



# Article Adapting Traditional Media to the Social Media Culture: A Case Study of Greece

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**Abstract:** This study is situated within the ongoing scholarly discourse surrounding the role of social media in the evolving communication landscape. The main aim of this research is to examine the extent to which the Greek traditional media and journalists have adapted to the ethos of social media. In particular, this study conducts a comparative analysis to assess whether the Greek media and journalists have effectively embraced the communication challenges arising from advancements in social media, particularly during election cycles. The theoretical foundation rests on the network theory of power, a concept pioneered by the Spanish sociologist Manuel Castells. The empirical component presents the findings obtained through an examination of journalists' participation in political discourse on Twitter (now named X) throughout seven distinct election periods encompassing all electoral levels in Greece (presidential, national, European and regional/municipal elections, plus a referendum). The findings reveal low levels of adaptation, in contrast with western countries, where journalists and the media have embraced the online culture to a greater extent and appear to take on more prominent roles in debates. The findings provide valuable insights for journalists, politicians and the media in understanding the role of social media in political communication.

**Keywords:** political communication; social media; traditional media; journalism; communication; elections; crisis

# 1. Introduction

Modern western societies have been characterized by sociologists as information societies (Castells 1996) or knowledge societies (Lotan et al. 2011), reflecting the central role of science and technology in social life. The advent of new technologies represents one of the most conspicuous transformations in contemporary society. These innovations have bolstered economies, streamlined transportation and communication, spurred notable progress in healthcare and education, broadened access to information and engagement, changed the way that we access information (Varol and Uluturk 2019) and introduced novel security measures (Newman et al. 2021). Most importantly, they have changed the ways in which citizens are informed, the organization of society and the power relations within it, as well as political communication itself.

In this context, the Greek public has undergone a significant transition, increasingly relying on information from social media and the Internet. This can be interpreted as partly the result of a gradual but deteriorating lack of trust in the traditional media and



Citation: Gioltzidou, Georgia, Dimitra Mitka, Fotini Gioltzidou, Theodoros Chrysafis, Ifigeneia Mylona, and Dimitrios Amanatidis. 2024. Adapting Traditional Media to the Social Media Culture: A Case Study of Greece. *Journalism and Media* 5: 485–499. https://doi.org/ 10.3390/journalmedia5020032

Academic Editors: Anna Podara and Andreu Casero-Ripollés

Received: 26 January 2024 Revised: 21 March 2024 Accepted: 5 April 2024 Published: 16 April 2024



**Copyright:** © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). the perception of their control (Gioltzidou et al. 2024b). Research by the Reuters Institute (Jürgens et al. 2011) shows that Greeks trust the media more than journalists, at 32%, in contrast to the UK (36%), where trust in the traditional media has remained higher over the last few years (Gioltzidou et al. 2024b). Greek Internet users prefer to use social media for news searches over direct access to the media website (Gioltzidou et al. 2024b).

The Greeks' non-preference for traditional media has been analyzed by Hallin and Mancini (Demertzis 2013) and described as a Mediterranean or polarized pluralist model. As Papathanasopoulos (Kalogeropoulos et al. 2016) points out, the distinctive features of the media systems in Southern Europe set them apart from those in Central, Western and Northern Europe. According to Hallin and Mancini (Hallin and Mancini 2004), media outlets in Southern European countries play active roles in historical political conflicts, serving as vehicles for both ideological expression and political mobilization. As a result, citizens are limited to the primary information offered by alternative media system in Greece, as it has been shaped in recent years, has become a hybrid. However, compared to the cases of Great Britain and the USA, the rates are clearly slower. In any case, we realize that the landscape of political communication in the Internet era has undoubtedly changed, as the roles of the participants are no longer as clear as they were in the era of traditional journalism.

# 1.1. The Network Theory of Power: A World Transformed by Globalization and Information Technology

Manuel Castells, a Spanish sociologist, formulated one of the most ambitious macrosocial theories of our era. His theory aims to elucidate and interpret power, the economy and social dynamics in a world profoundly altered by globalization and information technology (Anttiroiko 2015). In the 1990s, he published his trilogy on the new information and networking age, "The Information Age" (Castells 1996), which immediately became a benchmark for international research in the social sciences. Introducing the term "network society" and the view that networks are a new means of social organization, he posits that a social structure based on networks is an exceptionally dynamic and open system, possessing the capacity for innovation without jeopardizing its equilibrium (Castells 1996).

