



# Analysis of political disinformation in the Spanish government leaders' speeches via X

## Análisis sobre desinformación política en los discursos de líderes del gobierno español vía X

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## **ABSTRACT**

**Introduction:** Social networks, especially Twitter (now X), have become key platforms for the dissemination of false or biased information by political leaders, affecting public perception and democracy. This study analyzes how this disinformation influences public opinion and exacerbates political polarization.

**Methodology:** The research is based on a systematic review of the literature on political disinformation and an analysis of the activity on X of Spanish political leaders during significant events between 2021 and 2022. Using Fanpage Karma, the tweets of six political representatives, including the Prime Minister and spokespersons of the main parties in Congress, were analyzed. The events studied were the Trans Law, the mass crossing of immigrants in Melilla, the return of former King Juan Carlos I, and the NATO Summit in Madrid. **Results:** The analysis revealed that most political messages on X lack transparency and are emotionally charged, with a predominance of accusations and criticisms. Messages about the Trans Law were the most numerous, highlighting terms such as human rights, equality, and feminism, while others focused on the repeal of laws and government criticism. Activity on X shows a trend toward polarization, with few neutral messages and a high level of emotional and controversial reactions.

**Discussion and conclusions:** The study concludes that disinformation in political communication on X is significant and contributes to informational disorder, weakening public trust in democratic institutions. The high frequency of emotional and contradictory messages fosters insecurity and political polarization. The need for media literacy programs is emphasized to equip citizens with the skills to critically assess information on social networks. Public administrations and media outlets should promote greater transparency and accuracy in political information to counteract disinformation and strengthen democracy.

**Keywords:** Social Networks; Twitter; X; political leaders; disinformation; Spanish government; political discourse.

## RESUMEN

**Introducción:** Las redes sociales, especialmente Twitter (ahora X), se han convertido en plataformas clave para la difusión de información falsa o sesgada por líderes políticos, afectando la percepción pública y la democracia. Se analiza cómo esta desinformación influye en la opinión pública y exacerba la polarización política. **Metodología:** La investigación se basa en una revisión sistemática de la literatura sobre desinformación política y un análisis de la actividad en X de líderes políticos españoles durante eventos significativos entre 2021 y 2022. Utilizando Fanpage Karma, se analizaron los tuits de seis representantes políticos, incluidos el presidente del gobierno y portavoces de los principales partidos en el Congreso. Los eventos estudiados fueron: la Ley Trans, el cruce de inmigrantes en Melilla, el regreso del rey emérito Juan Carlos I y la Cumbre de la OTAN en Madrid. **Resultados:** El análisis reveló que la mayoría de los mensajes políticos en X carecen de transparencia y están cargados de tono emocional, con predominio de acusaciones y críticas. Los mensajes sobre la Ley Trans fueron los más numerosos, destacando términos como derechos humanos, igualdad y feminismo, mientras que otros se centraron en la derogación de leyes y críticas al gobierno. La actividad en X muestra una tendencia hacia la polarización, con pocos mensajes asépticos y un alto nivel de reacciones emocionales y controversiales. **Discusión y conclusiones:** La investigación concluye que la desinformación en la comunicación política en X es significativa y contribuye al desorden informativo, debilitando la confianza pública en las instituciones democráticas. La alta frecuencia de mensajes emocionales y contradictorios fomenta la inseguridad y la polarización política. Se destaca la necesidad de programas de alfabetización mediática para capacitar a los ciudadanos en la identificación y evaluación crítica de la información en redes sociales. Las administraciones públicas y los medios de comunicación deben promover mayor transparencia y veracidad en la información política para contrarrestar la desinformación y fortalecer la democracia.

