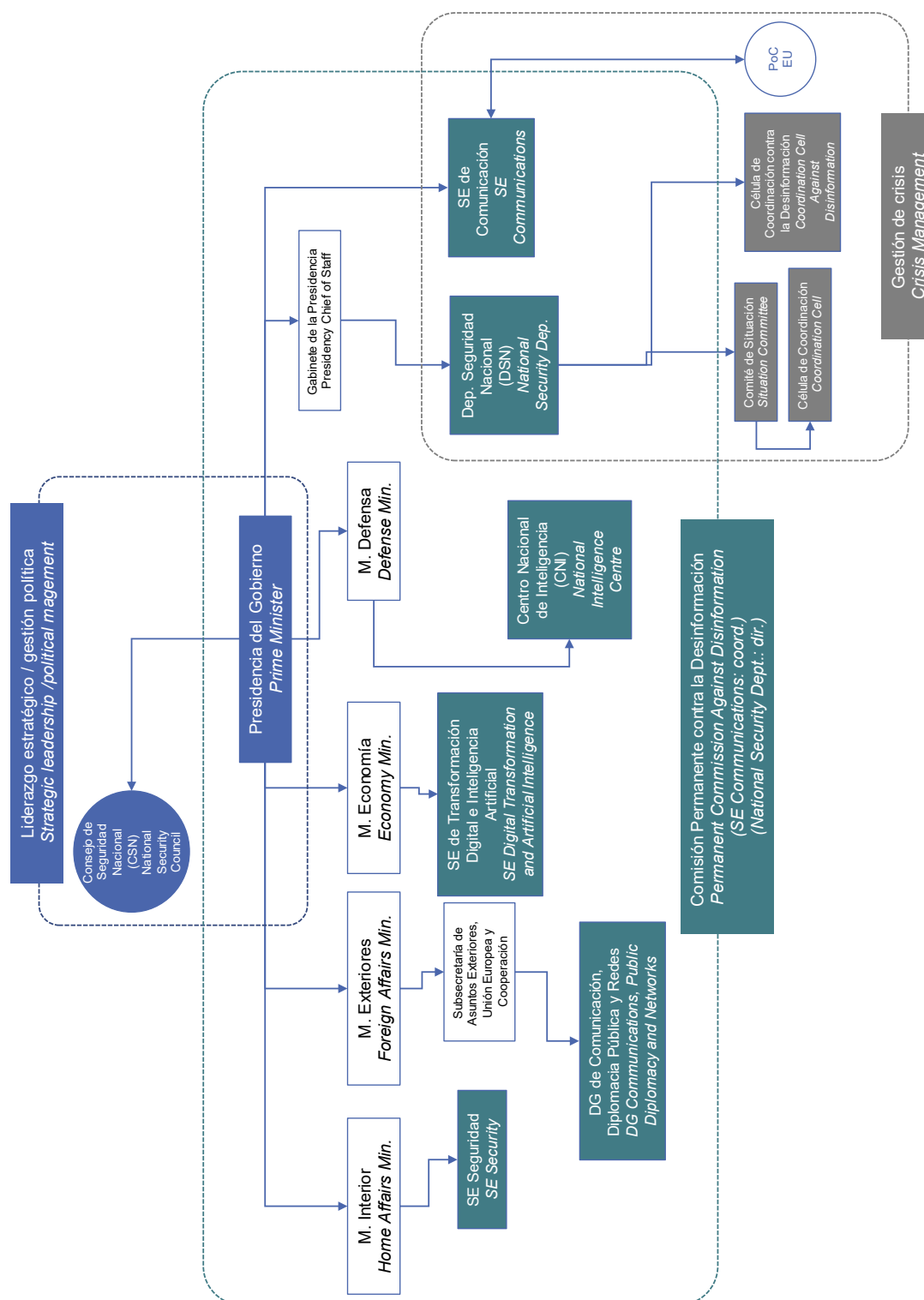
In his inauguration speech as Prime Minister in January 2020, Pedro Sánchez announced the creation of a national strategy to combat disinformation and recognised

the impact of fake news 'for the trust on which civil coexistence is based' [151]. A year later, in April 2021, the Ministry of Foreign Affairs included disinformation in its External Action Strategy 2021-24 as a governance challenge because it 'undermines democratic health and has a harmful impact on destabilising our societies and institutions' [140]. The strategy proposed strengthening the Spanish contribution to the fight against disinformation within the EU and NATO in coordination with the National Security Council.

Updating the procedure in 2020

But before the publication of the External Action Strategy 2021-24 in October 2020, the Government had already updated the procedure (designed in March 2019) to articulate a specific structure for fighting disinformation, different –but coordinated– with the one devoted to protecting electoral processes and involving the National Security Council, the Situation Committee and the Permanent Commission according to the organisation chart shown in Figure 2 [142].

Figure 2. Disinformation management in the Spanish government (2020)



Source: the authors.

The main actor in the fight against disinformation is the Permanent Commission against Disinformation, which is in charge of operational management under the coordination of the Secretariat of State for Communication, which coordinates the Government's strategic communication policy to counter disinformation campaigns and relations with the national and international media in alert situations (levels 1 and 2). In crisis situations (level 3), the Secretariat retains its coordinating functions, but management is the

responsibility of the Situation Committee supported by a Specific Coordination Cell on Disinformation (both from the Department of National Security). The National Security Council and the Situation Committee adopt the political response to a disinformation campaign by a third state (level 4).

Table 3. Levels of activation in the fight against disinformation (2020)

Level	Tasks	Involved actors
1	1. Monitoring and surveillance: detection and first analysis. 2. Early warning: immediate communication as soon as there is evidence of a possible disinformation campaign, either at the national level or through the EU Rapid Alert System (RAS). 3. Investigation of the possible origin, purpose and follow-up of the campaign.	- Secretary of State for Communications. - Department of National Security. - National Intelligence Centre. - Secretariat of State for Digital Transformation and Artificial Intelligence. - Coordination and Studies Cabinet State Secretariat for Security. - General Directorate of Communication, Public Diplomacy and Networks. The bodies that make up the Permanent Commission will designate for each level the body or organisation within their sphere of competence that will represent them.
2	Support in the decision-making process at the strategic level, assessment of consequences and impact, proposal of possible mitigation measures and interministerial coordination led by the State Secretariat for Communication.	- Secretary of State for Communication. - Coordination Cell for the fight against disinformation. - Permanent Commission against Disinformation.
3	Strategic and political management of aspects of the crisis and taking action under the framework for a joint response.	- Situation Committee.
4	Political management of the response to a crisis, and adoption of measures in the case of public attribution of a disinformation campaign to a third State.	- National Security Council.

Source: Ministerial Order PCM/1030/2020 [142].

At a lower level of the Permanent Commission are the Ministry of the Interior and the security forces, the National Police and the Civil Guard, because of their participation in the electoral processes and because they monitor networks to prevent and investigate acts of disinformation campaigns typified as a crime. The Ministry of Foreign Affairs, the European Union and Cooperation participates by collecting information from abroad on the campaigns and carrying out the measures adopted, through the General Directorate of Communication, Public Diplomacy and Networks. The Ministry of Economic Affairs and Digital Transformation is responsible for the adequacy of available digital services and liaises, through the Secretary of State for Digital Transformation and Artificial Intelligence, with the industrial and academic sectors. Completing the list of actors are the National Intelligence Centre, which contributes to the prevention, detection and neutralisation of risks, and the Department of Homeland Security, which integrates the available information to make decisions.

The activation of each of the actors depends on the level of the situation of each campaign and some of them may involve, in addition to the competent authorities, the media, the private sector and civil society. In the above organisation, the intervention of experts from civil society is foreseen if it is considered relevant and according to the level of action [142]. In addition, the Commission opened the door to greater private participation in 2018, when it convened a working group including the large platforms, verifiers and experts to draft a Self-Regulatory Code, emulating the one previously drafted by the industry sector. Subsequent to the adoption of the Performance

Procedure, the Department of Homeland Security created an expert group that later became a public-private regulated group for updates and consultation on disinformation campaigns.

The National Intelligence Centre (CNI) assigned the monitoring of systematic and malicious disinformation campaigns to its Digital Observatory. The Observatory developed a tool (known as ELISA, Simplified Open Source Study) to monitor Internet sites suspected of fostering such campaigns against globalisation, institutions and their leaders, diversity, evidence and scientific thought [152-154]. The tool was partially available to experts from 2019 but from 2021 it was restricted and its reports are since then forwarded only to the Permanent Commission against Disinformation.

According to the Procedure adopted in 2020, it is up to the Permanent Commission to monitor and evaluate online disinformation campaigns, investigate their origin and propose to the National Security Council a response. Both the CNI and state law-enforcement agencies coordinate with their European and national counterparts to fight disinformation, a response structure that will eventually be developed in the announced Strategy for Combating Disinformation Campaigns in the field of national security.

The European Democracy Action Plan 2020

In December 2020 the EU brought together many of its concerns in the agenda for strengthening democracy in the European Democracy Action Plan [136], with three main axes: encouraging electoral participation, strengthening media freedom and pluralism, and countering disinformation. To this end, the European Democracy Action Plan set out nine specific measures on disinformation [136]:

1. Develop the EU's toolkit to counter foreign interference and influence operations, including new instruments to impose sanctions on those responsible, and strengthen the EEAS's strategic communication activities and taskforces.
2. Establish a new protocol to strengthen existing cooperation structures to combat disinformation, both within the EU and internationally.
3. Develop a common framework and methodology for gathering systematic evidence on foreign interference and a structural dialogue with civil society, private industry actors and other stakeholders to periodically review the threat situation.
4. Increase support for capacity building support for national authorities, independent media and civil society in third countries to detect and respond to disinformation and foreign influence operations.
5. Issue guidance setting out objectives to strengthen the Code of Best Practices on disinformation.
6. Convene signatories to the Code of Best Practices and relevant stakeholder groups to strengthen the Code in accordance with the guidance.
7. Establish an ongoing framework for monitoring the Code.
8. Support new innovative projects to combat disinformation under various EU programmes, in particular by civil society organisations and higher education institutions, involving journalists.

9. Increase support and funding and diversify initiatives, including those by civil society organisations, to promote media literacy and help citizens recognise disinformation, within and outside the EU.

The European Parliament then decided to set up 'a special committee on foreign interference in all democratic processes in the European Union, including disinformation' [137, 145], called INGE (October 2020-March 2022). In its final report, adopted in the form of a resolution by the European Parliament in March 2022 [145], the INGE insists essentially on the same principles (the need for coordination even at the global level, the reinforcement of media plurality and independence, and support for media literacy), but also asks the Commission 'to propose, and the co-legislators and Member States to support, a coordinated and multi-scale cross-sectoral strategy' [145]. The Parliament constituted, in March 2022, a new INGE (called INGE 2, at the end of the mandate of the previous one) to continue the work carried out, taking into account the new geopolitical context and with the European elections of 2024 in mind [155].

In June 2020 and on the occasion of the presentation of the Annual National Security Reports for 2019-20-21 [156-158], the then Director of the Cabinet of the Presidency of the Government, Iván Redondo, acknowledged the daily existence of disinformation and subversion operations to alter political and social processes and discredit institutions and elections:

'On a daily basis, we also register disinformation and subversion operations aimed at mobilising and driving public opinion to extreme positions, and thus destabilising and discrediting the institutions that sustain the political regimes of liberal democracies.

'Thirdly, in a very particular way, hybrid threats and disinformation have also become elements of priority attention; as, for example, the need to protect the integrity of the European, national and regional electoral processes held in May 2019.' [159]

At the hearing, the Director of the Prime Minister's Office maintained the association between disinformation and fake news, and the differences on the role that governments should have in determining what is true and what is not were highlighted. While the update of the National Security Strategy was announced –which indeed took place a few months later [143]–, no allusion was made to the announced specific strategy on disinformation.

The widespread misunderstanding of the phenomenon and the lack of political awareness of it generated a political debate that associated the Government's initiatives in the fight against disinformation, which was a phenomenon already coined at the European level, to the fight against fake news that had a domestic scope and aggravated political confrontation. In the absence of a clearer delimitation of the concept, differentiating fake news from the broader concept of disinformation, the government's initiatives were understood to be aimed at protecting the government's reputation rather than preventing the impact of foreign campaigns on the country's reputation. And this despite the fact that the 2021 National Security Strategy explicitly stated that:

'Disinformation campaigns have a clear impact on National Security and must be differentiated from other factors such as false information –fake news or disinformation-misinformation–. In fact, disinformation campaigns do not necessarily contain false news, but aim to distort reality through manipulated content.' [143]

The debate was partly substantiated in the Panel for the study of the phenomenon of disinformation and 'fake news' with disruptive effects on society [138], set up within the

Joint Commission on National Security for the study of information and news in December 2020 –which continues to hold consultative meetings in 2022– [160].

From the Action Procedure to the Forum against Disinformation Campaigns of 2022

In November 2020 the National Security Council approved the Procedure for Action against Disinformation [142]. Its purpose was to bring the national procedure and organisation in line with EU developments, identify bodies and functions, establish levels of action and mechanisms for information exchange and management evaluation, as well as the development and revision of a national strategy for combating disinformation.

We will come back to this issue later, but what really reveals the political impact on the fight against disinformation is the political, social and media contestation of the ministerial order –the conservative media began talking about a 'Ministry of Truth' [161, 162]–. As will be detailed in the case study, its unilateral preparation, without the participation of all the actors concerned, and its executive presentation, without an adequate communication strategy, generated the undesired political effect of uniting all possible adversaries against the measures adopted.

To mitigate them, as far as possible, the National Security Council was forced to invoke private cooperation for the formation of an informal group of experts from civil society to delimit the perimeter of the fight against disinformation in which the approved procedure should be carried out. Cooperation was not only limited to the matters outlined in the case-study below –taxonomy, choices, regulatory framework and strategy– but the National Security Council gave the public-private group a formal and permanent character in May 2022, calling it the Forum Against Disinformation Campaigns [147], to remedy the original sin, which demonstrates the importance of political and social sensitivity in relation to measures to combat disinformation.

3.1.2 From detection to the fight against disinformation in Spain

From these actors, we can understand how disinformation is detected and acted against in Spain today. The procedure for combating disinformation in Spain [142] assigns responsibilities to actors of a very different nature: to the central government as described above, to the other public bodies with responsibilities in this area, and also to the private sector and civil society:

'The media, digital platforms, the academic world, the technology sector, non-governmental organisations and society in general play an essential role in the fight against disinformation, with actions such as identifying and not contributing to its dissemination, promoting awareness-raising activities and training or developing tools to prevent its spread in the digital environment, among others.' [142]

We can be more precise and differentiate between different types of actors in the digital and information ecosystem: civil society, the private sector and public authorities, at their different levels and responsibilities.

Citizens

The first line of defence against disinformation is, undoubtedly, in the ultimate recipients of it: the citizens. And for this it is essential to know the degree of alertness that Spaniards have, in the European context, about disinformation.

In March 2018, 84% of Spanish respondents considered false or altered information to be a problem for democracy (second in the EU after Cyprus, the European average being 83%) [122]. Up to 74% totally trusted or tended to trust news in the media (70% being the European average), of which 65% trusted the press, 57% trusted television, 47% the

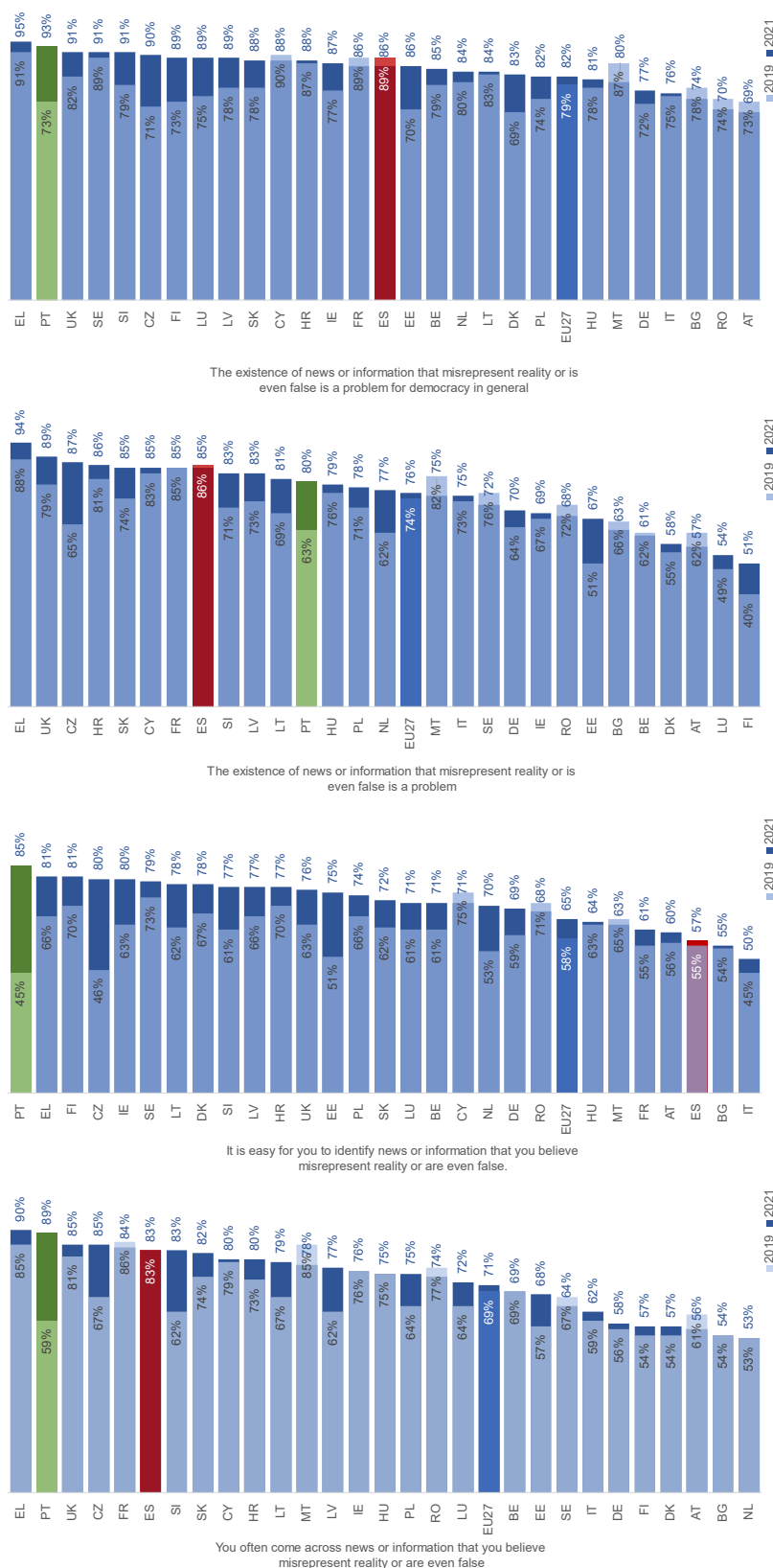
digital press and 24% internet videos [122]. Seventy-eight percent of respondents claimed to encounter fake news often or always, the highest European proportion, with 68% being the EU28 average [122]. They were also the least able to identify such news (at 78%, with the European average being 71%) [122]. Spain shows in these figures one of the greatest concerns among EU countries for a situation for which respondents attributed responsibility to the national authorities (at 51%, the second highest value in the EU) [122].

In November 2018 Spaniards were the most concerned in the EU, at 77% (with a European average of 68%); broken down, the possibility of electoral fraud was at 67% and of cyberattack at 74% (compared with a European average of 61% and 59% respectively) [163]. Spain also ranked first in the concern of third-party influences on voters, at 71% versus a European average of 56% [163]. Spain also ranked first in Europe in relation to the possibility of manipulation of the final result (74%), vote buying and selling, coercion of voters (71%) and vote duplication (64%) [163]. 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%) [163]. Finally, 35% did not trust social networks to follow electoral debates, a perception that is amongst the highest in Europe, along with France, Cyprus and Greece [163].

In autumn 2019 EU surveys showed that nearly three out of four Spanish citizens (73%) distrusted social networks, 83% claimed to often encounter news that distorted reality or was false and 89% believed that news that distorted reality or was false posed a problem for democracy in general [164].

In January and February 2022 the Eurobarometer continued to confirm that Spanish respondents (81%) often found false news in the media, that 54% believed they were able to identify disinformation and that disinformation was a problem for the country and for democracy (82%). They were also among the most distrustful of the media across the EU, especially with respect to social networks (72%), the Internet (64%), television (65%), print (56%) and radio (48%) [165].

Figure 3. Perceptions of disinformation in the EU (2019-21)



Source: Eubarometer [164, 166].

In addition to the European opinion surveys, the Spanish Sociological Research Centre (CIS) asks Spaniards in its monthly barometers what they consider the country's main

problems to be. Disinformation did not enter among the spontaneous responses until February 2022: information manipulation and the spread of hoaxes concerned 2.4% of respondents (1.7% in March and 2% in April) [167-169]. The CIS does not ask about disinformation as a problem, but about what problems worry Spaniards, expressed spontaneously, hence the differences in the figures.

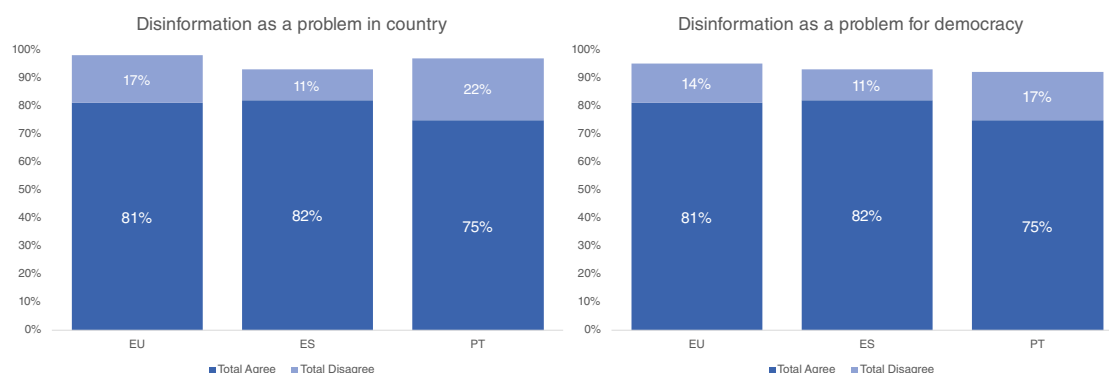
The perception of disinformation as a risk transcends the States, and the various national and international sociological surveys carried out in recent years show a growing social and individual concern about disinformation. In the Flash 464 Eurobarometer of April 2018, 88% of respondents considered disinformation to be a problem both in Spain and for democracy in general [122]. The same poll reveals the lack of knowledge and confusion of Spanish respondents about disinformation, since, on the one hand, they admit a limited ability to detect fake news and information (55% of respondents, the lowest in the entire EU, compared with a European average of 71%) and, on the other hand, they declare detecting fake news above the European average (53% believe they detect fake news daily compared with a European average of 37%). The question has been incorporated into the standard Eurobarometers of 2021 and 2022, and in general there is a decrease in the social concern about disinformation, both in Spain and in Europe.

Table 4. Perception of disinformation as a problem in Eurobarometer surveys (2018, 2020 and 2021)

The existence of news or information that misrepresents reality or is even false is a problem in (OUR COUNTRY)			
	Fully Agree		
Eurobarometer nr.	EU	ES	PT
2018 (EB464)	85%	88%	84%
2021 (EB94)	76%	85%	80%
2022 (EB96)	78%	82%	69%
The existence of news or information that misrepresents reality or is even false is a problem for democracy in general			
	Fully Agree		
Eurobarometer nr.	EU	ES	PT
2018 (EB464)	83%	88%	82%
2021 (EB94)	82%	86%	93%
2022 (EB96)	81%	82%	75%

Source: Eurobarometer 464, Eurobarometer 94, Eurobarometer 96 [122, 165, 166].

Figure 4. Perception of disinformation as a problem in the Eurobarometer (2021)



Source: Eurobarometer 96 [165].

Other international studies reinforce these data. For example, Avaaz's 2021 report [170] on Facebook disinformation campaigns highlights that Spain presents a small number of suspicious pages and profiles on Facebook. The 2018 Digital News Report chapter on Spain shows that only three out of 10 digital users are aware that algorithms select the news that appear on Facebook [171]. It reiterates the aforementioned perception that 69% of Spanish Internet users have difficulty discriminating false from true information.

Media and platforms

The second central piece in the detection and fight against disinformation are the mediators of information, ie, the media (in the old information ecosystem) and the platforms (in the new one). As professionalised organisations, the media have access to hundreds of thousands of information sources, increasingly digital, and in that task of 'gatekeepers' (guardians of content) attributed to them by the sociology of the 1950s, they are in a privileged position to identify misleading messages, fake news and disinformation campaigns. It is not surprising that the European Commission's Action Plan against Disinformation [4] insists on supporting 'independent media and quality journalism' to which the Commission gives a central role: 'democracy in the European Union depends on the existence of free and independent media'.

'Favouring the availability of reliable information': this is how the European Commission and Parliament expressed themselves in the revision of the Directive on copyright and related rights [172] when justifying the need to regulate the relationship between news producers and digital platforms, recognising to 'press publications' –electronic or on paper– the reproduction and communication rights enjoyed by artists, performers or producers, one of the major problems faced by the media sector in the last two decades of digital change [173]. The modification of European copyright legislation is one of the many moves that the EU has made in recent years to try to protect the business model of traditional media, overtaken by technological transformation and the new mediations –also in access to advertising funding– established by search engines and social networks. As the Council recalled, 'media service providers invest in the production of content and are subject to strict responsibilities, while online platforms, which provide access to third-party content, often monetise it without having to comply with the same obligations' [174].

Behind this EU movement is, as in many others, the awareness of the importance of the media in the production of reliable current affairs information and, therefore, in the fight against disinformation. It should not be forgotten that the European Democracy Action Plan, in 2020, summarised its objectives in three: promoting free elections, countering disinformation and supporting free and independent media [136]. In 2020 the Council Conclusions on safeguarding a free and pluralistic media system [174] invited Member States to 'provide an adequate and independent framework for the economic sustainability of the national media landscape' and to 'provide additional support for the recovery of the media sector'.

To this end, the Commission launched at the end of 2020 'Europe's Media in the Digital Decade: An Action Plan to Support Recovery and Transformation' [175], which includes support measures from the EU and the Member States for the media sector. At the European level, the Creative Europe programme launched in 2021 the News-Journalism Partnership programme for the funding of media innovation projects [176]. The Commission implemented the NEWS initiative with funding actions (through InvestEU and, above all, the new Media Invest, with €400 million [177]) and funding for media, actions to stimulate the European circulation of content [178] and training, a total of 10 major objectives to be developed from 2021 and 2022 [144]; finally, at the national level, a minimum investment of 20% in the digital sector was promoted by the state plans for recovery and resilience –which, in fact, exceeded that figure and reached 26% according to EU data, or 28% in Spain's case–.

The other central actors in the fight against the spread of disinformation are the global content platforms, the new gatekeepers of the content that reaches citizens. These global actors have played a leading role in the convergence of telecommunications, data and cultural content, intertwining hardware and software and channelling the social transformation dubbed the 'information society' in recent decades. Its economic dimensions –in 2021 four of the five largest companies in the world by share price were digital platforms [179]– and its influence on all spheres of human activity have led to talk of risks to 'digital sovereignty', given that 'as a whole, the EU currently accounts for only 4% of the total market capitalisation of the largest online platforms and that the vast majority of them originate in the United States and Asia' [180]. Germany set digital sovereignty as a central objective of the EU during its six-month presidency of the Council in 2020:

'We therefore want to establish digital sovereignty as a leit-motiv of European digital policy and, during our Council Presidency, to work together on responses for approaching technical developments such as artificial intelligence and quantum technologies to ensure that, in the context of fair competition, we increase our prosperity, protect our security and uphold our values.' [181]

We choose to speak of 'digital platforms' (and not portals, media or social networks, or online marketplaces) to understand them as "'two-sided" or "multi-sided" markets where users are brought together by a platform operator in order to facilitate an interaction' [182]. The EU has been using five categories in the online platform sector [183]:

- a. E-commerce marketplaces
- b. Online application stores
- c. Online search engines
- d. Media platforms and social networks
- e. Online media platforms

Although the app stores may have a direct connection with the content that these apps offer, it is the last three categories that are most obviously related to the distribution of content through the networks and, therefore, the ones that matter most to us here. All the major global companies are active in the EU, and all have a presence in Spain, although the penetration of their products and services is very diverse. The large companies that manage platforms based on the mass or personalised dissemination of content (information, entertainment or advertising) are a very small group.

Table 5. The major digital platforms and their services (2022)

	e-commerce marketplaces	online application stores	online search engines	social media platforms	online media platforms
Alphabet	Shopping	Play	Google	YouTube	YouTube News Network
Apple	Store	iOS AppStore	-	-	iTunes Music News+
Microsoft	Store	App Store	Bing	Skype LinkedIn	Advertising
Amazon	Amazon	Appstore	-	Twitch	Twitch Prime Music
Meta	-	-	-	Facebook Instagram WhatsApp Messenger	-
Twitter	-	-	-	Twitter	-

	e-commerce marketplaces	online application stores	online search engines	social media platforms	online media platforms
Bytedance	-	-	-	TikTok Douyin Xigua Video Party Island	Toutiao Xigua Video
Tencent	-	-	Sogou	QQ Wechat	-
# Spain	1. Amazon 2. Aliexpress 3. El Corte Inglés	1. Google Play 2. AppStore 3. -	1. Google 2. Bing 3. Yahoo	1. WhatsApp 2. Facebook 3. Instagram	1. YouTube 2. Wikipedia 3. Marca

Simplified list of services, not intended to be exhaustive. In the content platforms, social networks and search engines have been excluded.

Source: the authors, based on various sources.

- a. Alphabet Inc. is the name of the US company that manages several content platforms, especially the Google search engine –with news services such as News–, the video portal and social network YouTube, and the advertising platform Google Network (AdMob, AdSense and AdManager). The company generated revenues of US\$257 billion in 2021 [184] and its market value is around US\$1.5 trillion [179]. Although Google has an office to manage its activities in Spain, all its European activity is for legal and tax purposes based in Ireland. In Spain, Google's search engine holds 96% of the search market, reaching 99% in searches from mobile devices [185], and its video social network YouTube reaches 21 million users [186].
- b. Meta Platforms Inc. is the US parent company of platforms such as Facebook, Messenger, Instagram and WhatsApp (the company's Family of Apps division), used by 2.82 billion people daily in 2021 according to Meta's annual data [187]. The company had worldwide revenues of US\$118 billion in 2021, has a stock market value of US\$0.5 trillion dollars [187] and its European subsidiary, Meta Platforms Ireland Ltd is based in that country. Facebook has around 21.7 million users in Spain (which is slightly less than half of the country's population) and Instagram 24 million; with 35.8 million users, WhatsApp is the most used messaging service in Spain –more than in the rest of Europe [146]–, followed by Facebook Messenger [188].
- a. The US-based Microsoft Corporation also has a search portal, Bing, which has its own news service that aggregates content created by the media and a professional social network of importance in certain regions of the world, LinkedIn, in addition to the Skype messaging program and the Microsoft Advertising platform for managing advertising in its services. The company reported revenues of US\$168 billion [189] in 2021 and reached a stock market value of US\$2 trillion [179] last year. LinkedIn has around 15 million profiles in Spain [188], while Bing searches account for only 2.75% of the total in the country [185].
- b. Amazon Inc. is probably the best-known reference in online commerce throughout the Western world, but it is also active in social media, following the acquisition of Twitch in 2014, and in on-demand audiovisual content with its Prime service. The company had a turnover of US\$470 billion in 2021 and operates in Europe through three subsidiary companies in Ireland and Luxembourg [190]. The company's stock market value is around US\$1.5 billion [179].
- c. Twitter Inc. is a US platform that manages the social network of the same name. Its revenues in 2021 were €5 billion and it has a subsidiary company for its activity

in Spain, Twitter Spain SL [191]. The number of Twitter users in Spain is around 4.2 million [188], out of an estimated 322 million global users [192].

- d. Tiktok, owned by China's ByteDance, is one of the social networks on the rise in recent years, and has reached around 15.5 million users in Spain in 2021 [188]. Other important social networks in other territories have a low penetration in Spain, such as Russia's Telegram, China's WeChat, the US's Snapchat and Signal, or the decentralised social networks Discord and Mastodon.
- e. Other technology giants such as Apple –which exceeded US\$2.6 trillion in stock market value in 2021 [179]– do not specifically manage platforms related to content or social networks. Apple offers a news aggregation service, Apple News+, which works as a media subscription system but is not available in Spain [193].

The services provided by the platforms intertwine public and private spaces in new modalities that fragment the public sphere in ways that traditional media had not been able to explore until now. We understand that there are up to three forms of content dissemination by platforms:

- a. The dissemination of content accessible to all network users, regardless of whether or not they are users of the services. This first category mainly comprises the world wide web, whose contents can –in general– be consulted by anyone, and also checked by any verifier.
- b. Social networks, ie, the use of technological networks to enable the creation of communities of common interests that share content (the so-called 'web 2.0') that may or may not be accessible to all users or only to a few.
- c. Messaging systems, which allow both communication between one user and another (point-to-point, like traditional telecommunications) and the aggregation of users to create groups or communities that can interact with each other or be recipients of messages sent collectively.

This differentiation is relevant from the starting point, because disinformation strategies that use public space have, in principle, access to larger potential audiences, but they can also be more quickly detected, combated and countered. When disinformation circulates on social networks or messaging services, content can be restricted to very small groups of people (the so-called microtargeting), which makes it much more complicated to detect and combat these strategies. This is the reason why, while it is easy to check the information disseminated by certain media outlets through public tools such as the web –as with, for instance, Russia's *Sputnik*– knowing what information these same agents disseminate through social networks requires the cooperation of the platforms themselves and of the users who receive such content and can report its circulation.

Table 6. Public space, accessibility and platforms: typologies

		Public space	Restricted public space	Communities or interest groups	Dissemination limited to selected groups	Private
Media	Digital media	Main	Yes (subscription)	Yes (communities)	Push services, alerts, notifications	No
Social networks	Facebook	Yes	Main	Yes	Yes	Yes
	Youtube	Main	Yes	Yes	Yes	Yes
	Instagram	No	Main	Yes	Yes	Yes
	Twitter	Main	Si	Yes	Yes	Yes
Messaging	WhatsApp	No	No	Yes	Yes	Main
	Facebook Messenger	No	No	Yes	Yes	Main

	Public space	Restricted public space	Communities or interest groups	Dissemination limited to selected groups	Private
Telegram	No	No	Yes	Yes	Main
	<i>Pull</i>	<i>Pull</i>	<i>Pull</i>	<i>Push</i>	<i>Push</i>
Access to content	<i>Content can be consulted without being a user of the service or network</i>	<i>Content can be consulted by all users of the service</i>	<i>Content can only be consulted by members of the group</i>	<i>Content can only be consulted by recipients</i>	<i>Content can only be consulted by recipients</i>
User accessibility	<i>Anyone</i>	<i>Any user</i>	<i>Any invited user</i>	<i>Selected users</i>	<i>Selected users</i>
Content creation	<i>Media</i>	<i>Media and users</i>	<i>Media and users</i>	<i>Media and users</i>	<i>Users</i>
Main form of communication	<i>One to many</i>	<i>One to many</i>	<i>One to few</i>	<i>One to few</i>	<i>One to one</i>

Source: the authors.

Each platform has specialised services and brands according to the type of content or target audiences. Meta, for example, has a social network, Facebook, whose dominant content is that created by users to be disseminated amongst their communities of contacts (the so-called 'friends'); in 2012 it acquired *Instagram*, whose main content is photographs and videos disseminated among its community of users or in interest groups; in 2014 it acquired WhatsApp to have a messaging application whose content is predominantly personal or group messages. Google owns one of the largest social networks in the world, Youtube, dedicated to the free and paid broadcasting of video content (and, since 2015, also streaming music). Given that Youtube's advertising-based funding model means that millions of video contents are accessible to anyone, even without being a user of the platform, its communication model (one-to-many) resembles that of traditional media, but as a social platform it allows different degrees of interaction between its users, including direct and private messaging between them. Another platform that offers hybrid features is Twitter, because many of its contents can be consulted by any citizen, even if not a user of the service, and its dominant form of communication is the mass dissemination of contents (in this case, text messages of limited length accompanied or not by multimedia content), although it also allows the dissemination of messages to specific groups or personal messaging between users.

In the case of Spanish users, the employment of social networks and messaging is due to very diverse reasons. The recent Eurobarometer survey [146] provides some clues about the most common functions and the specialisation of the use of certain networks. WhatsApp is used, above all, for personal messages and news monitoring, Facebook for messaging and multimedia content, and Twitter for news monitoring. In any case, in Spain more than 40% of the users of each network use them to follow news, which is very close to the European average of 44.8% of users who follow the news through the various social networks.

Table 7. Reasons for the use of social networks over the past week in Spain (2022)

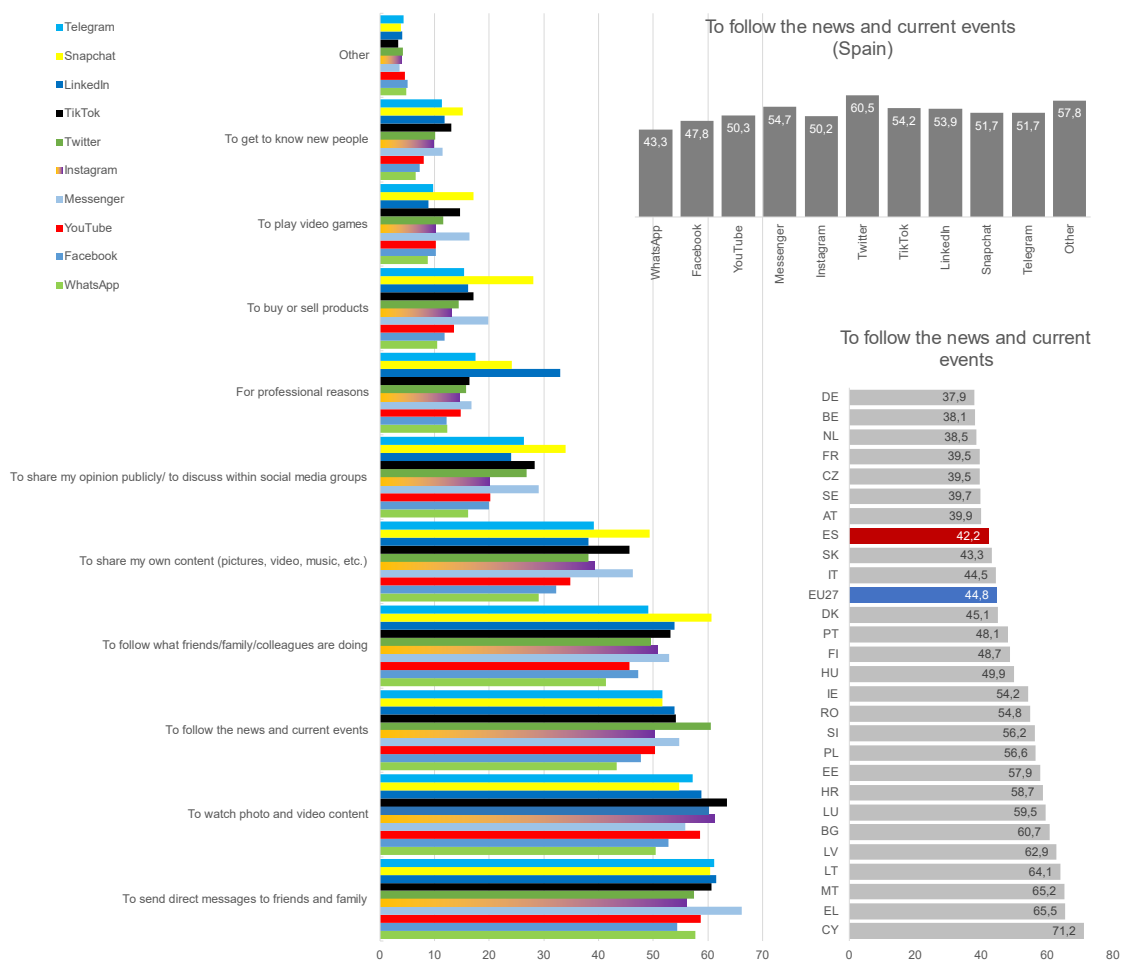
	WhatsApp	Facebook	YouTube	Messenger	Instagram	Twitter	TikTok	LinkedIn	Snapchat	Telegram	Other
To send direct messages to friends or family	57.7	54.4	58.7	66.2	56.1	57.4	60.6	61.5	60.4	61.1	68.2
To watch photo and video content	50.4	52.8	58.6	55.9	61.3	60	63.5	58.8	54.8	57.2	59

	WhatsApp	Facebook	YouTube	Messenger	Instagram	Twitter	TikTok	LinkedIn	Snapchat	Telegram	Other
To follow the news and current events	43.3	47.8	50.3	54.7	50.2	60.5	54.2	53.9	51.7	51.7	57.8
To follow what friends/family/colleagues are doing	41.4	47.2	45.6	52.9	50.7	49.6	53.2	53.9	60.7	49.1	50.9
To share own content (pictures, video, music, etc)	29	32.3	34.8	46.3	39.2	38.2	45.6	38.1	49.4	39.1	33
To share opinions publicly/ to discuss within social media groups	16.2	20	20.2	29.1	20.1	26.9	28.3	24	34	26.4	21.7
For professional reasons	12.3	12.2	14.8	16.8	14.6	15.8	16.4	33	24.1	17.5	18.5
To buy or sell products	10.5	11.8	13.6	19.8	13.1	14.4	17.1	16.1	28.1	15.4	15.8
To play video games	8.8	10.2	10.2	16.4	10.1	11.6	14.7	8.9	17.1	9.8	19.1
To get to know new people	6.6	7.3	8	11.5	9.7	10.1	13.1	11.8	15.2	11.3	17.5
Other	4.8	5.1	4.6	3.6	4	4.2	3.3	4.1	3.8	4.4	19.7

Q8 For which purpose(s) did you use online social networks in the last 7 days?.

Source: Eurobarometer, 2022 [146].