Castells (1996) first defines the concept of the network, as, he argues, it plays such a central role in shaping society during the information age. He defines a network as "a set of interconnected nodes" (p. 15), with a node representing the point where a curve intersects. The definition of a node varies depending on the specific type of network being discussed (Castells 1996). In his analysis, Castells (1996) highlights the presence of political elites within political networks, such as national councils of ministers and EU commissioners within the European Union governance network, as well as entities like television broadcasting systems, studios, electronic communications and social networking service providers within the global media network. For Castells, the network serves as a suitable platform for a capitalist economy rooted in innovation, globalization and decentralized concentration (Castells 1996).

According to Castells (1996), networks represent the emerging social morphology of our time, with the network rather than the individual as the unit of analysis. As Castells (1996) points out, networks are open structures capable of expanding without constraints. They are able to integrate new nodes, provided that they adhere to the same communication codes, such as shared values or performance goals (Castells 1996). Communication standards define the rules that members must follow to be accepted in a network. Depending on how open each network is, the rules can be negotiated among members (Castells 2011). However, once the rules are defined, they become imperative for all nodes in the network, as respecting these rules makes it possible for the network to exist as a communication structure (Castells 2011). On the other hand, inclusion/exclusion in networks and the architecture of the relationships between networks, established with information technologies, shape the dominant processes and functions in societies (Castells 1996).

Castells recognizes that the morphology of networks heralds a profound reorganization of power relations, as the convergence of social evolution and information technologies establishes a new framework for activity across the social structure (Castells 1996). In the same context, Castells (2010) argues that power within the network society operates through networks themselves. Power relations form the bedrock of society, with institutions and regulations constructed to serve the interests and values of those in positions of power. However, as he admits, wherever there is power, there is counter-revolutionary power, implementing the interests and values of those in subordinate positions in the social organization (Castells 2011).

Castells continues to pursue the timeless quest for an autonomous space where citizen power is exercised independently of organized interests and political parties. He envisions that the presence of this "autonomous" space, positioned between cyberspace and urban areas, will facilitate movements in gathering and achieving their objectives (Castells 2015). At this point, the role of social networks in the organization of individuals in a society is introduced. In the contemporary age, as for Castells (2015), the unrestricted communication on social media and the occupation of urban space has given rise to a hybrid public space of freedom, which emerged as a crucial aspect of the Tunisian uprising. Castells, therefore, argues that we live in a hybrid world, a world–network that integrates both global communication networks and social networks (Castells 2013).

In his work, Castells has analyzed some of the changes that are taking place in politics due to this technology. This new kind of politics, linked to new media and technologies, is decentralized and unbound to traditional territorial boundaries or national political structures (Siapera 2017). It is a globalized politics, driven more by citizens than by politicians, and gives a new impetus to activist politics, as we have seen in recent years (Siapera 2017). Essentially, Castells argues that we now live in a hybrid world, an Internet–world that incorporates both global communication networks and social networks (Castells 2013). Central to the above theory is the notion of time and space as they are perceived in the Internet sphere.

According to Castells' theory, therefore, the new features of this network society bring about enormous changes in all aspects of communication, as well as in its power and control relations. In this context, Castells (2010) admits that the emerging new social structure has consequences also in the case of journalism. He acknowledges that the Internet and digital technologies have transformed the media work process. Newspapers have evolved into internally networked organizations, linked to global information networks through the Internet. The digitization of newsrooms and newspapers, television and radio is leading to seamless global and local processing. Thus, according to Castells (2010), mass communication in its traditional sense now relies on the Internet for both its production and distribution.

#### 1.2. The Role of Media and Technology in Political Communication

For the past fifty years, political communication research has focused extensively on the relationship between the media and politics. As Demertzis et al. (2000) points out, it is a relationship of competitive symbiosis, in the sense that the two members are interdependent and at the same time compete with each other.

In this research, Wolton's (1990) positioning is preferred, which focuses on the participants in the communication process. He defines political communication as the field within which contradictory discourses are exchanged between three protagonists who are legitimated to express themselves publicly around politics, namely politicians, journalists and citizens. According to the French theorist, political communication is a constant and conflictual process of defining the situation, the outcome of which is "concluded" with an election (Demertzis 2013). The above definition is more appropriate for the present research, as it places political communication in a purely conflictual context, such as the one observed during election periods. McNair (2017) identifies the triangular relationship in political communication, i.e., the relationship between politicians, the media and the electorate, and focuses on the third element of political communication, which is the media. For McNair (1998), in democratic states, the media are important in the political process "because of their immediacy" (McNair 1998, p. 151), since they act as transmitters of messages from citizens to politicians. In this way, citizens' views are communicated upwards, often with notable effects on party behavior (McNair 1998). He goes a step further and writes that also political protagonists must use the media to send messages to their intended audiences (McNair 1998). Therefore, according to McNair (1998, p. 12), "all those who communicate within politics must gain access to the media in some way". In terms of public opinion, McNair (1998) stresses that the political process requires the collective action of individuals in deciding who will govern them. Hence, individual political aspirations transform into the collective public opinion of the populace.