**Palabras clave:** Redes sociales; Twitter; X; líderes políticos; desinformación; Gobierno español; discurso político.

## 1. INTRODUCTION

Social networks have become optimal communication channels to disseminate false, incomplete or biased information from leaders and political parties that intentionally use their influence in the public sphere (Diaz, & Nilsson, 2023). Although the virtual interaction scenario is presumed to have a positive effect on the plurality of messages, this aspect has been debated in recent years (Yerlikaya, & Toker, 2020). Disinformation, regardless of the terms encompassed by this concept: (Santos-d'Amorim, & Fernandes-de-Oliveira Miranda, 2021): fake news (Allcott, & Gentzkow, 2017; Zhou, & Zafarani, 2019); (Diaz, & Nilsson, 2023; Hwang et al., 2021) disinformation; information pollution (Jaskiernia, 2021; Malin, & Lubienski, 2022); media manipulation (Fedorov, 2020; Miura, 2019); information warfare (Khaldarova, & Pantti, 2016; Ozyumenko, 2017); misinformation (Jerit, & Zhao, 2020; Wyler, & Oswald, 2016); among others, has an impact on the citizenry and harms democracies, due, for example, to the dizzying spread of rumors and conspiracy theories that elicit rapid responses (Dame, 2022; Del Vicario et al., 2016; Sádaba, & Salaverría, 2022).

A search on the subject in Web of Science, according to previous studies (Cabeza et al., 2017; Jambrino-Maldonado et al., 2022; Rando-Cueto et al., 2022), shows this trend (table 1). Between 1989 —date of the first article— and 2022, terms referring to government and politics are linked to those of disinformation. Between 2017, & 2021, there is a remarkable growth in production (with a slight decrease in 2022), parallel to that of citations. There are 3.385 articles with 13,97 citations on average.

**Table 1.** *Search results in Web of Science.*

Date	Bibliographic search	Articles
01/01/2023	Web of Science Main Collection: TS= ((("politic*" OR "govern*") AND ("fake news" OR "disinformation" OR "information pollution" OR "media manipulation" OR "information warfare" OR "misinformation")))	N=3.385

**Source:** Elaborated by the authors.

Regarding social networks, the dissemination of misinformation and false content is growing, with those related to politics gaining prominence, especially in the case of X —Twitter, at the time of the study— (Jussila et al., 2021; Ross, & Rivers, 2018; Shrestha, & Spezzano, 2022). Users of social networks show greater confidence in X for the exchange of news or as a source of information (Sivasankari, & Vadivu, 2022), even on political issues, without knowing or validating its origin or authenticity (Rohera et al., 2022). The easy availability, cost-effectiveness and ease of sharing information contribute to its high impact (Rohera et al., 2022).

Research carried out on the intervention of political leaders in the referred social network worldwide reflect how discursive struggles intensify and are loaded with contradictory and untruthful information at certain moments of political relevance, such as presidential elections —the case of the United States (Alieva, & Carley, 2021), in 2016; Brazil (Soares, & Recuero, 2021), in 2018; or Colombia (Lombana-Bermúdez, 2022), in 2019—. Situations of social, economic or health crises are also breeding grounds for the proliferation of disinformation and “conspiracy theories” by government representatives in channels such as X where the treatment of political issues tends to be more extreme (Monaci, & Persico, 2022; Hartley, & Vu, 2020; Mattei et al., 2022).

Manipulation and disinformation strategies in Spain in social networks such as X are not exceptional in major political issues (Almansa-Martínez et al., 2022). On the contrary, X, as the most widely used social network for sharing political content in this country, is ideal for this purpose (Aparici et al., 2019; Fernández-García, & Salgado, 2022; Llorca-Asensi et al., 2021; Noain, 2021; Pérez-Curiel et al., 2022). As a result of the concern expressed by national and international entities about the danger of disinformation for the democratic state, different regulations have been approved (Order PCI/487/2019, publishing the National Cybersecurity Strategy 2019, approved by the National Security Council, 2019; Order PCM/1030/2020, publishing the Procedure for action against disinformation approved by the National Security Council, 2020) in order to promote more truthful and quality information and implement tools to curb the influence of fake news in public opinion. The disinformation generated by the social networks of political leaders is not only limited to the volume of messages that are explicitly false or deny the veracity of others, but also to the tone and discursive lines. As

pointed out by Campos-Domínguez et al. (2022) these aspects, which cause polarizing narratives, give rise to patterns that contribute to informational disorder and distrust in institutions and parliamentary representatives.