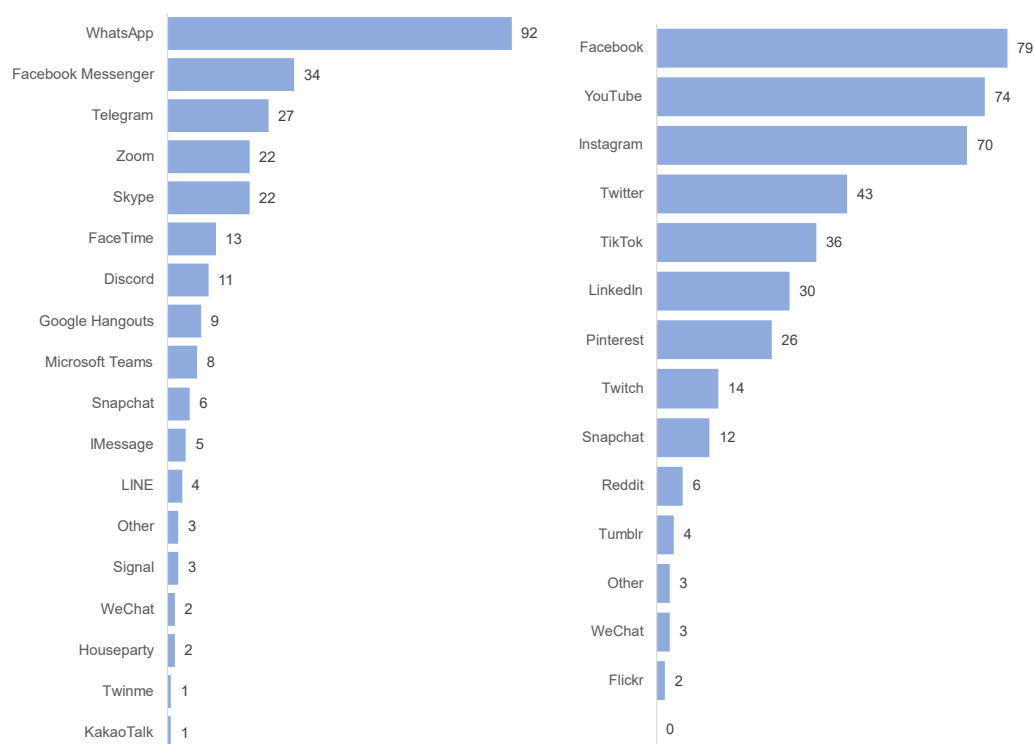
Figure 5. Reasons for the use of social networks over the past week in Spain (2022)



Q8 For which purpose(s) did you use online social networks in the last 7 days? Detail of use of social networks for accessing news by country.
Source: Eurobarometer, 2022 [146].

The penetration of platforms and their services varies widely from one country to another. In some cases, due to limitations imposed by national governments. As is well known, China does not allow its citizens to use Google or Meta services; Russia promotes the use of local services such as Yandex or Ok.ru; in other countries, the strategies of each of the platforms have promoted their products, achieving different penetrations in different markets. In Spain, Meta's dominance is very significant in both messaging services and social networks.

Figure 6. Messaging and social networking services market in Spain (2022)



Percentage of users of these services that use each of them.
Source: Statista Global Consumer Survey 2022 [194].

The use of social networks for access to news and the very restricted nature of access to content disseminated by social networks by non-users makes it essential to cooperate with platforms to monitor content and disinformation strategies circulating on social networks. The task of the platforms does not take place in collaboration with national governments –with which they may have additional formal or informal channels of cooperation– but directly with the European Commission through the Self-Regulatory Code and the periodic reports submitted by the subscribing platforms. The current 2022 Enhanced Code is heir to the first EU Code of Practice on Disinformation [77], which in turn had as its predecessor the Code of Conduct on Countering Illegal Hate Speech Online signed by the European Commission with Facebook, Microsoft, Twitter and YouTube in 2016 [195].

Table 8. Signatories to the 2018 European Code of Practices

Media and media groups	Fact-checkers	Software and digital services companies	Professional organisations and associations	Others
-	-	<ol style="list-style-type: none"> 1. Facebook 2. Google 3. Microsoft 4. Mozilla Foundation 5. TikTok 6. Twitter 	<ol style="list-style-type: none"> 1. Association des Agences Conseils en Communication (AACC) 2. Asociace Komunikačních Agentur (AKA) 3. European Association of Communication Agencies (EACA) 4. European Digital Media Association (EDiMA) 5. Goldbach Audience 6. IAB Europe (Interactive Advertising Bureau Europe) 7. Kreativitet & Kommunikation 8. Stowarzyszenie Komunikacji Marketingowej (SAR) 9. Union of Belgian Advertisers (UBA) 10. World Federation of Advertisers (WFA) 	-

Numbered and organised into categories for readability.
Source: European Commission [196].

At the time of writing, only one Spanish-based organisation has signed the new 2022 code: Maldita.es [197].

Table 9. Signatories of the 2022 Enhanced European Code of Practice

Media and media groups	Fact-checkers	Software and digital services companies	Professional organisations and associations	Others
<ol style="list-style-type: none"> 1. Avaaz Foundation 2. Clubhouse 3. Seznam 	<ol style="list-style-type: none"> 1. Demagog Association 2. Maldita.es 3. Faktograf 4. Logically 5. Newsguard 6. Pagella 6. Politica/Facta News 	<ol style="list-style-type: none"> 1. Adobe 2. Bright App 3. Crisp 4. Google 5. Kinzen 6. MediaMath 7. Meta 8. Microsoft 9. Neeva 10. TikTok 11. Twitch 12. Twitter 13. Vimeo 	<ol style="list-style-type: none"> 1. DOT Europe 2. European Association of Communication Agencies (EACA) 3. Global Alliance for Responsible Media 4. IAB Europe (Interactive Advertising Bureau Europe) 5. Creative & Communication 6. RSF 7. VOST Europe 8. World Federation of Advertisers (WFA) 	<ol style="list-style-type: none"> 1. Globsec 2. Newback 3. Who Targets Me

Numbered and organised into categories for readability.
Source: European Commission [197].

In this monitoring task, most platforms work with verifiers (which we will discuss in more detail below) to check the veracity of the contents. Google integrates the news tested by the verifiers in a tool called Fact Check Explorer [198] that allows any user to search for information related to any topic and links them to the analyses published by the verifiers, and also uses a content tagging tool, ClaimReview, to make it easier for websites to tag content that can be checked by the search engine. Since 2017 Google has been performing this task with verifiers endorsed by the International Fact-Checking Network (IFCN) of the US-based Poynter Institute to [199-201].

All platforms in the Meta group –Facebook, Instagram and WhatsApp– use the company's External Verification of Information Program [202]. Facebook started using its own system to determine whether news stories were unreliable (the so-called 'Disputed Flags' created in 2016) but moved since 2018 to entrust that task to external verifiers [203, 204]. Facebook launched its verification program for Spain in 2019 with AFP, Newtral and Maldita.es [205] –joined in 2020 by EFE Verifica [206]– based on its three-point strategy to fight disinformation: remove accounts that do not meet the network's standards; reduce the distribution of fake news; and offer complementary information to users about fake or dubious news [207, 208]. WhatsApp, for example, offers the possibility of contacting four verifiers in Spain through its application to check news or messages that the user has received [209]. Meta's External Information Verification Program works in Spain with AFP España (both in Spanish, AFP Factual, and in Catalan, AFP Comprovem), EFE Verifica, Maldita.es and Newtral [202, 210]. The Meta program and its platforms are currently, according to IFCN data, the main source of income for this network of verifiers [211].

Table 10. Verifiers associated with WhatsApp in Spain (2022)

Fact-checker	WhatsApp phone number	Message (translated to English)
AFP Factual	+52 (1) 55 7908 2889	The AFP fact-checking team has been in existence since 2017. Here you will find the fact-checking in English
EFE Verifica (Agencia EFE)	+34 648 434 618	EFE Verifica, EFE's data verification service
Maldita.es	+34 644 229 319	Send us the hoaxes you receive and we will verify them! If you want to know more: buloscoronavirus.es
Newtral	+34 627 280 815	Welcome to the Newtral.es verification channel. If you receive a message and you doubt its veracity, please send it to us

Source: Meta-WhatsApp [209].

The avalanche of fake news during the global pandemic in 2020 led more platforms to cooperate with verifiers to address the difficulty of tagging all circulating information. TikTok started working with four verifiers in 2020, and today it does so with Agence France-Presse (AFP), Animal Político, DPA Deutsche Presse-Agentur, Estadão Verifica, Facta, Lead Stories, Logically, PolitiFact, Science Feedback and Teyit [212, 213]. The last of the large global platforms to make the decision to work with verifiers has been Twitter, which announced in August 2021 the signing of an agreement with AP and Reuters to start a pilot programme working with the Twitter Curation team [214-216]. In October 2022 Twitter announced an agreement with AFP to review the network's content in Spanish in Latin America, the US and Spain. Microsoft, however, opted for the review of content on Bing or LinkedIn through its own technologies and its team of curators, in addition to extending its cooperation with NewsGuard and incorporating *ClaimReview* markup to its search engine results [217, 218].

The emergence of fact-checkers

As we have seen, the growth of the phenomenon of disinformation and fake news has led to the appearance in the last decade of a new actor in the information ecosystem:

the fact-checkers. These organisations were born as a self-regulatory reaction partly from academic research, partly from certain media, at the beginning of this century, with FactCheck.org (founded by Brooks Jackson and Kathleen Hall Jamieson at the University of Pennsylvania in 2003), Politifact (created at the current *Tampa Bay Times* in 2007) and The Washington Post Fact Checker (2007) as the first experiences in the US, to which should be added Istinomer in Serbia (2009) –Graves reviews the history of these pioneers in detail [219]–.

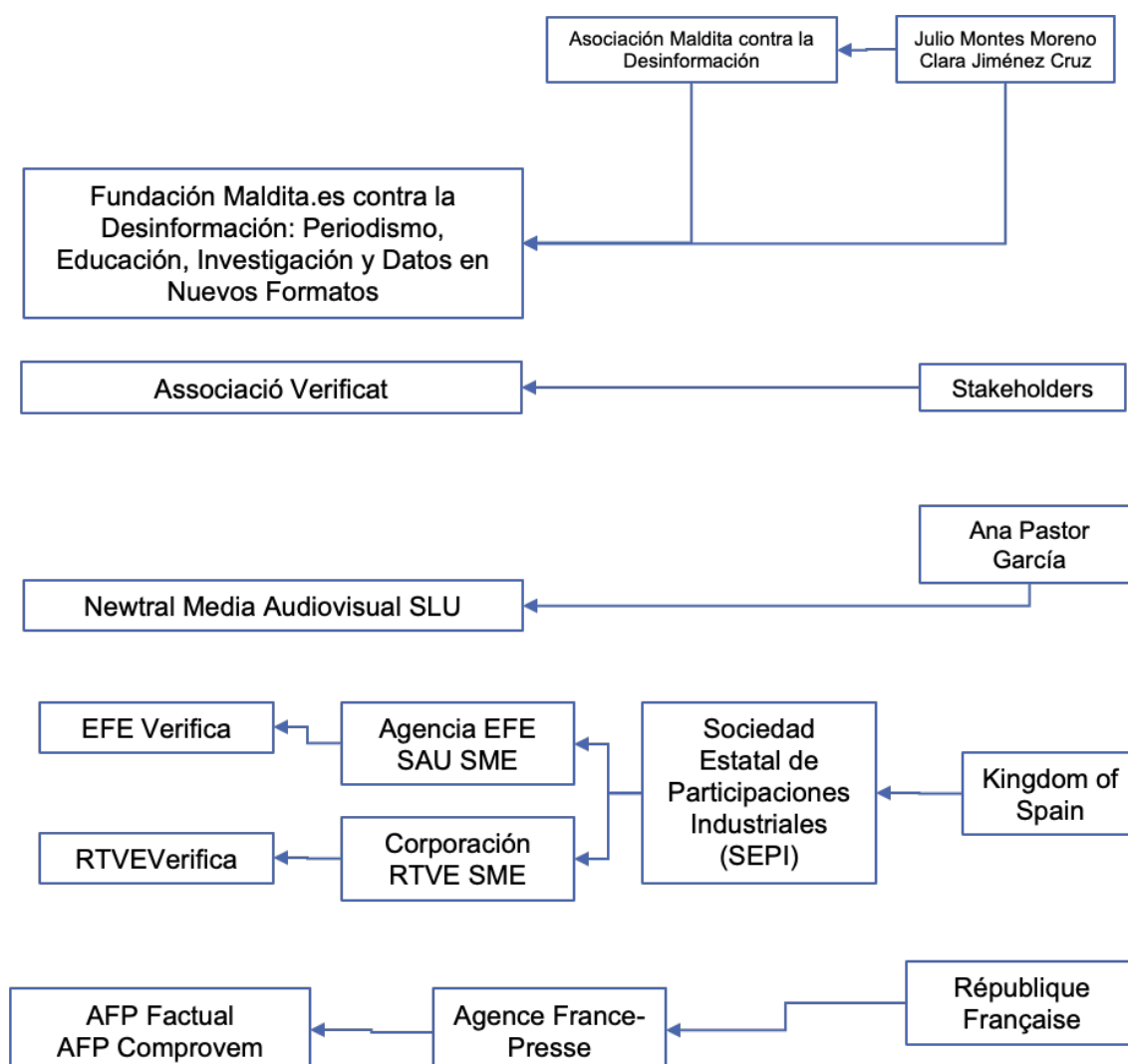
Following a first meeting of verifiers from around the world convened by the Poynter Institute of Florida (itself owner of the *Tampa Bay Times* newspaper) in London in June 2014 [220, 221], in 2015 this centre created an international network of verifiers, the International Fact-Checking Network (IFCN). The Buenos Aires meeting in 2016 [222] gave birth to a code of good practices [223] endorsed by Facebook [224] with its decision to collaborate with the verifiers who had subscribed to it (this code was adhered to in 2017 by El Objetivo, in 2018 by Maldita.es and Newtral, and in 2020 by EFE Verifica and Verificat). Duke University's Reporters Lab has censused up to 391 verifiers in 105 countries around the world, most of them having emerged in 2019; Poynter's census shows 341 verifiers in 102 countries, with 2017 as the year of creation of the largest number of these players [211]. In Spain, Duke [225] today identifies eight verifiers, two of which are not active, to which we have added RTVE Verifica, which is not yet registered by Duke and has not subscribed to the Poynter code (see Table 11). Verifiers endorsed by IFCN are evaluated annually for compliance with all the principles of its code of conduct [226].

Table 11. Fact-checking organisations in Spain (2022)

Organisation	Type	Ownership	Date	Situation
AFP Factual Spain	Website	Agence France-Presse (public)	No data	Active
EFE Verifica	Website	Agencia EFE SA (public)	2019	Active
El Objetivo	TV show	Newtral Media Audiovisual SLU (commercial)	2013	Active
Maldita.es	Website	Fundación Maldita.es contra la Desinformación: Periodismo, Educación, Investigación y Datos en Nuevos Formatos (associative)	2014	Active
Newtral	Website	Newtral Media Audiovisual SLU (commercial)	2017	Active
Verificat	Website	Associació Verificat	2019	Active
La Chistera	Online news site section	Titania Compañía Editorial SL (commercial)	2016	Inactive
Polétika	Website	Fundación Oxfam Intermón (associative)	2014	Inactive
VerificaRTVE	Website	Corporación Radio Televisión Española (publica)	2020	Active

Source: the authors based on data from Duke University Reporters Lab [225].

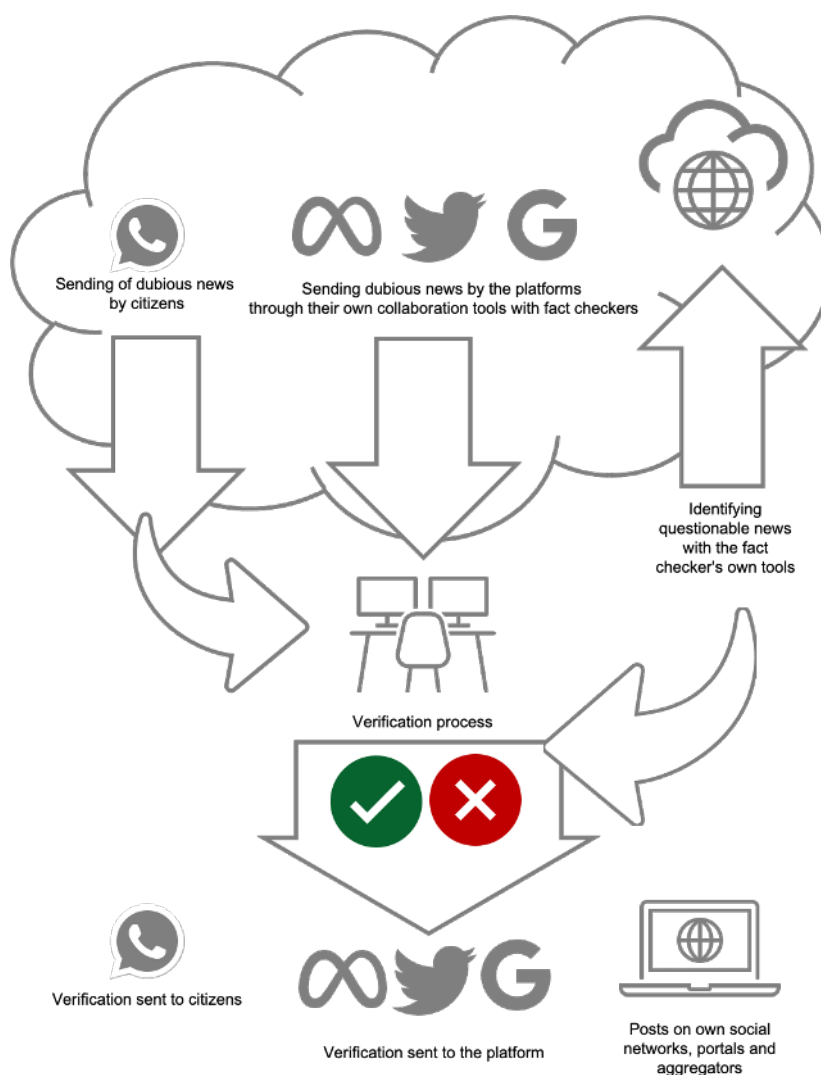
Figure 7. Spanish fact-checking organisations, ownership (2022)



Source: the authors based on information from their websites (2022).

Although we do not have disaggregated data for Spain, IFCN studies indicate that the largest source of revenue for global verifiers is the Meta verification program: in 2019 it accounted on average for 43% of fact-checkers' revenue and reached 44% in 2020 [211]. The accounts of the Maldita Foundation published on its website confirm that also for this verifier the Meta program is its main source of funding. European fact-checkers are organising themselves, over the course of 2022, into the European Fact-Checking Standards Network (EFCSN), a project funded by the EU, which will strengthen their collaborative role with administrations in detecting fake news and provide them with new avenues of funding. The drivers of the EFCSN are Maldita.es, Pagella Política, AFP, Demagog, Correctiv and EUDisinfoLab [227].

Figure 8. Simplified workflow of fact-checkers



Source: the authors.

The action of public authorities

At the last level are the public authorities. In this area it is important to differentiate the functions of the three branches of government:

- a. The central administration, plus the 17 autonomous regional administrations work in this field in the exercise of their respective constitutional competences. We have already detailed the specific organisation developed in recent years within the central government in relation to disinformation, but it should not be forgotten that several regional governments have competences in security matters (but not in defence, which is the responsibility of the central government), while all of them have direct competences in social communication (arts. 148 and 149 of the Spanish Constitution). Although they are still scarce, we can expect in the future a greater activity of the Autonomous Communities in the detection and fight against disinformation within the scope of their competences, particularly from a social communication perspective. The Generalitat de Catalunya, for example, launched in 2021 a project to 'combat disinformation on the migration of young Moroccans' [228] and the Consell Audiovisual de Catalunya (CAC) have initiated in collaboration with the Department of Education the eduCAC programme [229] on media and digital literacy, which particularly affects the detection of fake news,

in addition to producing up to seven reports related to disinformation –particularly in relation to the pandemic [230, 231]–. In addition, the Agència de Ciberseguretat de Catalunya has launched the internetsegura.cat website [232] to promote safe online behaviour. The Basque Country also incorporates disinformation issues in its training programmes CiberJendea and Cibergazteak of the Basque CyberSecurity Centre, the organisation designated by the Basque Government to promote cybersecurity in the Basque Country [233, 234]. In Andalusia, the Autonomous Community's new Cybersecurity Strategy – programmed for approval in the last quarter of 2022– does not yet address this issue [235], while the Canary Islands announced in June 2022 the implementation of a cybersecurity centre in view of the increase in incidents, 'especially those seeking to destabilise and create confusion' [236].

- b. The legislative power, both the two state parliamentary chambers and the regional parliaments, in their legislative function and as a forum for permanent reflection on the most relevant social issues, study the phenomenon of disinformation. We have already mentioned that, so far, Spain has created a committee in the Joint Congress-Senate Commission on National Security that has been studying the phenomenon of disinformation since 2021 [138].
- c. The judiciary, finally, is also a necessary actor in this issue in the development of its own functions. Here it should be borne in mind that disinformation is not in itself a criminal offence, just as hoaxes, lies or false news are not, although its consequences may be. From a legal point of view, false news can constitute an attack on the honour, privacy or self-image of natural or legal persons, ie, it would fall under civil law [237], but it could also constitute a crime. The report on the 'Criminal treatment of fake news' prepared by the Spanish Attorney General's Office in April 2020 [238] lists some of these possible criminal offences as guidance for public prosecutors at the courts of justice: they include hate crimes, the discovery and disclosure of secrets, public disorder, libel and slander, crimes against public health and crimes against the market and consumers. In any case, 'the jurisprudence of the Supreme Court is constant in the restrictive interpretation of the types, punishing only the most serious and evident attacks on the legal right protected in each of them' [239]. The Strategic Plan against Cybercrime approved in 2021 by the Ministry of the Interior is oriented along the same lines, although it also warns that 'according to current Spanish criminal law, these behaviours are not always criminal, only some of its manifestations, in line with the provisions of the Spanish Constitution in Article 20, which recognises the right to communicate or receive truthful information by any means of dissemination' [240].

3.2 Spain facing the global phenomenon of disinformation: distinctive features

As we have seen, Spain is entering the political debate on disinformation and its consequences for democracies slightly later than other European countries, despite various factors making Spanish society particularly vulnerable to this risk. We shall review some characteristics –in some cases we could speak of vulnerabilities– that we consider key to understanding the potential dimension of disinformation as a risk to democracy in Spain:

- a. The situation of freedom of expression and the right to information in Spain.
- b. The penetration of the information society and digitisation indicators.
- c. The crisis of the traditional media system and trust in the media.
- d. Political polarisation.

- e. The role of Spanish language in the global circulation of disinformation.

3.2.1 Freedom of expression and the right to information in Spain

The first of these factors is the situation of freedom of expression in our country. Although it may seem paradoxical, political systems with greater freedom of expression are also more vulnerable than autocracies or dictatorships to disinformation campaigns, because they benefit from the guarantee of free circulation of information that constitutes one of the backbone elements of democratic systems: 'As an open system, democracy is more vulnerable in the short run to certain forms of manipulation, but it is more resilient than authoritarian systems in the longer term' [241]. In other words, the better the conditions of democracy in a country, the fewer the possibilities of censoring the messages circulating in the public sphere, the fewer the options for top-down intervention in public communication, and the greater the responsibility of the media, fact checkers and citizens for the circulation –or containment– of disinformation campaigns in the social fabric. This idea is at the basis of the intense political debate in Spain on the procedure for action against disinformation, of the European controversy surrounding the censorship of Russian media after the invasion of Ukraine in March 2022 or, in the opposite direction, of the insistence on media literacy as a key factor in the fight against disinformation in democracies.

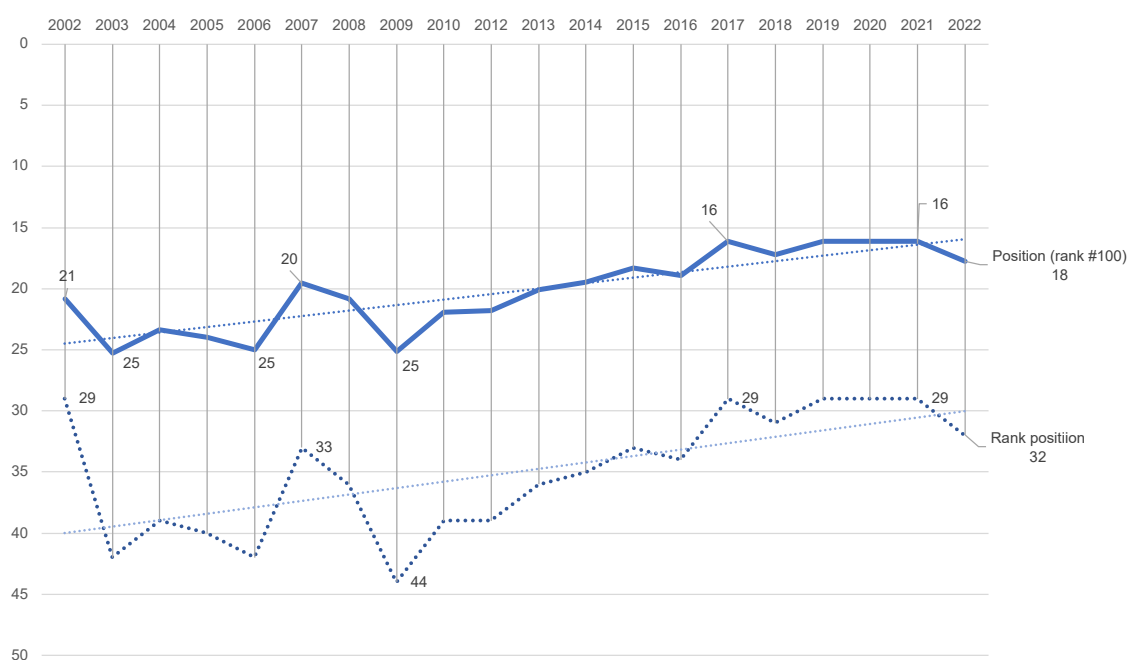
Freedom of expression does not only affect the media, it is a right of all citizens to express and receive ideas [242-244], but in contemporary societies freedom of the press is an essential metric for understanding the situation of fundamental rights and freedoms in a country. If we take as a reference the annual study by Reporters Without Borders (RSF) on the situation of press freedom in the world, Spain has remained in the first quartile of countries with the best conditions for the practice of journalism and freedom of expression over the past 20 years, with slight setbacks between 2003-06 and 2008-10. The trend has been positive: from 29th out of 139 in 2002 (21/100), Spain has moved to 32nd out of 180 (18/100) in the latest RSF ranking [245].

Table 12. Spain in Reporters Without Borders' Press Freedom Index (2002-22)

	Absolute position	Countries covered	Score	Position (base 100)
2002	29	139	7,75	21
2003	42	166	7,67	25
2004	39	167	9	23
2005	40	167	8,33	24
2006	42	168	10	25
2007	33	169	10,25	19
2008	36	173	8	21
2009	44	175	11	25
2010	39	178	12,36	22
2012	39	179	9,75	22
2013	36	179	79,5	20
2014	35	180	79,37	19
2015	33	180	80,05	18
2016	34	180	80,08	19
2017	29	180	81,31	16
2018	31	180	79,49	17
2019	29	180	78,01	16
2020	29	180	77,84	16
2021	29	180	79,56	16
2022	32	180	76,71	18

In 2013 RSF changed the methodology, until then a lower score reflected a better situation, and since 2013 it is the other way around. In the last column we have calculated Spain's position in an index of 100 countries.

Source: the authors based on RSF data [245].

Figure 9. Spain in Reporters Without Borders' Press Freedom Index (2002-22)

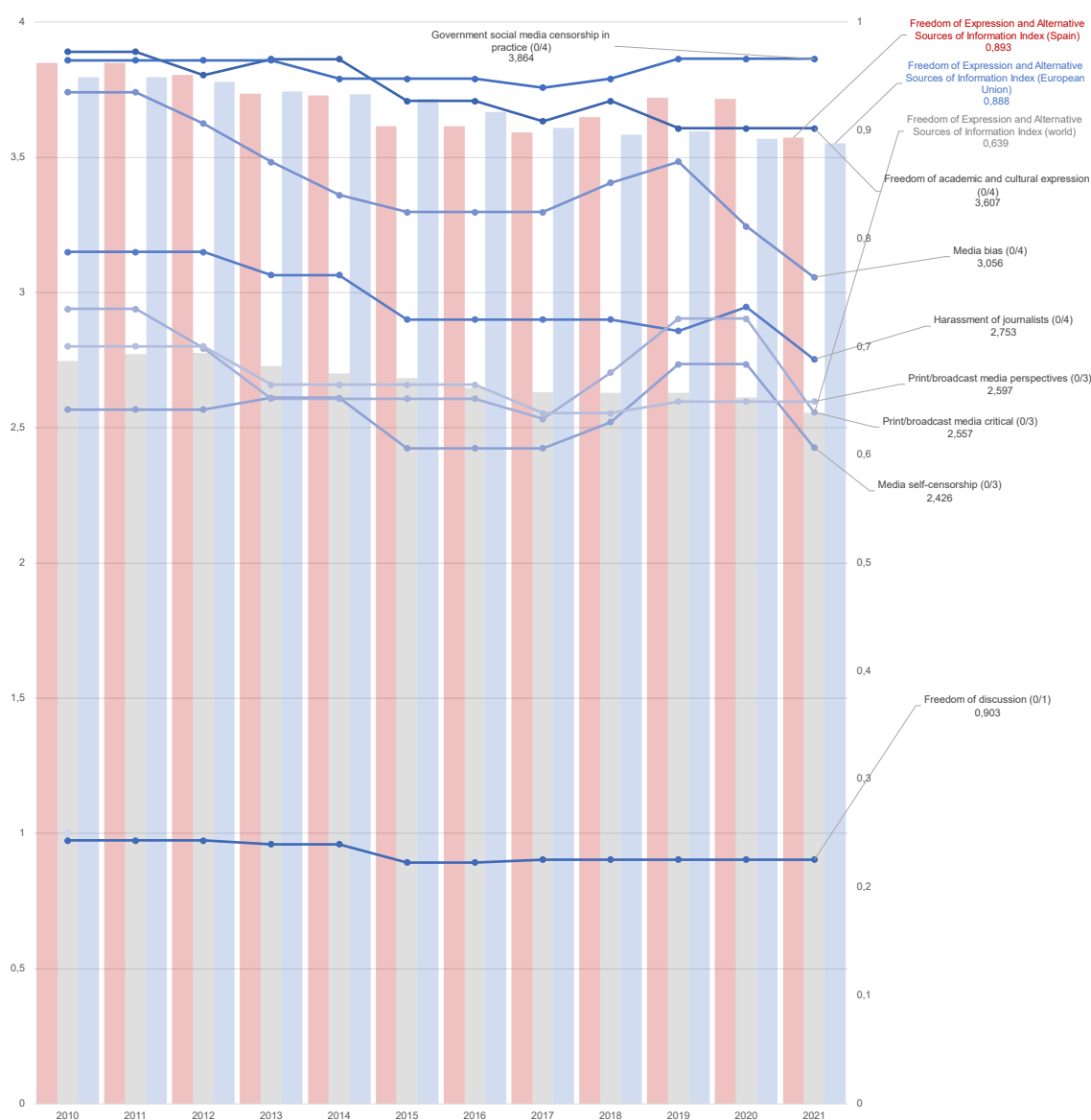
The dotted line shows the absolute position in the RSF ranking, while the solid line shows the position based on 100. A lower value represents a better position and, therefore, better press freedom conditions.
Source: the authors based on RSF data [245].

RSF's annual reports insist on three critical factors for freedom of expression in Spain: the concentration of the media market (especially in the audiovisual sector, following the creation of the Mediaset España and Atresmedia groups that absorbed 82% of the television advertising market in 2021 [246]), the growing political polarisation and the approval in 2015 of the Organic Law on Citizen Security (LOSC) [247] which, updating that of 1992, generated an intense debate on the restrictions applied to freedom of expression. We will refer to the first two in the following paragraphs. Regarding the approval of the LOSC –called by its opponents the 'gag law'– its approval was interpreted as a reaction of the conservative majority in Parliament to the social mobilisations of 15 May 2011 –the so-called 15-M–, at the height of the global economic crisis. The approval of the regulation and the convictions based on it, together with several amendments to the Criminal Code and the Criminal Procedure Law, generated strong controversy and unease even in the United Nations Human Rights Committee, which expressed its concern 'about the deterrent effect that the recent adoption of the Public Security Act and subsequent amendments to the Criminal Code might have on freedom of expression, association and peaceful assembly' [248], terms similar to those used by Amnesty International and Reporters Without Borders [249, 250]. Despite the opposition of the left-wing parties to this reform, the ruling coalition in the current legislature (2019-23) has not proceeded with the repeal that it had repeatedly announced [251, 252].

Although this year The Economist index downgraded Spain to a 'flawed democracy' [253] –essentially because of problems in the renewal of the key bodies of the judiciary–, international indicators show that democratic conditions in Spain have been stabilising for years. This is indicated by Freedom House [254] and the V-Dem indexes of the University of Gothenburg on deliberative democracy (0.78/1), egalitarian democracy (0.8/1), electoral democracy (0.89/1), liberal democracy (0.8/1), participatory democracy (0.64/1), freedom of expression (0.92/1), and freedom of academic and cultural expression (3.61/4) [255]. The Swedish project of varieties of democracy V-Dem also prepares the composite index Freedom of Expression and Alternative Sources of Information index, which includes eight indicators of freedom of expression, which shows

a situation in Spain well above the world average and slightly above the average of the EU (Figure 10) [255].

Figure 10. Freedom of Expression and Alternative Sources of Information Index (2010-21)

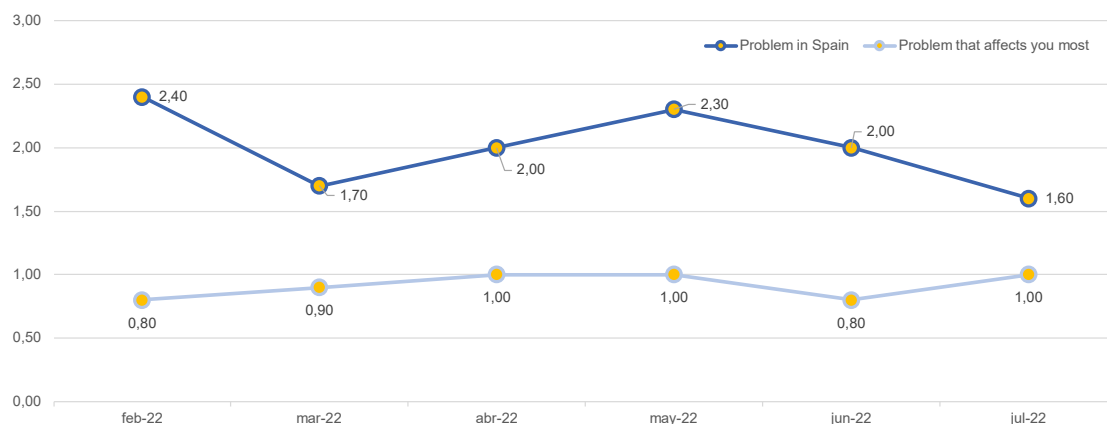


The bars represent the index in Spain (pink), the EU (blue) and the world (grey); the lines represent the evolution of Spain in each variable included in the index (in brackets the minimum and maximum values of each).
Source: V-Dem [255].

The role of the media and public communication in the consolidation of democracy in Spain is central, and yet social concern about the role of the media, disinformation and information manipulation may seem low: only 1.6% of respondents consider it among the three main problems in Spain according to CIS data from July 2022, which shows a gap between political and social perception [256]. In fact, the CIS only began to assess this concern in the Barometers as of February 2022, after the National Security Strategy considered disinformation as a problem, with a similar result: 2.4% in February, 1.7 in March, 2% in April, 2.3% in May and 2% in June [167-169, 257, 258]. Although the data are not comparable, the 2018 Flash Eurobarometer 464 [122] showed Spain as one of the countries most concerned with the problem, compared with the rest of the EU's members, both for the country and for democracy in general (in both cases, at 88%

agreement), as the Reuters Digital News Report data also show. The 2022 Eurobarometer survey indicates, however, a slight decrease in social concern about the disinformation phenomenon [146].

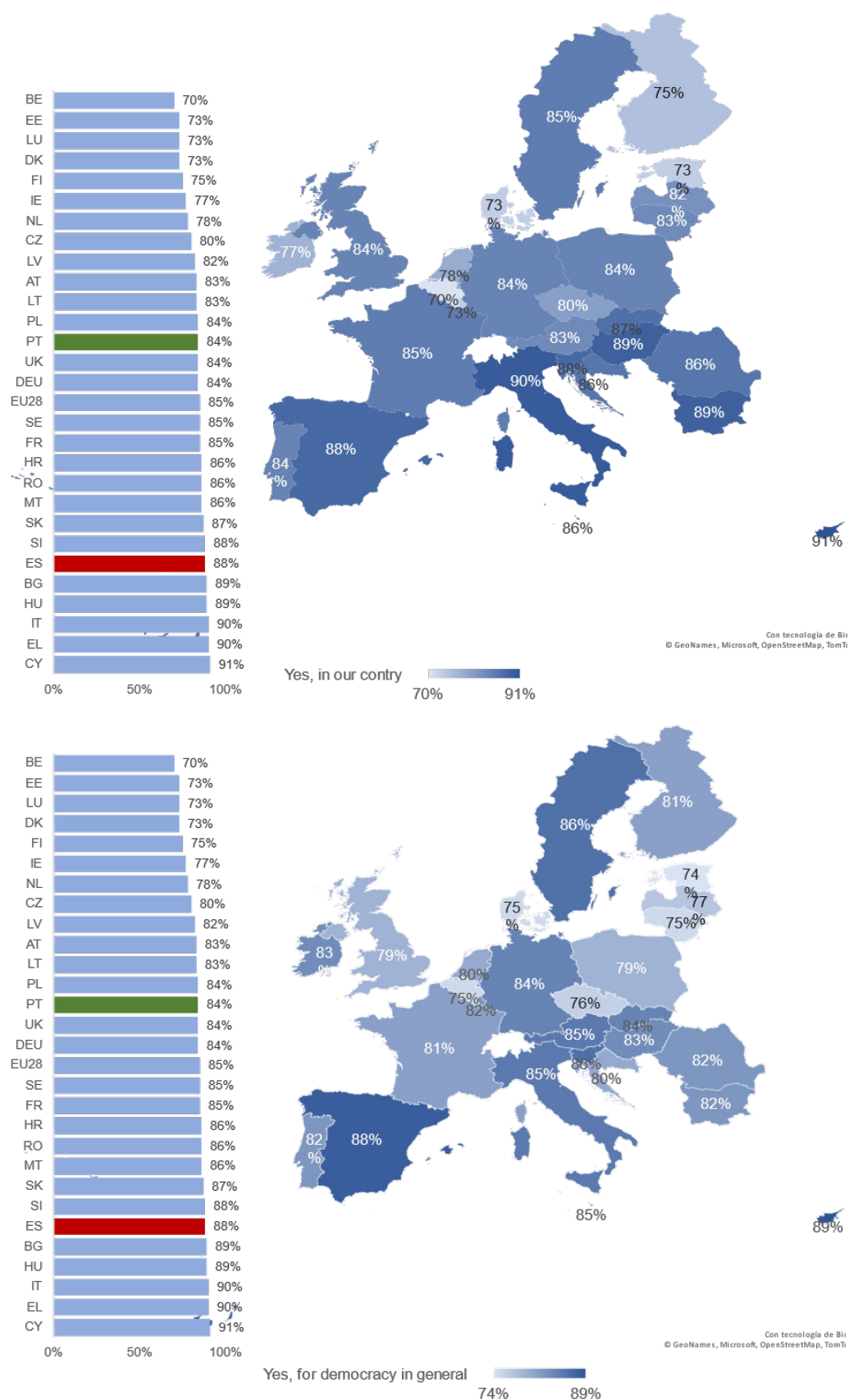
Figure 11. Perception of disinformation as a problem in Spain in the CIS barometers (February-July 2022)



Aggregate values as a percentage of the total population in spontaneous response to the questions 'In your opinion, what is the main problem currently existing in Spain' and 'And what is the problem that affects you personally the most?'.