There are two schools of thought about the impact of the Internet on the processes of political change (Soriano 2013). On one side are those who argue that the positive contribution of technology to modern society is undeniable. Their main argument is that the new technologies provide political communication with the opportunity to radically renew itself and become more democratic and inclusive than ever before, due to three factors.

Firstly, new media "democratize" information both in its production and in its dissemination. More specifically, the Internet allows the exchange of much more information than any other medium of communication. Local events take on international repercussions (Soriano 2013). Citizens have never before had access to so much information about political developments through so many different media (Chadwick 2013).

Secondly, technology offers opportunities for active participation, the formation of interest groups and the mobilization of people. The proliferation of the Internet in recent decades has also facilitated the rise of new forms of citizen participation. Although fundraising campaigns and political petitions have existed in the past, the Internet has allowed citizens to achieve unprecedented publicity, bringing individuals together at tremendous speed. As new connections between individuals and groups are created (Soriano 2013), activists are empowered to rally the support of millions within weeks, thereby influencing the public and political spheres—something previously unattainable through conventional participation channels. This challenges government and party monopolies in politics and significantly expands political engagement (UNDP 2016). Furthermore, new connections between individuals and groups are created, while economic development and social modernization, crucial for democratic establishment, are concurrently promoted (Soriano 2013).

Thirdly, they offer opportunities for debates on important issues in the public sphere (Siapera 2017). Digital technologies provide citizens with new opportunities to express their views and contribute to public information in historically unprecedented ways (Chadwick 2013). As a result, every member of society, through technology, is able to participate in political debates and influence political decisions.

On the other side are cyber-pessimists who are more skeptical about future developments in the digitalization of political communication (Norris 2000). These observers dispute the transformative potential of technology for democratic participation (Norris 2000) and argue that it can even lead to consolidate authoritarianism and political repression (Soriano 2013). Social media platforms could be used by governments to spread propaganda and misinformation, or even to monitor political dissidence.

Moreover, the Internet generates "democratic bubbles", while the groups formed via the Net are characterized by weak ties that are exclusively created through cyberspace (Soriano 2013). As reported by Davis (1999), participants in online discussion groups often constitute an atypical minority, predominantly composed of like-minded groups that dictate the agenda and reinforce existing views rather than engaging in deliberative discourse. In this context, the use of technology will reinforce existing patterns of political communication and democratic participation, rather than fundamentally altering them (Norris 2000).

### 1.3. Journalism as a Pillar of Political Communication in the Era of Social Media

The rise of social media has facilitated journalists in finding sources and information. The characteristics of social media render it an ideal platform to search for breaking news (Varol and Uluturk 2019), as access to information is immediate and not restricted by geographical boundaries.

With this in mind, citizens have changed their expectations of news agencies and journalists (Artwick 2013). They expect journalists to adapt to the demands of social media and adopt new tools for news presentation, such as the use of #hashtags, reel broadcasting, live streaming, etc. (Gioltzidou et al. 2024a).

The mentioned online culture that has emerged has compelled journalists and media outlets to adapt their traditional journalistic practices. This refers to adapting to changes in technology and adapting to the changing methods of news production and consumption (Zayani 2021). As Lasorsa et al. (2012) concludes, "journalistic practices on Twitter are shifting to include more non-traditional elements", such as sharing opinions and personal information, discussing with other users and using hashtags.

Journalists are adapting to the demands of users and enhancing their presence on social media. Through their personal profiles, they introduce themselves professionally, without acting under the aegis of their news organization's brand (Holton and Lewis 2011). Instead, they invest in personal branding (Varol and Uluturk 2019). They change their means of expression, limiting it to the few characters of micro-posts, and feel free to express their personal opinions—which is a non-traditional news element (Artwick 2013). The more that journalists familiarize themselves with this social space, the better equipped they are to embrace its atmosphere of informal conversation (Holton and Lewis 2011).

Given the expectation for them to participate in online discussions, they use their profiles to connect with followers online (Holton and Lewis 2011). However, mainly, journalists share their own thoughts on current issues (Lasorsa et al. 2012) and contribute to the flow of news and information (Holton and Lewis 2011). They realize that their authority and prominence within the network are determined by the number of their followers, while their popularity depends on the number of retweets (Varol and Uluturk 2019).