Aspects such as media literacy are considered key in the fight against disinformation by European institutions that develop initiatives in which society is considered co-responsible for promoting truth (Sádaba, & Salaverría, 2022). It is hoped that the dissemination and implementation of information and media literacy programs will reduce the exchange of false news and enable recipients to make informed judgments on the quality and veracity of the news (Dame, 2022). Morejón-Llamas (2020) invites to use institutional communication and advertising as tools to improve media literacy, in coordination with the media, educators, politicians and experts in the field. Equipping citizens with these instruments is crucial to detect and choose unbiased information, truthful and reliable messages, as well as to counteract the spread of hate speech, sometimes disguised in social networks with humorous or ironic publications (Oliveira, & Azevedo, 2022). It would also mitigate the potential threat to democracy and society (Allcott et al., 2019).

As Oliveira, & Azevedo point out (2022), categorical and polarized statements, so common in political speeches, besides encouraging hate speech, do not always offer the absolute truth. In their opinion, citizens must discern and remain free of manipulations that encourage undesirable behaviors for coexistence. In this sense, other authors find a direct relationship between anger and the acceptance of false information (Greenstein, & Franklin, 2020). Thus, they demonstrate the effect of anger on the assimilation of false data and conclude that people subjected to messages of indignation are more receptive to accepting them. In the case of the recipient who spreads false news, emotions reflected in writing style are strong predictors of those who engage in broadcasting this type of information intentionally or unintentionally, especially through social media (Shrestha, & Spezzano, 2022).

## 2. OBJECTIVES

The main objective of the study is to analyze the main disinformation strategies used by representatives of the Spanish State in their interaction with society through the social network X. As secondary objectives, the following are proposed: to analyze the treatment given in the scientific literature over time to issues related to political disinformation (evolution and production trends); and to offer strategies to deal with messages disseminated in the media that cloud the truth about the main issues of the national political scene.

## 3. METHODOLOGY

After a systematic review of the scientific literature on political disinformation, an in-depth study is made of those articles published on the social network X in the case of Spain, the setting in which the research was carried out. At the same time, the Fanpage Karma tool (De Las Heras-Pedrosa et al., 2020; Lozano-Blasco et al., 2021) is used to learn in detail about the activity of political leaders in Spain in events of relevance to Spanish society (table 2). In addition, a content analysis of the messages on X of six political representatives in Spain is carried out: the President of the Government and the spokespersons of the parties with the greatest representation in the Congress at the time when the events referred to (between 2021 and 2022) take place. The parties referred to are: *Partido Socialista Obrero Español* (PSOE): center-left party; *Partido Popular* (PP): center-right party; *VOX*: extreme right-wing party; and *Unidas Podemos*: left-wing party.

The four events chosen for their impact on the national territory are:

- 1) Law for the Real and Effective Equality of Trans Persons and for the Guarantee of LGTBI Rights - Trans Law, as of the dissemination of the preliminary draft (06/28/2021) to the approval of regulations (12/22/2022).
- 2) Massive crossing of immigrants through the border fence of Melilla (03/02/2022), in which hundreds of immigrants jumped the security fence that separates the Spanish city from Morocco.
- 3) Return of former King Juan Carlos I to Spain after his abdication in 2014 and expatriation to Abu Dhabi (United Arab Emirates) in August 2020 — after being indicted for corruption scandals— (05/19/2022).

- 4) North Atlantic Treaty Organization (NATO) Summit in Madrid: official announcement (10/08/2021) and celebration (06/29-30/2022), with representation of the Atlantic Alliance states, partner countries and guests.

