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Participação de atores políticos no Twitter: filter bubble ou canal de comunicação pública

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To Ana Paula and Marcelino – my parents.

Always told me to not follow their lead and go into teaching, and here I am

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Resumo

Portugal tem a taxa de adoção do Twitter mais baixa das democracias ocidentais, mas a sua adoção por deputados aumentou. Esta tese estuda porque e como os deputados portugueses adotam e utilizam o Twitter, e se este se assemelha a um canal de comunicação pública ou se é influenciado por Filter Bubbles.

Aplicámos uma abordagem multimétodo em três estudos. O primeiro analisa o conteúdo que os deputados publicam, juntamente com as variáveis sociodemográficas e políticas que afetam a adoção, o uso, a popularidade e a influência. O segundo estudo examina os tipos de interações, os seus alvos e o nível de homofilia política. O terceiro aplica um questionário para explorar o uso passivo do Twitter, os públicos-alvo e as motivações para aderir e utilizar a plataforma.

A tese conclui que a utilização do Twitter pelos deputados é influenciada por três factores mutáveis: o desejo de divulgar o seu trabalho e o do partido; o objectivo de aumentar o seu capital simbólico interagindo com contas de elevado estatuto; e o querer estar informado sobre notícias e atividades dos pares. Os dois primeiros fatores acarretam riscos, levando alguns deputados a sair da plataforma temporária ou permanentemente, ou a adoptarem um estilo de utilização passivo centrado no terceiro fator. Com base nestes fatores, identificamos quatro tipos de utilizadores do Twitter: “Caçadores de Capital Simbólico”, “Nativos do Twitter”, “Just Looking-FOMO” e “Broadcasters”. O tipo de utilização determina se o Twitter é mais um canal de comunicação pública ou se é mais influenciado por homofilia.

Palavras-chave: Comunicação Política; Comunicação em Rede; Twitter; Deputados da Assembleia da República

Abstract

Portugal has a lower Twitter adoption and use rate compared to other Western democracies but its adoption by Members of Parliament (MPs) is increasing. This thesis aims to understand why and how Portuguese MPs adopt and use Twitter, and whether their use resembles a public communication channel or is influenced by Filter Bubbles.

A multimethod approach was applied in three studies. The first study analyzes the content MPs publish on Twitter, along with the sociodemographic and political variables affecting adoption, use, popularity and influence. The second study examines the types of interactions MPs have on Twitter, their interaction targets, and the presence of political homophily. The third study applies a questionnaire to explore MPs' passive Twitter use, target audiences, and motivations to join and use the platform.

The thesis concludes that MPs' Twitter usage styles are influenced by three factors that can change over time: the desire to broadcast their and their party's work; the aim to increase symbolic capital by interacting with high-status accounts; and the need to stay informed about peer and network activities. The first two factors carry risks, causing some MPs to withdraw from the platform temporarily or permanently, or to adopt a passive usage style focused on the third factor. Based on these factors, the thesis identifies four types of MP Twitter users: “Symbolic Capital Hunters”, “Twitter Natives”, “Just Looking-FOMO”, and “Broadcasters”. The user type determines whether they use Twitter as a public communication channel or are more influenced by value or status homophily.

Keywords: Political Communication; Network Communication; Twitter; Members of Parliament

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[1] The Table of Content for figures and tables provided here includes only those not found in the articles published and compiled within this thesis. To maintain the original structure and format of the already published articles, the numbering of tables and figures within these articles remains unchanged.