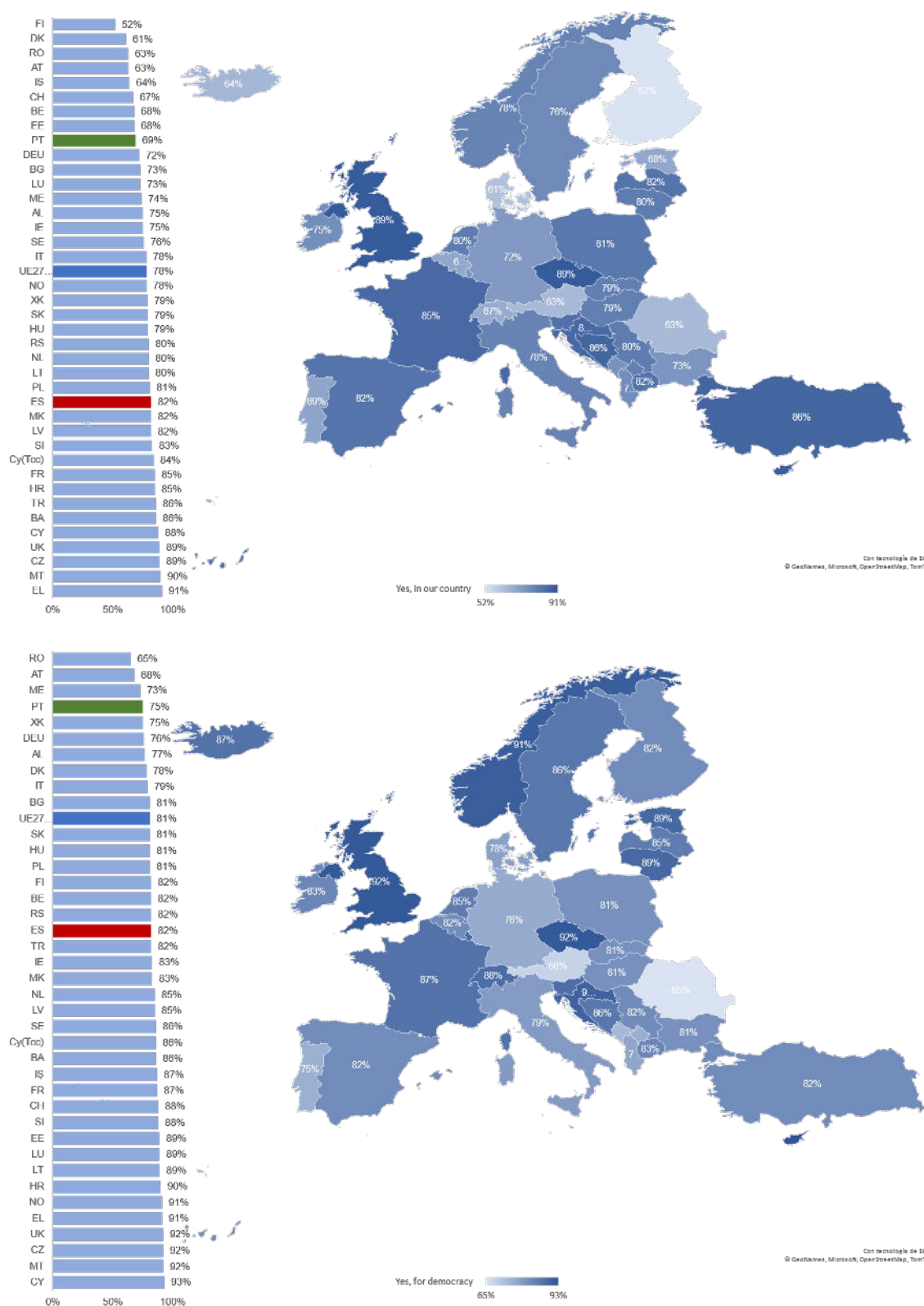
Source: the authors, based on data from the Centro de Investigaciones Sociológicas [167-169, 256-258].

Figure 12. The perception of disinformation as a problem in Europe (Eurobarometer 2018)



Source: Eurobarometer 464 [122].

Figure 13. The perception of disinformation as a problem in Europe (Eurobarometer 2022)



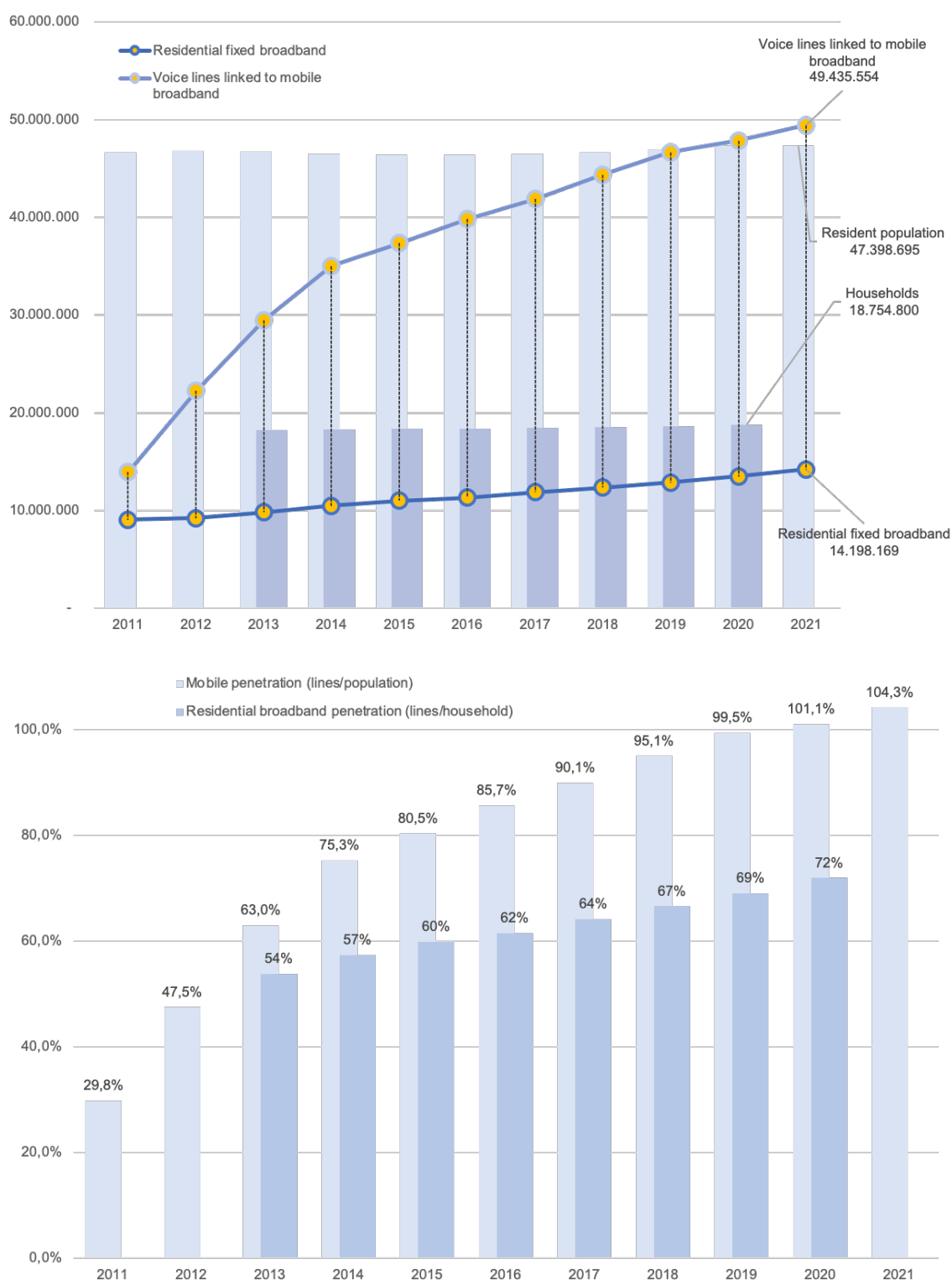
Source: Eurobarometer 96 [165].

3.2.2 *Digitisation and penetration of fixed and mobile broadband networks*

A second factor that helps us to 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, particularly for getting news and for using social networks.

In terms of infrastructures, 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 Digital Economy and Society Index (DESI) of 2021 (at 82%, compared with the European average of 77%) [259, 260]. From 27.8 million fixed broadband connections available in 2011, Spain has grown in 10 years to 88.6 million; of these, 77.9 million are actually installed, 67.9 million in FTTH (Fibre to the Home, ie, with maximum availability of fixed bandwidth) are available for use by households and businesses. Spain is, therefore, a country with an extraordinary fixed broadband infrastructure available. At the household level, the number of residential broadband connections has now exceeded 14 million, out of a total of 18.7 million households [246]. Over the past 10 years, the number of mobile lines (voice and data) has increased from 13.9 million in 2011 to 49.4 million in 2021 [246], for a resident population of 47.3 million people. If we link these figures to the National Statistics Institute (INE) data on population and households [261], in 2020 72% of households had residential broadband connection, and the number of mobile voice and data lines equalled 104.3% of the population.

It is important to emphasise that network operators have no ability to influence the content that circulates over them, neither for the purpose of combating disinformation nor for any other purpose –such as favouring the circulation of content from certain platforms over others, the well-known principle of network 'neutrality'. Article 3 of the European regulation makes this 'open Internet' principle clear: 'Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used' [262].

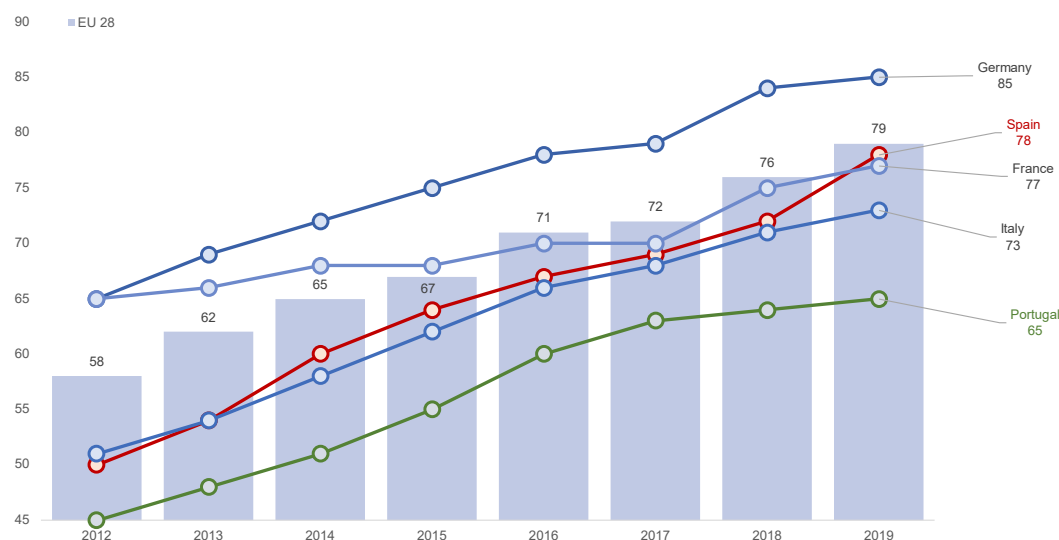
Figure 14. Evolution of fixed and mobile broadband Internet access in Spain (2011-21)

INE time series do not provide household data before 2013 or after 2020.
 Source: the authors, from CNMC data [246] and INE [261].

Regarding usage, the data show a 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 a daily usage of 86% (and a European average of 80%)

[263]. In 2019 only 8.4% of Spaniards said they had never used the Internet, compared with the European average of 9.5% [264]. The data indicate an unstoppable growth of internet use in Spain: in the country's largest media consumption survey, the Estudio General de Medios (EGM), daily Internet use had risen from 42.5% of the population in 2011 to 84.3% in 2021 [265]. The majority device for accessing the internet is the smartphone (94.7% in 2021), well above televisions (55.1%) and laptops (54.1%) [265].; the first year in which the EGM asked that question, 2012, the main device for internet access was the laptop (58.6%), followed by the desktop (54%) and the smartphone (31.6%) [266].

Figure 15. Frequency of Internet use: percentage of the population using the Internet on a daily basis in selected European countries (2012-19)



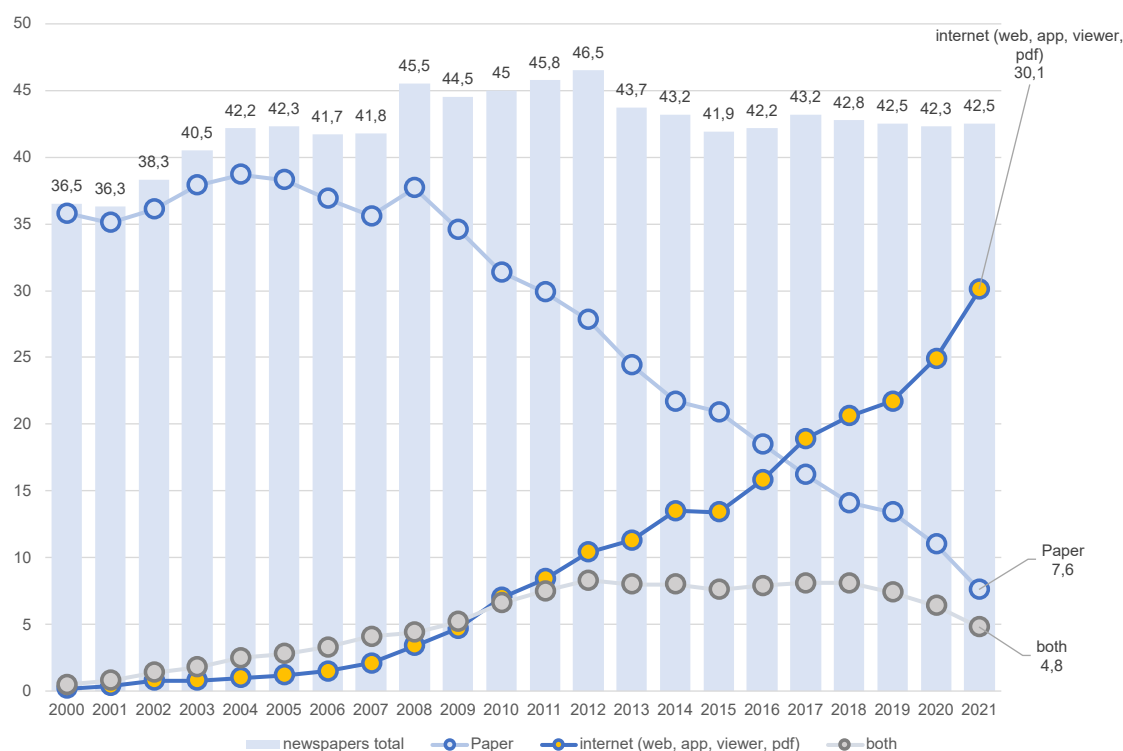
Source: Eurostat [263].

Regarding the specific use of services and applications, the data are more complex here, given the decentralized nature of the Internet itself, and can only be obtained through citizen surveys. According to the EGM survey [265], the main uses of the Internet in Spain are instant messaging (97.2%), information search (81%), e-mail (78.1%) and social networks (70.1%) [265]. Regarding the most visited sites, YouTube (70.2%), Facebook (51.7%) and Spotify (25.6%) are at the top of the EGM [265]. The annual study by the Interactive Advertising Bureau (IAB Spain) on social networks puts the percentage of Internet users connecting to social networks in Spain at 85% in 2021; the most used (last month) according to this study are WhatsApp, Facebook, YouTube, Instagram and Twitter, with TikTok as the fastest growing and Facebook the one with the greatest decrease [267].

In terms of online news consumption, Eurostat data show that in Spain 77% of citizens used the Internet to read newspapers and magazines online (compared with 45% in 2011) [268], but the figure is no longer sufficient today, because news –information, and also disinformation– circulates through many media and channels. As far as the traditional press is concerned, the EGM data indicate, as seems logical, that newspaper information is consumed mainly through their digital versions: if in 2000 the exclusive readers of the digital press were 0.2%, compared with 35.8% of readers on paper (penetration), in 2021 readers on paper are 7.6%, compared with 30.1% of digital readers [265]. Taking into account only the data of the print press, the weight of these media has declined dramatically in the last two decades; but if we review in depth the penetration data of the digital press, consumption has actually increased: from a 36.5% penetration

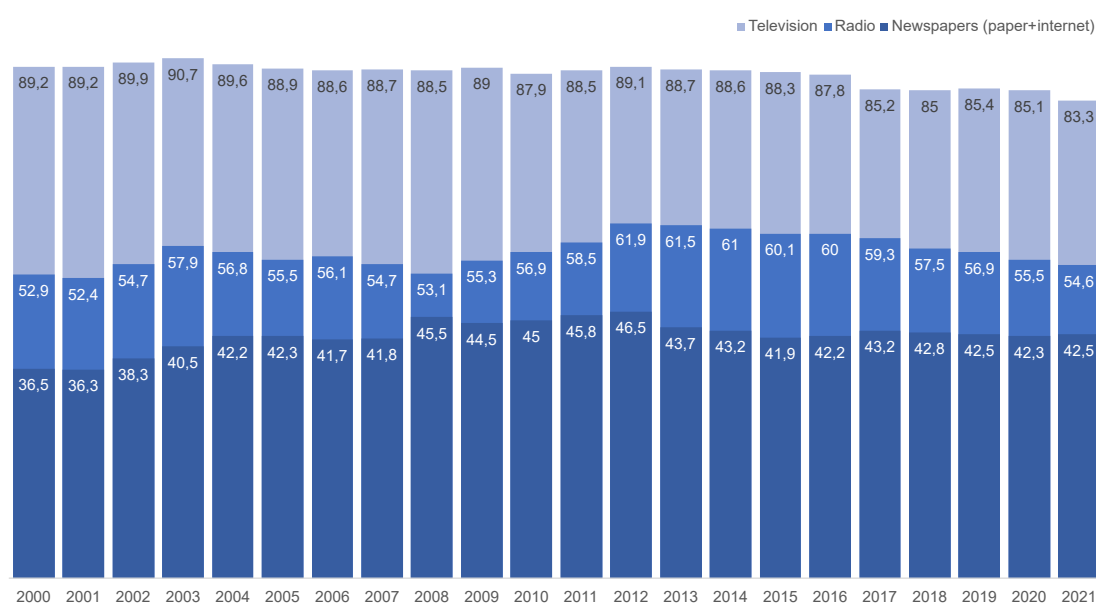
in 2000 (essentially print readers) the figure has risen in 2021 to 42.5% (essentially digital readers) [265]. Two data draw attention: the peak of 46.5% penetration of the press in 2011-12 –the years of greatest intensification of the economic, social and political crisis of the past decade– and the crossover point between paper and digital between 2016 and 2017.

Figure 16. Penetration of the press in Spain (paper and digital) (2000-21)



Source: EGM [265].

Figure 17. Penetration of traditional media in Spain (2000-21)



Source: EGM [265].

Transmedia integration has blurred the boundaries between traditional print, audio and visual media. While television only broadcast audiovisual content, radio only sound content and print media only text and static images, first the web and now multimedia supports allow all media to offer content in any format, so that in a way they all compete with each other. Among the news sites measured by the EGM, the most visited media are *El País* (18.9%), *La Vanguardia* (10.3%), RTVE (6.8%), the sports newspaper *As* (6.6%) and the private broadcaster Antena3 (4.8%) [265]. The most important digital media audience control in Spain is carried out by the German consulting firm GfK DAM, winner of the contest organised by the Interactive Advertising Bureau Spain (IAB), the Spanish Advertisers Association (AEA) and the Association for Media Research (AIMC), but its measurement data are not public and only accessible to its subscribers.

3.2.3 *Crisis of the business model and of trust in the traditional media system*

In the information ecosystem prior to global networks, current news circulated dominantly through the traditional media –essentially print, radio and television–. Since we assume that disinformation is not a new phenomenon, we must assume that the old information ecosystem inevitably suffered from disinformation strategies as well. The national regulation of the media, the judicial responsibility attributable to the producers of messages, the professionalisation of journalistic work or the public nature of circulating information –that is, the transparency for all of the information present at all times in the public space– have served as guarantees of greater protection against disinformation strategies.

We can assume that part of the reasons for the success of disinformation strategies lies in the new information ecosystem, in which platforms such as search engines or social networks do not have regulation comparable to that of the media –among other reasons, due to the global nature of their activities–, information is produced and reproduced not by professional journalists but by any citizen –or by organisations with covert political purposes– and information does not always circulate in a public manner, but with a degree of adaptation to the final recipient that allows the determination of very precise targets and the creation of real bubbles (bubbles, or echo chambers, as they have been called) that make it increasingly difficult to identify disinformational strategies or to stop them before they have gone massively viral.

'Not only was trust in institutions and official information higher during earlier eras of democracy, there were comparably fewer media channels through which official information passed. The combination of higher trust and fewer public information sources enabled both authorities and the press to exercise more effective gatekeeping against wild or dangerous narratives from the social fringes or foreign adversaries. The more recent volatile mix of institutional corrosion and media abundance has enabled counter politics to take on corrosive and undemocratic forms in many societies, as alternative media flows reach large audiences and help organize movements and parties that have gained higher levels of electoral success.' [37]

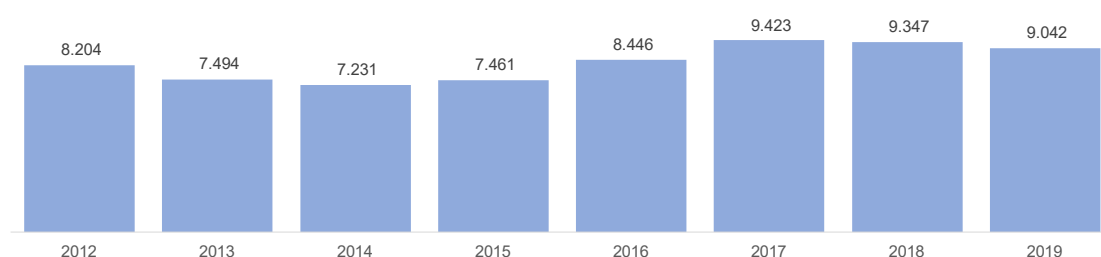
The weakening of the role of the media as mediators in the public space has occurred in recent decades on multiple levels, but especially on two very evident ones: the economic one, due to the transformation of the business model; and that of the social legitimacy of their activity and the trust in the content they disseminate.

The crisis of the business model

As in the rest of the world, the media have seen the emergence of competition from new digital platforms for the advertising market since the beginning of the century. The global reach of the platforms, their 'native' knowledge of the nature and operation of digital networks or their dominant position in certain environments to guide consumption practices –such as the operating systems of the ubiquitous mobile devices– have made it difficult for the traditional media to compete with these new players, which in a few years have become the largest companies with the highest stock market valuation in history, showing the scope of the digital transformation of the world economy.

In Spain, as in many other countries in our environment, the transition to the digital ecosystem coincided in time with the global economic crisis, which ended up producing a reorganisation of the media system in the first half of the 2010s with the loss of weight of the large national media group of reference at the end of the 20th century, PRISA [269], or the concentration of the audiovisual market around two business groups, Mediaset España [270] and Atresmedia [271]. The complexity of the infocommunication macro-sector, between the cultural and industrial fields, does not allow us to identify stable statistics on the impact of the economic crisis on the media. However, reports such as those carried out by the Madrid Press Association (APM) showed how, at the height of the economic crisis, some 12,200 media jobs had been destroyed (between 2008 and 2015), a period in which 375 companies were also closed, between newspapers, magazines, television, digital and agencies, and turnover was reduced in the sector as a whole by €1 billion per year [272].

Figure 18. Turnover of the media in Spain, in millions of euros (2012-19)



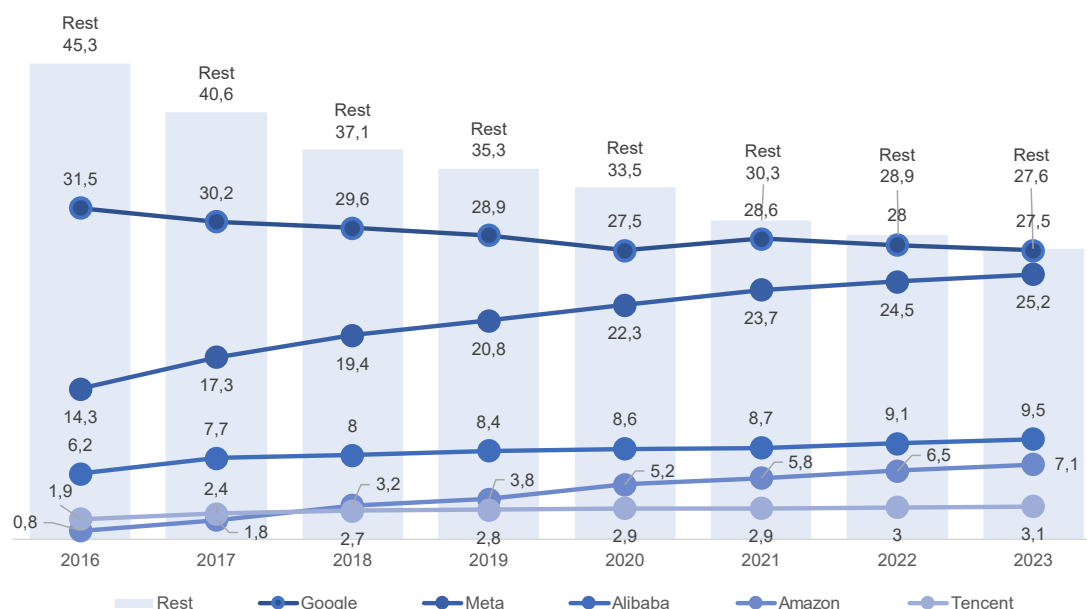
Source: the authors, based on reports from the Madrid Press Association [273].

In the midst of the economic crisis, Spanish GDP fell dramatically (between 2008 and 2013 by no less than 8.04%, almost €90 billion according to INE data), which led not only to a significant decline in public spending, but also in household spending on culture: from €16.9 million in 2008 to just over €11.97 million in 2015 [274]. The retraction of the economy also led to a decline in advertising investment, the main source of media financing: as a whole, advertising went from billing €7,102 million in 2008 in Spain to €4,261 million in 2013, 40% or €2,814 million less in just five years [275]. The advertising investment figures reached in 2007 and 2008 would never be repeated. The sector had a total turnover of €5,441 million in Spain in 2021, after suffering a new setback due to the COVID-19 crisis [275].

The global crisis of 2008 also served as a macroeconomic context for another, more specific crisis: that of the traditional media business model, based for decades on the exchange of audiences for advertising investments. This model, efficient for more than a century, has crumbled in little more than two decades as a result of the dizzying digital transition in which new players have become the main mediators of the advertising market. It is not only that the Internet is progressively absorbing a larger share of the advertising market –in Spain, from 1.5% of total investment in 2004 to 45.6% in 2021 [275], while in the world the figure reached 58.9% of total investment in 2021 [276]– but

also that the major platforms are concentrating most of this investment. Consultancies such as eMarketer estimate that global advertising investment is dominated in recent years by the duopoly of Google and Meta, with more than 50% of global advertising investment estimated in 2021 at US\$521 billion, accompanied by the slow rise of Amazon and Alibaba; in the consultancy's forecast, all other companies in the world will not even reach 30% of global advertising investment in 2022 and 2023 [277].

Figure 19. Share of the global digital advertising market, in percentages (2016-23)



Source: eMarketer [277].

The success of the model of offering products and services free of charge in exchange for personal information (and the consequent personalisation of content and advertising) promoted by Google since the beginning of this century, together with intensive 'piracy' and the globalisation of markets, have ended up dominating the cultural industries as a whole, subjecting them to a tension that has definitively transformed them –as is evident in the cases of music and the cinema–. In the media sector, tensions with digital platforms over the appropriate remuneration for the use and reproduction of their content on search engines and social networks have marked the last two decades.

After years of litigation, in 2014 the Spanish Parliament included in the revision of the Intellectual Property Law [278] a compensation to news companies for the reproduction of their content on digital platforms, but it did so by obliging them to channel the payment through rights management entities –that is, prohibiting individual agreements–. This principle, baptised then as 'canon AEDE' (the acronym at the time of the Spanish association of newspaper publishers) led Google to decide to close its Google News portal in Spain 'due to Spanish legislation', as indicated for years on the page displayed when accessing its news portal from Spain. To offset the reputational cost of the tensions between platforms and the media, the world's major companies have promoted training, research and aid programmes for the media: the Google News Initiative [279] is a good example of the line of activity of these major platforms, as are the Accelerator or Meta Journalism Project initiatives of Meta/Facebook [280, 281]. At the same time, the attitude of countries such as Australia and France has forced Google to open negotiations with media publishers by creating in 2020 the Google News Showcase project, endowed with a US\$1 billion budget [282] and the same is gradually happening with the other major platforms. At the time of writing this report, Showcase is not yet available in Spain, but

by 2021 it had already been launched in India, Japan, Germany, Brazil, Austria, the UK, Australia, the Czech Republic, Italy, Colombia, Argentina, Canada and Ireland, incorporating more than 1,000 media outlets, which by 2022 would number more than 1,500 [283, 284].

The new European Directive on Copyright and Related Rights [172] approved in 2019, tried among other objectives to solve this situation, that has been structurally weakening the European media fabric:

'A free and pluralist press is essential to ensure quality journalism and citizens' access to information. It provides a fundamental contribution to public debate and the proper functioning of a democratic society. The wide availability of press publications online has given rise to the emergence of new online services, such as news aggregators or media monitoring services, for which the reuse of press publications constitutes an important part of their business models and a source of revenue... The organisational and financial contribution of publishers in producing press publications needs to be recognised and further encouraged to ensure the sustainability of the publishing industry and thereby foster the availability of reliable information. It is therefore necessary to provide at Union level for harmonised legal protection for press publications in respect of online uses by information society service providers, which leaves the existing copyright rules in Union law applicable to private or non-commercial uses of press publications by individual users unaffected, including where such users share press publications online.' [172]

The Spanish transposition of the Directive at the end of 2021 [285] has allowed, as in other countries, the negotiation between the platforms and the media, business groups or media groups for payment for the use of content. As a result, Google reopened in June 2022 its News portal in Spain [286, 287], although we do not have public data on the agreements, the media and the total cost of the reopening.

The new rights agreements do not solve the problem of the adaptation of the media business model and the competition with global platforms, but they are part of the set of measures promoted by the EU to recover the media as relevant players in the information ecosystem, in the social mediation of current affairs information and in the fight against disinformation.

The media's crisis of legitimacy and credibility

The media have faced another great crisis, perhaps worse, in recent years: that of trust. This estrangement between citizens and the media has very diverse foundations and its roots can be found in the criticism that –in general, from the political sectors of the left– was developed in response to the role of the private media as instruments for building political consensus, especially in the last third of the 20th century.

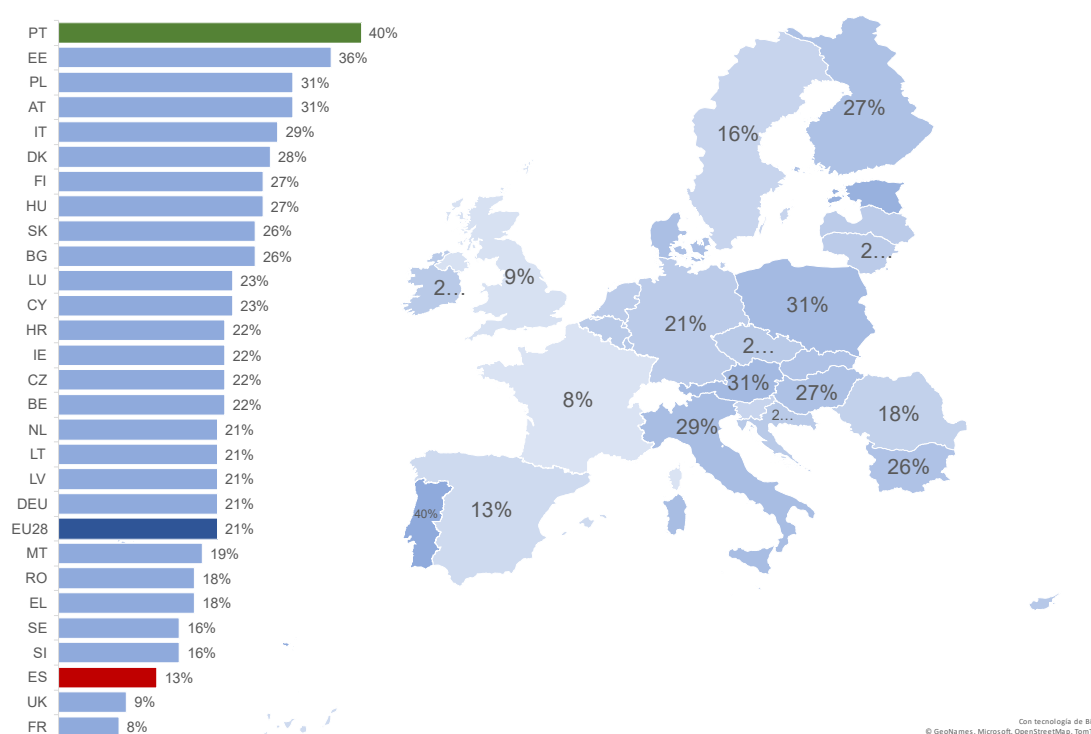
In many southern European countries, the evolution of media systems in a process of 'polarised pluralism' has undoubtedly contributed to perceiving the media not as autonomous agents of the political system charged with the task of overseeing public affairs –a 'fourth estate' in the sense of Montesquieu's separation of powers, or a 'watchdog' of democracy in the liberal tradition– but as actors committed to and aligned with the interests of economic and political power groups. In extreme form, the politicisation of public audiovisual entities (in Spain, state and regional radio and television stations) has made transparent during the last decades the way in which political actors instrumentalise the media in favour of their electoral interests. Although we will not dwell on it here, in Spain the battle of audiovisual public policies has been strongly marked by the control of the Spanish Radio and Television Corporation (RTVE)

and of the regional radio and television stations (13 of the 17 Spanish Autonomous Communities have a public audiovisual entity) and by the tension between the political power and the large media groups, aggravated by the political polarisation that will be discussed later on.

How has confidence in the media evolved in this context? The emergence of disinformation as a problem in the EU provides us with more and more data regarding indicators such as trust in the media, although precisely for this reason the data offer generally short homogeneous historical series.

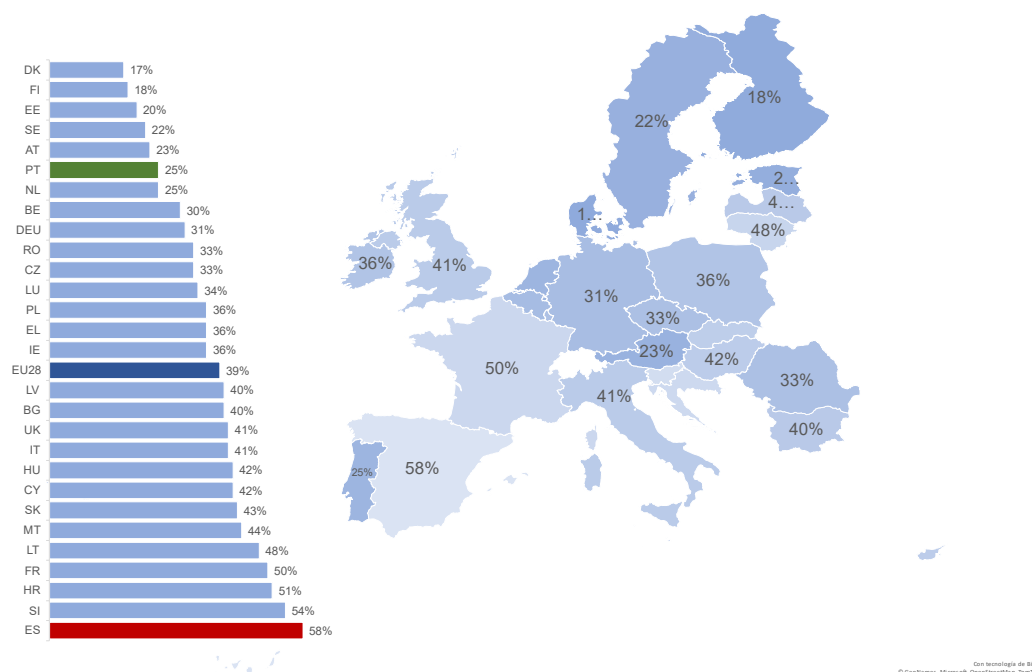
Eurobarometer has conducted several specific studies on the media in the EU [122, 146], and included some questions on this issue in the standard opinion barometers (alternating between waves of different groups of questions). If we look at one of the most basic questions, trust in the media, and review the data of the past six waves (2016-22), we can see how trust in the media in Spain has deteriorated in a striking way: the percentage of Spaniards who said they trusted the media has dropped from 21% in 2016 to 13% in 2022, and similarly those who said they did not trust the media were 43% in 2016 and are now no less than 58% of the citizens surveyed [164-166, 288-290].

Figure 20. Eurobarometer Media Trust Index: high trust in the media, by country (2022)



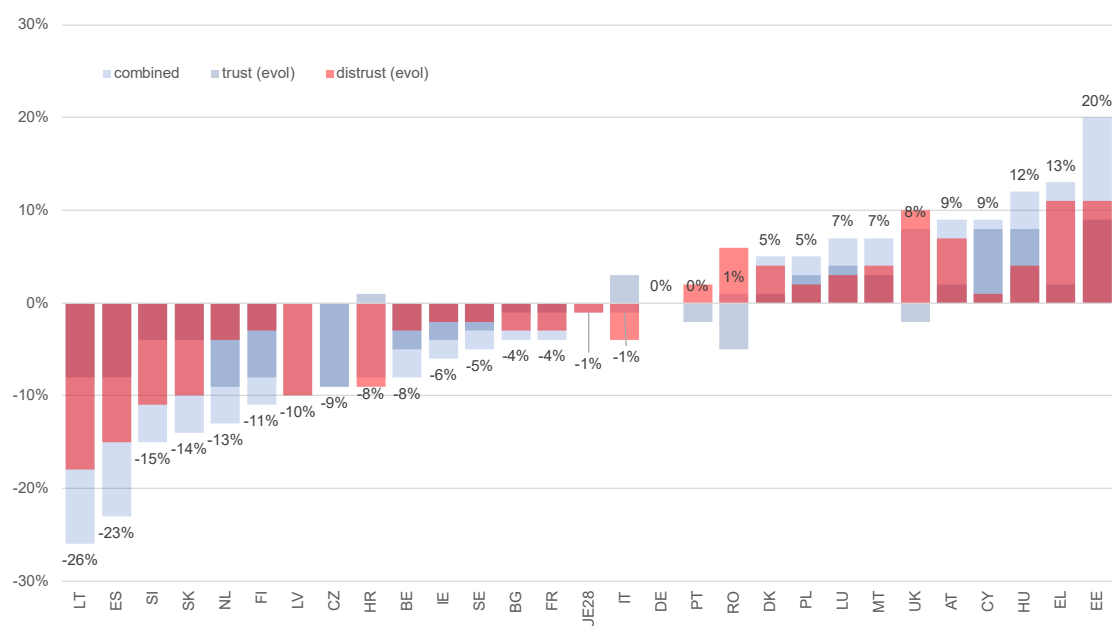
Source: the authors, based on Eurobarometer data (2022) [165].

Figure 21. Eurobarometer Media Trust Index: low or no trust in the media, by country (2022)



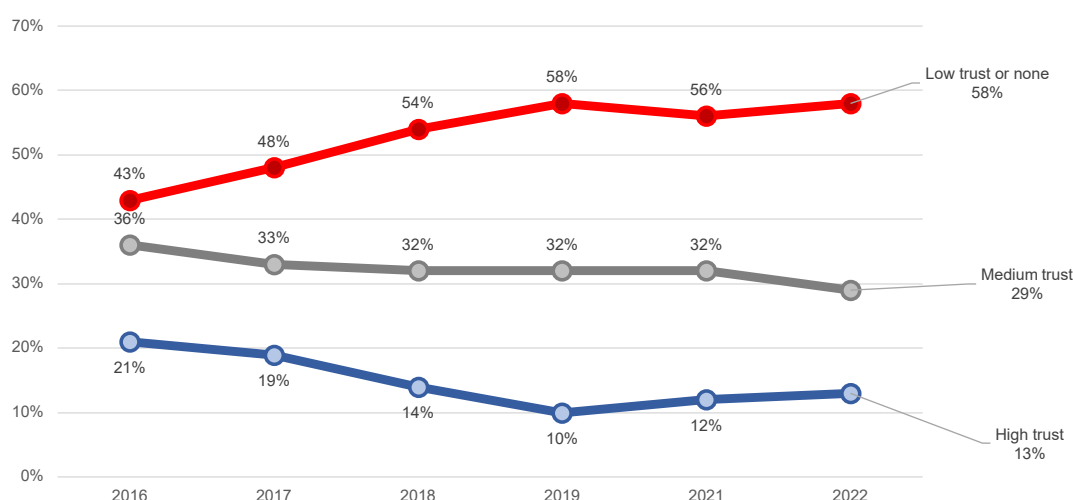
Source: the authors, based on Eurobarometer data (2022) [165].

Figure 22. Evolution of trust and mistrust in the media in the EU (2016-22)



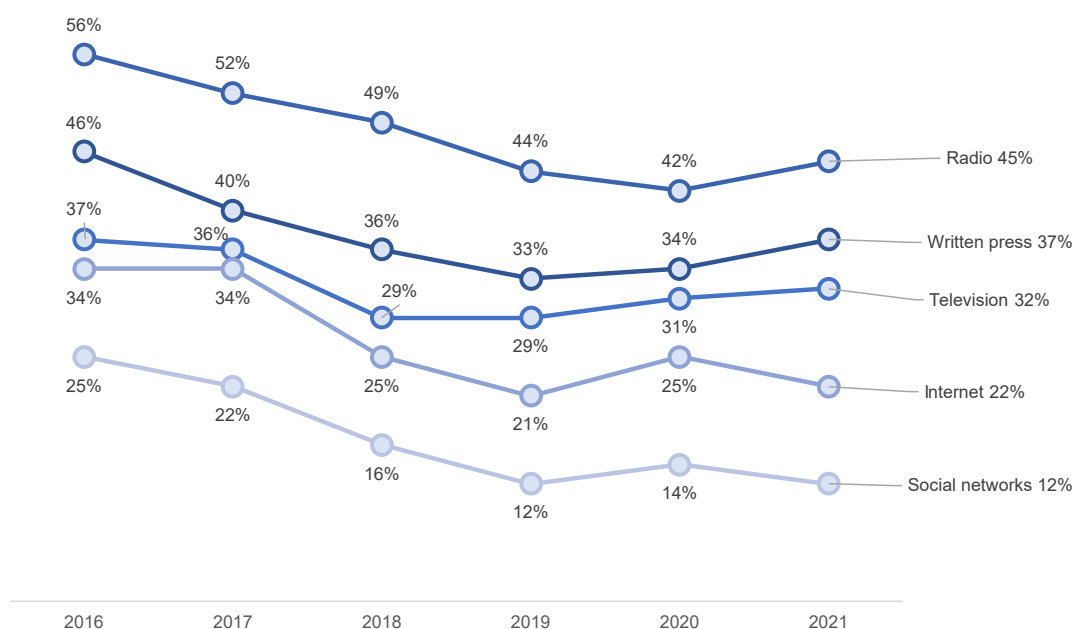
The evolution of trust is the difference between the 2022 and 2016 values of 'high trust in the media'; the evolution of distrust is the difference between the 2022 and 2016 values to 'low trust or none'; and the combined evolution is the sum of the two values, considering that the increase in distrust and the decrease in trust have been computed as negative values (and vice versa).

Source: the authors, based on Eurobarometer data (2016-22) [164-166, 288-290].

Figure 23. Evolution of trust in the media in Spain (2016-22)

Source: the authors, based on Eurobarometer data (2016-22) [164-166, 288-290].