**Table 2.** Themes and political agents under study.

Themes - period of study (until 12/2022)		Prime Minister	Congress representatives			
			PSOE	PP	VOX	Unidas Podemos
1	Trans Law - As of 06/15/21	Pedro Sánchez @sanchezcastejon	Adriana Lastra @Adrilastra	Concepción Gamarra Ruiz-Clavijo (Cuca Gamarra) - @cucagamarra	Iván Espinosa de los Monteros y de Simón - @ivanedlm	Pablo Echenique Robba - @PabloEchenique
2	Migrants crossing the Melilla border fence - As of 03/02/22		Héctor Gómez Hernández - @Hectorgomez			
3	Return of King Juan Carlos I - As of 05/15/22					
4	NATO Summit in Madrid - As of 07/15/22					

**Source:** Elaborated by the authors.

#### 4. RESEARCH DEVELOPMENT

In the search for messages alluding to the events of the study (table 2), the tweets were analyzed in specific periods of time with Fanpage Karma. In addition to capturing, monitoring and analyzing the tweets of the selected accounts, we studied the participation, visibility and interaction, as well as the most used resources and the content of the referred messages (De Las Heras-Pedrosa et al., 2020; Lozano-Blasco et al., 2021).

The data collected from the X accounts of the political representatives were classified in analysis sheets following previous research models (García-Avilés, & Arias Robles, 2016; Gómez-Calderón et al., 2017). A quantitative and qualitative analysis was carried out and conclusions were drawn on transparency of discourse, informative disorder or lack of veracity in the statements made by politicians through X, based, fundamentally, on the incoherence and contradiction



between messages from the different issuers. These files identified categories of communicative strategies detected in the messages: Information, focused on providing data objectively, without value judgments; Assessment, expressing an opinion on a fact; Disagreement or Discrepancy, when the sender expresses a point of view opposed to a previous comment; and Accusation, if the tweets point to some agent as responsible for a situation with negative effects.

The tone used was also analyzed: Aseptic, neutral or non-emotional; Critical: to highlight failures of something or someone; Vindictive or Accusatory (with negative connotations); Sarcastic: to express some aspect in an ironic or mocking way; and Acknowledgement: to express gratitude or appreciation (to one's own party or related parties). Finally, a qualitative analysis of the messages in X related to the Trans Law was carried out, as it was the event with the highest activity in the accounts studied. From the literal text of messages, word clouds were extracted to visually represent and analyze the most frequently used terms.







## **5. RESULTS**

Up to 2022, of the total of 3.385 selected articles, 76 refer to Spain and X, most of them published in the years 2020: 24; 2021: 27; and 2022: 13. Out of these, the papers with the highest number of citations highlight the emotional factor used in a large number of messages. The most influential authors highlight the frequency of misleading information, often related to socially sensitive aspects. They are transmitted by the main figures of the political scene, carrying out communication campaigns with the intention of manipulating opinion (Zannettou et al., 2019), thus eroding democratic models (Zhuravskaya et al., 2020) and radicalizing political discourse (Cota et al., 2019).

For the six political representatives, global data comparing the activity of their X accounts was obtained from Fanpage Karma. This provides information about their influence, as well as their participation and interaction in the virtual community. Figure 1 shows a summary of metrics, ordered by number of followers (as of 12/31/2022), from the 1.733.622 followers of Pedro Sánchez (PSOE) to the 15.680 followers of Héctor Gómez (PSOE). Indexes such as the growth of followers and the interaction of publications are shown. The account of Cuca Gamarra (PP) stands out, both for the increase in the percentage of

followers and for the interaction indexes of her account, followed by that of Iván Espinosa de los Monteros (VOX), despite the fact that it is the account of Pablo Echenique (Unidas Podemos) which reflects the highest number of publications per day, 9. These indexes place the account of the PP representative as the one with the highest performance in the study period, compared to the rest of the accounts, according to the indicators that measure it: followers, follower growth, interaction of publications and publications per day.