Apart from journalists, news agencies and media outlets are also adapting and making social media a normal part of their practice. The increasingly hyper-competitive digital environment is forcing news organizations to rethink the ways in which news is organized and distributed and to work in order to cultivate a following online (Holton and Lewis 2011). The media adapt to consumers' demand for around-the-clock access to news (Hermida 2010).

# 2. Materials and Methods

The main research question of this study is to what extent the media and journalists in Greece have adapted to the communication challenges arising due to social media development during election periods. This adaptation refers to the ability of journalists to adapt to technological changes and to evolve alongside the shifting methods of news production and consumption (Zayani 2021). In this context, the study seeks to analyze the usage of non-traditional news elements in journalists' tweets, such as the sharing of opinions and personal information, discussions with other users and the use of hashtags (Artwick 2013). The empirical part presents findings derived from the study of journalists' participation in political communication on Twitter (now X) in 7 different election periods at all electoral levels in Greece (presidential, national, Europeanal and regional/municipal elections, plus a referendum). In particular, all election periods from 2012 to 2015 have been selected, as well as the last election period, which concerns the municipal elections of 2023, in order to detect patterns, similarities and differences in the behavior of journalists over the years. Greece was chosen as the geographical area for the investigation of the topic. This choice was made because, unlike in other countries, there is no systematic, long-term study in Greece on the use of X during elections. The data for this study came from a dataset that included more than 320,000 messages published between May 2012 and October 2023, in seven different election periods.

Specifically, the following seven election periods were selected in this study (Table 1), corresponding to all electoral ranks.

	1st Period	2nd Period	3rd Period	4th Period	5th Period	6th Period	7th Period
Fromto	6 May–17 June 2012	30 April–25 May 2014	25 December 2014–11 January 2015	30 December 2014–25 January 2015	21 August–27 September 2015	28 June–12 July 2015	1-16 October 2023
Description	National elections, 2012	European elections, 2014	Presidential elections, 2015	National elections, January 2015	National elections, September 2015	Referendum, 2015	Municipal elections, 2023
Popular #hashtags	#ekloges, #ekloges2012, #Greece2012, #ekloges12	#EP2014, #EP14	#PtD	#ekloges2015	#ekloges, #eklo- ges2015_round2	#Greekreferendum, #grefenderum, #greferendum, #dimopsifisma	#δημοτικεςεκλογες2023, #δημοτικες2023, #εκλογες2023, #ekloges2023
Number of tweets	6287	More than 100,000	6412	38,325	94,017	77,717	1512

Table 1. The seven election periods of the study.

To map the dimensions of the content posted, the study collected user activity data (tweets, related information) during the 7 election periods in Greece. To collect the total of almost 320,000 tweets, we used freely available software that accessed Twitter's application programming interface (API) and collected tweets in real time. After this, we selected a randomized sample of 1000 tweets for each period and imported them into an Excel file. By randomizing the sample, our aim was to ensure that all collected messages had an equal chance of being selected in the sample.

The next step was to classify X (formerly Twitter) users into categories based on the study of Lotan et al. (2011), who developed a "classification scheme" based on subject types and which he arrived at "after several coding phases". Since the current focus was on political communication, the main user groups of interest in the research were those of the participants in political communication, namely citizens, politicians and journalists. In the following, only messages published by users that self-identified as media individuals or journalists/reporters were selected and analyzed, as the main research question was whether the traditional media have adapted to the culture of social media. The separation into different categories of journalists' accounts and media accounts was deemed necessary, as they are different entities. Media accounts are official and, by the media's own admission in their publication's editorial, express the view of the entire editorial board. In contrast, the journalist category includes the personal accounts of journalists who do not represent any media outlet. As a result, through these accounts, they are free to express their personal opinions and beliefs.

Regarding the message content, the classification of the texts into categories was based on the method of empirically grounded theory (Lotan et al. 2011), which focuses on "patterns of action and interaction between different types" of users and tweets (Strauss and Corbin 1994). After continuous readings of 1000 randomly selected published messages per period, we identified nine main content categories using content analysis. These categories were not solely related to the topics of the messages, as the users had already defined them through hashtags, and they were inherently topical. Instead, the categorization was based on the primary function of each tweet (convey information, offer opinion, etc.), on the textual genres and mixed discourse genres employed by users when discussing the topics of interest. Therefore, the tweets were classified in accordance with the evaluative criteria already discussed and concerned the traditional or non-traditional news element, namely the textual type of the post evaluated with journalistic criteria, which mainly concerned the degree of expression of a personal opinion.