According to the latest Eurobarometer of 2022, 58% of Spaniards have low or no trust in the media. The figure is even worse when looking at the trend of recent years, in which high trust has decreased by 8 points, and distrust has increased by 15. If we turn to the question about trust in five different media, we see how in the last two waves there has been a very slight upturn in traditional media (print, radio and television) compared with digital media (Internet and social networks) (Figure 24) [164-166, 288-290].

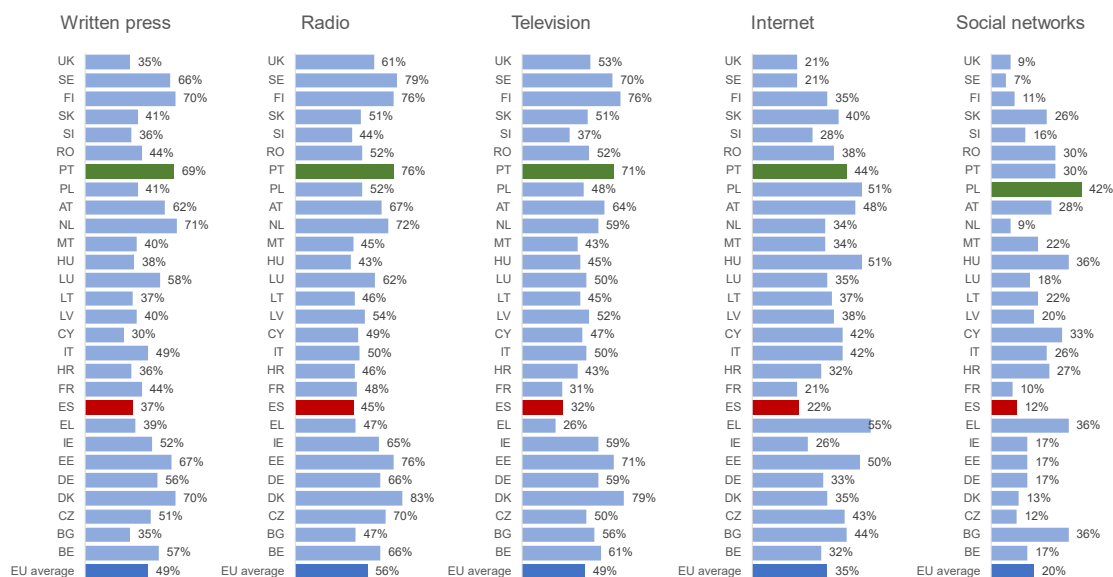
Figure 24. Evolution of trust in the media in Spain according to Eurobarometer (2016-22)

Source: the authors, based on Eurobarometer data [164-166, 288-290].

Comparatively, the data from the last Eurobarometer show the extent to which Spanish distrust in the media has worsened, and appears in all cases among the lowest values of the series of countries studied (Figure 25): only four countries trust less in the press, only two countries trust less in radio and Internet, only one country trusts less in television

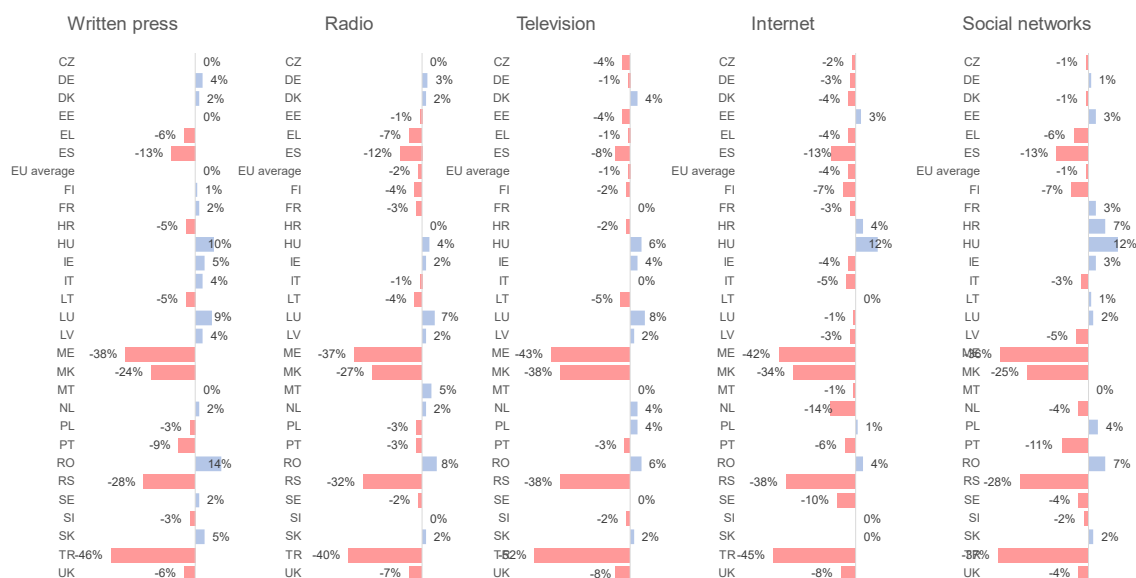
[164-166, 288-290]. If we take the data to observe the evolution, Spain is the country in the EU with the highest loss of trust in all media (only the Netherlands has a slightly higher figure in the loss of trust in the Internet) between 2016 and 2022 (Figure 26) [164-166, 288-290].

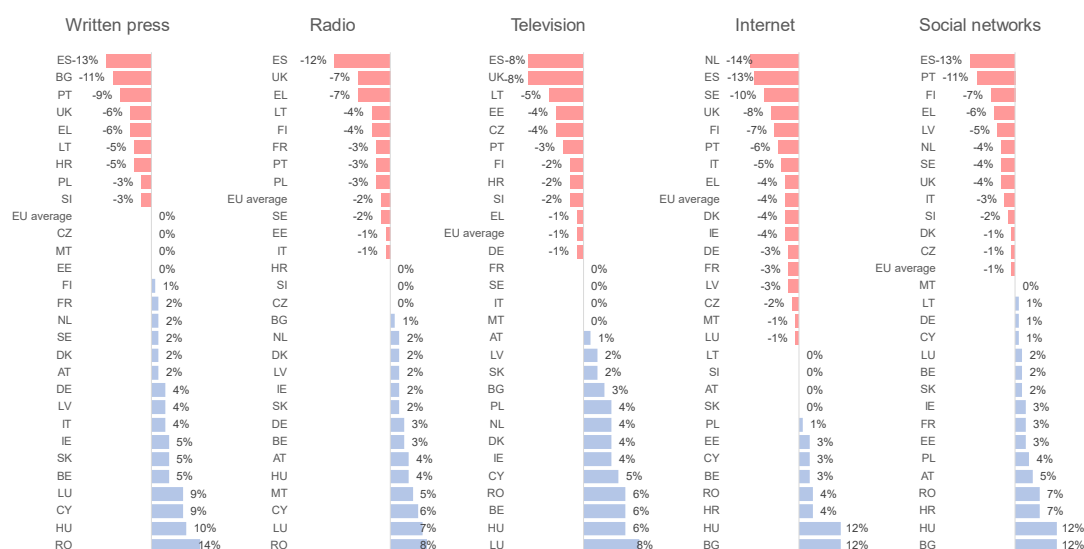
Figure 25. High trust in the media in the EU (2022) according to Eurobarometer



Percentage of respondents who 'tend to trust' the various media, by country.
Source: the authors, based on Eurobarometer data [165].

Figure 26. High trust in the media in the EU (2022) according to Eurobarometer



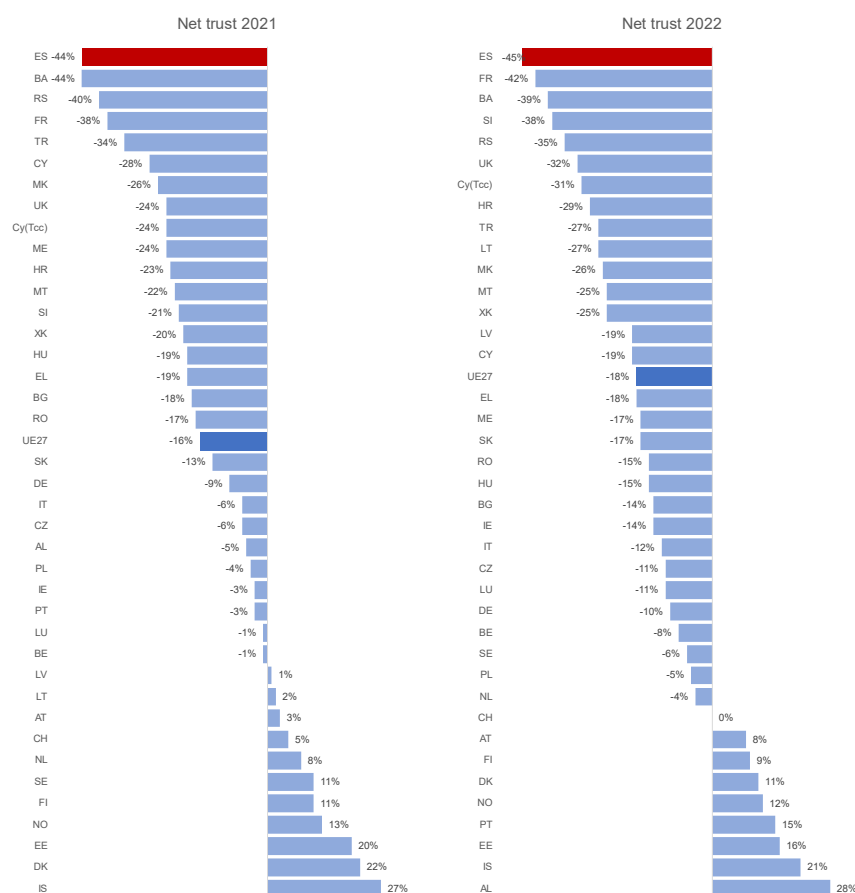


Evolution of the percentage of people who 'tend to trust' the various media between 2016 and 2022, by country (difference between the 2016 and 2022 values).

Source: the authors, based on Eurobarometer data [164-166, 288-290].

The European Broadcasting Union (EBU) analyses these data by composing a 'net trust' indicator [291], constructed by calculating the difference between citizens who tend to trust and those who tend to distrust each medium in each country. If we replicate this same calculation with the difference between 'high trust' and 'low or no trust' of the Eurobarometer Media Trust Index [165, 166], the result confirms the trend we have been showing: Spain is the European country with the lowest value in recent years for trust in the media, as shown in Figure 27.

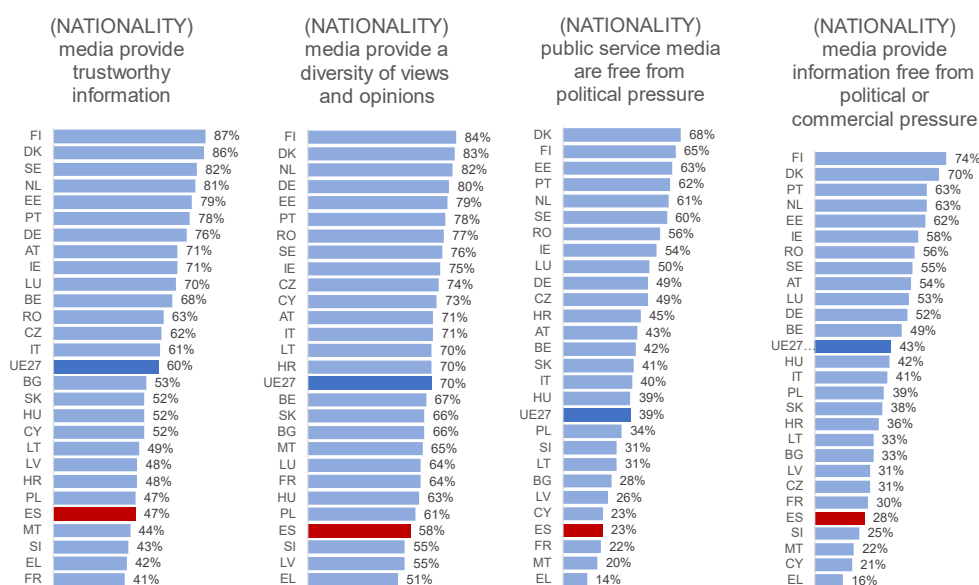
Figure 27. Net trust: difference between 'high trust' and 'low or no trust' in the Eurobarometer Media Trust Index, by country (2021, 2022)



Source: the authors, based on Eurobarometer data [165, 166].

Public media do not escape from this distrust either. Since 2021 Eurobarometer has been asking about the perceived independence of the public media with respect to political pressure [165, 166]. While Northern European countries have a high perception of independence of their public media, among Spaniards only 23% consider that the public media are free from political interference, a far cry from the European average of 39% [165, 166]. 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 of the entire European series in 2022, with 28% in agreement, far from the European average of 43% [165, 166].

Figure 28. Perception of the independence, reliability and diversity of public media and media in general in the EU, according to Eurobarometer (2022)



Source: the authors, based on Eurobarometer data [165].

Other sources of international relevance, such as the Digital News Report (DNR) of the Reuters Institute and the University of Oxford, find a very similar situation: in Spain only 32% of citizens trust the news, one of the lowest values in Europe (only above France, Greece, Hungary and Slovakia) and with a strong downward trend [292]. The figure for trust in the independence of the media is also very low: only 13% think that the media are free from undue political pressures, and only 15% that they are free from economic pressures [292].

Even more troubling, the Reuters/Oxford study offers distrust of the media as one of the reasons for news disengagement. Overall, 29% of those 'disconnected' from the news do so because they do not trust the media: 'Unlike classic propaganda, the design is not intended to seduce people to invest in a particular "truth", but rather to render them in a state of profound and radical doubt about what to believe-a state of epistemic anarchy' [293]. One might ask whether both information disconnection and distrust in the media are not already a consequence of exposure to disinformation campaigns, assuming that the aim of the campaigns is, to a large extent, the loss of confidence in democracy and its institutions.

'This breakdown of core processes of political representation, along with the declining authority of institutions and public officials opens national information systems to a mix of strategic disinformation from both national and foreign actors. Adding chaos to these disinformation flows are large volumes of independently produced fake news aimed at getting clicks and shares to support standard business models on social media. When this "for-profit" fake news takes on partisan aspects, as it often does, it may be picked up by social media bots and distributed as part of larger disinformation campaigns.' [37]

In the awareness of the loss of trust in the media, some striking strategies have appeared, because they are based on obtaining the validation of external auditors on their practices, a sort of certification of journalistic work that the media can exhibit as a guarantee to their readers.

- a. The Trust Project [294] is one of the projects that tries to make the values of professional journalism transparent. Created by the US journalist Sally Lehrman in 2014 and financed by Craig Newmark, Google and Meta, among many others, The Trust Project promotes transparency and professionalism of the media through a system of eight trust indicators that include media ownership, author professionalism, traceability of sources and diversity of informants. In Spain, *El País* [295], *El Mundo* [296], *El Periódico de Cataluña* [297] and several media belonging to the Henneo group [298] are part of the project.
- b. With a different methodology and conservative editorial line, NewsGuard – created by Steven Brill and Gordon Crovitz in the US in 2018 and funded by groups such as Publicis, Cox or Knight Foundation– applies nine criteria (which they call 'nutritional') to classify news sites into four categories: green, red, satire and platform [299]–.
- c. The Journalism Trust Initiative (JTI) is a project created by Reporters Without Borders (RSF) in 2018 in partnership with the European Broadcasting Union (EBU), Agence France Presse (AFP) and Global Editors Network (GEN), with funding from Craig Newmark, the European Commission and the US National Endowment for Democracy [300, 301].
- d. Some platforms make use of techniques such as blockchain to identify sources and validate media performance: this is what NewsCheck has been doing since 2017 [302] and the BitPress Misinformation Detector of the Credibility Coalition [303], funded by Knight Foundation and Wordpress. Microsoft brings its own technological solutions to Project Origin, which it launched in 2018 together with Radio Canada, BBC and *The New York Times* [304], integrated since 2021 in the Coalition for Content Provenance and Authenticity (C2PA) led by the technology companies Adobe, Arm, Intel and Microsoft together with the BBC and the Truepic fact-checking platform.

3.2.4 Political polarisation

The fourth vulnerability that we wish to highlight in the case of Spain is its growing political polarisation, an issue that has been worrying social analysts in recent times and that has been steadily spreading in research agendas around the world. The entry of anti-establishment and/or extremist parties in almost all parliaments in European countries, the growing sympathy that these actors arouse in citizens and which is reflected in the increase in the electoral flow of these organisations and, especially, the expressions of hatred and resentment with which both elites and politicians refer to their political adversaries in the public sphere have contributed to placing the issue of polarisation at the centre of public debate. As a result, we now have more data with which to evaluate the situation and, in order to do so in a comparative manner, other indicators have been developed –such as that of affective polarisation, which we will discuss shortly– that serve to describe new situations while at the same time complementing the information that until recently was only provided by the measurement of ideological polarisation.

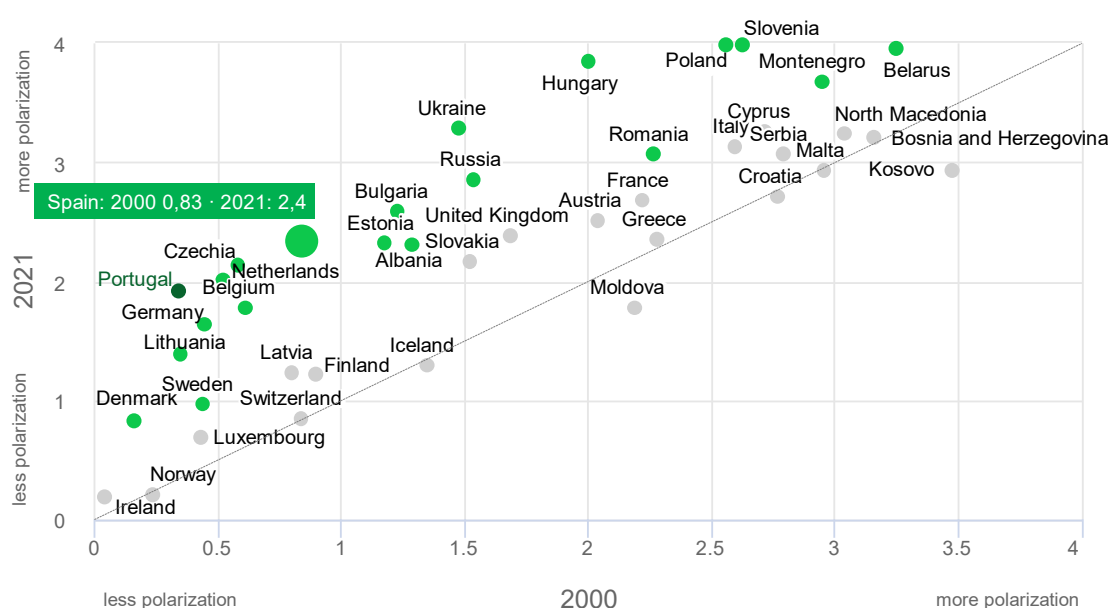
We will not go into the diversity of concepts –as many as the methodologies on which they are built– surrounding polarisation, a fashionable topic in the social sciences: political, ideological, social and affective polarisation. In all cases we refer to the tendency to social orientation in opposite directions, generally expressed on the left-right cleavage and usually measured with subjective indicators of attribution of the position of citizens or parties in the political spectrum or in the face of certain issues on the agenda [305, 306]. To the usual constructs of electoral, social, partisan and ideological polarisation, we have now added the affective polarisation, trying to find emotional explanations for the extremist tendencies that we see in our societies.

Spain's polarisation in the European context

If we look at the V-Dem [255] data on political polarisation (which measures on a scale of 0 to 4 whether society is polarised into politically antagonistic camps) and social polarisation (which uses the same scale to measure the differences of opinion on the main political issues in society), we see that Spain is currently close to the average for European countries in the first indicator, but in a more extreme position, much more polarised, in the second, that of social polarisation.

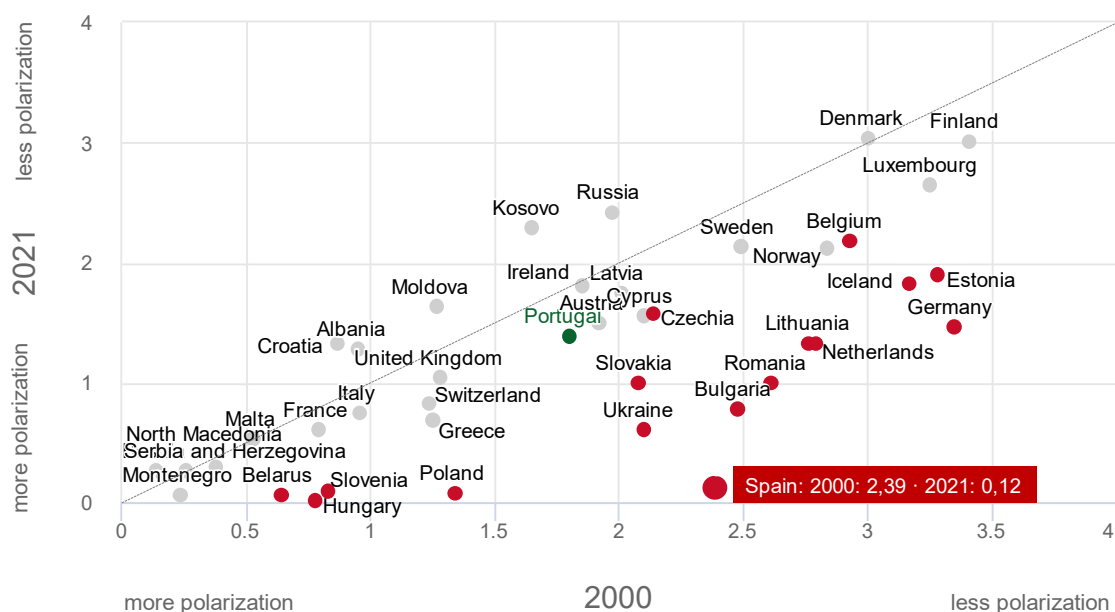
Political polarisation in the country for the year 2021 stands at 2.4, more polarised than the Nordic countries, Germany or Portugal, but less than France or Italy. Social polarisation for that year, however, stands at 0.12, indicating the existence of serious differences of opinion in society on almost all key political issues, giving rise to major clashes of opinion. The evolution of both indicators over the last two decades shows a continuous and pronounced advance towards greater polarisation.

Figure 29. Political polarisation evolution in Europe (2000-21)



Question: 'is society polarised into antagonistic, political camps?'. Responses: 0, not at all, supporters of opposing political camps generally interact in a friendly manner; 1, mainly not, supporters of opposing political camps are more likely to interact in a friendly than a hostile manner; 2, somewhat, supporters of opposing political camps are equally likely to interact in a friendly or hostile manner; 3, yes, to a noticeable extent, supporters of opposing political camps are more likely to interact in a hostile than a friendly manner; and 4, yes, to a large extent, supporters of opposing political camps generally interact in a hostile manner.

Source: V-Dem, 2022 [255].

Figure 30. Evolution of social polarisation in Europe (2000-21)

Question: 'how would you characterise the differences of opinion on major political issues in this society?'. Responses: 0, serious polarisation, there are serious differences in opinion in society on almost all key political issues, which result in major clashes of views; 1, moderate polarisation, there are differences in opinion in society on many key political issues, which result in moderate clashes of views; 2, medium polarisation, differences in opinion are noticeable on about half of the key political issues, resulting in some clashes of views; 3, limited polarisation, there are differences in opinion on only a few key political issues, resulting in few clashes of views; and 4, no polarisation, there are differences in opinion but there is a general agreement on the direction for key political issues.

Source: V-Dem, 2022 [255].

Political polarisation in Spain in CIS data

In Spain the Sociological Research Centre (CIS) has been responsible only for a few years for alerting about political tension. The first report dedicated to the social perception of polarisation in October 2018 revealed that 91% of respondents believed that there is a lot (64.2%) or enough (26.8%) confrontation, that it is mainly contributed to by political parties (52.3%) and the media (13.6%), and that 78.5% are very (39.2%) or quite (39.3%) concerned about its existence [307]. In the following February 2020 survey, the perception of tension dropped to 88.3%, either a lot (53.6%) or quite a lot (34.7%). The greatest responsibility was attributed to political parties (56.2%), to all (29.5%), and to a lesser extent, to the media (9.5%). Concern dropped to 73.7%: a lot (34.8%) and quite a lot (38.9%) [168]. In the last barometer published, in April 2022, there was a perceived increase in tension (86%), either a lot (44.6%) or quite a lot (44.1%), due to political parties (63.5%) and to a lesser extent to the media (13.7%), and to everyone in general (13.1%). Concern rose again to 79.2%, being very much (40.1%) or quite a lot (39.1%) [169].

In April 2021 the CIS began to measure concern about the increase in social tension as one of the three main problems for Spain and the personal concern it produces in respondents. From the statistical series available it can be deduced that its importance for Spain has remained stable, between positions 31 and 41 out of 50, straddling the third and fourth quartiles. This position may be disorienting because it would indicate a distance from the main problems for Spain, but they remain ahead of problems such as nationalism, distrust in politicians and institutions, the crisis with Morocco or gender violence, among others, according to the latest available barometer of July 2022 [256]. The above would confirm the consideration of tension as a structural problem for coexistence in Spain and, therefore, a breeding ground for disinformation. In fact, a

WhatsApp report shows that publications showing disinformation and hatred reached some 9.6 million potential voters before the 2019 Spanish legislative elections [308].

Associated with tension, but offering greater possibilities for fostering disinformation, is political instability caused by the lack of agreement, unity and capacity for cooperation between parliamentary political forces. The CIS has also been asking about this factor: in the same period of the previous series, the same respondents placed this factor in the first quartile of problems for Spain, between 4th and 14th place. Even personal concern about this factor is twice as high as that caused by tension. In summary, the inability to reach political agreements generates political instability and social tension in Spain, being, in this order, a factor that enhances the opportunities for disinformation, although the correlation between both factors and their meaning have yet to be demonstrated.

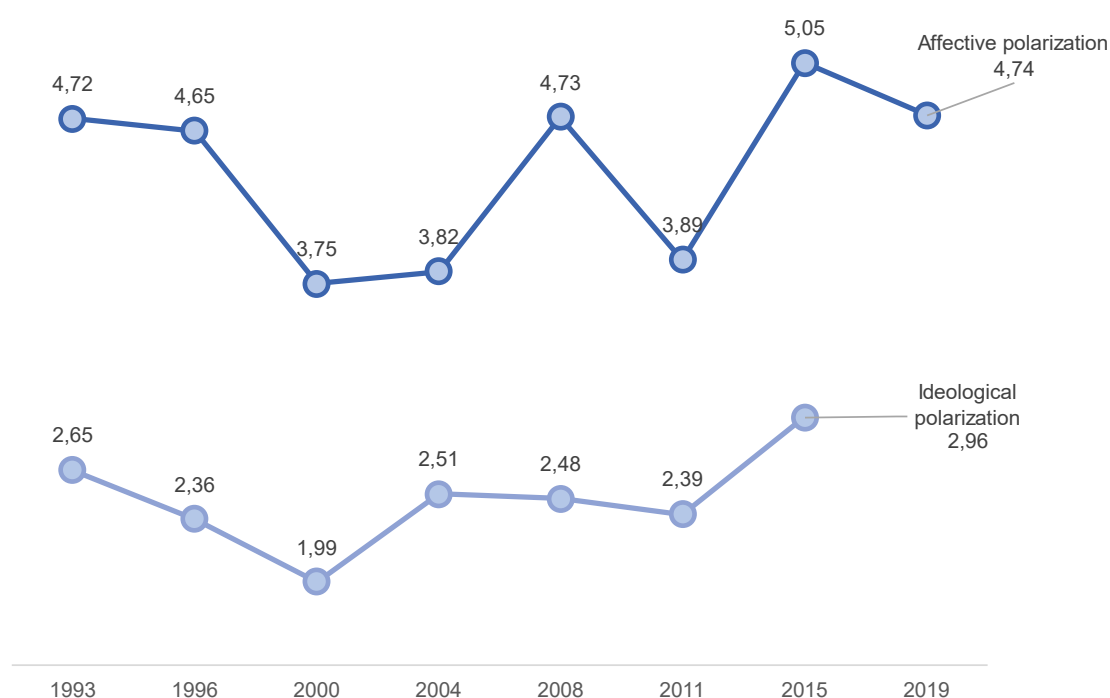
An emerging concept: affective polarisation

The concept of 'affective polarisation' seeks to capture another dimension of polarisation: the emotional distance, the feelings of sympathy or antipathy, of affection or rejection, provoked in citizens by political ideas and the actors who defend them, especially those opposed to their own ideas. This is an indicator that has gained strength in the description of the situation of political systems and the quality of democracies in recent times, especially since the US case [309], as it can explain receptiveness to disinformation campaigns and also engagement in this type of process, especially taking into account that affective polarisation seems to be activated during electoral processes, when external disinformation campaigns to influence the vote are usually produced:

'Election salience makes ideological differences between parties more visible, and this heightened ideological polarisation enhances affective polarisation. Election salience also activates partisan identities, which in turn reinforce affective polarisation. When the votes have been cast, the campaign is over and elections lose salience citizens become less strongly attached to parties and they perceive less ideological differences between parties.' [310]

In comparative studies, Spain appears as a case of high affective polarisation [311-313]. In fact, the study by Gidron *et al.* [311], analysing 20 countries in Western Europe and the US, with data from the Comparative Study of Electoral Systems (CSES), places Spain as the case with the highest affective polarisation, together with Greece and Portugal, well above the average (4.38 on a scale of 0 to 10). However, although the waves of surveys used in this study for the analysis covered a time period ranging from 1996 to 2017, in the case of Spain the most current data corresponds to 2008, as is the case with several analyses that work with data prior to the reconfiguration of the party system that occurred in Spain in the second half of the 2010s [312, 313].

As a consequence of this deficit in comparative approach research and the lack of data provided by the Spanish reference surveys (the CIS does not ask about the feeling of sympathy or rejection provoked by political parties), researchers have had to use alternative indicators to evaluate the situation in the country [305]. The studies by Torcal [306] and Miller & Torcal [314] warn that the levels of ideological polarisation and affective polarisation are high for the Spanish case and have increased in recent years, but have done so without a clear pattern in their evolution, with two significant peaks (2008 and 2015-19). Even so, they argue that their values are far from the high indicators of the US or other European countries and that the main causes of affective polarisation lie in 'the constant dispute between political actors and discourses full of disqualifications and "demonisations" of the opponent, which leads to the perception of an irreconcilable confrontation between them' [306].

Figure 31. Evolution of ideological and affective polarisation in Spain (1993-2019)

Source: the authors, based on several sources [306, 315].

The National Survey of Political Polarisation prepared by the CEMOP of the University of Murcia provides a very up-to-date view of political polarisation in Spain, since it records data for the years 2021 and 2022 in which it asks citizens to evaluate, on a scale of 0 to 10, the feelings of 'antipathy and rejection' and 'sympathy and adhesion' towards political parties [316, 317]. Their results indicate that the pattern of this polarisation in Spain 'resembles that of countries where affection for one's own party is medium, with a tendency to reduce..., but rejection and dislike of rivals and adversaries is high' [305]. They record an increase in affective polarisation of 0.42 points between 2021 (3.98) and 2022 (4.4) and highlight the existence of a polarisation that is less of a partisan nature and more of 'ideological blocs', between left-wing voters and right-wing voters and in which territorial sentiments and religion also come into play as a factor of polarisation.

Table 13. Matrix of partisan affection/rejection in Spain (2008) (CSES)

	Vote %	PSOE	PP	CiU	EAJ-PNV	ERC	IU	BNG	CC-PNC	UPyD
PSOE	43.9	7.32	2.10	2.91	2.06	1.99	4.26	2.69	2.94	3.60
PP	39.9	2.03	7.45	1.91	1.06	0.82	1.13	1.23	1.98	3.65
CiU	3.0	4.55	1.91	6.67	4.00	2.80	3.14	2.92	3.60	2.25
EAJ-PNV	1.2	4.94	1.41	4.53	7.56	4.62	4.71	4.43	4.93	3.21
ERC	1.1	4.93	0.22	4.00	4.75	6.85	3.81	4.62	3.33	0.50
IU	3.8	5.34	1.16	2.52	2.27	3.02	7.00	2.86	2.39	2.33
BNG	0.8	5.36	0.82	3.25	2.13	3.25	4.64	6.91	3.29	3.88
CC-PNC	0.7	2.50	1.50	1.00	0.50	1.00	0.50	1.00	4.50	1.00
UPyD	1.2	4.25	4.25	1.70	0.90	0.91	2.75	1.00	2.14	6.82

Source: Reiljan [318]. API score: 5.02.

Table 14. Affective feelings towards the different parties, according to vote plus sympathy. Table of feelings in Spain (2021) (CEMOP)

Vote + Sympathy	PP	PSOE	Vox	Ciudadanos	U. Podemos	EH-Bildu	ERC	PNV	JxC
PP	6.49	3.19	4.02	3.27	0.73	0.42	0.65	1.57	0.79
PSOE	2.68	5.85	0.85	3.03	3.53	1.83	2.13	2.97	1.79
Vox	4.68	1.27	7.31	2.35	0.32	0.11	0.17	0.60	0.26
Ciudadanos	3.92	3.57	2.51	5.09	1.70	0.89	1.01	2.42	0.88
U. Podemos	1.44	4.95	0.24	2.04	7.21	4.48	4.82	4.26	3.51
EH-Bildu	0.50	3.75	0.00	0.25	4.25	7.25	6.50	5.75	3.75
ERC	1.85	4.30	0.64	1.45	4.73	5.19	8.33	6.34	6.45
PNV	2.28	5.00	0.11	1.89	3.33	4.28	4.50	6.39	3.72
JxC	1.47	3.47	0.53	0.87	3.47	4.27	5.40	4.57	6.80

Source: Garrido *et al.* (2021) [305]. Data CEMOP. API: 3.98.

Polarised pluralism, new platforms and the reverberation of political discourse

Social research has repeatedly pointed out in recent years the connection between political polarisation and disinformation in contemporary societies: 'the growth in polarisation has seemingly supercharged political disinformation, leading to widespread partisan misperceptions and conspiracy theories that pollute public debate, distort public policy, and intensify polarisation' [319].

In any case, it does not seem easy to establish a single direction of causality: disinformation contributes to the polarisation of societies, while polarised societies are ideal for the generation and propagation of internal or external disinformation campaigns. The role of social networks in this new environment, favouring for commercial reasons the dissemination of controversial content to increase engagement or reinforcing one's own points of view through the logic of echo chambers, has been repeatedly highlighted, to the point of serious concern of parliaments about the consequences of the new informational ecosystem and its logics on the future of democracy.

The tendency of certain actors in the new digital ecosystem to promote confrontation is seen both as part of their commercial logic –confrontation favours user activity on the platform– and of automation through secret algorithms of processes involving the interactions of millions of people, but the social sciences speak today of 'affective politics' as a way in which propaganda has evolved in the digital environment to capture affections and emotions: 'today's combination of big data with carefully honed psychological science for targeting individual desires and vulnerabilities has enabled a vast new industry of political and propagandistic manipulation' [320]. The effects of these processes in the 2016 US elections, in the 2016 British Brexit referendum or in the 2019 Indian elections (the so-called 'first WhatsApp elections') are a permanent subject of discussion about the role of the new informational ecosystem in the social debate on crucial issues of the public agenda.

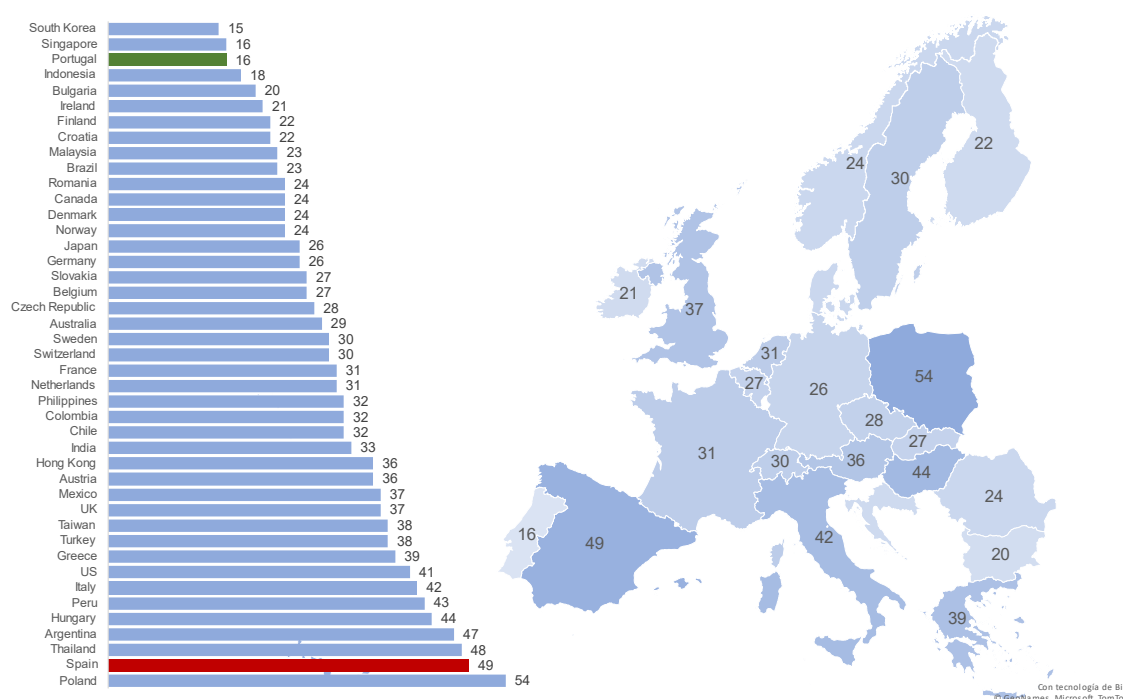
Before the contemporary debate on the role of digital social networks in polarisation, the media configuration of Southern European countries was already identified as 'polarised pluralism' –using Sartori's [321] concept for party systems in countries where the centrifugal tendency makes extremist parties compete with those of the centre– in countries such as Portugal, Spain, Italy, France and Greece:

'Polarized pluralism tends to be associated with a high degree of political parallelism: newspapers are typically identified with ideological tendencies, and traditions of advocacy and commentary-oriented journalism are often strong. The notion of politically neutral journalism

is less plausible where a wide range of competing world views contend.' [322]

It is possible, therefore, to think that the polarisation of the political debate was already present in the public space in Spain within the old informational ecosystem and that it has been transferred –with new factors such as external interference– to the digital ecosystem, reproducing the pre-existing logic. In fact, the Oxford Digital News Report shows that the perception of Spaniards regarding the polarisation of the media system is one of the highest in the world, on a par with countries with the degree of political conflict of Argentina, Thailand and Hungary [292].

Figure 32. Proportion of those who think that news organisations in their market are politically distant (2021)



Question: 'in your view, how politically close together or far apart are the main news organisations in your country?'.
Source: Reuters Digital News Report [292].

3.2.5 Spanish as a factor in the global circulation of disinformation

The last of the factors that we would like to highlight among the specificities of the circulation of disinformation in Spain is language. As the Department of Homeland Security (DSN) says in its 2020 report:

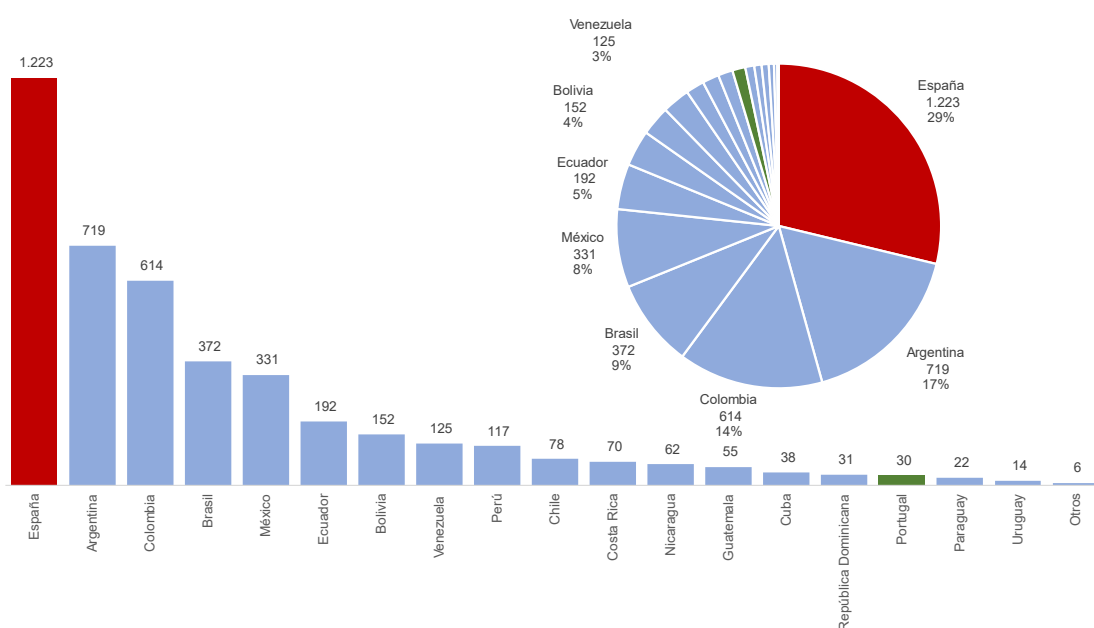
'Throughout 2020, disinformation and propaganda campaigns abroad by some States, particularly in Spanish, have increased.' [157]

DSN's concern about disinformation 'particularly in Spanish' is more than understandable. In the first place, because transnational media driven by some countries seeking influence in Latin America broadcast audiovisual signals or produce news portals in Spanish: this is the case of *Russia Today en Español* and Sputnik News (Russia), CGTN (China), HispanTV (Iran) and *Voz de América* (the US). As is known, the European Commission considered the Russian state media as part of the disinformation apparatus of that country directed abroad, and suspended its activity to the EU in March 2022 after the Russian invasion of Ukraine [323]. Latin America and the Caribbean, as UNESCO warns in a recent report on disinformation in the region, present 'a continuum with hundreds of millions of people in a score of countries speaking the

same language and having a shared cultural history, which facilitates the dissemination of inaccurate content back and forth without losing meaning' [324].