**Figure 1.** Metrics in X of political leaders.

Name	Page Performance Index	Fans	Follower Growth (in %)	Post interaction	Posts per day
 Pedro Sánchez @sanchezcastejon	10.0%	1.7M	0.0097%	0.47%	2.0
 Pablo Echenique @PabloEchenique	10.0%	606k	-0.0030%	0.17%	9.0
 Iván Espinosa de los Monteros @ivanedin	10.0%	422k	0.016%	0.61%	3.0
 Adriana Lastra @AdriLastra	8.0%	130k	0.0054%	0.26%	3.0
 Cuca Gamarra @cucagamarra	26%	37k	0.13%	3.6%	4.0
 Héctor Gómez @Hectorgomez	1.0%	16k	0.0064%	0%	0
Average	11%	489k	0.027%	0.85%	3.5









**Source:** Fanpage Karma.









The interaction percentages of these political agents are not remarkable. Except in the case of Pedro Sánchez, with 41,2% of activity, the rest do not exceed 25%.

### 5.1. Thematic analysis

Table 3 shows a summary of the most significant data of the tweets published as a result of these events with the sections corresponding to: description of the content; communication strategy; and tone used. All the messages issued in X by political leaders who made allusion to the historical events referred to (during the time periods indicated in table 2), chosen for the development of this work due to their relevance in the Spanish territory and repercussion on the citizenship, have been analyzed. The tweets collected in the content description section have been classified according to the communication strategy and tone used in each case.

**Table 3.** Summary of results of the files.

Trans Law: description of content					
					
Tweets	3		4	6	31
Reactions (retweets, quotes, likes)	4,737		1,291	7,625	73,035
Replies	478		627	51	3,259
Audiovisuals / Links	3		3	3	12
Trans Law: communication strategy					
Information	-		-	-	10
Assesmmnt	3		1	1	19
Disagreement	-		2	1	10
Accusation	-		1	4	18
Trans Law: tone					
Aseptic	-		-	-	4
Critical	-		2	2	5
Vindictive / accusatory	3		2	2	19
Sarcastic	-		-	-	5
Acknowledging	-		-	-	7
Crossing the Melilla border fence: description of contents					
					
Tweets	2		2	3	4
Reactions (retweets, quotes, likes)	3,273		843	15,048	9,102
Replies	-		175	-	
Audiovisuals / Links	1		2	3	4
Crossing the Melilla border fence: communication strategy					
Information	1		-	-	1
Assessment	-		-	3	1
Disagreement	-		2	-	
Accusation	-		1	-	2
Crossing the Melilla border fence: tone					
Aseptic	1		-	-	2
Critical			2	-	1
Vindictive / accusatory	-		2	3	1
Sarcastic	-		-	-	1

Return of emeritus King Juan Carlos I to Spain: description of contents				
				
Tweets	-	-	-	12
Reactions (retweets, quotes, likes)	-	-	-	54,759
Audiovisuals / Links	-	-	-	5
Return of emeritus King Juan Carlos I to Spain: communication strategy				
Disagreement	-	-	-	1
Accusation	-	-	-	11
Return of emeritus King Juan Carlos I to Spain: tone				
Vindictive / accusatory	-	-	-	11
Sarcastic	-	-	-	8
NATO Summit in Madrid: description of content				
				
Tweets	15	1	2	6
Reactions (retweets, quotes, likes)	22,453	431	9,026	8,447
Audiovisuals / Links	11	1	1	4
NATO Summit in Madrid: communication strategy				
Information	7	-	-	-
Assessment	11	-	-	1
Disagreement	-	1	2	2
Accusation	-	-	-	4
NATO Summit in Madrid : tone				
Aseptic	12	-	-	-
Critical		-	1	2
Vindictive / accusatory	-	1	1	2
Sarcastic	-	-	1	4
	3	-	-	1

**Source:** Elaborated by the authors.

In the case of the representative of the VOX party, it is common for him to open a conversation thread in which he exposes a monologue in the form of a chain of messages. The absence of aseptic messages is striking, as well as the significant difference between the number of messages and the reactions to them by the political representatives of the parties representing the most radical ideological positions.

When referring to the return of the former King Juan Carlos I to Spain, there are only messages from Pablo Echenique, which, as with the rest of his publications, cause great controversy among the replies to the tweets issued.