Glossary

Table 1 – Glossary | Source: Own elaboration

Agenda-Setting / Intermedia Agenda-Setting	Agenda-Setting is the ability of the news media to influence "(…) the salience of topics on the public agenda". (McCombs & Shaw, 1972, p. 177) and Intermedia Agenda Setting focuses on measuring how contents transfer between different media (Atwater et al., 1987).
Self-Mediatization	"(…) captures the process through which political actors have internalized and adapted to the media's attention rules, production routines and selection criteria – that is, news media logic – and try to exploit this knowledge to reach different strategic goals." (Strömbäck & Esser, 2014, p. 21) explaining the concept coined by Meyer (2002)
Digital Democracy	"Digital democracy can be defined as the pursuit and the practice of democracy in whatever view using digital media in online and offline political communication" (Hacker & Van Dijk, 2000, p. 3)
Echo Chamber	Phenomenon created as personalization on social media platforms makes polarization more probable and deliberation more difficult because "(…) like-minded people sort themselves into virtual communities that seem comfortable and comforting. Instead of good information aggregation, bad polarization is the outcome." (Sunstein, 2006, p. 97).
Filter Bubble	"A filter bubble emerges when a group of participants, independent of the underlying network structures of their connections with others, choose to preferentially communicate with each other, to the exclusion of outsiders. The more consistently they exercise this choice, the more likely it is that participants' own views and information will circulate amongst group members, rather than any information introduced from the outside" (Bruns, 2019, p. 29)
Political Mediatization	Mediatization of politics is the process through which the importance of the media and their spill-over effects on political actors and their behaviours has increased (Strömbäck & Esser, 2014), therefore "(…) parties and politicians adapt their practices and messages to formats, deadlines, and genres that are journalistically attractive" (Skogerbø, E. & Krumsvik, A. H., 2015, p.1). However, there is also the view of media as the central actor in the mediatization process,

	defining it as "the result of media-driven influences in the political domain" (Mazzoleni, 2014, p. 43)
Microblogging	"(…) an internet-based service in which: 1) users have a public profile where they broadcast short public messages/updates whether they are directed to a specific user(s) or not; 2) messages become publicly aggregated together across users; and 3) users can decide whose messages they wish to receive, but not necessarily who can receive their messages; (…)" (Murphy, 2013, p. 11)
Network Parties	A movement of parties in Europe developed mostly after the financial crises of the late 2000's, with tech savvy leaders and a collaborative network approach to communication and leadership (Klimowicz, 2018)
Network Society	"the social structure resulting from the interaction between the new technological paradigm and social organization at large." (Castells, 2005, p. 3)
Platform Society	"(…) a term that emphasizes the inextricable relation between online platforms and social structures" (van Dijck et al., 2018, p. 2). It portraits a society in which platforms are an integral part, converging with institutions and practices as most interactions are carried out online.
Social Network Analysis	"Social network analysis (I) conceptualizes social structure as a network with ties connecting members and channeling resources, (2) focuses on the characteristics of ties rather than on the characteristics of the individual members, and (3) views communities as personal communities, that is, as networks of individual relations that people foster, maintain, and use in the course of their daily lives." (Wetherell et al., 1994, p. 645). It is not a formal theory, but "a broad strategy for investigating social structures" (Otte & Rousseau, 2002, p. 441)
Twitter Elite	"Virtual elite" on Twitter formed by the social network of political actors and journalists that can be considered almost a closed network. (Maireder et al., 2012; Ruoho & Kuusiplao, 2019; Spierings et al., 2018)
Web 2.0	A new internet era that is characterized by websites that allow a higher level of interaction and collaboration between users, more user-friendly and interoperability. Social media platforms that allow for user-generated content are an example of Web 2.0. The term Web 2.0. was coined by Darcy DiNucci (1999) but became popularized in 2004 when Tim O'Reilly and Dale Dougherty held the first Web 2.0 conference.

Abbreviations

API – Application Programming Interface

BE – Bloco de Esquerda

CH – Chega

DNR – Digital News Report

FOMO – Fear of Missing Out

H – Hypothesis

ICA – International Communication Association

ICTs – Information and Communication technologies

IL – Inicitativa Liberad

L – Livre

MP – Member of Parliament

PAN – Partido "Pessoas, Animais e Natureza"

PCP – Partido Comunista

PS – Partido Socialista

PSD – Partido Social Democrata

QT – Quote-tweet

R – Reply

RQ – Research Question

RT – Retweet

SPSS - Statistical Package for the Social Sciences / Statistical Product and Service Solutions

T - Tweet

TM – Tweet Mention

UGC – User Generated Content

Introduction

In the scope of Communication Sciences, this thesis aims to add knowledge to the Internet Studies and Political Communication fields regarding the use of Twitter[2] by political actors. The main goal of this thesis is to better understand who, why and how the Portuguese Members of Parliament (MPs) use Twitter, in particular drawing conclusions on whether that use is closer to a public communication channel or if it has political homophily due to informational cocoons creating Filter Bubbles.