The homogeneity of Spanish makes it an ideal common linguistic space for cultural or informational circulation in the 21 countries of the world that share it: 'although the territory corresponding to the Hispanic world includes large bilingual or multilingual areas, in general terms it offers a very high level of communicativity and a low or minimal level of diversity' [325]. In 2021, according to data from the Cervantes Institute, Spanish had 591 million speakers in the world, of whom 493 million were native speakers [326], making it the fourth most spoken language in the world after English, Mandarin Chinese and Hindi [327].

Disinformation campaigns created to affect any Spanish-speaking country can reach Spain more easily than disinformation constructed in other languages, just as disinformation produced in English has a global reach that is indisputably greater than that produced in languages with a smaller speaker base. This interpenetration of disinformation through the common language is, as we can assume, more active when it affects problems that go beyond the national level, such as the COVID-19 pandemic or conflicts of transnational scope. The fact checker group Latam Chequea [328] has been reviewing false information about the pandemic, and has found that many of them jump between Spanish-speaking countries (about 15% of the news have been identified in countries other than those in which they appeared). Spain is the origin of almost a quarter of the false news about COVID detected by the fact checkers, followed by Argentina, Colombia and Mexico [328]. The case of Spanish-language disinformation among US Hispanics has also received research attention in recent months, showing its distinct dynamics from English-language narratives and specific forms of propagation: 'Latino communities maintain strong connections across Latin America; the result is an entire continent of Spanish-language disinformation largely unchecked by the platforms' [329]. The launching of Factchequeado [330] by the fact checkers Maldita.es and Chequeado in the US responds to this information circulation and social demand: 'one day we realized that much of the false information circulating in Spanish, in social networks and instant messaging services, was generated or consumed by Latino migrants living in the United States, and that the members of this community had practically no one to help them verify and refute this information, because the journalistic checks were mainly in English and not in Spanish' [331].

Figure 33. Fake news about COVID-19 verified by Latam Chequea (2022)

Source: the authors, based on data from Latam Chequea. Total news as of the date of consultation: 4,251 [328].

There is still very little information on the international circulation of disinformation linked to languages, and particularly in relation to Spanish and Spanish-speaking countries. But in recent months it has become clear that the tools developed by the major platforms to monitor fake news published on their networks do not have the same resources for all languages. Avaaz's study on Facebook's role in containing disinformation about the pandemic warned that 'Italian, Spanish and Portuguese-speaking users appear to receive significantly fewer warning labels from Facebook' [308]:

'Italian and Spanish-speaking users may be at greater risk of disinformation exposure. Facebook has not yet issued warning labels on 68% of the Italian-language content and 70% of Spanish-language content we examined, compared to 29% of English-language content.' [308]

Although internal documents published by several media showed that Facebook was aware of this situation ('We're not good at detecting misinfo in Spanish or lots of other media types', 'Gaps in detection still exist, eg, various media types, Spanish posts, etc.' [332]), Meta has responded to these accusations by explaining the efforts it continues to make to increase the international base of fact checkers that review content in circulation [333]. Despite this, several Hispanic social organisations in the US launched the #YaBastaFacebook! initiative in March 2021 to ask the platform for more resources for moderation and monitoring of Spanish-language content on the network [334].

Finally, some studies or information published in the media have helped us to learn about some of the disinformation activities carried out directly by Spanish-speaking states: 'in Venezuela, for example, documents leaked in 2018 described how disinformation teams were organized following a military structure, in which each person (or crew) could manage twenty-three accounts, and be part of a squad (ten people), a company (fifty people) a battalion (one hundred people) or a brigade (five hundred people), which could operate up to 11,500 accounts' [335]. The Oxford Internet Institute's Global Inventory of Organised Social Media Manipulation recognises the existence of 12 Spanish-speaking

countries with official activity in this area (out of a total of 81 worldwide, up from 70 in 2019) [335].

The Oxford study differentiates between countries with high capacity (large numbers of personnel, and large budget spending on psychological operations or information warfare), medium (with full-time personnel working year-round to control the information space, coordinated with multiple types of actors, and experimenting with a wide variety of tools and strategies for manipulating social media) and low capacity (small teams operating only domestically). The Oxford study includes Spain among the countries with official activity (cybertroops) in disinformation tasks, although it attributes to it only domestic activity. Among the countries with high capacities we appreciate the role of linguistic interpenetration: Venezuela's campaigns targeted the US and Europe (probably Spain) on Twitter, Bolivia's targeted Mexico and Venezuela, and Ecuador's targeted Argentina, Chile and El Salvador [335].

Table 15. Spanish-speaking countries with cybertroops dedicated to disinformation (2020)

Country	Capacity	In active	Status	Coordination	Resourcing
Venezuela	High	Yes	Permanent	Centralised	Documented
Bolivia	Regular	Yes	Occasional	Some centralised	No evidence
Cuba	Regular	Yes	Permanent	Centralised	No evidence
Guatemala	Regular	Yes	Permanent	Centralised	Documented
Mexico	Regular	Yes	Occasional	Decentralised	Documented
Argentina	Low	Yes	Occasional	Decentralised	No evidence
Colombia	Low	Yes	Occasional	Decentralised	No evidence
Costa Rica	Low	Yes	Occasional	Decentralised	Documented
Ecuador	Low	Yes	Occasional	Centralised	Documented
El Salvador	Low	Yes	Occasional	Decentralised	No evidence
Honduras	Low	Yes	Occasional	Centralised	No evidence
Spain	Low	Yes	Occasional	Decentralised	Documented

Source: Global Inventory of Organised Social Media Manipulation [335].

3.2.6 The vulnerabilities of an open society

As we have detailed, some of the characteristics of contemporary Spanish society make it vulnerable to international disinformation campaigns: its status as an advanced democracy, the conditions of freedom of expression, the penetration of digital networks and the global nature of the Spanish language represent structural conditions that, added to a growing socio-political polarisation and the loss of confidence in the traditional media system, provide a fragile context that justifies the institutions' concern about Spain's vulnerability to international disinformation campaigns.

3.3 Three case studies

3.3.1 Electoral processes: disinformation in the 2017 Catalan secession attempt

Reports from NATO's Strategic Communications Centre of Excellence (NATO StratCom COE) had been warning since 2014 of the pattern of Russian disinformation in the Baltic countries, but not in relation to countries such as Spain, which was not a member of that organisation, nor in the Spanish language. The absence of empirical analysis required extrapolating the Russian pattern to Spain, which had limited evidence of interference in internal affairs. These were limited to emulating known Russian techniques and procedures to exploit internal dissension in Spain or in the Spanish language, and to criticise the deterioration of Spanish-Russian bilateral relations after the invasion of Crimea, as well as the military deployments and economic sanctions carried out by Spain. These retaliatory or coercive actions came from individual and collective 'Trojans' [336-338] who sympathised with Russia and legitimised their actions.

The first association of the pattern of Russian disinformation in southern European countries and, specifically with Catalonia, appears in the November 2017 Atlantic Council analysis prepared by Borja de Lasheras and Nicolás de Pedro [339]. It associated disinformation campaigns with the search for influence in favour of Russian actions in Ukraine or against European and Western democracies, both in Spain and in Latin America where Spanish serves as an instrument for the dissemination of disinformation. Spanish foreign policy has never been in favour of maintaining confrontational relations with Russia, although they began to become tense after the Russian invasion of Ukraine and the annexation of Crimea in 2014. The National Cryptologic Centre (CCN-CERT), in charge of cybersecurity for the December 2017 elections in Catalonia, detected some denial-of-service (DDoS) attacks but did not attribute them to Russia. On the contrary, and in its Annual Cybersecurity Report it stated that 'the presence of activists sponsored by Russian institutions in the media expression of the conflict derived from the situation created in Catalonia during 2017, as a consequence of the departure from the current constitutional legality of certain Catalan autonomous institutions, seems proved' [340].

The extrapolation of the Russian disinformational pattern –still without empirical development to understand its impact– became generalised during 2017. David Alandete, deputy editor of the newspaper *El País*, was reporting in that newspaper for months on Russian interference in Catalonia through RT, Sputnik and bot farms from Russian territory [341-344]. The campaign, fundamentally aimed at presenting Spain as a democratic state in decay, included opinions of personalities in the orbit of Russian influence –such as Julian Assange– along with unsubstantiated claims, such as that an independent Catalonia would recognise Crimea, or the comparison of Catalonia with Kosovo and Barcelona with Tiannamen, among others, to spread them through fake Twitter accounts and profiles [345]. Progressively, media research began to link these same sources and procedures circulating about Catalonia with those that had been used in the 2016 US election campaign and in those of some EU countries [341, 343].

The disinformation campaign was accentuated between 29 September and 19 October, especially on RT's Spanish-language channel on Twitter, whose followers then (288) outnumbered English-language followers (266). The activity of bots in Catalonia surpassed the 26-J elections, which shows their use. The most widely circulated tweets associated Spanish democracy with the Venezuelan dictatorship and the firing of shots at demonstrators [346].

The first objective data on Russian intervention in the Catalan independence referendum is due to a study by Javier Lesaca [347]. According to his analysis, the hashtag #Catalanreferendum became a global trending topic for 12 hours on 1 October 2017 on Twitter, but more surprisingly, news coming from RT and Sputnik media ranked fourth as top referral sources (47,964 posts with 125.9 million views). The impact analysis revealed that 84% of the top 100 most active accounts used were anonymous and mostly appeared to be controlled by bots. Most of the posts concerned police actions (50% RT and 40% Sputnik), followed by criticism of the central government (19% on RT and 40% on Sputnik). The largest group of profiles merely redistributed or retweeted RT and Sputnik content (37.7%), followed by a Venezuelan group (24%) and another that distributed content from sources other than the above (27.3%).¹

This study, together with others, included the case of Catalonia among the Russian disinformation campaigns on Brexit, the 2018 Italian elections, the US presidential election and others, building on these case studies the pattern of behaviour of Russian disinformation campaigns [349].

¹ In 2018, precisely, the Plenary of Congress already rejected a non-legislative proposal of the PP that demanded Government measures to strengthen the control of 'fake news'. The initiative was voted against by the PSOE, Unidos Podemos and the nationalist parties, and supported only by Ciudadanos [348].

In the same vein, journalist Anabel Díaz referred during a public seminar to the harassment that the media and journalists of *El País* had received for alerting about the phenomenon of disinformation during the months prior to the attempted sedition in October 2017. At the same meeting, the Director of the CNI warned about the novelty of the media being used and their virality [120].

During the Catalan elections of 21 December 2017 [350] –immediately after the sedition attempt–, the Government showed its concern that the disinformation campaigns detected in the months prior to 1 October would be repeated. A concern within the election securitisation procedure previously prepared by the Government [351]. On 14 December 2017, the Joint Commission on National Security hosted the appearance of Janis Sarts, Director of the NATO Strategic Communication Centre. The Director did not confirm Russian authorship because the NATO StratCom COE only follows campaigns against its members but confirmed that Catalonia was one of the hotspots for bot communication, with mostly political messages and similar patterns to those detected in Ukraine and Germany [352].

Although Spain did not attribute responsibility for the disinformation recorded during the process to hold an illegal independence referendum in Catalonia to any foreign disinformation campaign (not even in the National Security Strategy), concern in the face of signs of disinformation led to the mobilisation of the Government and the actors involved in 2018. In November 2018 the Russian Foreign Minister, Sergey Lavrov, proposed to his Spanish counterpart, Josep Borrell, the creation of a working group to fight cybersecurity threats and information manipulation, but the issue of disinformation subsequently disappeared from the common agenda [353].

Activity has continued for months. The Atlantic Council's DFRLab identified the activity of dozens of accounts spreading false content aimed at sustaining the Catalan independence movement, supported by accounts from Venezuela and Russia [354]. Twitter shut down in 2019 almost 200 'fake accounts which appear to have been created with the intent to inorganically influence the conversation in politically advantageous ways' [355].

The case study shows that the effectiveness of the fight against disinformation campaigns depends on the resilience of authorities and public opinion. Despite the known experiences and best practices of third parties, the disinformation campaign developed in Catalonia caught Spanish society without adequate prevention and response instruments to deal with it. Without them, the Government lost first the initiative and then the battle of the Spanish-language narrative on the sedition process in Catalonia. The subsequent reaction put in place the measures and instruments to articulate the fight: mobilisation of the Government and deputies to become aware of the phenomenon (culture of disinformation), and promoting structures and rules of action (system, strategies and procedures).

3.3.2 '*Infodemic*': *disinformation about COVID-19 in Spain*

Spain was not left out of the disinformation generated around the COVID-19 crisis. The 'infodemic' replicated in Spain –or in the Spanish language– actions related to smear campaigns about the inability of NATO or EU countries to respond to the health crisis, protect their citizens and cooperate in global public health. The 2020 Annual National Security Report acknowledges the actions of foreign governments during the pandemic to achieve economic benefits, gain access to technological capabilities or interfere in domestic affairs for purposes of political and social destabilisation [157]. Patterns of behaviour of disinformation campaigns were recognised in the campaigns, such as the cooperation of different actors and the adaptation of narratives to the particular situations of each country.

The pandemic generated a large number of hoaxes that were monitored by the Cybernetic Coordination Office of the Ministry of the Interior after the declaration of the state of alarm. The procedure was similar to the one established for the detection of false news in electoral processes since there was not yet a structure and a procedure (it was approved in November 2020) suitable for detecting disinformation campaigns. Despite this, the monitoring detected 291 relevant cyberbulls and the creation of more than 1.5 million accounts in social networks in the first three months [356].

Disinformation also appeared as a weapon of political confrontation regarding government decisions. A special barometer of the Centro de Investigaciones Sociológicas of April 2020 showed that 47.8% of those consulted had little (29.8%) or no (18%) confidence in the Government's management, compared with 46.5% who had a lot (10.5%) or quite a lot (36%) of confidence [357]. On the contrary, the same barometer showed practical unanimity (91.4%) in favour of major agreements. These were easier to reach at the beginning of the pandemic than as the risk decreased and each extension of the state of alarm became a cause for confrontation, to which was added the subsequent declaration of unconstitutionality of the first state of alarm by the Constitutional Court [358].

Disinformation about COVID-19 was not confined to the media, but extended to social networks and messaging applications, nor was it limited to the national or international political arena, but an 'avalanche of disinformation in the medical and health field' has been noted [359]. From the quantitative analysis of the main hoaxes denied in Spain and Latin America, it can be deduced that 46.7% of the fact checks were carried out on disinformation related to scientific information and health, and 22% on disinformation related to the symptoms, routes of infection and characteristics of the virus [360].

The pandemic has generated numerous sociological studies related to various health, political, economic and social aspects, but none are known about the specific disinformation campaigns. The CIS barometers have been polling on less complex aspects of the pandemic than disinformation, and the media and fact checkers have echoed the fake news more than the campaigns themselves. This may have been contributed to by the attribution to China and Russia of the campaigns by the European authorities of disinformation campaigns on the subject of 'vaccine' and 'mask' diplomacy to discredit European and Western actions within and outside their borders [361].

In any case, and due to the existing political tension, the pandemic gave rise to a controversial debate when the Centro de Investigaciones Sociológicas asked whether 'total freedom' of information on the coronavirus should be maintained, or only that of the 'official sources': 66.7% of respondents supported restricting unofficial information versus 30.8% who opposed any restrictions. The controversy exposed the opposition of the press associations FAPE and APM to restricting freedom of information under the pretext of preventing hoaxes [362].

The adaptability of disinformation campaigns to situations that facilitate their propagation has already been mentioned. In the case of Spain, and in relation to the previous case-study on disinformation in Catalonia, the same nationalist actors behind the disinformation around the process for a referendum on independence took advantage of COVID-19 to attribute responsibility for the coronavirus to the State. The disinformation campaign attributed to the central administration its spread in Catalonia, the denial of health resources to that autonomous community or the prohibition of regional confinement to deal with it, as well as that there would be fewer deaths with independence, arguments that encourage the campaign of 'Hispanophobia' taking advantage of a situation of health crisis.

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 'infodemia' or 'disinfodemia'. However, it had the positive effect of

increasing social awareness of the phenomenon and its effects. In addition, it confirmed patterns of campaigns such as opportunity: the difficulties of management facilitated the fomenting of tension and social controversies about vaccines, healthcare and restrictions on rights and freedoms and, also, the actors behind campaigns against Western countries or against the Western system took advantage of the pandemic to use it against their usual targets, as occurred in Spain with Catalan nationalism.

3.3.3 *Disinformation created by the procedure to combat it*

The National Security Council approved, in October 2020, a procedure for action against disinformation, which was published in the Official Gazette on November 5 of the same year [142]. Following the publication of the procedure, the confusion and reactions described below determined the need for the National Disinformation System to enter into a dialogue with the media, news agencies, press and rights defenders' associations, in addition to civil society experts. Its publication in the Official State Gazette without a prior explanatory appearance generated surprise in most of the media and among the opposition political parties.

"It is a real scandal. The Government arrogates to itself the power to decide what is false or true news. Are they going to censor the news they don't like? Are they going to fine journalists?", asked the deputy secretary of Communication of the PP [Partido Popular], Pablo Montesinos.' [363]

The reduction of disinformation to fake news and the media put professional journalism organisations and civil rights and civil liberties advocates on the alert [364]. The possibility that the government would monitor the media and determine which news was false and which was true implied that the monitoring of information put the freedom of the media at risk. The ensuing political and social debate centred on the role of the Government, creating doubt as to who would define a news item as true or false; a doubt accentuated by the exclusion of the media from the system for combating disinformation that was organised [365, 366], except for requesting the cooperation of the media in its dissemination.²

Secondly, a legal debate was generated about the risk of creating a body without defining its competences or the scope or criminalisation of the conducts to be monitored, as well as the lack of definition of the foreign influence to adopt measures. Another group of criticisms was aimed at pointing out the difficult neutrality of bodies that are part of the central core of State security, the fact that the possible curtailment of fundamental freedoms and rights would be carried out by means of a ministerial order and whether the surveillance referred to the general phenomenon of disinformation or to news that would affect the Government itself. Finally, much of the media debate focused on the scope of the monitoring of the private media [367].

The lack of definition of the document and its lack of explanation opened an information gap, which the political opposition took advantage of to criticise the government for its true intentions behind the ministerial order [368]. The main opposition party, the Popular Party, and the rest of the political formations accused La Moncloa of wanting to create 'an Orwellian ministry of truth', the term adopted by many media and which will affect the social perception, at least the initial one of the fight against disinformation campaigns [161, 162]. One of the largest professional journalism organisations in Spain, the Madrid Press Association (APM), immediately showed its concern about the measure:

² Up to 26 members, according to the appearance of the Director of the Department of Homeland Security before the Joint Committee on Homeland Security.

'Journalism has as one of its main obligations the search for truth and the defence of the freedom to disseminate it. In this sense, any proposal to fight against disinformation is welcome and the Madrid Press Association (APM) fully agrees with any initiative in this regard. However, we have serious reservations about the tools announced for this fight because they leave in the hands of the Government of the Nation a function that should enjoy independence from the public authorities. The obvious risk is that a body of the type proposed will function more as a censor than as a guarantor of the truth. The fundamental rights of freedom of expression and freedom of information may be curtailed and subjected to control by the public authorities. Freedom of the press, enshrined in the Spanish Constitution, is an inexcusable condition for the survival of any democratic system.' [369]

Among the reactions in defence of freedom of information, the newspaper *El País* considered the procedure for action against disinformation 'unfortunate' because of the multiplicity of competent authorities, many of them 'dangerously close to political power' and the lack of definition of the fields of action. Also, because it did not explain the purpose of the plan, due to the marginalisation of civil society, which depends on the discretionary decision of the competent authorities without a regulated participation.

'That is why the Procedure for Action against Disinformation published in the Official State Gazette on November 5 is so unfortunate. The text contains problematic elements because it is fundamentally based on the actions of an endless number of "competent authorities", from the Secretary of State for Communication, to the communication offices of the different ministries, passing through various general directorates, in addition to the National Intelligence Centre and the Department of National Security, and because, in addition, it does not clearly define the fields of action.

[...]

'It is particularly disturbing that the Procedure speaks of the "National System for the prevention, detection, warning, monitoring and response whose causes, means and or consequences are related to disinformation" but at no time does it clarify what that response may be (fines, imprisonment?). Nor is the brief mention of civil society and the private sector reassuring: it recognises that civil society is fundamental in the fight against disinformation and then merely states that "the competent authorities may request the collaboration of those organisations or persons whose contribution it considers appropriate and relevant".' [370]

The European Commission endorsed the consistency of the Spanish procedure with European guidelines in response to a question in the European Parliament to the effect that it updated and strengthened the Spanish system in accordance with European guidelines without creating a legal basis for deciding on the content of information and that it is up to the Government to monitor online disinformation campaigns in order to adopt a policy response, an endorsement that came when the Government was already on the defensive and trying to regain the initiative.

'The Commission has analysed the Ministerial Order and concluded that it updates the existing Spanish system to prevent, detect and respond to disinformation campaigns and to establish coordination structures... This work is the responsibility of the central government and is in line with the 2018 Action Plan against Disinformation, which

called on Member States to strengthen their capacities in the fight against disinformation.'

To mitigate the social and political animosity surrounding the government's initiative, including the filing of lawsuits, the National Security Council quickly created an informal meeting space –which will eventually become a public-private partnership forum in June 2021– for its administration with experts from civil society, with representatives from both the platforms of the main journalism associations and the media. This informal group set up five working groups to address the issues around which most controversy had arisen: the definition of concepts; the regulatory and legislative framework; electoral processes; social awareness; and the strategy for combating disinformation campaigns. The conclusions of the expert group were made public after the creation of the above-mentioned Public-Private Forum for the fight against disinformation campaigns in the field of national security.

Any strategy must take into account the context of its creation and, in the Spanish case, its announcement generated confusion and social resistance due to the poor communication of the initiative. The responsible authorities were more aware of the importance of the phenomenon than the rest of society, so the fight against it required a pedagogical explanation to legitimise its necessity. In addition, its adoption came after a process of intense political controversy regarding the legality, effectiveness and transparency of the measures adopted by COVID-19, which generated an environment adverse to unilateral decisions. Under these conditions, the official procedure for launching the fight against disinformation was seen as a risk to freedom of information [366, 371-373].

In summary, the case-study shows the need –and the difficulty– of raising awareness of a new security problem such as disinformation, even with the experience of previous campaigns in Catalonia or during COVID-19. The increased awareness of the authorities in charge of the fight with the need to confront it led them to underestimate the perception of the new procedure by the media and by the political opposition, both highly sensitised by the actions of the Government in relation to the pandemic. The mistake cast shadows of doubt on the final intention of the fight against disinformation campaigns and, in response, the authorities had to expand the role of civil society in it to compensate for the original sin.

4. Portugal

4.1 Background and context

The influence of disinformation in the various contexts of social and political life is identified in its different dimensions, as reported in 'Fake News em ano eleitoral. Portugal em linha com a EU' ('Fake News in an election year. Portugal in line with the EU') (2019) by Obercom [374], affecting not only electoral processes but also the cultural processes that sustain credibility in actors, systems and info-communication practices.

Such a set of problems also opens space for the analysis of citizens' news-content sharing habits. In fact, if the Brexit referendum or the presidential elections in the US and Brazil demonstrated the risks brought by information disorder in electoral contexts, the vulnerability of audiences also became evident, namely the role of prosumers in receiving and sharing fallacious content during the pandemic or the war in Ukraine.

These habits refer to a range of educational, political, ethical and economic issues. Online public opinion has acquired the characteristics of a 'viral construction of reality' [375], in which the ephemeral dimension provided by trend topics, the emotional reactions triggered by the dramatisation of shared content, along with the disbelief and hostility fostered against institutions representing the democratic order and experts with established competences easily short-circuit.

In this respect, the online public discourse has become hostage to a polarisation without debate, where false contents gain more prominence than those that are supported by facts or are based on greater care and info-communicational zeal. Digital practices dedicated to spreading falsehoods and defamation pose a threat to democracy, the quality of public discourse, the tenor of civic life and the culture of pluralism in the broadest sense. One of the most pressing questions is to understand why the lie factory does not lose appeal even when 'readers' are able to realise that they are encountering purposeful disinformation campaigns. It is as if the underlying objective of disinformation organised by specific entities is that of divide and rule, of wanting to undo the rules of social coexistence, with its ethical assumptions that guide the functioning of Western democracies.

The phenomenon of disinformation, therefore, leads us to a set of vital ethical and political challenges, underlining the importance of competent intermediaries –such as journalists, intellectual professions and third-party institutions– as well as of regulation in the face of the arrogance of the most aggressive, both in the digital marketplace and in online discourse. The international emergence of populist movements, with the authoritarian culture that underlies them, converges in the systematic attack on the social and democratic role played by political and cultural intermediation. The idea of truth that is intended to be promoted and installed in the agenda of political discourse by (cyber)populists is that by which everyone lies, except them.

Faced with such a pervasive and accelerated scenario, international and national political institutions, as well as the legal instruments available to counter the internal and external threats of disinformation campaigns, were unprepared. One of the pressing urgencies of these last few years has been that of reconfiguring the regulatory and legislative framework of the various countries.

In the European context, the Commission's attempt is to manage a difficult balance between avoiding censorial procedures, combating disinformation, monitoring the policies of the tech giants and intervening against their monopolies in the digital market. The measures taken from 2018 are aimed at regulating the activities of digital platforms with regard to the distribution of news content, data protection, the transparency of AI software, hidden advertising, the creation of fake accounts, groups organised for the

purposes of offensive propaganda and promoting hate speech, etc. All are important challenges, but to counter them there was not yet any available legislation capable of systematically, comprehensively and automatically binding and holding the various platforms accountable. The concern of the various democratic governments has been that of not wanting to harm the freedom of expression in the various networked info-communicational contexts, but continuing to debate the appropriate way to solve the contradictions of an unregulated, unbalanced digital market with Wild West characteristics.

The measures approved in July 2022 (reviewed below) by the European Parliament are the (probably tentative) success of many years of political negotiation on these delicate legal and economic issues.

4.1.1 *Disinformation in the Portuguese language*

The report 'Fake News in an election year. Portugal in line with the EU', by Obercom [374], places Portugal in an intermediate position among the EU countries that spread disinformation content. With the caveat that this phenomenon is difficult to measure, the report indicates that Portugal ranks 14th in the grid of suspected disinformation content distributed by Google, and 15th on Twitter, taking into account the political ads rejected for not belonging to certified accounts.

In 2018, as part of a year-long journalistic investigation for *Diário de Notícias*, which was published in several parts and led to a book titled *Fábrica de Mentiras* [376], 40 disinformation websites were detected in Portugal. These sites 'imitate media organisations, but are not registered with the regulator, nor do they have identifiable owners', as described by Paulo Pena: 'Each of these sites has several others, similar, registered in the same IP' [376].

These sites were mostly registered anonymously in foreign countries (the US, France, Germany or Canada). They were also falsely registered, identified with non-existent company names, invented residences and fake cell phone numbers. The purpose of these accounts was associated with for-profit advertising. It was estimated that these 40 sites were visited by 2.5 million people, and that this had a concrete value in advertising capture [376].

The cross-border circulation of disinformation in Portuguese, namely that involving Portugal and Brazil (the most studied cases), cannot be seen as 'orchestrated', ie, there do not seem to be social actors organised in the promotion of joint disinformation campaigns. However, there are short circuits and occasional re-adaptations of some disinformation tactics, usually from Brazil and adapted to the Portuguese context.

Examples of this are the use of the same techniques of photomontages to denigrate personalities representative of the respective leftist parties, the use of misleading headlines on similar thematic issues (immigration, gender, data on criminality and corruption) and of similarly doctored news with the intention of wanting to foment support and consensus for reactionary/authoritarian parties and movements, as well as based on the attempt to defame institutions and personalities representative of the democratic governing systems.

The study *A Desinformação – Contexto Europeu e Nacional* ('Disinformation – European and National Context'), prepared by ERC [377], confirms that the most recurrent issues in fake news are corruption in politics, racism and xenophobia, and crime and security. Most of the contents displayed in these sites are based on the manipulation of 'old news to argue about some current issue, based on the distortion of facts or in partial or biased views of the reported issues' [377]. As noted, 'the disinformation strategy in Portugal, centred on defamation and personal attack, is closer to Brazil than to its European

counterparts', Obercom's report *Fake news em ano eleitoral 2019* ('Fake news in election year 2019') concluded:

'We can state that the Portuguese language and the sociopolitical context of Brazil favour an easier and faster re-adaptation of some misleading contents by groups that in Portugal are dedicated to the creation of a convergent agenda. In some cases, there is an attempt to superimpose the dramatisation staged in the Brazilian infocommunicational context to the Portuguese reality, creating in the respective social networks a resonance effect between the two disinformative circuits.' [374]

In this respect, the far-right movements in Portugal tried to replicate/imitate the disinformation campaigns organised in Brazil, but without managing to have a similar impact on the propagation and penetration in the public debate. Either by the dimension in the production and sharing of false information, or by the repercussions in the socio-media contexts, the two socio-political realities have proved to be quite different.

4.1.2 Legal and political challenges

The issue of disinformation has political and legal contours that make combating it increasingly urgent, but at the same time difficult. The 2018 Eurobarometer Survey [122], which surveyed over 26,000 European citizens, from all 28 Member States, found that 83% consider online disinformation a risk to democracy. This finding was consistent across all Member States, and at least half of respondents said they encounter false information online at least once a week.

As mentioned above, the challenge is to combat disinformation while protecting fundamental rights such as media plurality, data protection and freedom of expression. It is also known that the 'infodemic' has had public health consequences (as occurred during the COVID-19 pandemic), and on the safety of minorities, migrants and marginalised communities that are targeted by aggressive disinformation campaigns, and the hatred can even escalate offline, as in the case of Ethiopia and Myanmar [378].

These risks lead states to take measures to combat disinformation, which are justified by the need to protect the balance between the various social, legal, economic and media mechanisms that underpin parliamentary democracies, as well as with that of respecting human rights. As evidenced by Khan [378], the issue of mitigating disinformation cannot be dissociated from the effort to ensure freedom of expression. Thus, issues such as interference with Internet access, the creation of legislation to censor, punish or restrict the dissemination of content or the creation of specific regulations for social media platforms are tools to combat disinformation that should be widely debated.

In July 2022 the European Parliament approved the Digital Services Regulation (DSR) and the Digital Markets Regulation (DMR). The first legislative package aims to update the 2000 e-commerce directive and stop the proliferation of illegal and harmful goods and services on the Internet (fake news, hate speech and bullying). The DMR, on the other hand, focuses on the digital economy and wants to ensure that big tech companies (such as Meta, Alphabet and Amazon) do not dominate the market and crush competition.

Failure to comply with the new rules can lead to fines equivalent to 10% of a company's annual turnover. Repeatedly flouting the rules can lead to fines of 20% of a company's annual turnover or force the European Commission to break up the tech giants.

Under the Digital Services Regulation digital platforms (eg, social media) will have to monitor problematic content (such as hate speech and false information) and caption political ads circulating online (Internet users must understand who paid, how much,

when and for what purpose). In addition, platform users should be able to decide whether or not they want to see targeted advertising; if they do, they will have to have access to the reasons why they receive recommendations for certain products and content. Based on this new regulation companies will have to implement the Digital Services Regulation by the start of 2024.

4.1.3 *The fight against disinformation and freedom of expression*

Such measures taken within democratic countries reveal, as one of the central legal challenges, the search for a balance between guaranteeing freedom of expression and combating the dissemination of false and harmful information. Although there is legislation that sets limits to free speech when it comes to incitement to hatred or violence, the balance between guaranteeing it and combating disinformation can be especially difficult. This does not mean that it is impossible to restrict disinformation in the context of political discourse, but rather that restrictions must be analysed in a way that does not limit free political debate.

Freedom of expression and combating disinformation cannot be seen as irreconcilable. In countries where freedom of expression is better protected, civil society and journalists, for example, are better able to counter-argue and demonstrate the falsity of reports by presenting alternative points of view.

The right to freedom of opinion takes on two dimensions: (a) an internal one, which relates to the right to privacy and freedom of thought; and (b) an external one, related to freedom of expression itself. The internal dimension is an ally in combating disinformation because the manipulation techniques associated with it limit the right to opinion and freedom of thought. The external dimension can be an ally in combating disinformation, but it can also be a challenge [378].

Another challenge associated with freedom of expression and combating disinformation is the use of humour or parody to spread disinformation. Often a content is shared in a context that clearly indicates its humorous intent, but outside of that context it can be used for exploitation and thus be promoted and interpreted as serious and genuine content. The key point is to be able not only to identify the disinformation content, but also to understand the implicit intention of its propagation, and it is necessary to intervene to unmask it [379], that is, to implement strategies to prevent its dissemination.

4.1.4 *The Digital Rights Charter in Portugal*

In May 2021, after almost two years of discussion, the Portuguese Parliament approved the *Carta Portuguesa de Direitos Humanos na Era Digital* ('Portuguese Charter of Human Rights in the Digital Age') [380] without any votes against and achieving the promulgation of the President of the Republic. A few months later echoes of discontent began to emerge regarding some points of article 6, which provides for the 'Right to Protection against Disinformation'.

The Liberal Initiative (IL) party, which had abstained in the vote, showed its discontent with one paragraph of this article:

'The state supports the creation of fact-checking structures by duly registered media outlets and encourages the awarding of quality seals by trustworthy entities endowed with the status of public utility.' [380]

This power was given to the Communication Regulatory Entity (ERC), to analyse complaints made by citizens.

For IL this article is a first step towards the creation of a 'Ministry of Truth' and would prompt various forms of censorship. Also, parties with different political orientations – CDS-PP, the Portuguese Communist Party–, journalists associations, personalities from

the cultural world and Universities have expressed their displeasure with this format to fight disinformation.

The need for this legislative action and article 6 in particular were born in the wake of the European plans to combat disinformation that mention the need for Member States to facilitate the work of the media and fact checkers, supporting the recognition of credible media.

Due to the criticism raised, the *Comissão da Carteira Profissional de Jornalista (CCPJ)* sent a document to the Ombudsman and the Attorney General, requesting that article 6 be reviewed by the Constitutional Court. Following these complaints, both the President of the Republic [381] and the Ombudsman [382] then asked the Constitutional Court to review the constitutionality of article 6 of Law No. 27/2021 of 17 May.

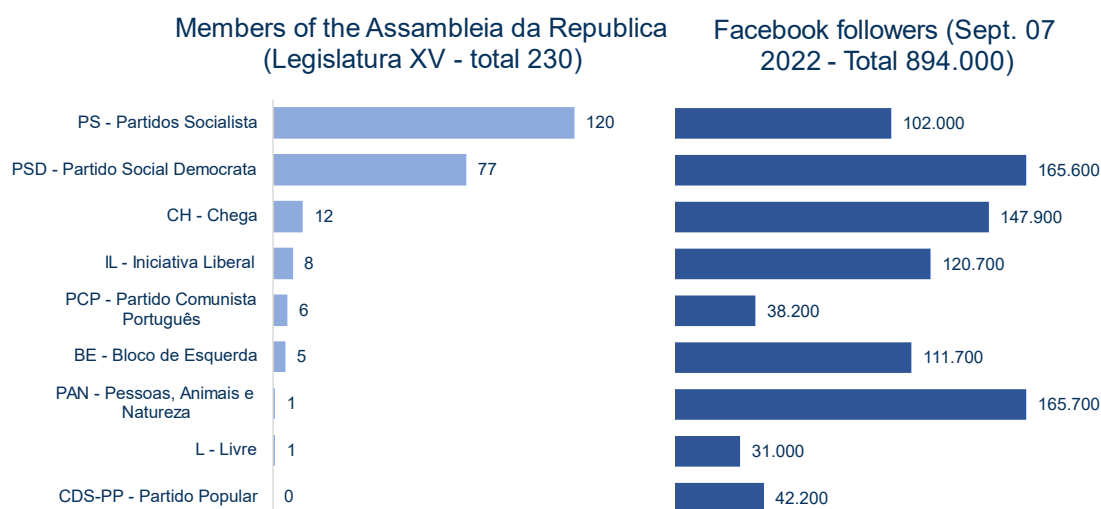
In June 2022, Parliament approved substantial changes to Article 6 of the Digital Rights Charter, voting to repeal much of the article. The Socialist Party, in government with an absolute majority, approved in Parliament the repeal of all points of Article 6 except number one. This point states that 'the State shall ensure compliance in Portugal with the European Disinformation Action Plan in order to protect society against natural or legal persons, de jure or de facto, who produce, reproduce or disseminate narratives considered to be disinformation'.

On the other hand, the Government argued that the legal instruments were short so that the original law could be fulfilled. 'Seeking to face in a tiny set of rules inserted in Article 6 of the Charter the threats arising from the phenomenon of disinformation, the legislator, at first with a very large majority, assumed as possible a mission that has proved impossible within the framework of available instruments and from the point of national intervention alone', reads the explanatory memorandum of bill 179/XV/1.

4.1.5 Political parties in social networks

These initiatives arise in a context in which the representativeness of political ideas and actors in the digital space (namely social networks) diverges from the representativeness resulting from the vote, in the composition of the National Assembly. Due to algorithmic devices and the dynamics of engagement and polarisation in social networks, we witness in contemporary times antinomic representativities that cause epiphenomena of divergent mediatisation in ideological and political positions.

Figure 34. Representativeness of the parties in the current Legislature (XV) (in number of seats) and on the Facebook network (in number of followers), 2022



Notes: (1) the number of MPs for each party refers to the XV legislature (a total of 230 MPs), elected on 30 January 2022; and (2) the number of Facebook followers for each party was extracted on 7 September 2022.
Source: parlamento.pt and Crowdtangle. Edition: OberCom.

Therefore, in parallel to the parliamentary debates, on the social networks, as in the case of Facebook, the parties' presence is represented in a very different way from the one in Parliament. In fact, the smaller and more radicalised parties lead the traffic in publications and shares on the social network, marking a greater presence by the number of pages. And this finding has been constant over time.

The pages of the two most influential Portuguese parties on social networks are not equally reflected on the street, in the traditional media, in the party headquarters, says Paulo Pena [376], based on data provided by the FOXP2 site, founded by Luís Bettencourt Moniz, which has been disclosing the evolution of the presence of parties on social networks.

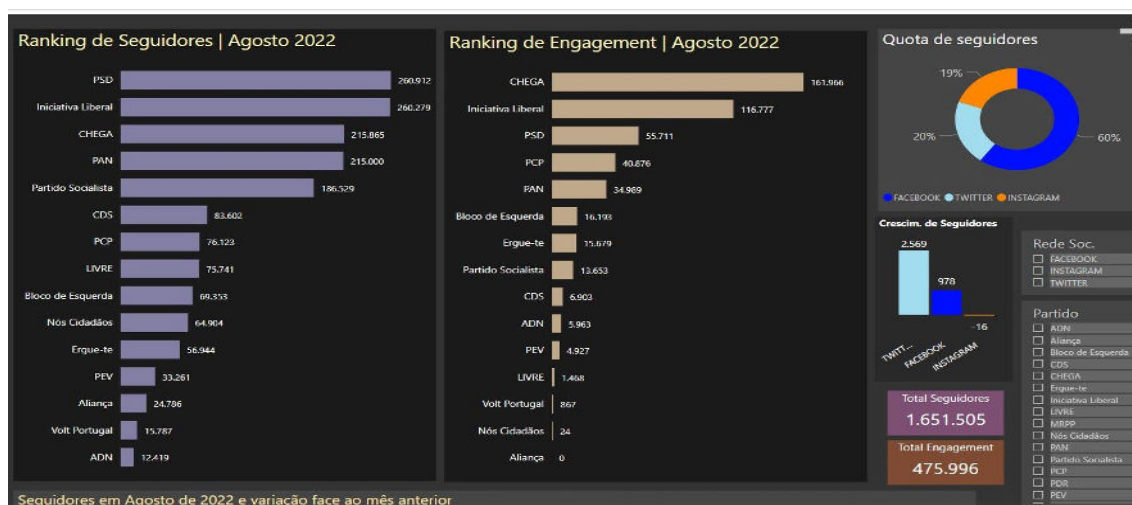
In 2019 the Portuguese political party with the most followers on Facebook, the PAN, with 150,000 people connected to the page, was not the most voted for. In second place was the PSD, a short distance away, and the PS and BE had half the followers of the PAN. The constitution of parliament, taking into account the XIV Legislature, resulting from the October 2019 elections, reveals another distribution of the members of parliament. The PS had 108 deputies, the PSD, 79, the BE 19, the CDU 12, the CDS-PP five, the PAN four and Chega and Livre one each.

When the angle of analysis is effectiveness in the networks –that community engagement which considers the likes, amount of shares and comments, divided by the number of followers–, Chega was the most successful page in Portuguese Facebook. Despite having few followers, just over 15,000 in 2019, they are very active and regularly share and comment on the page [376]. The PSD, for example, which has almost 150,000 followers on Facebook, has a weak interaction with the public, and therefore occupies the last place on this table.

Chega and the PAN on Facebook and the Liberal Initiative on Twitter and Instagram, proved to be the political projects with the greatest effectiveness on the networks, with the best ratio between number of followers and amount of shares, likes and comments. Data from 2019 also pointed to the existence of 798,000 followers of Portuguese parties on social networks. By platforms, 80% use Facebook, 15% Twitter and 5% Instagram. According to Luís Bettencourt Moniz [376], half of the texts are reproduced on Twitter, making it a 'microcosm' for political debate.

The panorama in August 2022, according to FOXP2, has undergone some changes: with the PSD leading in the number of followers and Chega continuing to be the party that gets the most engagement with the community: <https://foxp2.pt/politica/partidos-politicos/>.

Figure 35. Number of followers of each party and effectiveness in the community (likes, comments and shares)



Source: reproduced from FOXP2.

In any case, the distribution of deputies in the National Assembly, taking into account the last legislative elections of January 2022, does not literally reflect these movements registered in the social networks, even though we are witnessing a significant increase in the number of Chega deputies.