# 3. Results

# 3.1. The User Categories of the Messages

We choose to start the analysis with a focus on the users and the content of the messages, as the primary research questions of this study are closely tied to the status of journalists and the media, which are central figures in communication. Using this as a starting point, we consider it particularly important to delve into more detailed examinations to identify the predominant categories of journalists and media that emerge in the discussions.

Figure 1 shows Greek journalists as the main protagonists of communication during election periods, with a percentage of more than 34%. This is followed by the accounts of alternative/non-traditional media and journalists from other countries. Blogger journalists also show a high frequency of messages posted.

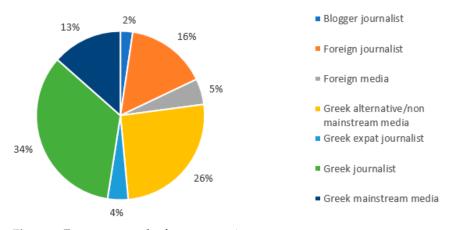


Figure 1. Frequency graph of user categories.

Figure 2 illustrates the evolution of participation for each category of journalists and media outlets over time.

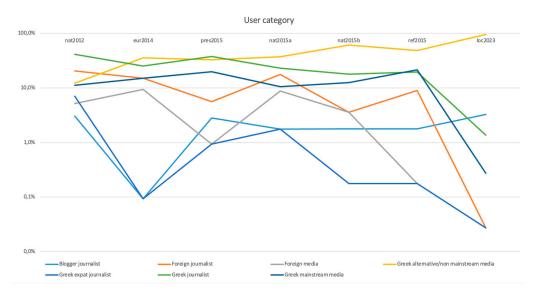


Figure 2. Logarithmic chart, the development of the appearance of user categories.

Figure 2 is a logarithmic chart showing the development of the appearance of users' categories. A logarithmic scale is preferred as it offers a compact way to display numerical data over a vast range of values, enabling them to fit within a small graph. It is observed that, over the years, the participation of blogger journalists and Greek alternative/non-mainstream media in discussions has been on the rise. Specifically, while their participation remains stable from 2012 to 2015, their activity becomes more prominent in the 2023

elections. On the other hand, the participation of Greek journalists consistently decreases. While they generate 40.9% of the total tweets during the 2012 elections, their messages represent only 1.4% of the total messages in the 2023 elections. Journalists and media outlets based outside Greece (foreign media, Greek expat journalists and foreign journalists), as expected, do not show a continuous interest in the country's internal electoral processes. From 2012 to 2015, due to the deep and intense economic, social and political crisis that the country was facing, the Greek electoral processes attracted the attention of the international media. However, in 2023, the Greek economy had already been upgraded by international rating agencies, the country's economy had stabilized, and the internal electoral processes did not present significant international interest.

# 3.2. The Content of the Messages

In order to fully understand the central research question of this study, i.e., whether journalists and the media are adapting to the culture of social media, it is necessary to identify the preferences of each user category. In particular, it is necessary to investigate the content of the messages published on X by journalists and the media.

As explained in the section on the research methodology, after continuous readings of the published messages, we identified with nine main content categories. The term "comments" refers to opinions that are not characterized by objectivity. On the other hand, the term "news" refers to messages that report facts and make no claim of objectivity. In this section, we first present the data from the categorization of the total messages published by journalists and the media during the election periods.

In Figure 3 below, it is evident that messages containing updates on developments without comments are high in the preferences of X (formerly Twitter) journalists during election periods. In particular, it is noteworthy that the predominant content of discussions is news without comment (56%). Critical, negative or ironic comments are ranked second among users, but with a remarkable percentage (29%). The remaining categories of messages show percentages below 10%. The fewest tweets belong to the category of "comment in support of the government and/or politicians", demonstrating the general distancing of journalists from the country's political rulers.

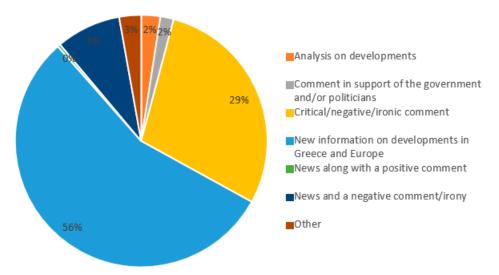


Figure 3. Frequency graph of content categories.

Figure 4 illustrates the categories of content used by journalists and media outlets over each electoral period.