The choice of Twitter as the social media platform in study is related with four different factors. Firstly, the low use rate of Twitter in Portugal (Cardoso et al., 2021; Newman et al., 2021), especially the adoption rate in comparison with other Western democracies (Haman & Skolník, 2021), but, at the same time, its growth in 2021 – the year in which the research project was designed. This makes the Portuguese case specially interesting to explore in this social media platform. Secondly, although previous research in Portugal regarding the use of Twitter by Political actors has been mostly focused on electoral periods (Amaral, 2020; Araújo, 2011; A. Barriga, 2020; Prior, 2024), by party leaders (Gonçalves, 2023; Loureiro, 2023) or more theoretical (A. C. Barriga, 2015), there are other international studies that focus on the use of Twitter by MPs outside of the campaign period (Agarwal et al., 2019; Baxter et al., 2016; Enjolras, 2014) and can be used as methodological guidelines and to draw comparisons. Thirdly, Twitter is considered the social media platform of choice for political actors and journalists (Murphy, 2013), even coining their presence on Twitter as the "Twitter Elite" (Ruoho & Kuusiplao, 2019), and also those who wish to be political actors and be in the traditional media. Finally, the social networks mechanics of the platform makes it preferential for "Multicasting" (Murphy, 2013) and for "Self-mass Communication" (Castells, 2007) which are of value for political actors that want to reach a larger audience. Furthermore, although it is no longer the case since its private acquisition by Elon Musk in 2023, Twitter provided a free and user-friendly set up for researchers to use their API and collect data.

The population of this study are the Portuguese national MPs for three main factors. Firstly, on a representative/governmental dimension, we chose to study political actors with legislative power that are elected to represent constituents because, by nature, these functions would require a higher need of interaction with the electorate (Brack et al., 2012; Tiberj et al., 2012; Viegas & Freire, 2009). An example of this need is that the MPs have a weekly day – Monday – to interact with the electorate during which they don't have any presential work in Parliament. Secondly, in the national/regional dimension, we chose to study national MPs. However, as MPs are elected by district constituencies, it

[2] Since July 2023, after the acquisition of Twitter by Elon Musk, the social media platform began being called "X". However, as the thesis project was delivered previously and the work also began before this change, we will be use the platform's previous name: Twitter.

will also be able to compare some differences between the MPs elected by different regions. Finally, the third factor was the previous literature on this topic: internationally there is already a state of the art with previous studies that can allow comparability and methodological inspiration - but also innovation (Agarwal et al., 2019; Baxter et al., 2016; Enjolras, 2014), and nationally most studies on the use of Twitter by political actors are focused on different populations (e.g. political parties, heads of list from different parties to general elections, presidents and prime-ministers, etc.) (Amaral, 2020; Araújo, 2011; Gonçalves, 2023; Loureiro, 2023; Prior, 2024).

The main thesis of this research is that different MPs will use Twitter differently, even changing their use style, mainly due to the balancing of three factors they take into consideration: 1) their wish to broadcast their work on the platform and party information, also sharing it on the news format; 2) their wish to increase symbolic capital by interacting with high status accounts; 3) their wish to be in-the-know and follow up what is happening on the peer and new-network. The first two factors may lead to dissonant voices, leading to some users – permanently or temporarily – to opt out from the platform or into a passive use of Twitter only taking into consideration the third factor. Using the combination of different factors, this thesis presents a new way of categorizing four different types of MP Twitter Users: "Symbolic Capital Hunters", "Twitter Natives", "Just Looking-FOMO", and "Broadcasters". Depending on the user type, there will be more probability for a use closer to a public channel of communication or suffer from influence from Filter Bubbles.

This thesis results of the compilation of three published papers and it is structured in the following way: the introduction, subdivided in research foundations and research design; the research papers; the conclusions; and future directions of research.