Table 16. Members elected for the XIV (2019) and XV (2022) Legislatures

	Members elected in 2019 (1)	Members elected in 2022 (2)	Difference
PS - Partido Socialista	108	120	+12
PSD - Partido Social Democrata	79	77	-2
BE - Bloco de Esquerda	19	5	-14
PCP - Partido Comunista Português	10	6	-4
CDS-PP - Partido Popular	5	0	-5
PAN - Pessoas, Animais e Natureza	4	1	-3
PEV - Partido Ecológico Os Verdes	2	0	-2
CH - Chega	1	12	+11
L - Livre	1	1	=
IL - Iniciativa Liberal	1	8	+7

Note: (1) members elected for the XIV Legislature on 6 June 2019; (2) members elected for the XV Legislature on 30 January 2022.

Source: parlamento.pt. Edition: OberCom. Regulatory initiatives in 2023.

The Portuguese Regulatory Authority for the Media (ERC), which was appointed by the Government as the ideal body to fight against disinformation, admits some difficulties in intervening in the contents circulating on the Internet. Its statutes do not contemplate the publication carried out on broadcasting platforms and online social networks. It is always necessary to bear in mind that the Portuguese legal framework –as in most European cases– does not provide clear indications on how to act against the spread of disinformation online.

In order to solve this gap, ERC announced that it would present in 2023 to the Portuguese Parliament a proposal to amend the Press Law, which foresees including a clear distinction between social media and other forms of public communication.

'It is of interest to identify new media models and distinguish the respective activities from other forms of communication, including those pursued by private users, which do not assume special social responsibility', says the ERC in the Activity Plan for 2023. "The question arises from the outset in the field of classification and registration of the media and is projected in the definition of the very scope of the regulation of the exercise of media activities".'

This change intends to 'focus on cooperation to create adequate supervisory mechanisms for the control of illegal content, the protection of minors and the fight against hate speech and disinformation'.

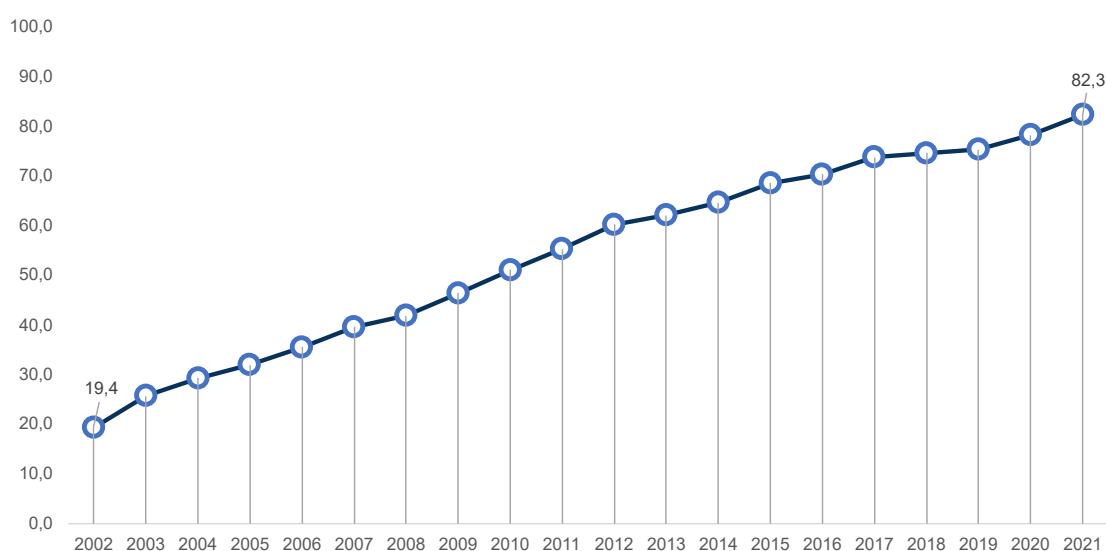
The ERC had recognized the 'need to adopt a new conception of the media organ model', since these new media are the result of a greater interaction between content producers and users as the special case of user-produced content. The regulator had already proposed a set of 'relevant criteria for the qualification of a media outlet: the production, aggregation or diffusion of media content, the existence of (prior) editorial control, the intention to act as a media (revealed through the existence, for example, of typical media working methods), the reach and dissemination, the respect for professional standards, the presentation as a service; and to be under Portuguese jurisdiction'.

4.2 Differentiation factors and characteristics of the Portuguese in relation to news content and disinformation

4.2.1 Internet literacy and access

Portugal ranks 16th out of 27 Member States in the Digital Economy and Society Index (DESI), ranking close to the European average (49.8% versus 50.7%). According to this indicator, which measures the population's ability to use digital technologies, 52% of the Portuguese have a minimum elementary level of digital skills (4 pp below the European average) and about a third, 32%, have more advanced digital skills (1 pp above the EU27 average).

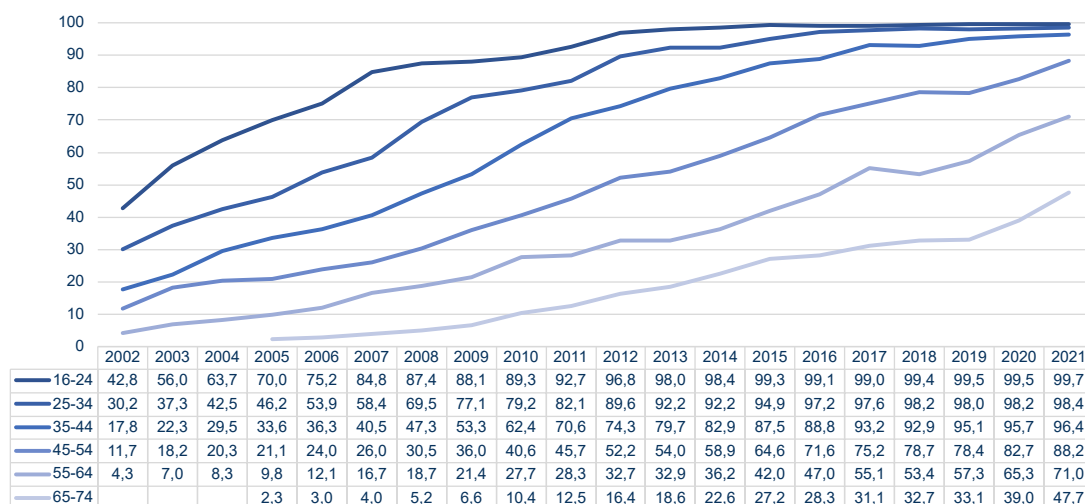
Figure 36. Internet Users in Portugal, 2002 to 2021



Source: PORDATA, data from INE – Household Information and Communication Technologies Survey. Edition: OberCom.

Having taken its first steps in Portugal in the 1990s, Internet use in Portugal became widespread during the first decade of the 21st century. If, in 2002, only two out of 10 Portuguese used the Internet (19.4%), in 2021 more than eight out of 10 used this means of communication (82.3%), regardless of the frequency of use [383].

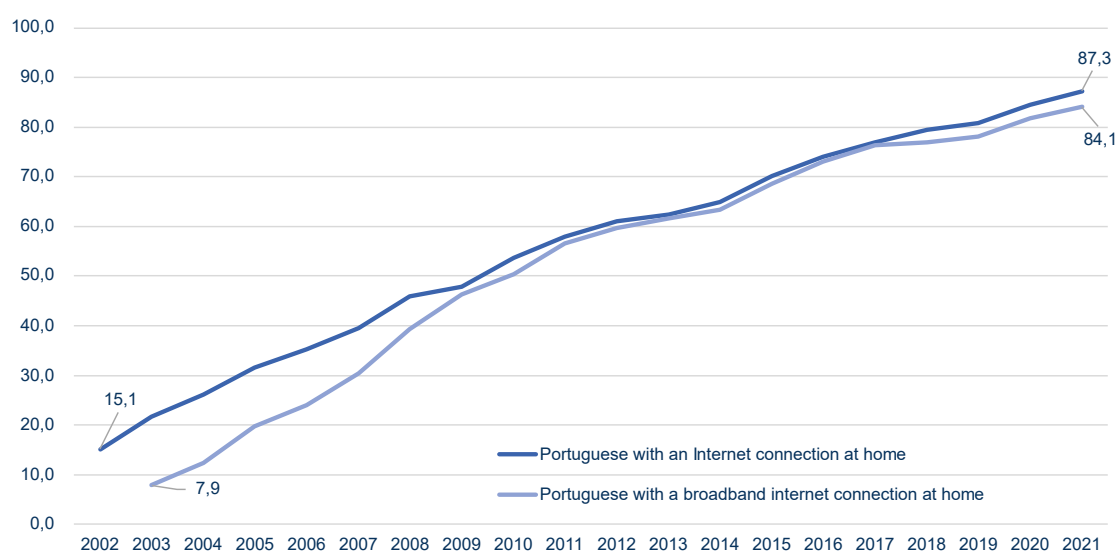
Figure 37. Internet users in Portugal by age group, 2002 to 2021



Source: PORDATA. Edition: OberCom [384].

This adoption occurs earlier among younger people. In 2010, nine out of 10 Portuguese between 16 and 24 years old were already using the Internet. In contrast, among older Portuguese, aged 65 to 74, the rate of Internet use in that year was only 10.4%. As of 2015, almost all Portuguese between the ages of 16 and 24 were Internet users (+ 99%) and from 2016/2017 onwards there has been a tendency for the following age groups – ie, the 25-34s and the 35-44s– to approach these Internet penetration rates. Among older people, in the final period of analysis, 71.0% of Portuguese aged 55-64 and 47.7% of those aged 65-74 use this technology.

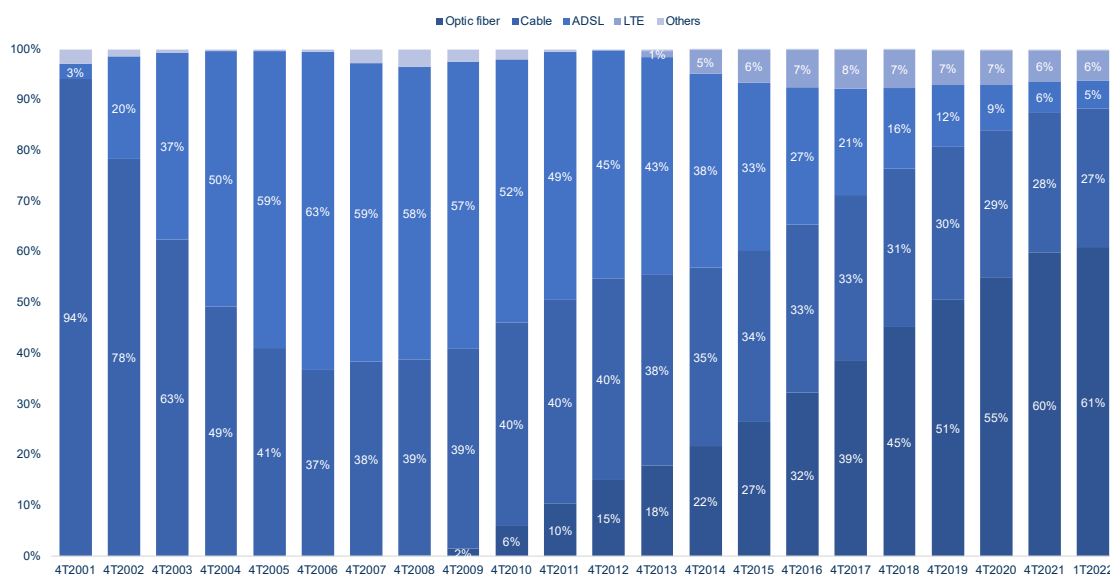
Figure 38. Portuguese with home Internet connection and with home broadband Internet connection, 2002 to 2021



Source: PORDATA. Edition: OberCom [385].

As a market, the Internet soon became a highly competitive technology from the point of view of commercial and technological proposals associated with greater speed and access to traffic. In Portugal, broadband began to gain popularity from 2003, when 21.7% of Portuguese had Internet access in their households and 7.9% had broadband access [385]. The penetration of broadband access occurs faster than that of general Internet access (through technologies such as ISDN) and from 2009 it has grown in parallel with Internet access, becoming effectively the most common form of connection, making up almost all accesses.

Figure 39. Fixed broadband accesses in Portugal by technology, 2001 to 2022



Note: data relate to fixed broadband accesses in the final quarter of each year (4Q), with the exception of 2022, where data relate to the first quarter (1Q). For this reason, this analysis does not consider residual variations that may occur throughout each year of the analysis.

Source: ANACOM [386]. Edition: OberCom.

It should be noted, however, that broadband Internet access is actually a broad spectrum in terms of options, and there are several technologies whose introduction results in incremental gains for users and for suppliers, who base the diversification of their offer on the aforementioned benefits of newer access technologies.

In the 4th quarter of 2001, 94% of broadband accesses in Portugal were cable accesses [386]. In the following years, this form of access lost relevance in an accelerated way with the rise of ADSL access, faster and with wider traffic limits. In terms of market dominance, ADSL access peaked in the 4th quarter of 2006, with 63% of broadband Internet accesses being based on this technology. However, this technology, based on access through a fixed telephone line, goes into decline from that year on, and by 2022 only 5% of broadband Internet accesses will be based on ADSL technology, and cable access will still represent more than a quarter of accesses (27%). In fact, one must consider the fact that Internet access, in its technological dimension, is not mutually exclusive to access to other media, in this case television. In the Portuguese case, the telecommunications business quickly merged with that of television offers, with the Internet being proposed to the consumer as an integral part of increasingly broad and diversified service packages.

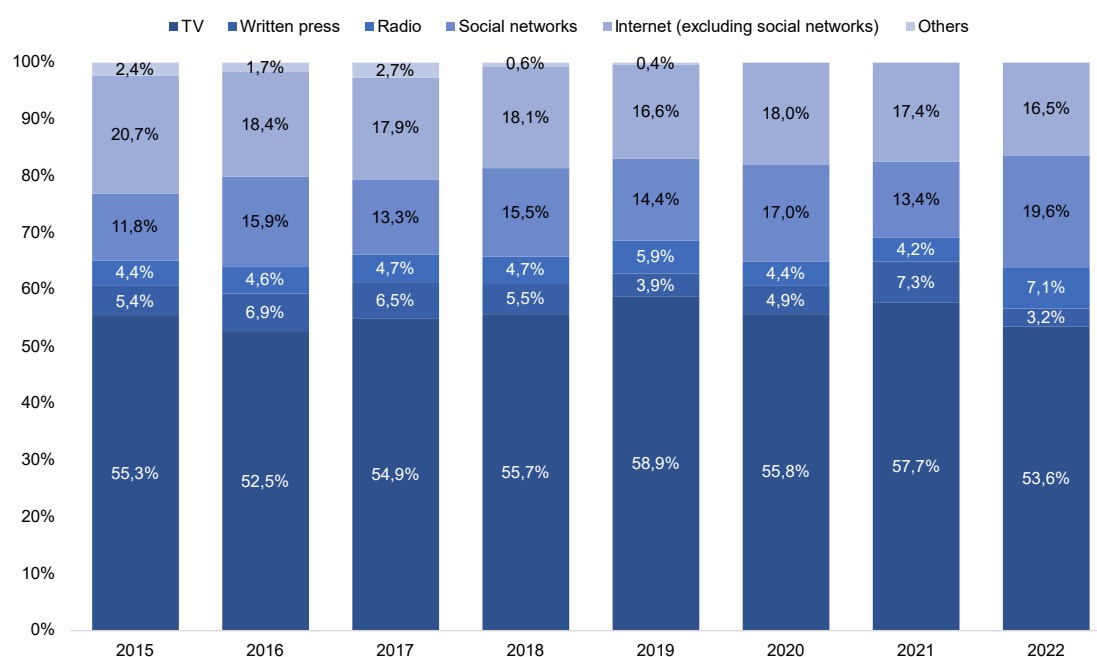
In effect, as of 2009/2010 we are witnessing the rise of fibreoptic access, which in 2009 accounted for 2% of broadband Internet accesses and in the first quarter of 2022 61%.

With clear advantages not only in terms of the speed of information transmission, but also in the quality of the television image offered (enabling high-definition image), the Internet market has been boosted by this technology, in its extreme form through 5P offers, which include fixed Internet, mobile Internet, Television, fixed telephone and cell phone. In 2017, ANACOM highlighted the importance that bundled service offers represented for the national market, with nine out of 10 families already subscribing to a telecommunications package. By 2022, the same source states that 4P/5P offers have a total of 2.3 million subscriptions.

4.2.2 Access to news

In accessing news content, television continues to be the most important medium in the diet of the Portuguese, according to data from Digital News Report [387]. In 2022, 53.6% said that would be their main source of news. Almost a fifth of Portuguese who use the Internet said that social networks were their main way to access news (19.6%) and 16.5% used the Internet in general for that purpose. Overall, more than a third of respondents (36.1%) of the Digital News Report in Portugal used the Internet, including social networks, as their main source of news. Note that the Internet + social networks category includes all digital expressions of the traditional TV, radio and press brands.

Figure 40. Main sources of news in the previous week, Portugal, 2015 to 2022

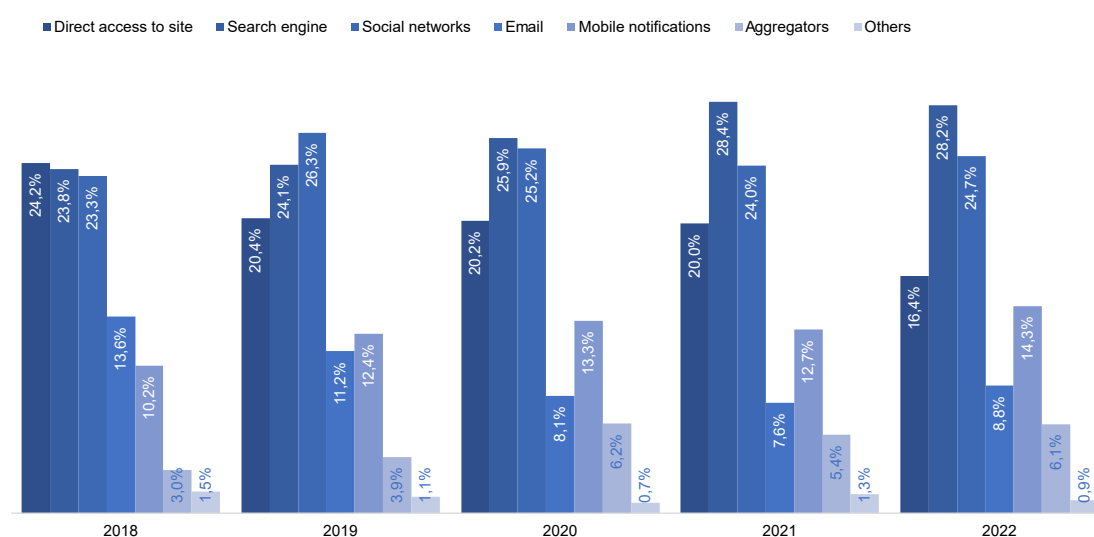


Source: RDNR 2015 a 2022 [387]. Edition: OberCom. n2015=1041; n2016=2002; n2017=1993; n2018=1993; n2019=1980; n2020=1987; n2021=2101; n2022=2011 (respondents who used some news source in the previous week).

If, in the case of television, this medium in traditional format is used as the main source of news by more than half of the Portuguese, in the case of radio and press the consumption of contents of these brands is increasingly digital: radio in traditional format is the main source of news for only 7.1% of respondents of the Digital News Report and the press for an even more residual proportion, only 3.2% in 2022.

In fact, the recent evolution of news consumption follows patterns of increasing digitalisation and the migration of audiences to algorithmic environments, out of the control of brands and that propitiate the exposure of audiences to disinformation content.

Figure 41. Main gateway to online news, Portugal, 2018 to 2021



Source: RDNR 2018 a 2022 [387]. Edition: OberCom. n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011.

The Digital News Report indicates that more than eight of every 10 accesses to news in digital environments are made indirectly (83.0%) and that only 16.4% of accesses to news content are materialised through direct access to the websites of news brands.

Social networks are, therefore, the main form of access to digital news for about one fifth of the Portuguese population who use the Internet (24.7%), and search engines for 28.2%. Facebook is the social network most used to access news, being used for that purpose by 48.7% of Portuguese internet users. It is followed by the video streaming platform Youtube (24.5%), the messaging app WhatsApp (24.4%), Instagram (20.0%) and Facebook Messenger (14.5%). Twitter, which reaches very high proportions of use in other countries, is less used in Portugal, with only 6.9% of Portuguese internet users resorting to this network for news consumption.

The digital news market in Portugal seems to be a monopoly of the company Meta, to the extent that 66.2% of the Portuguese used some social network of this company to access news in 2022. In 2021 the proportion was 62.5%. Instant messaging apps such as WhatsApp, Telegram or Viber are used in general by almost eight out of 10 Portuguese who use the Internet (79.4%), but the proportion of users who employ them for information purposes was 33.5% in 2022.

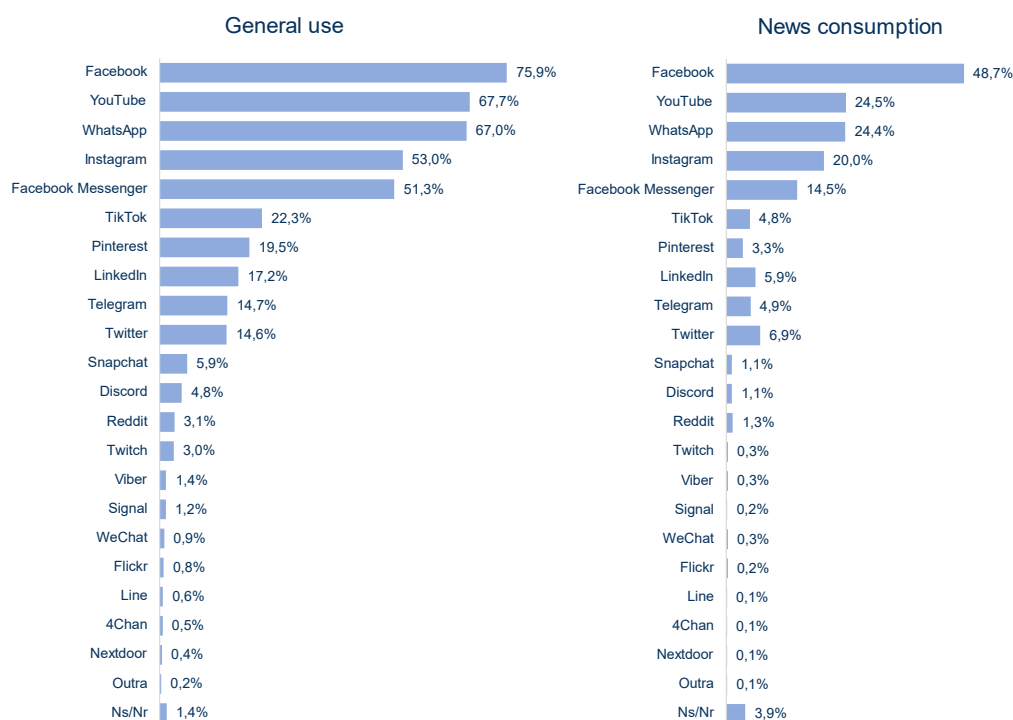
Table 17. General trends on social network usage, Portugal, 2021 and 2022

		2021	2022	Difference
Meta services	General	86.6%	91.2%	" +4.6"
	News	62.5%	66.2%	" +3.7 pp."
Messaging apps	General	79.2%	79.4%	" +0.2 pp."
	News	30.7%	33.5%	" +2.8 pp."

Source: RDNR 2022 [387]. Edition: OberCom. N=2011.

Facebook is the most commonly used social network in Portugal for general purposes, at 75.9%, and for news consumption by 48.7%. It is followed by the streaming platform Youtube (67.7% in general and 24.5% for news consumption) and WhatsApp, used by 67% for general purposes and by 24.4% for information purposes.

Figure 42. Use of social networks in general and for news consumption in the previous week, Portugal, 2022 (multiple answer)

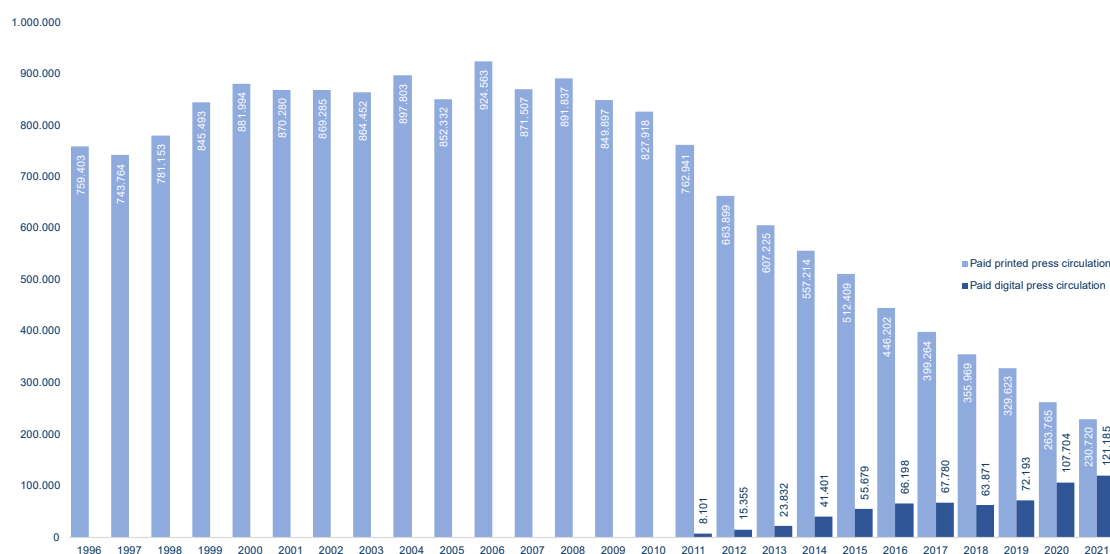


Source: RDNR 2022 [387]. Edition: OberCom. N=2011.

4.2.3 The current media market in Portugal

These consumer dynamics are contextualised in a sector that is still seeking sustainability solutions in the face of the failure of traditional business models and a poor adaptation to digital paradigms, resulting in a substantial crisis in journalism.

Figure 43. Print paid circulation and digital paid circulation in the relevant market, 1996 to 2021

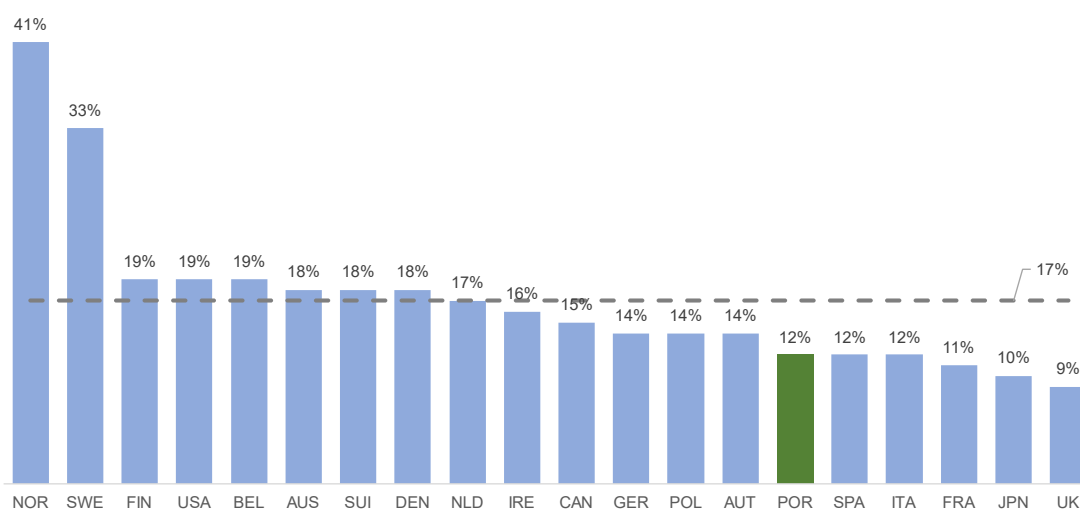


Note: the so-called relevant market includes *Público* (1996 to 2020), *Correio da Manhã* (1996 to 2020), *24 horas* (1998 to 2010), *Jornal de Notícias* (1996 to 2020), *Diário de Notícias* (1996 to 2020), *Record* (1996 to 2020), *O Jogo* (1996 to 2020), *Jornal de Negócios* (2003 to 2020), *Diário económico* (1996 to 2016), *Oje* (2006 to 2014), *Vida Económica* (1996 to 2020), *Semanário Económico* (1996 to 2010), *O Jornal Económico* (2015 to 2020), *Courier Internacional* (2005 to 2020), *O Crime* (1996 to 2008), *Tal & Qual* (1996 to 2007), *Expresso* (1996 to 2020), *O Independente* (1996 to 2006), *Sábado* (2004 to 2020), *Focus* (1999 to 2011), *Visão* (1996 to 2020), *Jornal i* (2009 to 2014) and *Sol* (2006 to 2015). The sports newspaper *A Bola* does not disclose information regarding print-runs, paid circulation or total circulation. *Sol* and *Jornal i* have not reported information regarding print-runs, paid circulation or total circulation since 2014 and 2015, respectively.

Source: APCT. Edition: OberCom.

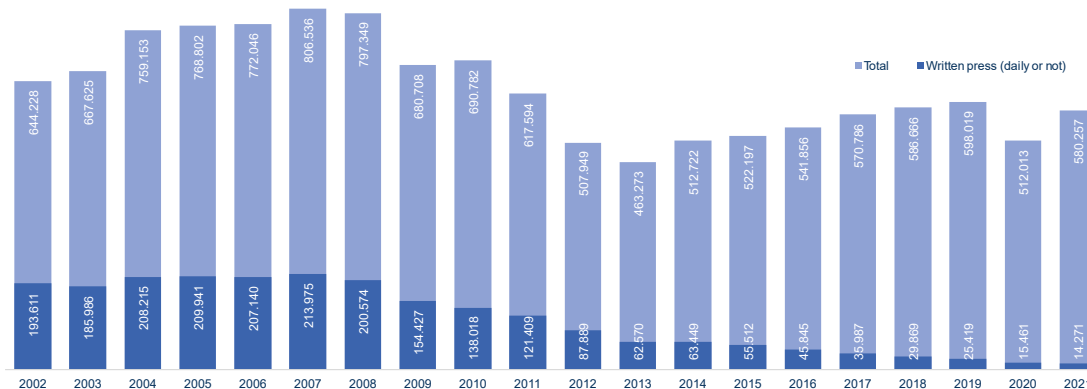
The media business in Portugal depends heavily on advertising in the traditional format, paper, a medium that is in sharp decline [388]: in 2021 the paper media market represented about a quarter of the size recorded in 2008. In turn, paid digital circulation is slow to gain traction in Portugal, not enough to offset the losses in traditional media.

Although traditional press brands such as *Expresso* and *Público* already have consolidated digital business models with interesting results, along with innovative proposals from digital native brands such as *Observador* and *Fumaça*, in general these models still do not represent a sufficient volume of business to guarantee the sustainability of editorial projects. The growth of the digital media market is constrained by the low adherence of the Portuguese to pay for news in digital format – only 12% of respondents to the Digital News Report 2022 said they paid for news in this format in the previous year–.

Figure 44. Payment for online news in the previous year, international comparison, 2022

Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011.

The decrease in the attention paid by consumers to the press sector in general results in a growing loss of relevance in the context of the advertising market. In 2021 the size of the advertising market in Portugal was approximately €580,257,000 with the daily and non-daily press sector accounting for only 2.5%. This loss of relevance was greatly accentuated with the 2008-11 crisis, whereas in 2007/2008 the daily and non-daily press accounted for around a quarter of advertising investment.

Figure 45. Advertising investment in Portugal (overall and daily and non-daily press sector), 2022

Source: Omnicom and OberCom, Anuário da Comunicação 2021 [388]. Edition: OberCom.

Currently, television and Internet (digital) concentrate most advertising investment in Portugal –in 2021 television accounted for 55.2% of advertising investment and the Internet for 27.7%–. Digital growth, in parallel with the loss of relevance of the daily and non-daily press, is particularly significant –in 2008 the Internet accounted for only 2.5% of advertising investment, compared with the aforementioned 25% for the press–.

The impact of the pandemic, which implied strong changes at the level of consumption and the media business, was particularly negative for the media sector, which in 2020 lost almost 2% of investment compared with 2019 and continues, in 2021, with even lower

values compared with 2020. Sectors such as television and Internet (digital) already show positive values and signs of recovery in 2021.

Figure 46. Variation of advertising investment in Portugal, in general and by sector, 2019/2020 and 2020/2021



Source: Omnicom e OberCom, Anuário da Comunicação 2021 [388]. Edition: OberCom.

The current crisis in the media sector is, strictly speaking, a consequence of the shifting attitudes towards media consumption, further accentuated by the pandemic [389]. But they also result from the media sector's poor adaptability to digital paradigms and difficulties in creating value for news content in environments controlled by search and social platforms, namely Google/Alphabet and Facebook/Meta.

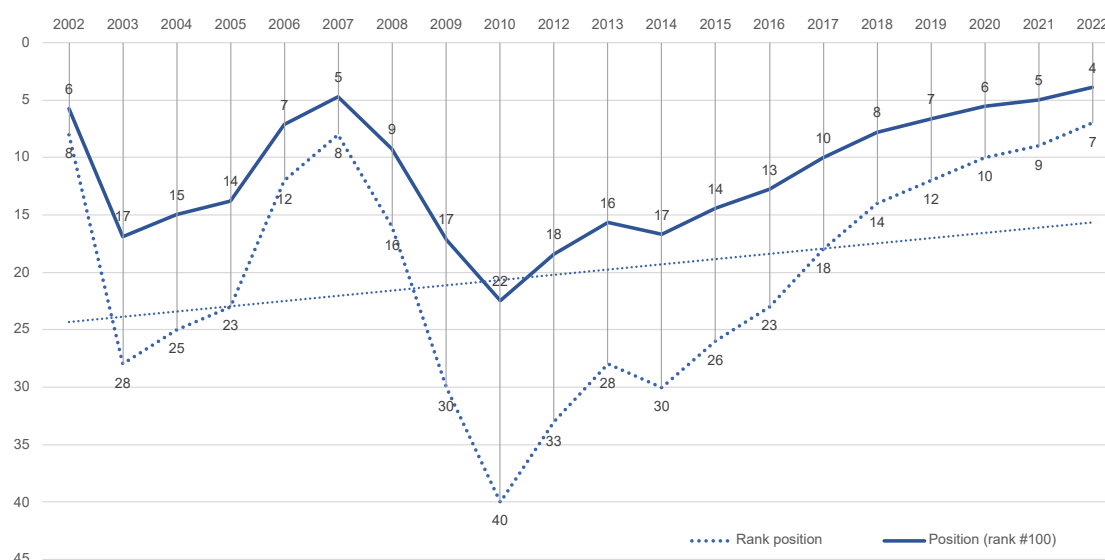
Table 18. Press freedom and the status of journalism in Portugal (2002-22)

	Rank (absolute)	Countries covered	Score	Rank (#100)
2002	8	139	1,5	6
2003	28	166	5,2	17
2004	25	167	4,5	15
2005	23	167	4,8	14
2006	12	168	3,0	7
2007	8	169	2,0	5
2008	16	173	4,0	9
2009	30	175	8,0	17
2010	40	178	12,4	22
2012	33	179	5,3	18
2013	28	179	83,3	16
2014	30	180	82,3	17
2015	26	180	82,9	14
2016	23	180	82,7	13

	Rank (absolute)	Countries covered	Score	Rank (#100)
2017	18	180	84,2	10
2018	14	180	85,8	8
2019	12	180	87,4	7
2020	10	180	88,2	6
2021	9	180	89,9	5
2022	7	180	87,1	4

Note: in 2013 there is a change in methodology. Until that year, a lower score reflects a better situation in terms of press freedom. Thereafter, the indicator reverses (lower score = worse situation in terms of press freedom). The last column (Position –Normal. 100 countries–) calculates Portugal's position normalised to 100 countries. Prepared by the authors based on RSF data available at www.rsf.org.
Source: Reporters Without Borders [245].

Figure 47. Portugal in the Press Freedom Index RSF, 2002 to 2022



Note: in 2013 there is a change in methodology. Until that year, a lower score reflects a better situation in terms of press freedom. Thereafter, the indicator reverses (lower score = worse situation in terms of press freedom). The last column (Position –Normal. 100 countries–) calculates Portugal's position normalised to 100 countries. Prepared by the authors based on RSF data available at www.rsf.org.
Source: Reporters Without Borders [245].

Portugal is positively positioned in terms of press freedom in the Reporters Without Borders Press Freedom Index, positioning itself since 2020 in the first 10 places, and reaching its best position (7th) in 2022. The organisation characterises press freedom in Portugal as 'robust' and that journalistic work runs without constraints, despite the threat of 'extremist groups' to some journalists. This general scenario results from a political context in which political actors respect the work of the media, in a legislative framework in which freedom of the press continues to be enshrined in the constitution and despite a worrying economic and financial situation for the sector.

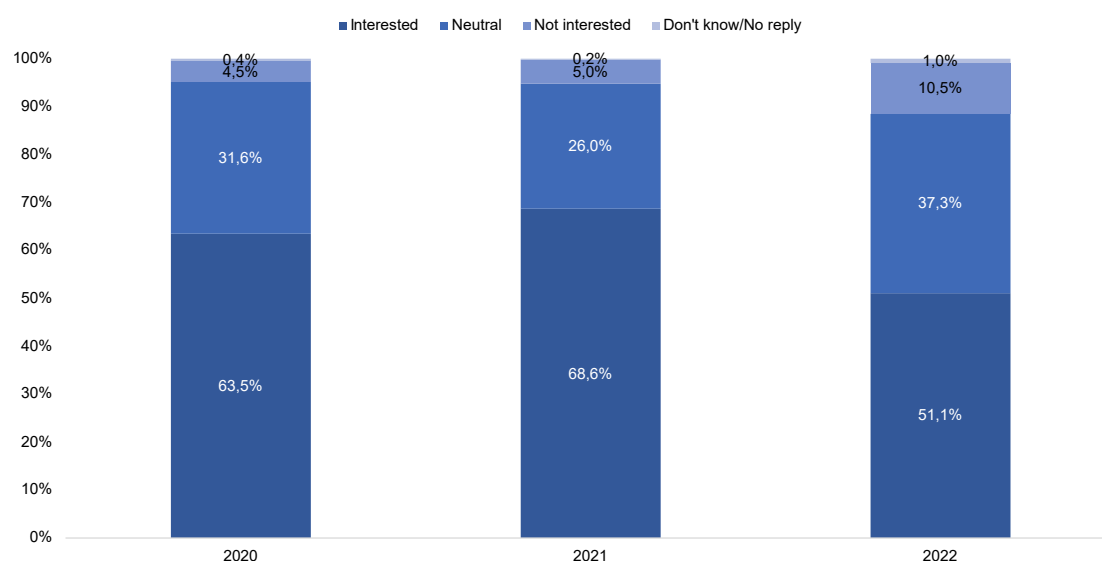
In the following sections, using data from the Digital News Report Portugal and Eurobarometer, we delve into the characteristics of the relationship between the Portuguese and news content in terms of interest and motivation for consumption, trust

in news, active avoidance of news content, the relationship with disinformation and the perception of media polarisation.

4.2.4 Interest in news and motivation for news consumption

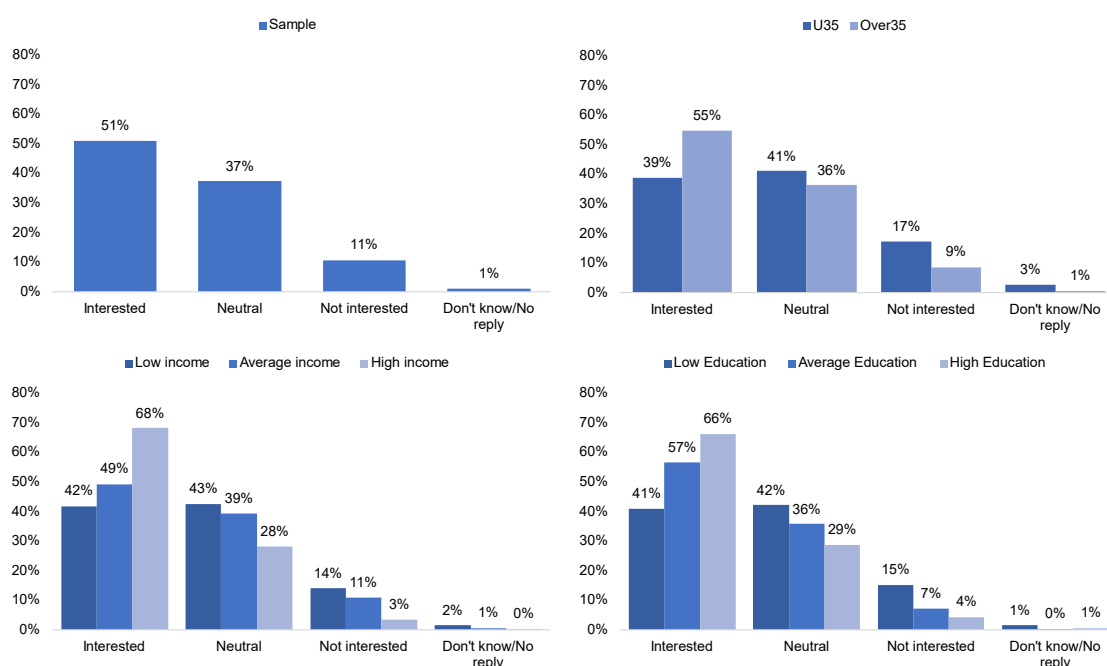
In 2020 63.5% of the Portuguese said they were interested in the news, and the proportion increased to 68.6% in 2021. However, in 2022 there was a marked drop in this indicator, in the order of 17.5 pp to 51.1%. As the Digital News Report 2022 fieldwork was carried out between mid-January and mid-February, and as identified by OberCom, this greater lack of interest is related to an excessive concentration of the media agenda on the pandemic and legislative elections (which took place on 30 January 2022). It should be noted that the data was collected before the invasion of Ukraine by the Russian Federation, so the drop in interest precedes that event.