## 5.2. Trans Law

Given that the Trans Law is the topic that generates the most messages in X, the most repeated terms by political representatives are extracted in word clouds. Figure 2 shows (from left to right) the word clouds of Pedro Sánchez, Cuca Gamarra, Iván Espinosa de los Monteros and Pablo Echenique, respectively.

Figure 2. Word clouds



Source: X.

Compared to terms related to continuity and confidence in the actions developed by the Government, of Pedro Sánchez, as well as those alluding to human rights, equality, balance and feminism as a team, of Pablo Echenique, stand out those of Iván Espinosa de los Monteros, who underlines concepts such as repeal of law or situation of uncertainty. Cuca Gamarra adds to these terms, who alludes to legal concepts accusing the Government of opacity and the urgency of establishing a dialogue to inform citizens in a transparent way.

In this regard, she highlights the existence of an imbalance in the participation between political representatives of different parties. Thus, the lack of participation of some political representatives stands out, such as the PSOE spokespersons, compared to others who dominate this space, such as the leaders

of political parties who adopt more extreme positions, urging society to take a position on a given issue.

The informative character and the aseptic tone are scarce. It is the exalted tone, the allusion to the emotional and the intimidating and even sarcastic tone that predominates, exposing absolute arguments. Reactions to these comments follow the same tone or are more accentuated, even to the point of disrespect. Political and vindictive harangue prevails, leaving little room for a friendly tone that tends to bring viewpoints closer together. Even when an aseptic tone is offered, as most of the messages on Pedro Sánchez's NATO Summit have been described, they are still evaluative of the government's good work, criticized by other protagonists of the political scene.

The content of the messages submitted to the analysis sheets is defined as lacking in transparency and based on harangue, confrontation and speculation, with a predominance of exchanges of accusations and a scarcity of those based on rigorous data. The discrepancy of the arguments exposed in the analyzed events evidences the existing bias in the information emanating from the leaders of political parties.

## **6. CONCLUSIONS**

One of the main conclusions of the study is the existence of a notorious misinformation in the Spanish political panorama, as far as X communication is concerned, caused in part by the informative disorder produced by the contradictory and opposing messages between political leaders. Although the participation of the representatives under study is not remarkable in the selected events (with the exception of Pablo Echenique, whose daily activity in X is quite different from the rest), the reactions to their messages are. Disinformation is produced by the confrontational positions of political agents who do not offer citizens an accurate reading of the facts without biased half-truths.

The amount of verbal attacks in X is remarkable, which fosters greater insecurity among citizens who have to overcome the dialectical obstacles imposed by their political representatives. Moreover, the one-way discourse, with hardly any interaction between political representatives and those who respond to their

words, further distances them from the public sphere, giving the impression that their message is absolute and does not merit further interpretation. This further increases misinformation, as political leaders provide a breeding ground for new arguments and counter-arguments from the public, most of the time lacking in rigor and full of offensive language. This exercise in X undermines democratic systems and fosters the political polarization to which there is a globalized tendency to give rise to increasingly extreme messages and fallacious discourse (Pérez-Curiel et al., 2022; Pino-Uribe et al., 2023).

The research findings imply the need to raise public awareness of the need for media literacy in terms of the content posted on social networks. It is not a matter of losing confidence in the discourses with which the citizen interacts in social networks, but of being aware of the motivation with which they originate and their intentionality.

In this sense, it is considered that the promotion of media literacy programs should be encouraged by public administrations. In this sense, media literacy, both at educational stages and at a general societal level, stands as a powerful weapon against disinformation poured into channels such as X so that society is able to discern the message closer to the truth and identify the intentionality that surrounds it. It is a matter of seeking the essence of the message, separating it from that ideology disguised as absolute certainty. However, in parallel, the right of citizens to a policy of absolute transparency in all areas should also be defended, including content posted by political leaders and the entities they represent on social networks. Finally, the role of the media is valued in the sphere of political information in channels such as X, from which to act as catalysts of truth and protection for individuals who deserve to receive complete and truthful news.

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