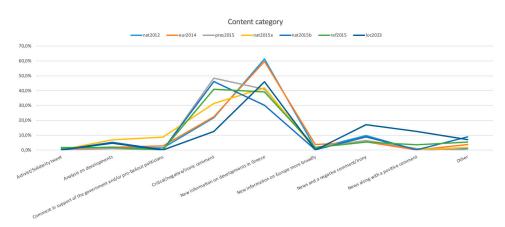


Figure 4. The development of the appearance of the content categories.

It is observed (Figure 4) that, over time, news related to developments in the country ("new information on developments in Greece") consistently appears with high percentages. This category of content is the one with which journalists and media outlets are more familiar in their online activities. However, even critical/negative/ironic comments are high in their preferences. This is a category of content that does not belong to the usual journalistic practices in the online world of media, as the expression of the journalist's personal opinion is considered a non-traditional element of news (Lasorsa et al. 2012). This trend indicates that journalists have managed to adapt to the demands of social media and their users, promoting a more open discussion on the Internet.

# 3.3. Followers, Follows, Retweets and Favorites

Success on X is defined by one's number of followers (Chi and Yang 2010). On the other hand, the number of accounts that a user follows indicates his/her willingness to participate in public debate (Gioltzidou et al. 2024a). Additionally, a common function of X is for users to forward another user's message to their own followers. Retweets, as these messages are called, usually contain information that the user finds valuable, such as hyperlinks to other websites. According to Zarrella (2009), only 1.44% of all tweets are retweets. The results in the case of the sample of this study will be presented later. A second function of interest in this research is the marking of a message as a "favorite" (or, more recently, like). As a tactic, it is used to indicate a user's approval of a message posted by another user. In the following analysis, we will attempt to identify whether journalists and the media have resonance, in X terms, as an element that shows the degree of adaptation of journalists to the communication challenges imposed by social media on political communication.

In Table 2, we find that the journalists who used Twitter for their communication during the elections and election periods of this study had between 0 and 517,568 followers, with an average of 3794.78. The user who gathered the most followers (517,568) during the period of the survey was @ActualidadRT, an account belonging to a non-Greek online medium. They also follow 0 to 306,879 users (follows), with an average of 2052.38.

Table 2. Followers, follows, retweets and favorites during pre-election and election periods.

	Followers	Follows	Retweets	Favorites
Mean	3794.78	2052.38	46.23	0.10
Minimum	0	0	0	0
Maximum	517,568	306,879	3803	9

Over time, the impact of messages from journalists and media outlets has shown fluctuations. As shown in Figure 5, in the first round of the national elections in 2015, the majority of retweets were generated by journalists' messages. However, a few months

later, in the second round of elections, journalists' messages showed particularly low rates of reposting. Although the situation seemed to change during the 2015 referendum, journalists' messages lost their impact again in 2023.

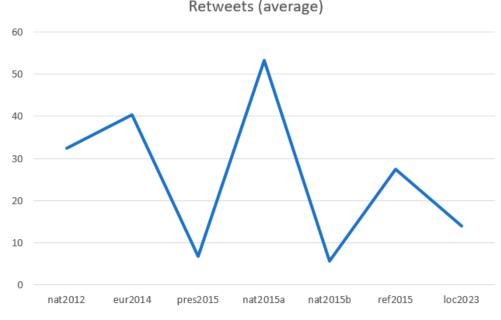


Figure 5. Logarithmic chart, the development of retweets.

As journalists seek to engage in online conversations and connect with their followers online, we would expect them to shape their messages to provoke user comments. Although responses to journalists' messages have consistently been at high levels, there was a particularly intense discussion in the latest electoral period, that of 2023 (Figure 6).

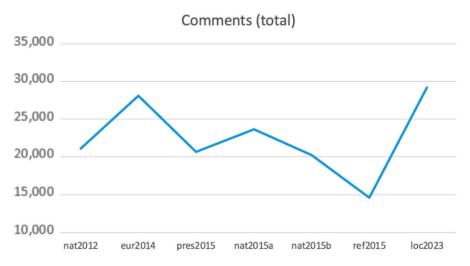


Figure 6. Logarithmic chart, the development of comments.

The analysis of each user category gives important information about their adaptation to the demands of social media. First, data relating to media accounts are presented, and then these data are compared with those of journalists' accounts.

In Table 3, we observe that the accounts of the Greek traditional media, during the election and pre-election periods, had between 76 and 337,352 followers, with an average of 40,767.13, while they followed between 8 and 2699 accounts, with an average of 348.74. In the same periods, they retweeted 0 to 534 posts, with an average of 15.62, while they marked 0 to 3 messages as favorites, with an average of 0.11.