Figure 48. Interest in news in general, Portugal, 2020 to 2022



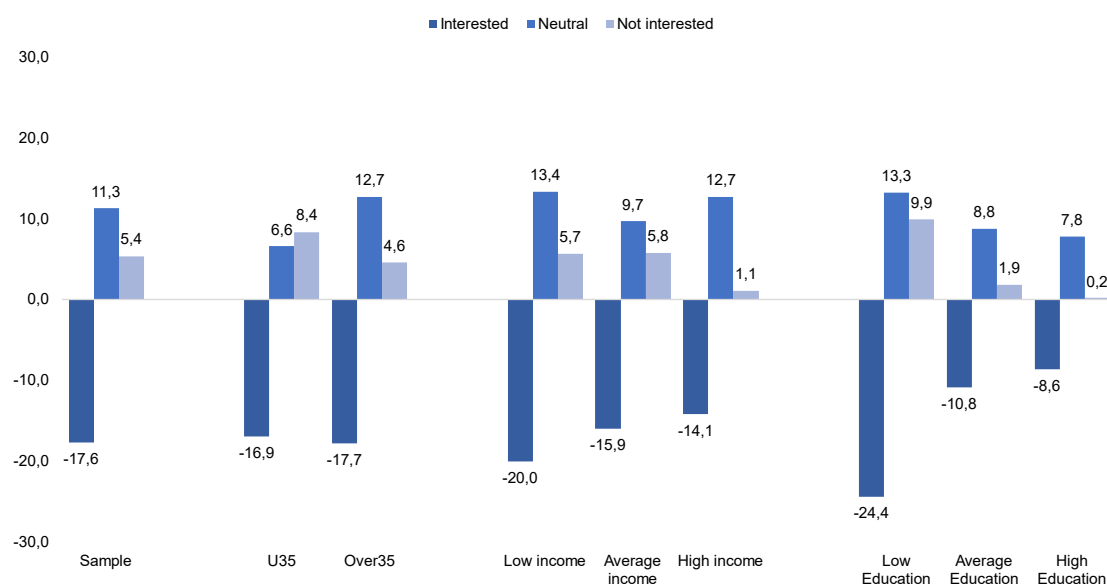
Source: RDNR 2020 a 2022 [387]. Edition: OberCom. n2020=2012; n2021=2101; n2022=2011.

It should be noted that interest in news content is not observed equally across Portuguese society: the older Portuguese are more interested in news, as are the more educated and those with higher incomes.

Figure 49. Interest in general news by age, income and education, Portugal, 2022

Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011; nU35=453; nOver35=1558; nLow Income=294 (until €4999 / year); nAverage Income=946 (between €5000 and €24999 / year); nHigh Income=438 (over €25000 / year); nLow Education=1003 (until 3rd cycle of basic education); nAverage Education=539 (Secondary or vocational education); nHigh Education=469 (over Secondary).

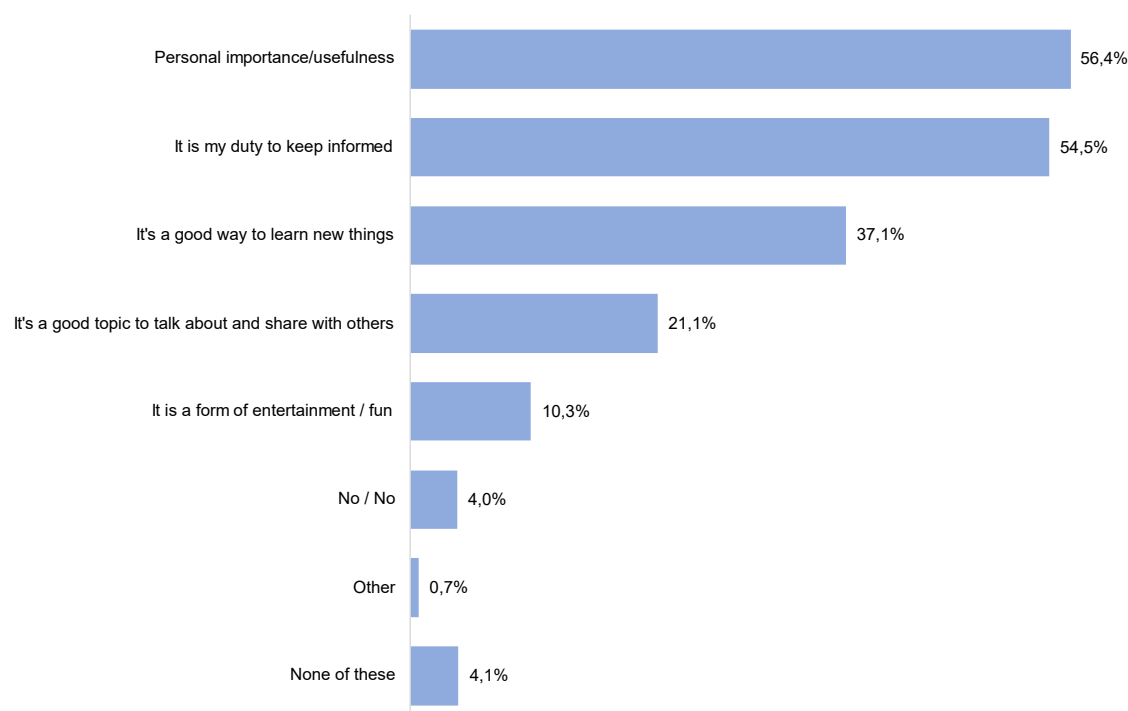
Compared with the interest levels registered in the general sample, in 2022 relative to 2021, interest in news fell similarly among the Portuguese under and over 35, and decreased much more sharply among the less educated and those with lower income – down 24.4 pp and -20.0 pp, respectively–.

Figure 50. Interest in general news by age, income and education, Portugal, 2021 and 2022 (% difference)

Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011; nU35=453; nOver35=1558; nLow Income=294 (until €4999 / year); nAverage Income=946 (between €5000 and €24999 / year); nHigh Income=438 (over €25000 / year); nLow Education=1003 (until 3rd cycle of basic education); nAverage Education=539 (Secondary or vocational education); nHigh Education=469 (over Secondary).

Among the main motivations for following the daily news, more than half of the Portuguese refer to the importance and usefulness of information in personal terms (56.4%) and the fact that being informed is a duty (54.5%). 37.1% of respondents of the Digital News Report refer to the pedagogical aspect of news consumption and the fact that consuming information is a good way to learn new things. About one fifth of the Portuguese refer to an aspect related to sociability, the fact that news is a good topic of conversation for sharing with others.

Figure 51. 'What are your main motivations for keeping up with the news agenda?', Portugal, 2022 ('choose up to three options')

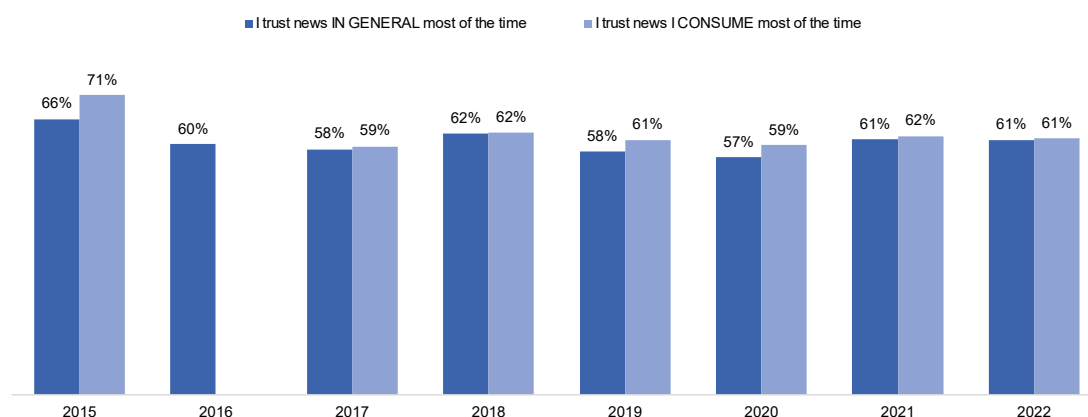


Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011.

4.2.5 Trust in news

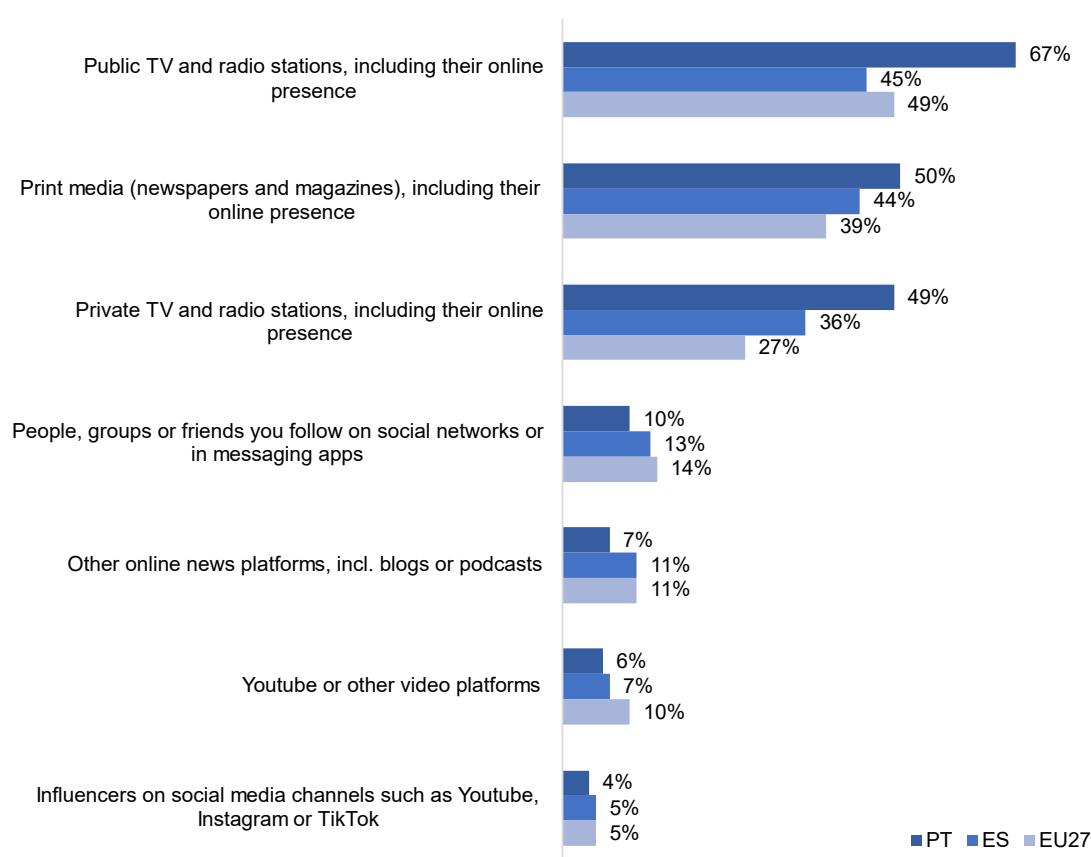
According to the Digital News Report, Portugal is the 2nd country where news is most trusted in the 46 markets analysed, only behind Finland and on a par with South Africa –61% of the Portuguese say they trust the news–. The average for the 46 markets is 42%.

Throughout eight editions of the Reuters Digital News Report, Portugal also stands out in terms of stability in the levels of trust in news. Although the levels of trust in news consumed are higher than the levels of trust in news in general, the difference is marginal, a symptom of the low polarisation of the news media and the coverage given to topics related to politics.

Figure 52. Trust in news content, Portugal, 2015 to 2022

Source: RDNR 2015 a 2022 [387]. Edition: OberCom. n2015=1049; n2016=2018; n2017=2007; n2018=2008; n2019=2010; n2020=2012; n2021=2101; n2022=2011.

Information gathered by the European Parliament in the context of the Eurobarometer reveals, however, different levels of trust according to the source of the information consumed.

Figure 53. 'Which news sources do you trust most?', Portugal, 2022

Source: European Parliament and Eurobarometer Media and News Survey 2022 [146].

In effect, public television and radio are the sources that the Portuguese say they trust (67%), followed by the written/online press (50.0%) and private television and radio stations (49.0%). The news sources that the Portuguese least trust are social network

influencers (4%), Youtube or other video platforms (6%) and other online sources of information such as blogs and podcasts (7%). Similarly, social networking contacts are also not trusted very much by Eurobarometer respondents –only 10% of the Portuguese say they trust their contacts on social networks or messaging apps for information purposes–.

Compared with Spain and the 27 countries of the EU as a whole, on average, the Portuguese trust public or private TV and radio sources and the press more than their European counterparts. This trend is reversed in the remaining categories under analysis, namely the digital ones.

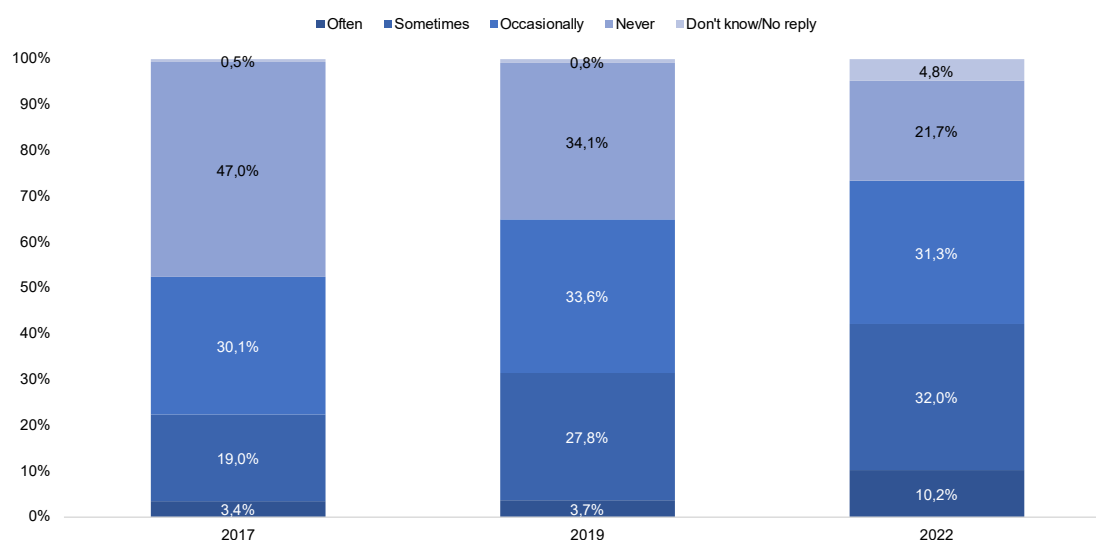
Returning to the statistical data collected within the Digital News Report, it should be noted that the Portuguese tend to assign substantially less trust to news in search engines and, especially, news in social networks compared with news and information content in general. By 2021, as discussed above, 61% of the Portuguese said they trusted news, 45% trusted news on search engines and only 27% trusted news on social media platforms.

Previous editions of the Digital News Report indicate that, in fact, respondents tend to assign less trust to news consumed in algorithmic environments than in editorialised environments, and this lower trust may actually be related to the context of consumption, insofar as much of the information available on social networks originates from news brands that traditionally disseminate information in non-algorithmic media that people trust more.

4.2.6 News avoidance

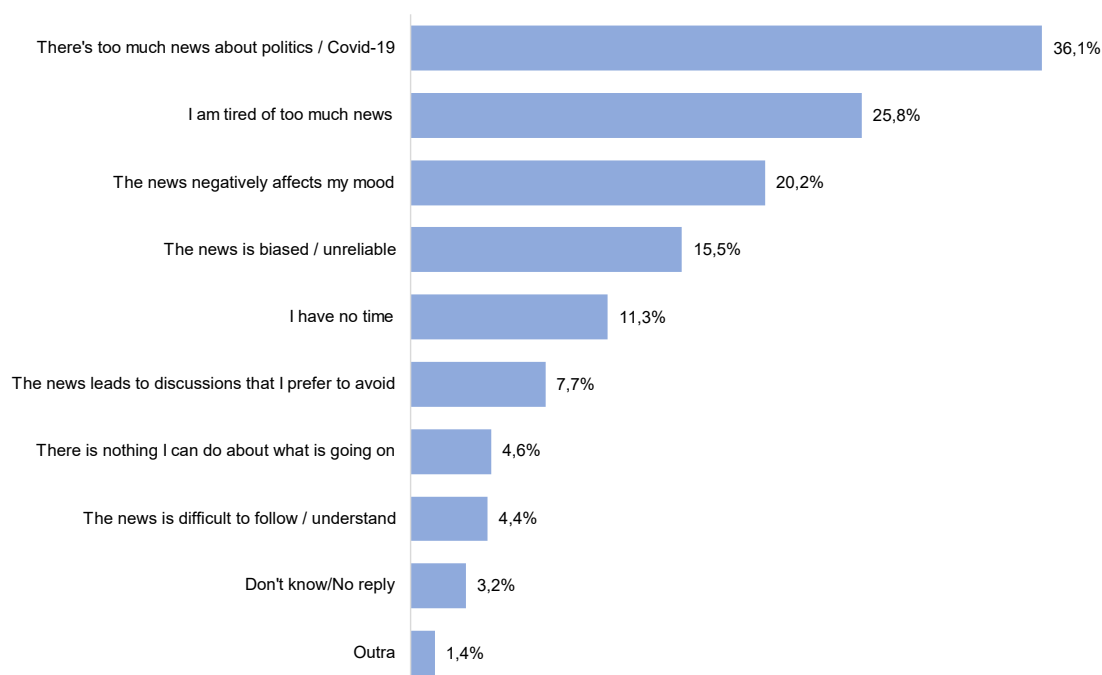
The phenomenon of active avoidance of news content was previously explored in the 2017 and 2019 editions of the Digital News Report. However, with the evolution of the pandemic and related disinformation phenomena, this topic was studied again in the 2022 edition of the project.

Figure 54. 'Do you usually actively avoid news?', Portugal, 2017, 2019 and 2022



Source: RDNR 2017, 2019 e 2022 [387]. Edition: OberCom. n2017=2007; n2019=2010; n2022=2011

In Portugal this is a growing practice: in 2022 almost three-quarters of Portuguese internet users said they actively avoided news: 10.2% did it frequently, 32.0% sometimes and 31.3% occasionally. Compared with previous years, in 2017 52.5% of respondents said they actively avoided news and in 2019 the proportion reached 65.1%.

Figure 55. Motivations for news avoidance, Portugal, 2022 (multiple answer)

Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011.

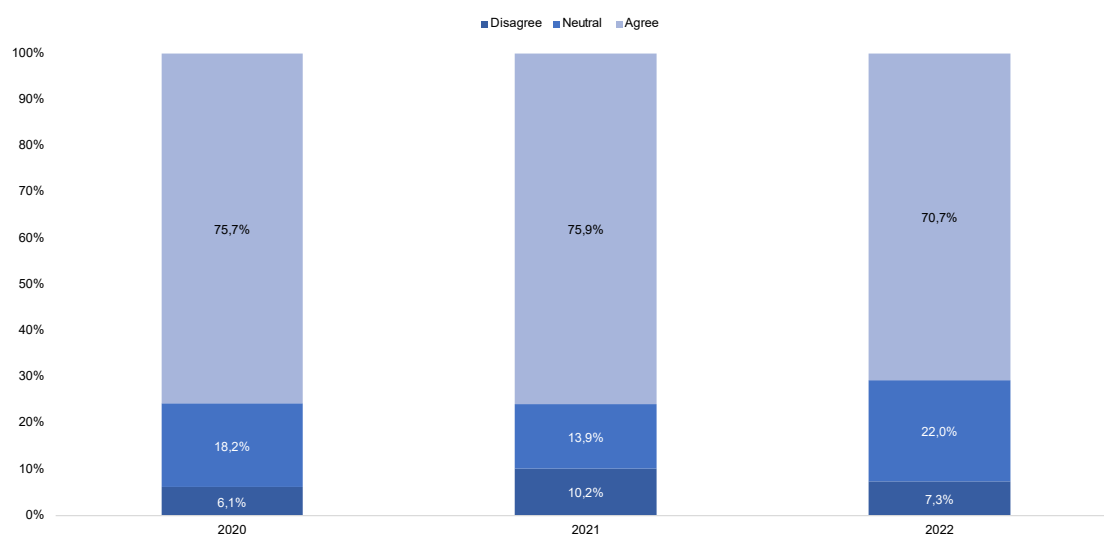
Among the main reasons for actively avoiding news, the most mentioned are the excess of news about politics and the pandemic (36.1%) and tiredness with the excess of news in general (25.8%). This is followed by the negative affectation of mood (20.2%) and the fact that the information is generally partial and unreliable (15.5%). It should be recalled that the fieldwork period was characterised by the dominance of political themes (legislative elections on 30 January) and the pandemic on the media agenda, an aspect that is somewhat confirmed by the reasons stated for the avoidance of news and the data on the decline of interest in the news.

Furthermore, and as stated earlier, it should be noted that the fieldwork of this survey in 2022 preceded the invasion of Ukraine by the Russian Federation, which has dominated the media agenda since its inception. Additional research conducted by the Reuters Institute for the Study of Journalism, in order to understand the impact of this event on interest in news that was already known to have fallen compared with 2022, revealed that in the five markets analysed (Germany, Brazil, Poland, the US and the UK), populations follow the conflict very often, but there is a significant increase in individuals claiming to actively avoid the news [390].

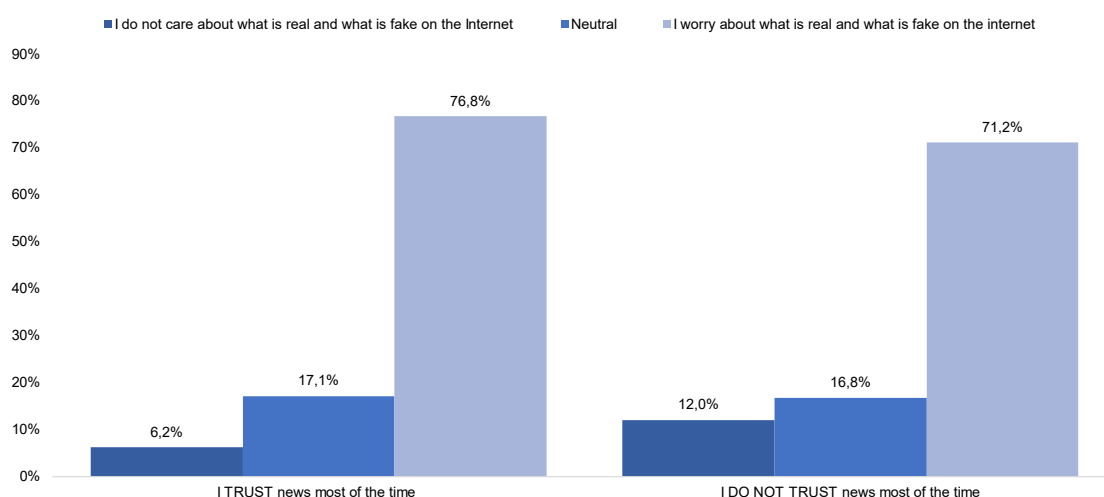
4.2.7 Concern and habits in the face of disinformation

The issue of disinformation and fake news gained prominence within the Digital News Report in 2016/2017, in the context of the US presidential elections that resulted in the election of Donald Trump. Since 2020 Portugal has positioned itself as one of the countries whose population is most concerned about the legitimacy of content in online environments.

In 2022 seven out of 10 Portuguese (70.7%) said they were concerned about what is real and false on the Internet. However, it should be noted that the proportion fell by around 5% compared with 2021 (75.9%).

Figure 56. Concern about what is real and false on the Internet, Portugal, 2020 to 2022

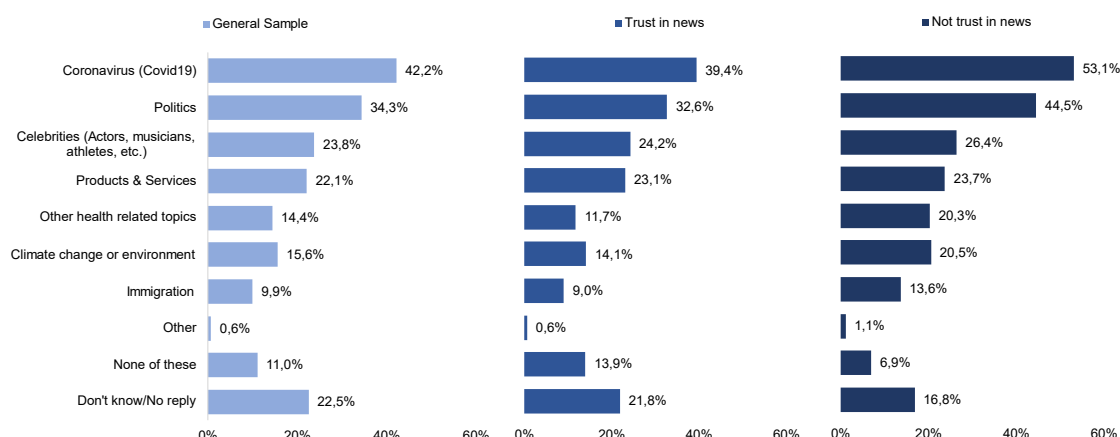
Source: RDNR 2020, 2021 & 2022 [387]. Edition: OberCom. n2020=2012; n2021=2101; n2022=2011.

Figure 57. Concern about what is real and false on the Internet by trust in news, Portugal, 2022

Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011; nTrust in news=1219; nNot Trust in news=375.

Crossing this indicator with trust in news suggests that the Portuguese who trust news tend to be more concerned about online disinformation than those who do not trust it, in a ratio of 76.8% to 71.2%. Given that both these subsamples, of those who trust and do not trust news, tend to assume neutral positions towards online disinformation in similar proportions, it should be noted that the proportion of respondents who do not trust news and are not concerned about online disinformation is roughly twice as high as the Portuguese who say they trust news. The issue of trust in news when crossed with the concern over the phenomenon of disinformation is extremely relevant to the extent that the sphere of media and journalism is a central axis in mitigating disinformation and appeasing its political, social and communicational impacts.

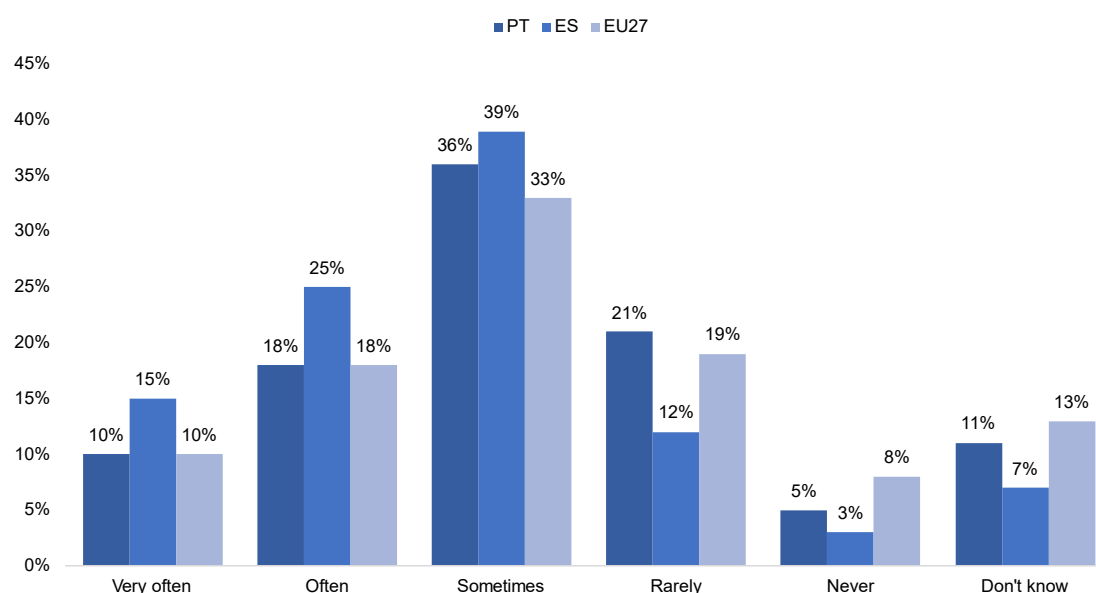
Figure 58. 'In the last week, have you come across false or partially incorrect information on any of the following topics?', Portugal, 2022 (multiple answer)



Source: RDNR 2022 [387]. Edition: OberCom. n2022=2011; nTrust in News=1219; nNot Trust in News=375.

This relation is particularly evident when respondents are asked about the disinformation they believe they have encountered on different topics. The Portuguese who do not trust news tend to declare to a higher degree that they have encountered disinformation on the pandemic (53.1% versus 39.4% among those who trust news), on politics (44.5% versus 32.6%), on other health related topics (20.3% versus 11.7%) and on immigration (13.6% versus 9.0%). In other words, the perception of disinformation, when crossed with trust in news, tends to focus on fracturing topics, which directly impact the political and social environment of society.

Figure 59. 'How often do you think you have been personally exposed to disinformation and fake news in the last seven days?', Portugal, 2022

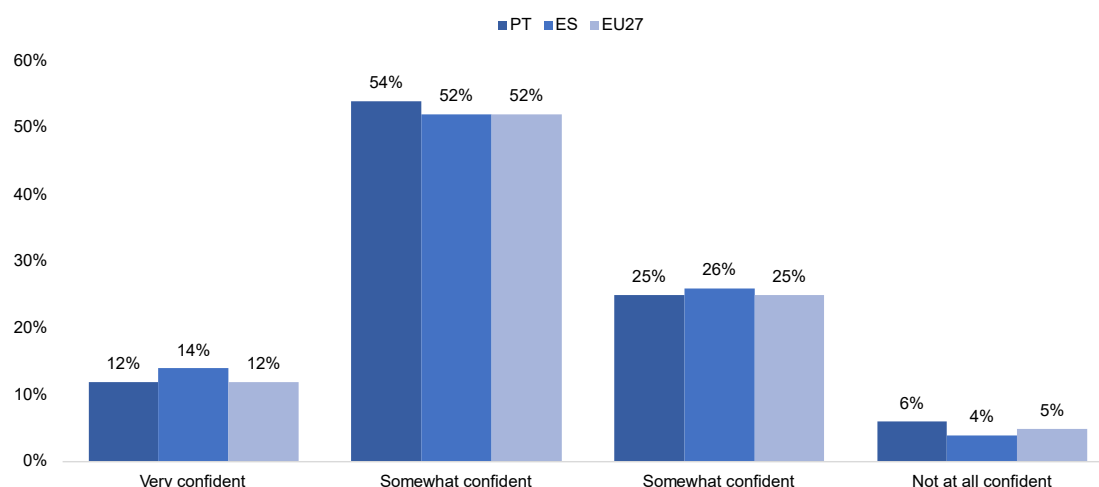


Source: European Parliament and Eurobarometer Media and News Survey 2022 [146].

Data provided by the European Parliament as part of the Eurobarometer on media and news in 2022 [146] suggest that when it comes to the frequency with which the Portuguese encounter content that they consider false or disinformative, they follow a

distribution similar to the other 27 countries of the EU. In Spain, respondents tend to declare to a greater extent that they encounter this type of content more frequently.

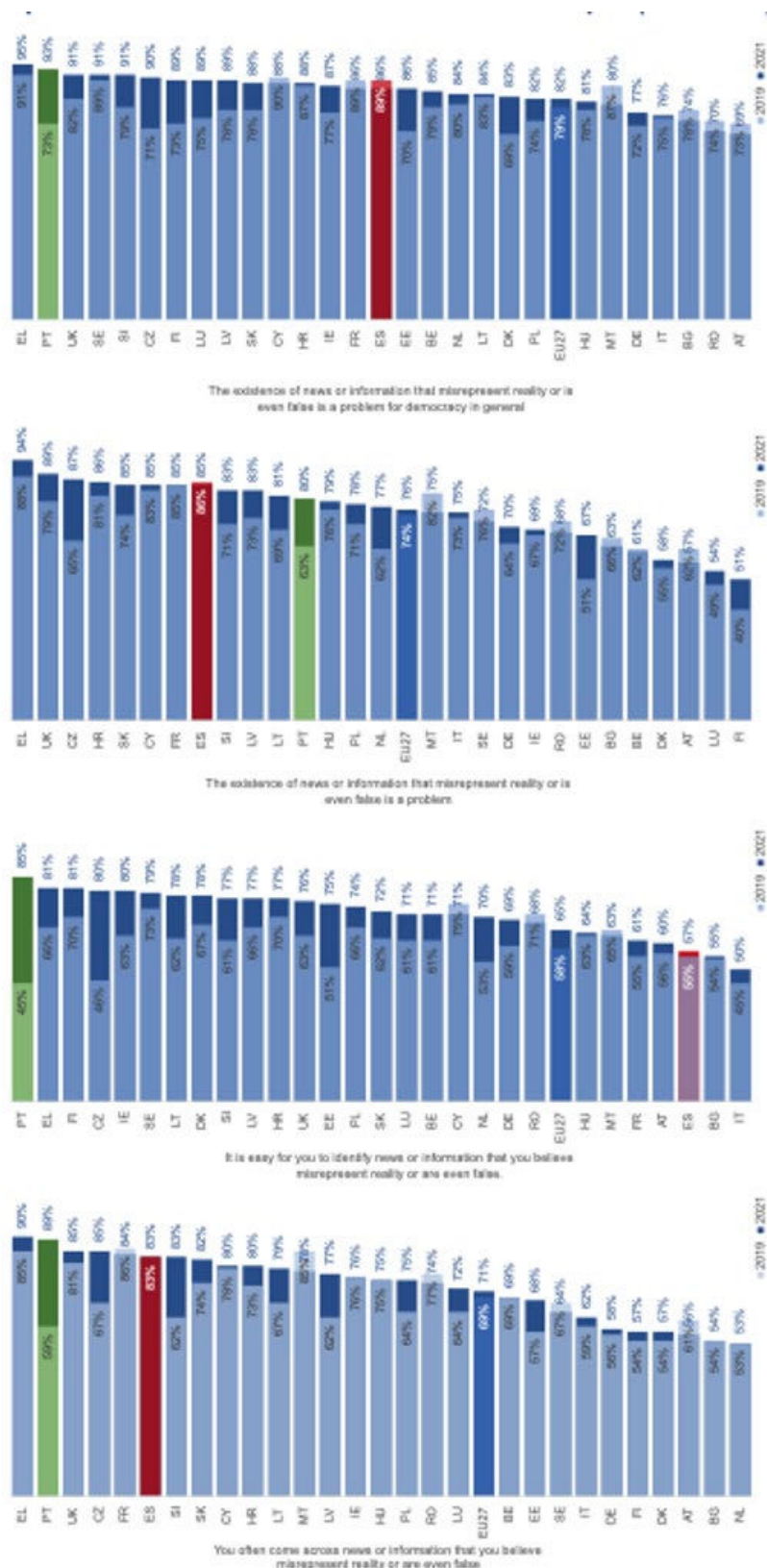
Figure 60. 'How confident do you feel that you can recognise disinformation when you encounter it?', Portugal, 2022



Source: European Parliament and Eurobarometer Media and News Survey 2022 [146].

Twelve percent of the Portuguese say, in the context of the same Eurobarometer and European Parliament survey, that they are very confident that they can recognise disinformative content, compared with 14% in Spain and 12% of the Union's citizens. Up to 54% of respondents in Portugal say they are somewhat confident, and in the three samples, about a quarter of the respondents say they are not very confident in their ability to recognise disinformative content, an indication of the permeability of citizens to disinformation.

Figure 61. Perceptions on disinformation in the EU (2019-21)



Source: Standard Eurobarometer 92 (2019) and 94 (2021) [164, 166].

Consolidated data from the 92 and 94 editions of the Eurobarometer indicate that, in 2021, Portugal is the country where most individuals say it is easy to identify partially or

totally false news or information (85%). It should be noted that, in this indicator, there is a very sharp increase in the proportion of individuals who agree with this statement (45% in 2019, or 40 pp more in 2021). In Spain there is 55% and 57% agreement in 2019 and 2021, respectively, in an overall picture in which the EU28 average (EU27 in 2021, given the UK's departure) stands at 58% in 2019 and 65% in 2021.

According to the perception of Eurobarometer respondents in Portugal, the amount of partially or completely false information has increased between 2019 and 2021: in the first year of the analysis, six out of 10 Portuguese said they encountered this type of information frequently (59%). In 2021 the proportion was almost nine out of 10 respondents (89%). In Spain, similar response rates are recorded in both years (83%), while the perception in the EU as a whole is of a slight increase, from 69% to 71%. It should be noted that this indicator does not suggest a direct increase in the amount of partly or wholly uninformative content in circulation but rather the perception of respondents about the presence of such content. It should also be noted that we are talking about two distinct periods in context: the pre-pandemic period (2019) and a time during the pandemic, in 2021.

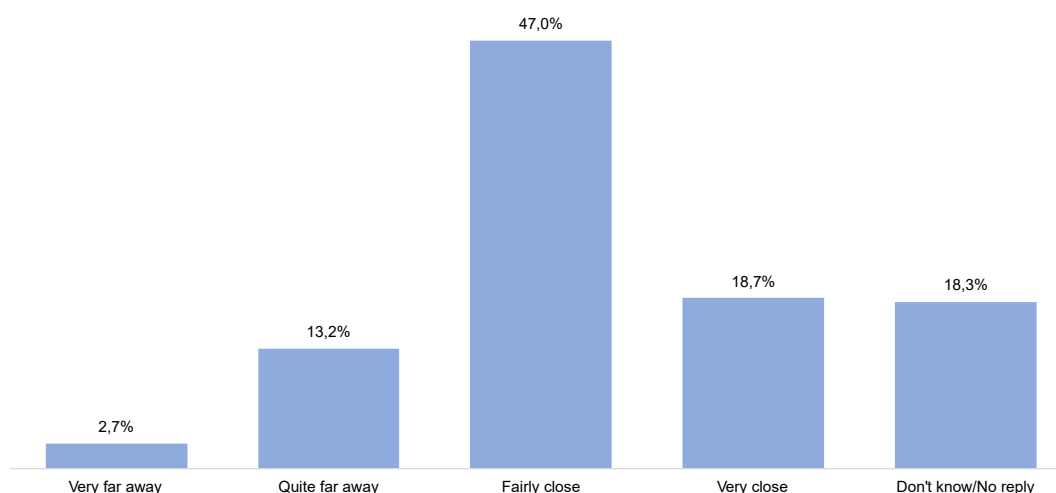
Respondents in both Spain and Portugal tend to widely consider that partial or totally false information is a threat to democracy in general (with proportions of 86% and 93%, respectively, in 2021). However, the sub-sample for Spain tends to consider disinformation a domestic problem to a greater extent (86% versus 63% for the Portuguese).

4.2.8 Perception of media polarisation

Portugal is historically characterised by a low polarisation of the media and by the effort to maintain editorial neutrality of news brands, in contrast to countries such as Poland, Spain and Hungary, where publications declare editorially, particularly in election periods, their support for one or another political project. In effect, 47% of the Portuguese indicate that the main news organisations are quite close in political terms and 18.7% very close. Aggregately, 65.5% of the Portuguese consider that the news organisations are close compared with 16% who have the opposite opinion.

In comparison with other European countries studied under the Digital News Report, Portugal is the European country where fewer people consider that the media are distant in political terms (16%), as opposed to Poland (54%), Spain (49%), Hungary (44%) and Italy (42%), in a general framework in which the European average is 31%. Note that in terms of evaluating the polarisation and the political-ideological closeness/removal of the media, this weighting seems to be influenced by both the media sphere and the political sphere.

Figure 62. Political polarisation of the media: 'In your opinion, to what extent are the main news organisations in your country politically distant or close?', Portugal, 2022



Source: RDNR 2022 [387]. Edition: OberCom. nPortugal=2011.

4.3 Introduction to the case studies

To help characterise the impact of disinformation in Portugal and how it affects media consumption (traditional and non-traditional), three case studies were selected that cover the period 2020-22 and that, due to their characteristics and media relevance, can be considered representative of the macro situation in Portugal. In addition, the three cases have: (a) different components from the conjunctural or structural point of view; (b) differences in terms of proximity to the Portuguese; and (c) different frameworks from the thematic point of view.

Those selected were:

1. The COVID-19 pandemic declared in 2020, a conjunctural case (but of long duration), of global scope, with a focus on public health and capable of directly affecting all Portuguese citizens.
2. The Legislative Elections of 2022, a structural situation (even if unforeseen, since they were held ahead of schedule) with a well-defined timeframe, related to the national political reality and capable of directly affecting all Portuguese citizens.
3. The war in Ukraine, starting in 2022, a conjunctural situation, of international scope, focused on international politics and economics and capable of indirectly affecting Portuguese citizens.

Thus, there is a diversity of themes (health, national politics, international politics and economics), with different origins (one structural case and two conjunctural cases), geographic scopes (national, international or global) and effects on Portuguese citizens (direct or indirect).

4.3.1 COVID-19, pandemic and associated issues

An unavoidable case study is the COVID-19 pandemic (SARS-CoV2) which, from January 2020 to the present, is a constant and recurrent issue in journalistic production, commentary and discussion in the media, and omnipresent in the various social networks. Regarding the pandemic, over two years the official speeches and the expression of citizens on social networks went through several phases, with different focuses of disinformation, which evolved as the pandemic itself advanced.

In the first phase, everything circulated around the causes of the virus's appearance and the most basic questions (what is it?, how did it come about?, was it created in a laboratory?). In a second phase, the talk turned to prevention, protection and treatment. It was then that the theses of miracle cures appeared, disinformation about the usefulness/effectiveness of prevention methods, such as social distancing or the use of masks, and disinformation about the 'miraculous' action of certain types of substances, such as hydroxochloroquine, in fighting the disease [391, 392]. In a last phase, from the moment vaccines appeared, the disinformation circuits were fundamentally directed to their supposed ineffectiveness and even danger.

In Portugal, the promoters of disinformation made a very intense effort to discredit the political decision-makers and their practical measures, trying to create some social destabilisation. To accomplish this they have often used the translation/adaptation of disinformation originating in other countries.

To give a more specific idea of the importance of the COVID-19 topic for Portuguese citizens we can resort to data from Polígrafo, which between February 2020 and 15 July 2022 produced and published 1,037 articles and fact-checks related to coronaviruses, or from the science communication project covidcheck.pt [393] created with the aim of accurately informing Portuguese citizens about the pandemic, and active in its first phase (from April to August 2020), having produced more than 600 clarification contents about COVID-19.

In terms of thematic groupings, there is a possible aggregation of themes into four major groups: conspiracy theories [394], cures and treatments [395], danger or ineffectiveness of vaccines [391, 396, 397], and questioning the decisions of health authorities/politicians [392, 398, 399]. With regard to conspiracy theories, in particular, there was mainly import, and a recurrent logic of joining several objects of disinformation in the same 'campaign', as happened with COVID-19's supposed relationship with the installation of the 5th generation (5G) mobile communications network in Portugal [400] –curiously, in that period there were not even any 5G tests in the country yet–, studied in *5G e Covid-19: a propagação da desinformação* ('5G and Covid-19: the spread of disinformation') [401]. Right from the first moments of the virus's advance a supposed relationship with the expansion of 5G networks appears, and the fact that there are no facts to support the relationship does not prevent its spread. This starts in already existing groups on Facebook that are against 5G and then spreads to groups with very different themes, but that always go together when the subject is scientific disinformation [401].

It has been a few months since the first message linking COVID-19 to 5G ('5G is launched in Wuhan weeks before Coronavirus emerges') and the conspiracy theory began to cause incidents. In April 2020 over 20 incidents were reported in several British cities, with poles with telecom equipment burned and damaged, and subsequently in other countries. Interestingly enough much of the equipment attacked was not 5G but the old 3G and 4G standards [401].

Even though there are no 5G antennas in Portugal, Facebook groups are popping up in Portuguese to 'fight' not COVID-19, but its connection to 5G. The number of interactions follows the international trend of dissemination of the theory (Figure 63). The same goes for the various conspiracy strands that coexist in the groups: the virus exists but 5G makes it worse; the virus is not the cause of the disease but 5G; that COVID-19 does not exist and that governments are using quarantines to secretly install 5G infrastructure [401].

INTERACTIONS **68,576** POSTS **1,621**

The chart displays two data series over a five-month period. The 'INTERACTIONS' series (blue line) shows a steady increase from January, peaking in early February and again in early April, before declining in May. The 'POSTS' series (grey line) remains relatively flat and low throughout the period.

Month	Interactions	Posts
Jan 2020	~10,000	~100
Feb 2020	~25,000	~100
Mar 2020	~15,000	~100
Apr 2020	~30,000	~100
May 2020	~15,000	~100

One of the facts that the disinformation about COVID-19 made evident right from the beginning of the pandemic was the importance of private social networks, especially WhatsApp, with a great penetration in Portugal, for the dissemination of disinformation. In March 2020 an audio of a supposed doctor portraying the chaotic situation in a supposed hospital was massively shared on this network and was the object of the study *Informação e desinformação sobre o Coronavírus em Portugal* ('Information and disinformation about the Coronavirus in Portugal') [402].

Figure 64. Word cloud with the weight of the most recurrent categories in the messages about COVID-19 in March 2020

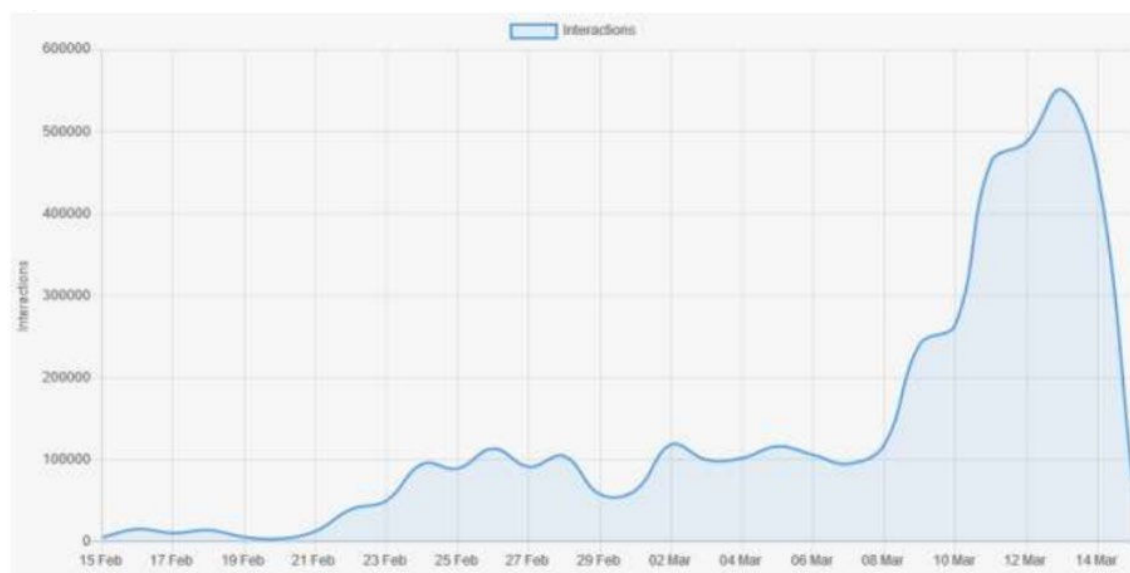


This sharing of false, manipulated or misleading content also demonstrates the replication of these messages without any concern for reflection, verification or concern about the consequences of such sharing. In the opposite direction, we also witness the emergence of new Facebook groups created to share useful information about the virus/disease, demonstrating a large participation in community actions: for example, the group 'Voluntary Isolation COVID-19', between 12 March 2020, the date of its creation, and 15 March, reached 624,000 members [402].

In the pages and groups usually associated with the production and spread of disinformation in Portugal, there is not much disinformative political content in this period, but there is a generalised attempt to use the pandemic to make political combat, as had

already happened, for example, with the fires. Analysing the publications of the main Portuguese media on Facebook and Twitter, and the interactions they generate, as well as the searches made on Google, shows the great interest/concern of citizens before the pandemic, mainly related to knowing what to do, how to do it and what was happening [402].

Figure 65. Number of interactions per day with posts published on Facebook by the 70 main Portuguese media outlets between 15 February and 15 March 2020



Source: reproduced from Cardoso, Pinto-Martinho, Narciso, Moreno, Crespo, Palma & Sepúlveda, 2020 [403].

The same was verified a year later, after one of the deadliest periods of the pandemic and very tight containment measures, when all Portuguese expected a deconfinement plan from the Government, and a supposed government document was shared at a astounding pace (in a few hours), in a process of tsunami dissemination of disinformation, whose analysis was carried out in the 'The false deconfinement plan: an anatomy of disinformation and counter-narrative' [403].

On 25 February 2021, content concerning a new deconfinement plan supposedly announced by the government was circulated online in pdf format. It was shared and disseminated via social media, most notably WhatsApp, but also widely shared on Facebook, Twitter and Instagram. Hours later, this supposed new deconfinement plan would be denied by the Government, deconstructed by Portuguese fact-checkers and reported as false by several media outlets [403].

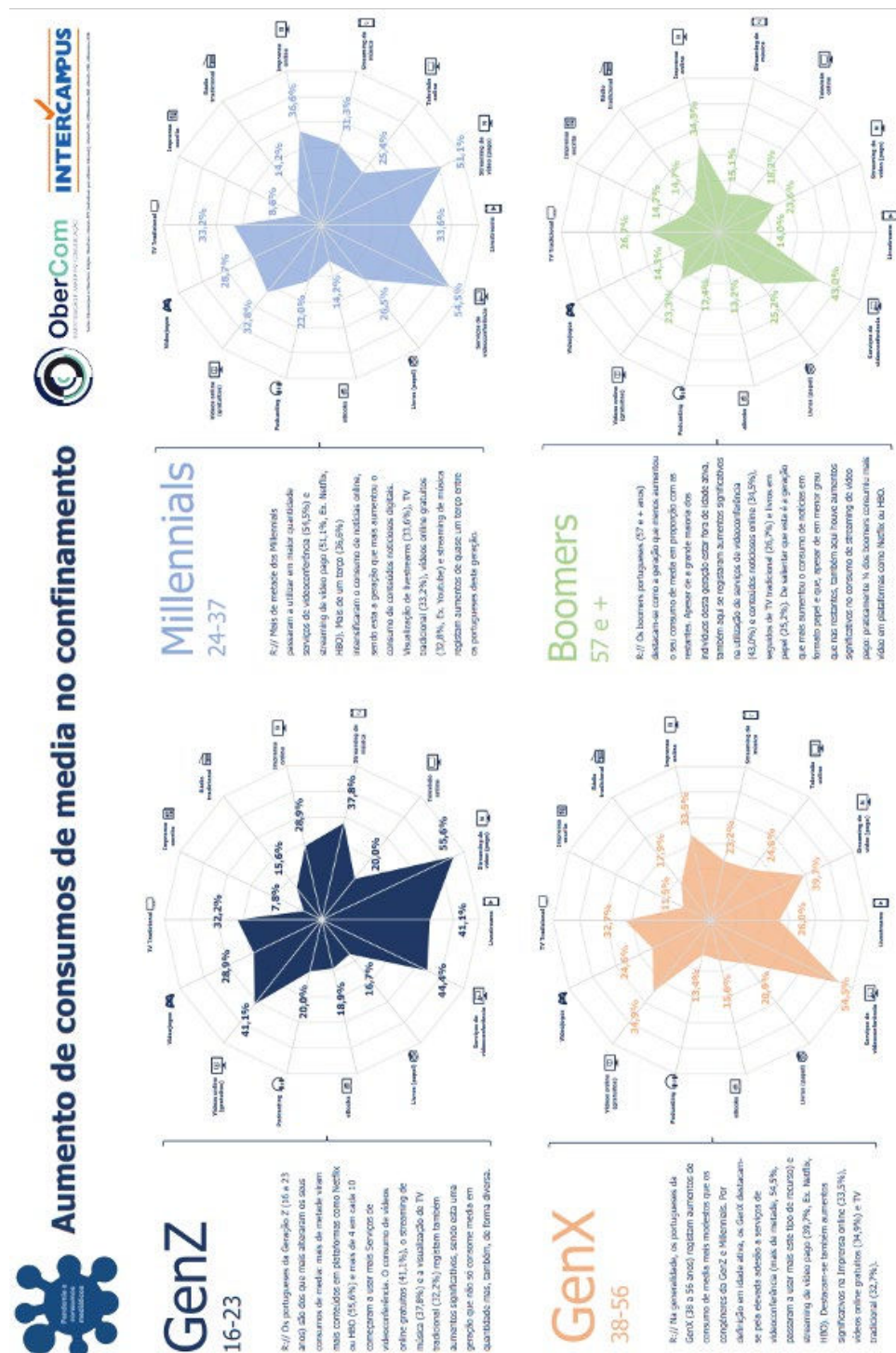
In parallel, citizens reacted with mistrust to the information, with many questioning the veracity, checking and, as soon as it was confirmed to be fake news, generating a wave of dissemination of the confirmation that it was disinformation. Finally, the matter seemed to be closed on 26 February at 5:40pm, when the Prime Minister announced that the real deconfinement plan would be presented on 11 March 2021 [403].

On the contrary, the pandemic had positive impacts on media consumption of the Portuguese [389] and also of Brazilians [404], with the media having audience peaks in 2020 (even if without a corresponding increase in revenue) and impact on the confidence of news consumers.

In 'Pandemic and media consumption' [389] the increase in media consumption is well depicted, as well as new consumption practices and their differentiation by generations in a pandemic context (Figure 66). It is relevant to note that among the most used sources for information about COVID-19 were search engines (used by 31% of

respondents) and Facebook (used by 20%). Instagram was, for this purpose, used more than Twitter during the confinement (4.1% and 1.4%, respectively).

Figure 66. Increase in media consumption during the confinement of 2020



Source: Cardoso, Baldi, Paisana & Quintanilha [389].

Although not exclusively about COVID-19, the perception of the role of official institutions indicates that the Government and the President of the Republic are the top-rated entities, almost equally, followed by the Directorate General of Health and local governing bodies. The media and the World Health Organisation achieve lower values

[389]. The same view is given to us by the analysis of the articles and fact-checks produced by Polígrafo: there was a large national consensus on the fight against the pandemic (as well as on its effective existence and potential scope) that greatly limited the possible pernicious consequences on the credibility of the decision-makers, with the Government and the General Direction of Health standing out.

On fake news and disinformation, the Portuguese say they encountered disinformative content to a greater degree during the confinement period (71.6%) than during the preceeding period (54.7%). A relevant 43.6% of respondents said they had difficulty knowing what was true and false about the coronavirus, but more than a third of the Portuguese said they avoided news about the situation (36.4%) [389].

4.3.2 *Parliamentary elections on 30 January 2022*

An excellent example to characterise a specific Portuguese case, in which the eventual disinformation will be of national origin (or of attempts of international interference in the country), is the celebration of a national election, in this case the anticipated Legislative elections of 2022.

This attempt at analysis has been done before, with the monitoring in an exhaustive way of how politicians and parties express themselves on social media and their reach, as available in *Acompanhamento das eleições Presidenciais 2021 nas redes sociais* ('Monitoring the 2021 Presidential elections on social media') [405], a series of day-by-day, weekly and aggregated analytical reports by network covering the candidates' activities on Facebook (interactions, most popular posts, etc), Twitter (tweets and shares) and Instagram (posts and interactions), but also social media news and opinion articles disseminated on Facebook.

Earlier, already in 2019 a study on the potential risk of disinformation interference in elections in Portugal, *Desinformação: risco de interferência nas eleições é reduzido* ('Disinformation: risk of interference in elections is reduced') [406], focusing on the Legislative, concluded that the risk of content related to disinformation and fake news being able to interfere in the election results is relatively low. However, the report does not rule out the possibility that disinformation could have an influence on the political climate in Portugal, by feeding extremist political movements. Unlike what happens in most European countries –where immigration is the central theme of political disinformation– in Portugal it is corruption that motivates most campaigns and actions to manipulate information [406].

The analysis of the Presidential elections allows us to look at a limited period (January 2022) of great political party activity, in which three themes dominated the campaign discourse: social policies (pensions, wages, unemployment, support for ethnic and social minorities) [407, 408]; health (investment in the SNS, family doctors, public/private dichotomy) [409]; and taxes (tax injustice, burden of the State on citizens' income) [408, 410].

According to the aggregate of articles and fact-checks conducted by Polígrafo between 1 and 30 January (n=148), a curious fact is the fact that one of the central issues in the debate originated a short footprint in terms of disinformation. Neither the Government nor the opposition disseminated a significant number of falsehoods in this domain during the electoral campaign, perhaps because the data is already very 'sedimented' in the public debate, as is the case of waiting lists for surgery or the shortage of family doctors.

This may be due to the fact that politicians are already taking special care to produce statements without factual support due to the speed with which their opponents, the media and the citizens themselves deconstruct potential falsehoods. This political learning has become 'mandatory' due to several previous cases in which attempts of Portuguese political actors to produce disinformation turned against themselves, namely

by the fact-checking work developed by the media, as portrayed in the paper 'The role of journalism in combating fake news: the case of the last day of the 2019 election campaign in Portugal' [411].

Here we explore how the Portuguese media help to deconstruct lies, but also contribute to learning about specific incidents, as happened with the then candidate for re-election for prime minister. In 2019, in the final hours of the election campaign, António Costa was accused on the street of having gone on vacation at the time of one of the worst forest fires ever in Portugal (Pedrógão Grande, 17 June 2017, with 66 dead), and this became a political fact and the focus of media coverage at the end of the campaign. The media chronology of the event was analysed and described in the case study 'Costa exalts at citizen who accuses him with fake news' [412], which shows that even a previously deconstructed and proved false fake news can come back into prominence on social media, move into the physical world and cause fake news to produce political reality almost instantaneously.

The first major discussion in Portugal about the impact of fake news in politics took place in 2018, when Manuel Vilarinho Pires published in the blog *Gremlin Literário* a photomontage of the coordinator of the Left Bloc, Catarina Martins, wearing a Patek Philippe watch valued at more than €20 million. The image was quickly shared on several social networks criticising the ostentation of the Bloco leader, and questioning her moral honesty, since her party fights against social inequality. The interesting thing is that the image was created to illustrate an article about how easy it is to create fake news (in this case joining two truths and resulting in a lie). The whole process is explained by the author of the image himself in *A incrível e triste história de Catarina Martins e do seu Patek Philippe desalmado* ('The incredible and sad story of Catarina Martins and her soulless Patek Philippe') [413].

4.3.3 Invasion of Ukraine

The third case, the war in Ukraine, is an international event that puts into question the world political and economic balances, but has indirect consequences in Portugal (arrival of refugees, increase in fuel prices [414] and, partly due to that, inflation growth). As it is a case that, by definition, creates antagonistic positions, and is fertile ground for information control and disinformation by each of those involved, it easily leads to the dissemination of disinformative content, which, especially in the early days of the conflict, not even the traditional media escaped from, with Portuguese television stations broadcasting images of the conflict in Syria or even 3D animations of video games as if they were real images of the war in Ukraine.

Resorting to the articles and fact-checks published by Polígrafo between 20 February and 15 July 2022 (n=238, of which 40 national and 198 international) confirms that the great source of disinformative content is imported to Portugal, sometimes with translation or adaptation.

Focusing attention on the national reality, two themes stand out: the issue of rising fuel prices [415] (attributed to the military conflict), and the dubious positions of the Portuguese Communist Party on the role of Russia in the conflict [416], especially in terminological issues (is it an 'invasion' or a 'military intervention?') which express a position contrary to the majority and therefore with political consequences, and also for supporting some of the potential justifications for the initiation of military action put forward by the Russian authorities (was there or was there not a process of extermination underway in the Donbass? [417]).

As for the main pieces of disinformation picked up at an international level, it is noted that most of the content that went viral throughout Europe circulated in Portugal, such as the cases of Zelenski's alleged cocaine addiction [418], the alleged manipulation of the

image of a pregnant woman injured during a bombing in Mariupol [419] and the video showing a corpse moving [420, 421] during a report broadcast by a television channel.

All the disinformation related to the war in Ukraine must also be framed in the context of war propaganda which, since World War II, has been professionalised and, in 2022, uses all the resources and reach made available by social media to try to generate doubt, controversy, conflict and, ultimately, social instability.

A paradigmatic case of this positioning in 'pro' and 'against' blocks –even if in Portugal there is a broad consensus on who is the aggressor and the 'guilty' part in the war– and which generated some discussion, was the cutting of television broadcasts of *Russia Today*, a Russian information channel that was provided by telecommunication operators in Portugal, or the cutting of access to *Sputnik News* –two media that disseminate the official positions and information of the Russian government and, especially in the context of war, disinformative content (in favour of Russia or against Ukraine)–.

The significant point is that, although they have been available in Portugal for many years (RT through the tube, Sputnik on the internet and in Portuguese since 2017), most citizens had never heard of them, and the ban at the European level only created demand and discussion about 'censorship'. The case had already been the subject of the investigation *Sputnik News: a desinformação ainda não se traduz (muito) em português* ('Sputnik News: disinformation still doesn't translate (much) into Portuguese') [422], following a series of BBC reports warning that the Russian state media was distorting information regarding the country's aid to Italy during the crisis caused by COVID-19, and that Sputnik –which since February 2018 has a reporter based in Lisbon– would be one of the means used to propagate disinformation.

5. Quantitative analysis of disinformation in Spain and Portugal

The descriptive and qualitative analysis of disinformation in Spain and Portugal has highlighted the singularity of their context within Europe and the urgent need to provide appropriate methodologies and tools to assess the progress of disinformation quantitatively.

Following the different recommendations, it is imperative to develop a suitable content analysis specifically for Spain and Portugal and include the different methodological issues and reflections developed in the previous sections of this report.

The different case studies developed an approach to selected thematics relevant to the security and lifestyles of European citizens. By highlighting topics that are unique to each nation (such as the Catalan independence referendum and the Portuguese elections) as well as universal issues like COVID-19, the use of various indicators about the evolution of trust in institutions helps to reframe the disinformation within the context of Spain and Portugal. These case studies are necessary to understand the possible impact of disinformation, but they are invariably about historical events.

Quantitative analysis and monitoring of disinformation are essential in the future in order to fully understand the evolution of disinformation in Spain and Portugal and to perform in-depth analyses and research. It requires the establishment of methodology and indicators, as well as the development of suitable technical tools that enable us to assess disinformation quantitatively.

The strength of the conception of EDMO into hubs is to have a contextualised analysis by country, region, language and culture.

To achieve this and following the importance of thematics and tailored solutions to the two countries, we propose a hybrid solution currently implemented in the IBERIFIER.

The idea is to leverage the interdisciplinary network of fact-checkers and researchers and combine the resources of each participant within a unified framework.

Fact-checkers and journalists work daily to identify the most pressing and prevalent disinformation. A work of investigation and analysis precedes their work at debunking them. This work creates a corpus of the most relevant disinformation in their respective countries and languages, at least sufficient to trigger fact-checkers to devote time to verify the claim, produce a report and share it. It can be used as a priming set for following the ongoing disinformation spread within Spain and Portugal.

The infrastructure using the existing work from the fact-checkers will attempt to answer the different methodological issues raised in this report and integrate a more systematic analysis of the various claims. The idea will be to develop a set of indicators backed up by the scientific literature while offering an operationalised version.

The key advantage of this integrated approach is to ground the theme within the countries by using the existing work from fact-checkers and linking that to a broader method of data collection based on the development of indicators answering methodological shortcomings.

The results will offer a long-term analysis of disinformation evolution over time, identifying the origins and the target of these false claims and complementing current reports with up-to-date and dynamic data collection.

5.1 Framework selections and adaptation to disinformation

In sections 2.3 and 2.3.2 we have described several frameworks and concepts to study the social impact on scientific research. Among the reviewed methods, the IMPACT-EV and the indicators developed by the Social Impact Open Repository (SIOR), seem to be

better suitable to translate into the study of disinformation [423]. The following section will briefly describe what the IMPACT-EV is and how we can transform it into indicators for our own goal of disinformation monitoring.

The IMPACT-EV, funded by the EU's Seventh Framework Programme, has for main objectives:

'... develop a permanent system of selection, monitoring and evaluation of the various impacts of Social Sciences and the Humanities research. IMPACT-EV will not only develop indicators and standards for evaluating the scientific impact of SSH research but especially for evaluating their political and social impact.' [424]

This work originates from the critics of measuring social impact in social sciences using the yardstick of engineering and STEM fields, where the impact can be directly measured in terms of implementation and economic gains [425].

The project aimed to build a global open-access repository for scientific research in social sciences and track the impact of the research project. The project developed the following indicators to assess the social impact of any research uploaded to its database:

- Publication in scientific journals (with a recognised impact) or by official governmental or nongovernmental bodies –these publications should show how research has been translated into action that has improved society–.
- Transferability of impact is understood as actions based on project outcomes successfully implemented in more than one context.
- Connection with UN Sustainable Development Goals or EU2020 objectives.
- Percentage of improvement obtained compared with the starting situation –for example, in the case of poverty, an action's implementation outcome based on a project's conclusions could be related to reducing the population at risk of poverty–.
- Sustainability –the impact achieved by the action based on the project results has proven to be sustainable over time– [426].

Each project submitted to the database receives a score based on adherence to these five criteria representing their actual impact. The interest in this work is how the indicators are designed. Dissemination (called publications in the description), transferability and social impact acquire a structural definition that helps to conceptualise (and therefore measure) the different types of impact research can have:

'Dissemination refers to the promotion of the results of scientific research, without necessarily implying that the results are implemented. When the results are implemented through public policies, a transfer of knowledge occurs. Only after the transfer of knowledge, in the event that the results manage to improve social reality, we finally see social impact.' [426]

Dissemination is seen as a mere spread of the research knowledge. It is not because a research project's results are being shared that it necessarily impacts society. Methodologically, this measure is purely quantitative and aims to collect the number of times the research is talked about. While dissemination is the most accessible metric to collect, it is also less critical in impact. This concept echoes the *spread* in studies of disinformation measured with metrics such as the number of shares, likes or retweets.

Before impact, the concept of transferability measures how the research is translated into tangible outcomes. The application can range from the inclusion of the outcomes within policies enhancing citizens' lives, etc.

This transferability is not only measured in terms of implementation but has to contribute to achieving UN Sustainable Goals and EU2020 targets [426]. It aims to measure if individuals, organisations or governments use the knowledge created by the research.

The UN's Sustainable Development Goals are 17 objectives established by the UN.

'No poverty; zero hunger; good health and wellbeing; better, more accessible health systems to increase life-expectancy; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice and strong institutions; partnerships for the goals.'

The EU2020 objectives include employment, research and development, climate, energy, education, social inclusion, and poverty.

This connection to existing and standardised goals helps to contextualise and frame the impact the different projects may have on society.

However, there is a difference between the concept of dissemination-transferability and the concept of spread [49]. Rather than considering the dissemination (or spread) as a lesser version of social impact, dissemination is understood as an indicator of the potential impact and the transferability, while being conceptually more critical, is no more than another indicator. The shift from a mutually exclusive category to an indicator gives room to develop adequate measures for an overall social impact score as developed in the SIOR.

The link to the SDG and EU2020 goals offers another advantage compared to the existing works on the social impact of disinformation. By providing a standardised framework helps circumscribe the different potential social impacts within pre-determined categories that can be cross studied in different contexts. However, these goals have an obvious positive direction, while the impact of disinformation is often considered significant when it has a negative impact rather than positively enhances society. Studying the negative impact of organisational or scientific projects' outcomes is not uncommon and can also be the development of a specific framework [98]. Therefore, the charged value of each goal can be removed to keep the topic content and the scope of the social impact.

This framework successfully adapted to social media and disinformation with the Social Impact in Social Media (SISM) study [427, 428]. There, they collected posts about health on three social networks (Facebook, Twitter and Reddit). To understand if there is transferability, a content analysis of the dissemination is needed. They manually annotated the social comments they found on social media into six categories (four pre-determined categories and two more raised from the study) to assess the transferability. These categories are coded using the qualitative method, the message into ESISM (evidence of social impact on social network), MISFA (misinformation), OPINION (an opinion, not evidence), INFO (a fact, an event), ESISM D (question about facts) and MISFA D (question but contains misinformation). From these categories, they computed the Social Impact Coverage Ratio (SICOR), representing the impact ratio on all messages per social media.

This work is an example of the potential adaptation of the indicators to assess the impact of disinformation. It proposes a mixed methodology, leveraging the qualitative method to produce an in-depth analysis after applying the SICOR ratio. However, the method is not adaptable to a larger context, and the qualitative method makes scalability impossible.

From this possible readaptation of the IMPACT-EV framework to the disinformation context, we will adapt some concepts and methodological decisions to produce measurable indicators.

The foremost necessary adaptation would be the transferability indicator. As seen in the earlier sections, a common issue about social impact studies mainly focuses on social media. It is justified by being the most efficient way to get data through the APIs and being the primary source of disinformation dissemination.

While the limitation to digital traces is an issue, it is imposed by the goal to answer the other indicators without facing the same restriction as in Pulido [428].

5.2 Proposed indicators

We describe the indicators we propose to assess the potential social impact of a false claim. We will also advance how we could calculate some metrics using automated means, with a particular focus on natural language processing technologies.

5.2.1 Dissemination

Identifying when and how people get exposed to disinformation, aka the dissemination, is an important part of assessing the potential impact of disinformation [429-432]. The studies that focus on this indicator use metrics from social media features, such as user shares and likes, connections between users, views, etc. These features can be monitored in social media to detect phenomena such as echo chambers or filter bubbles. Previous studies on Network Analysis have identified how false claims travel differently through different kinds of networks, such as friendship networks, diffusion networks, knowledge networks or stance networks [430].

The metrics we propose for the dissemination indicator are: (1) the times a false claim has been shared or liked on Twitter or Telegram; (2) the number of followers of the accounts that have shared it; (3) the number of consecutive days in which the false claim has been highly shared; and (4) the number of answers a claim published on social media has received. Classifying the stance of the answers using a Stance Detection model can be an additional indicator of the engagement a claim generated.

While dissemination can provide very interesting insights into the potential social effects of disinformation, more than this indicator is needed. Therefore, it remains essential to go beyond dissemination.

5.2.2 Transferability

When referring to a false claim, transferability is understood as how the false information translates into effects in other contexts. We have currently identified two transferability metrics that could be measured using the current technology: the pollution of the public debate and the agenda-setting effect of disinformation on mainstream media.

The pollution of the public debate

When one (or multiple) false claims target an institution, personality or group of people, we hypothesise that the false information can result in these entities getting more hate speech in any public conversation [433, 434]. In the same way, if a topic or debate is being distorted using false claims, we can hypothesise that the conversations about this issue will get a higher use of toxic language. Confirming these hypotheses for a specific entity would show an empirical consequence of disinformation for public conversations.

The pollution of the public debate can happen in any conversation. However, we have identified three environments where this phenomenon can be captured: social media,

mass media and political debates. Social media is the most accessible platform to capture public conversations, as people publish their opinions openly. Political debates are also often published as text, either in the form of minutes of parliamentary discussions or because journalists transcribe political meetings/debates. Finally, the discourse of mass media could also be captured, although this would take more resources, as usually they are not publicly transcribed.

Once having collected the data, the pollution of the public debate can be measured by analysing the messages related to an entity at the moment this entity is being targeted by disinformation. This could be done automatically by using NLP technologies, such as Named Entity Recognition (NER), Hate Speech Detection and Toxicity Detection.

Given a false claim *C*, we can identify the entities (*E*) appearing in this claim. Then, data from social media mentioning *E* can be collected. A Hate Speech/Toxicity Detection model on the collected posts can give us the proportion of messages that contain hateful content. This can be compared to the hateful content of a random data collection mentioning *E* at a different time to observe if significant differences exist.

Shaping the mainstream media's agenda

While the mainstream media are not necessarily the origin of disinformation [435], there is a porosity between mainstream media and social media that can go both ways [80-82]. We can hypothesise that the topics relevant to these key actors can be highly influenced by the false information circulating at the moment [436, 437]. In these cases, disinformation can impact the agenda of the mainstream media.

This indicator can be created by gathering the news from the mainstream news media and clustering all the documents that compose a news story to see if the false information correlates with the topic getting more attention [438].

5.2.3 Profiling the spreaders

Although partly covered by the dissemination aspect, profiling the disinformation spreaders is an essential social impact dimension. The assumption here is that more reliable and trusted sources sharing some false claims will translate into the claim having a higher impact [439]. For this reason, attention should be paid to identifying a false claim, such as a famous person, mainstream media, governmental or non-governmental official bodies, academic articles, etc. A particular focus should be put on bots, as these actors can pollute the dissemination indicators [440].

Identifying which actors have shared a claim that is known to be false could be made automatically by using Semantic Textual Similarity (STS) and Textual Entailment to extract messages that spread the original claim [441]. However, to apply this metric in an automated way, the program should be provided with lists of actors already classified into the categories we want to investigate. For this reason, this metric is more difficult to automate than others.

5.2.4 Sustainability

The sustainability of disinformation is described as the evolution of false claims. This can be measured from three perspectives: observing how fact-checking a claim affects its spreading, investigating if false claims are being reused after some time, and examining if false claims are propagated to different languages and countries.

Sustainability after fact-checking

The work of fact-checkers is to investigate the facts mentioned in a claim and assess its veracity. Their work has the goal of reducing the harms and impacts of false claims. However, the publication of the fact-check only sometimes means that the claim stops being spread. For this reason, studying the dynamics of the spread of a false claim right after it has been fact-checked and comparing it to before it was contested can give us some clues on the potential impact the claim will have on general beliefs. The hypothesis is that if the publication of the fact-check does not change the spread substantially, the false claim might have a higher impact [442]. Therefore, we propose to compare the spread of the information before and after it has been fact-checked, also taking into account when the claim is being spread as a debunking message [443].

Sustainability through time

Recent findings have shown that some false claims tend to be repeated by different actors multiple times [444], and also reappear after some time. A claim that had already been defined as false by a fact-checking organisation reappears after some time and has to be fact-checked again. That can happen explicitly (eg, a media publishes it again) or implicitly (eg, someone uses false facts in its argumentation). In both cases, the fact that the claim has survived the refutation with enough strength to be used again shows the specific absorption of those facts into the public imagination, which evidences a potential impact of the false claim. Therefore, we propose detecting if the false claims have already been shared in the past and are reappearing recursively or used in the argumentation of new debates as a social impact metric.

Detecting Previously Fact-checked Claims has recently become a prevalent task in NLP as a tool to help the task of fact-checkers. The challenge here is that these repetitions are not only a copy-paste. They can also be paraphrases of the original claim and include minor variations. In this direction, we find the work from Shaar *et al.* [445] that focuses on matching new claims with previously fact-checked claims with a learning-to-rank approach. This task has been approached in Spanish by Martín *et al.* [441], who used STS to match claims.

Sustainability through geography and language

In the same direction, false claims have also been found to travel through different countries [429] and appear in different languages [446]. A tool to track these phenomena can be developed as in previously-fact-checked claims detection but using multilingual language models [447]. In this way, we could detect if false information travels through countries or gets published in different languages.

5.2.5 Connection to SDGs

Finally, by drawing the connection between a false claim and Sustainable Development Goals, we can assess the potential risk of a false claim to the population. Similar to the SDG Compass evaluation, a worldwide framework that guides companies' application on how they can measure their contribution. We can recover information to provide insights into the global areas where disinformation has a higher risk of affecting.

A recent study [448] on the potential impact of Artificial Intelligence (AI) analysed the content of the new design tool on the population to deliver a potential social impact in accordance with the priorities outlined in the United Nations' 17 Sustainable Development Goals (SDGs). This paper was to relate different tools to existing SDGs to identify critical opportunities for future AI applications targeted toward social good.

By using the SDGs as a framework, we can work out to identify which areas could have a negative impact, put the attention of fact-checkers, and give more resources for analysis and caution. To have a strong reference in the SDG goals, we can anticipate possible attacks, give confidence in the hoax detection systems, provide more security to the institutions, and define which areas we should pay more attention to and invest efforts in.

We could provide automated monitoring of this metric using automated Text Classification, which is the task of assigning a given set of labels to a text. In this case, we could classify false claims by their connection to the SDGs.

Using the SDGs allows society and institutions to place themselves on a global map of reference. This means we can compare the scores, issues and themes that appear in social media and conversations among users from other places and populations worldwide. The SDG index gives universities, governments, policymakers and community leaders information to define new strategies.

The main idea will be to listen to citizens by analysing the content they post online and focusing on the false claim to define the dangers, the potential negative impact and the areas with more noise.

5.3 Proposed solutions

1. Development of adapted framework from a long tradition of the social impact of science research.
2. Inclusion of shared framework of the critical topic of social impact (SDG and EU2020).
3. Multi-actor level integration by using existing fact-checkers work to assess the transferability and importance of false claims.
4. Long-term analysis to measure the evolution of false claims.
5. Multi steps definition of social impact to operationalise the definition into quantifiable indicators.
6. Integrating mainstream media and false claims within the integrated data collection.
7. Mixed methodology leveraging NLP for scaling some qualitative analysis in complement to the quantifiable indicators.

6. Conclusions

1. To fight disinformation, it is critical to assess its potential societal impact. However, the definition of social impact encompasses a broad range of possible levels. Disinformation may have a limited impact, affecting only immediate behaviours; it may affect personal behaviour with a social consequence, such as in an election, or it may have a long-term impact on institutional trust and social cohesion. Furthermore, the impact of disinformation is multifaceted. To adequately evaluate this complex situation, specific theoretical developments and methodological definitions are required.
2. Social media is frequently associated with disinformation. While the rise of social media is undeniably related to the rise of disinformation, social media is not a closed environment, and the media landscape is highly interconnected. The porousness between communication media and social media requires the inclusion of additional information sources and, ultimately, measures it in both the offline and online worlds. As a result, the only way to assess social impact is to create qualitative and quantitative approaches. Qualitative aspects are critical to directly capture the various specificities of the impact on citizens and assess the variety and degree of disinformation.
3. The solution proposed intends to develop a practical framework by taking these various complex elements into account: multiple levels of impact, multi-causality of disinformation, an interconnected media landscape, the need for mixed methods and interdisciplinary collaboration. It is based on the methodology to evaluate the social impact of scientific research (SDG and EU 2020) and will answer these difficulties and monitor the evolution of social impact in the Iberian Peninsula. The development is a multi-actor effort by directly integrating fact-checkers and journalists with scientific researchers. We have created a set of measurable indicators to capture the nature and extent of the impact of identified false claims. To assess evolution, this impact is measured over time. NLP is used to scale some qualitative analysis in addition to quantifiable indicators to address mixed methodology problems.
4. Spain has joined European initiatives in both the public and private sectors to collaborate in the initiatives to fight disinformation in the EU. Starting in 2018, Spain joined the Raid Alert System, with the point of contact being the Secretary of State for Communication of the Presidency of the Government, and private and media fact checkers participated in European practices and codes. The authorities developed a first procedure in 2019 to protect the integrity of electoral processes and a second in 2020 with a broader scope in the fight against disinformation campaigns.
5. Awareness has been progressing from the authorities and fact checkers to Spanish civil society, although with a notable gap between the two, as revealed by sociological studies. Progress has been greater following the discovery of disinformation campaigns in Spain related to the case studies mentioned above: Catalonia, COVID-19 and the procedure for combating disinformation. In raising social awareness, the fact checker agencies have been essential, contributing to the detection of hoaxes and their social assessment, as well as to the implementation of European codes of conduct by digital platforms. Looking to the future, the inclusion of civil society in the Forum for the fight against disinformation campaigns will contribute to the development of a culture of disinformation that, for now, is limited to the actors mentioned above and has not reached the general public, thus maintaining their level of exposure to campaigns. As has been pointed out, digital literacy will be the great vector of social awareness to shape this social culture.

6. The balance is less positive with respect to the objectives of social resilience and the development of instruments for the detection of campaigns and the analysis of their impacts in Spain. Resilience could be improved through the development of response procedures at the different levels of prevention, reaction and crisis management. The development of the announced National Strategy will enhance the system and procedures for combating campaigns at the national and European levels. As for the development of methodological tools to facilitate the assessment of impacts and the adoption of appropriate policies and response measures, the study reveals the inadequacy of qualitative and, above all, quantitative analysis tools, which affects the quality of perceptions of this growing phenomenon.
7. Portugal is a country where the perception of disinformation as an external threat to the internal political and socio-economic balances is not so consistent. Both in the political and cybersecurity spheres there has been no alarmism so far regarding the phenomenon under analysis. The recommendations indicated by the institutional bodies in charge of preventing and monitoring disinformation are technically coherent with the European recommendations, but without, however, there is a scenario considered alarming.
8. Portugal has socio-demographic, economic and political characteristics that make it less exposed to destabilisation strategies. Although there is an emerging aggressiveness in the public language used by new parties of the extreme right (the Chega party), with propagandistic and radicalisation effects in the media and social networks, Portugal maintains a relative social stability in the absence of socially fracturing issues.
9. The concern about disinformation is more justified if we consider the financial vulnerability of the Portuguese media ecosystem. The sector is fragile in economic and professional terms, and from the status of the value of journalistic news as a collective heritage, in particular:
 - a. Economic: prolonged crisis, beginning in 2008-11, accentuated with the pandemic. We can say that to explain the economic dilemmas of the media in Portugal there are exogenous factors (economic crisis, pandemic) and endogenous ones (weak adaptation to digital environments, unsuccessful attempt to adapt analog to distribution models that do not favour the staticity of contents, excessive dependence on traditional financing models in the case of the press). The media started late to fight for a place in the digital economy, streaming, sports and everything else seems more important than the economic relationship by the audiences with journalism.
 - b. Professionals: the crisis of journalism and the loss of credibility of journalism professionals is the result of both public disinvestment in the sector and the sector's disinvestment in professionals, a growing politicisation of the media debate by commentators (who are not journalists, but are used by the media to create a climate of permanent dispute), as well as the more negative view emerging in public opinion about professionals, induced either by an incipient populist wave accusing the journalistic system or by the perception that professionals fail to carefully monitor developments in the sector. However, there are other factors to consider, such as the hyper-acceleration of 24-hour news cycles, the oversaturation of audiences with specific content, and the rise of an attention economy that heavily penalizes those who depend on content production. Such acceleration trends have a negative impact on

- a sphere of production whose work is difficult and expensive to automate and do with quality in algorithmic or non-algorithmic digital environments.
- c. From the point of view of audiences, and their relationship with news content, the very positive data regarding trust in news is counterbalanced by various signs of saturation with news content, growing disinterest in news, active avoidance of news and growing access to news content indirectly in digital environments.
10. Two notes regarding the disengagement and saturation with news content:
 - a. Disengagement with news is greater among the poorest and least educated, thus compromising access to a journalistic sphere that could help in the understanding of complex social problems.
 - b. Saturation with news seems to increase at times when news coverage is repeatedly focused on topics that are of the utmost importance to everyday life (pandemic, elections, war).
 11. Although the two countries present some common features, as is understandable if we consider the historical parallelism in the configuration of their political and economic systems or the evolution of their media environments, as well as their geopolitical interests and their integration networks, it is important to emphasise the differences that, as has been highlighted in this report, we find in some key variables for the study of the social impact of disinformation. Most notably, trust in the media appears as a distinctive variable between the two countries that should be carefully followed in the coming years to verify the role it is playing in the evolution of the phenomenon of disinformation in Spain and Portugal. Similarly, it is of particular importance to reassess in the coming years the role that the Lusophone 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.
 12. Both countries closely follow the ethical and political implications linked to developments of AI systems. In both Iberian countries studies are being carried out on the social risks and democratic repercussions brought about by the news content produced and propagated by AI applications. In accordance with the 'EU AI Act – the first law on AI by a major regulator anywhere', the researchers consider relevant to highlight a specific reflection on the various directions and facets that AI may come to play and represent in the field of information, knowledge and the consequent political participation. It is considered relevant to analyse the proposals to indicate guidelines for the legal accountability of platforms in moderating content and public access to their ranking systems and computational rating, along with campaigns devoted to the formation of media and democratic literacy.

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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 twelve universities, five fact-checking organizations and news agencies, and six multidisciplinary research centers.

Its main mission is to analyze 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. Verification of misinformation in the Iberian territory.
4. Preparation of 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.

Contacts

Website: iberifier.eu

Twitter: [@iberifier](https://twitter.com/iberifier)

Report coordinators:

Ángel Badillo (abadillo@rielcano.org)

Vania Baldi (Vania.Baldi@iscte-iul.pt)

IBERIFIER coordinator:

Ramón Salaverría (rsalaver@unav.es)



www.iberifier.eu

Coordinator



Partners



European Commission

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