		Followers	Follows	Retweets	Favorites
	Mean	40,767.13	348.74	15.62	0.11
Greek traditional mass media	Minimum	76	8	0	0
	Maximum	337,352	2699	534	3
	Mean	21,929.63	1200.00	47.67	0.0
non-Greek traditional	Minimum	701	338	0	0
mass media	Maximum	127,345	1979	496	0
Greek and non-Greek,	Mean	19,018.01	2505.37	13.63	0.16
alternative/	Minimum	30	0	0	0
non-traditional media	Maximum	517,568	30,724	767	2

Table 3. Followers, follows, retweets and favorites of media accounts.

The accounts of the non-Greek traditional media that participated in the public debates during the election periods have between 701 and 127,345 followers, with an average of 21,929.63. They also follow 338 to 1979 accounts of other users, with an average of 1200. For the first variable, it is noteworthy that the average number of followers appears particularly low compared to the accounts of the Greek media. The picture is different with regard to the accounts followed by non-Greek traditional media, as this number appears to be four times greater than that of their Greek media counterparts. Their number of retweets is almost three times greater than that of the previous user category, namely from 0 to 496, with an average of 47.67. The designation of messages as "favorites" is at a zero level.

The Greek and non-Greek alternative/non-traditional media accounts in this survey are followed by 30 to 517,568 other accounts, with an average of 19,018.01. They themselves are followed by 0 to 30,724 other users, with an average of 2505.37. They post up to 767 retweets, with an average of 13.63, while they mark 0 to 2 messages as "favorites", with an average of 0.16.

The accounts of journalists have fewer followers than the media outlets that they work for. Specifically, in Table 4, we can see that Greek journalists have 31 to 51864 followers, with an average of 4275.66; 67 to 28,957 follows, with an average of 2422.26; 0 to 1483 retweets, with an average of 21.81; and 0 to 3 favorites, with an average of 0.14.

		Followers	Follows	Retweets	Favorites
	Mean	4275.66	2422.26	21.81	0.14
Greek journalists	Minimum	31	67	0	0
	Maximum	51,864	28,957	1483	3
	Mean	11,969.83	1324.57	58.55	0.09
non-Greek journalists	Minimum	18	38	0	0
	Maximum	83,921	4281	1034	1
Creakieumeliste	Mean	1104.00	612.50	41.97	0.0
Greek journalists	Minimum	1084	600	0	0
living abroad	Maximum	1124	625	720	0
	Mean	5323.67	2460.67	52.79	0.0
blogger journalists	Minimum	84	117	0	0
,	Maximum	28,495	10,013	393	0

Table 4. Followers, follows, retweets and favorites of journalists' accounts.

Regarding the accounts belonging to non-Greek journalists, we observe that they have 18 to 83,921 followers, with an average of 11,969.83, and 38 to 4281 follows, with an average of 1324.57. Therefore, it seems that while the followers are at the same level as their Greek colleagues, non-Greek journalists follow about twice as many accounts. The number of retweets is also almost doubled, specifically from 0 to 1034, with an average of 58.55. Favorites are at the same level, namely from 0 to 1 favorites per account, with an average of 0.09.

Greek journalists living abroad appear to be less active than the other two categories of journalists that we examine. Specifically, in Table 4, we see that users in this category have between 1084 and 1124 followers, with an average of 1104, and between 600 and 625 follows, with an average of 612.5; in both cases, the levels are almost half of those of the previous categories of journalists. The number of retweets ranges from 0 to 720, with an average of 41.97, and favorites are at zero levels.

The accounts of blogger journalists move at higher levels than the other categories of journalists in almost all variables that we examine. Specifically, they have between 84 and 28,495 followers, with an average of 5323.67, and between 117 and 10,013 follows, with an average of 2460.67. They post up to 393 retweets, with an average of 52.79. However, the saved favorites remain at zero levels in this user category as well.

#### 3.4. Language of Communication

The thousands of tweets gathered and categorized for this research project encompass user opinions and sentiments expressed in a variety of languages. To examine whether the events that spark public discourse impact users' language choices, we compiled linguistic metadata from the seven timeframes examined in this research. Our objective is to determine the languages employed by journalists and the media, identify the main language and assess whether this selection is influenced by the events being discussed.

The frequency table of the languages of the messages published during the election and election periods shows that the main language of communication is Greek.

In particular, we see that almost 6 out of 10 messages are in English, with a rate of 57% (Figure 7). This is followed by Greek tweets, with a 38% share. These include Greeklish (or Latin Greek or Fragol-Levantine), i.e., Greek language messages written in the Latin alphabet, as they are not a separate language and are addressed to those who know Greek.

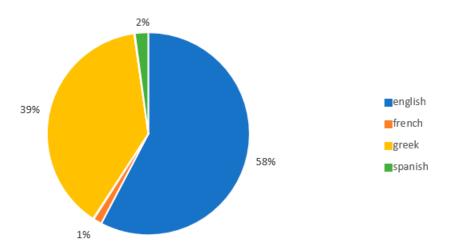


Figure 7. Frequency table of message languages, electoral rolls.

The overwhelming preference of English in public discussions demonstrates users' eagerness to capitalize on the medium's potential to reach a broader audience. Conversely, opting for a language comprehensible to a limited geographic region would discourage open discussions among all users. It is clear that X journalists and media outlets in Greece aspire to engage in dialogues about domestic political issues with individuals beyond their immediate geographical boundaries.

#### 4. Conclusions

Twitter participates in the cycle of political communication by providing the opportunity for direct communication among citizens, politicians and journalists (Gioltzidou et al. 2024b). In this study, we examined the behavior of journalists and the media during electoral periods in Greece. Specifically, we reached important conclusions regarding the ways in which these Twitter users communicated during election and election periods over a period of 11 years and tried to identify tactics that showed their familiarity with the culture of social media.

The present research identified significant changes in the behavior of journalists, indicating a willingness to adapt to the culture of social media. Specifically, the research results show that journalists are willing to adopt new methods of communication with citizens (Gioltzidou et al. 2024b), adjust their modes of expression to the user and platform requirements, feel free to comment on current events and actively seek conversation with other users. At the same time, they strive to apply the ethical principles of journalism on the network.

The principal conclusion drawn from the results is that, over the eleven years covered by this study, journalists and the media actively engaged in the online public sphere during the election periods. Although the different journalistic cultures influence the produced journalistic material (Gioltzidou and Gioltzidou 2022), the majority of journalists appear hesitant about the new communication opportunities that are offered through social media. This phenomenon stands in contrast to the levels of adaptation observed in western countries, where journalists and the media have embraced the online culture to a greater extent and appear to take on more prominent roles in debates.

Additionally, the analysis of the data revealed the dominant content type over time to be updates without comments. Although the role of X is informative, the international literature shows that, in cases of elections, news dissemination is not a priority for social media users in Greece, as their culture encourages criticism. We conclude that journalists and the media seem to follow the ethical principles of journalism in terms of separating news from comment. Other basic journalistic principles and ethics, such as information crossing and resource management, remain indelible (Gioltzidou and Gioltzidou 2022). However, they both recognize and exploit the new opportunities to criticize the political leadership offered by the medium, adapting their methods to the culture of social media, which requires commentary on current affairs. This change in behavior is typical of users in western countries, with a typical case being the study of Jürgens et al. (2011) in Germany. However, to what extent does the adaptation of journalists and the media in Greece follow that in western countries?

The findings reveal that journalists and the mass media in Greece have, to some extent, adapted their communication methods over time in the age of social media, mainly regarding the content level of their messages. However, they do not dominate the conversations in the social media sphere. This is evident from the ever-decreasing retweets and comments (replies) that their messages achieved over the years. Therefore, although steps are being taken, the adaptation levels are still low compared to western countries, where journalists and the media have embraced the online culture to a greater extent and seem to play more prominent roles in discussions.

**Author Contributions:** Conceptualization, G.G., F.G. and I.M.; methodology, G.G.; software, T.C.; validation, T.C. and D.A.; formal analysis, G.G. and T.C.; investigation, G.G., F.G. and T.C.; resources, G.G. and T.C.; data curation, G.G. and T.C.; writing—original draft, G.G. and F.G.; writing—review & editing, G.G., D.M., F.G. and D.A.; visualization, G.G. and T.C.; supervision, G.G.; project administration, G.G.; funding acquisition, G.G. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

**Data Availability Statement:** Twitter data were collected by leveraging Twitter's free streaming API. A Twitter developer account was obtained, as well as the necessary authentication tokens. The dataset is available in compliance with Twitter's Terms and Conditions (https://twitter.com/en/privacy, accessed on 19 January 2023), under which I am unable to publicly release the text of the collected tweets. Data are available from the author on reasonable request.

Conflicts of Interest: The authors declare no conflict of interest.

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