The first article (Ferro-Santos, Cardoso, et al., 2024b) analyses which Portuguese MPs have adopted Twitter and how they are using it, presenting a case study of political communication in a country with a small Twitter adoption rate. Based on previous literature (Larsson, 2015; Larsson & Kalsnes, 2014; Quinlan et al., 2018; Scherpereel et al., 2017), we can say that sociodemographic, political and district characteristics could influence adoption and level of activity of MPs on Twitter, but there is no consensus on which characteristics have that influence. Furthermore, using a coding scheme that combined a deductive and inductive approach (Corbin & Strauss, 2015) with the main categories being based on previous studies (Enjolras, 2014; Golbeck et al., 2010; Hemphill et al., 2013), 2.192 tweets by MPs were coded to better understand their activity on the social media platform. Finally, following the ideas of national (Amaral, 2020; A. C. Barriga, 2015) and international (Larsson & Moe, 2011) studies, we examined if MPs with higher levels of participation on traditional media have higher levels of popularity and influence on Twitter, based on the concepts by Enjolras (2014). This first article aims to answer the question of who (from the Portuguese MPs) is on Twitter and what they are doing there.

In the secondarticle (Ferro-Santos, Cardoso, et al., 2024a), the main focus is the level of interaction and the different interaction networks of Portuguese MPs on Twitter. Analyzing the tweets of MPs for four periods of one week, the first goal of this research is to verify or refute the previous literature that claims political actors have low levels of interactions on Twitter even outside election periods (Agarwal et al., 2019; Baxter et al., 2016; Enjolras, 2014). Another goal was to map the social network of MPs based on different formats of interactions – replies, retweets, quote-tweets and mentions – and on two key characteristics: who they are interacting with both in terms of profile (e.g. journalists, media, other political actors, companies, etc.) and political inclination (right, left or non-identifiable). This second objective is based on previous work on political communication on Twitter and traditional media (Bravo & Del Valle, 2017; Keller, 2020; Maireder et al., 2012; Reveilhac & Morselli, 2022; Ruoho & Kuusiplao, 2019; Spierings et al., 2018) and on the filter bubble and echo chamber effects on political communication on Twitter (Colleoni et al., 2014; Guo et al., 2020; Valle & Bravo, 2018).

The third study (Ferro-Santos, Santos, et al., 2024) explores the motivations of Portuguese MPs to adopt and use Twitter, provides a new perspective on how they use of the social media platforms- including passive uses, and shades light on their target audiences. This study digs deeper into motivations to both adopt and use Twitter, but also explores how the MPs perceive Twitter in comparison with other social media platforms. By having a response rate of 40% (94 out of 230 MPs) in a quota sample by political party, this research allows us to answer research questions that previous and more common methods, like content analysis and Social Network Analysis (SNA), cannot. The questionnaire design was partially based on the results from the first and second study, keeping a coherent and cohesive research, but allowing us to overcome the limitations of their methods.

An important context is that in the three years from the start of the research project (2021) until the delivery of this thesis (2024), there has been changes both in the political context and in the object of research, in this case Twitter. Regarding the political context, at the beginning of the study and data collection, 2022, there had just been a general election (January 2022) following the previous government's failure to pass the budget in Parliament. After the general elections in January 2022, at the time of data collection, Partido Socialista (PS) had a majority of seats and formed government again. At the end of 2023, the Prime-Minister resigned after his name was mentioned in a press release by the Prosecutor General's Office seemingly associating him to an ongoing judicial investigation. Legislative national elections happened in March 2024 resulting in significant changes to the Parliament's composition and a new government from Partido Social Democrata (PSD). Therefore, this study was done during a specific political landscape of 2 years with a majority government. Regarding the context of Twitter, in 2022 Elon Musk acquired the company Twitter, Inc. and rebranded it to "X" in July 2023. To keep the coherence of the different chapters and denominations (e.g. tweet, retweet)

in this thesis, it was chosen to keep the original name “Twitter” throughout. Since the acquisition, there has been some changes to the platform, namely the possibility to buy the previous “verification” symbol that was provided to companies and public figures like media companies, journalists and political actors – and more recently the creation of different “verification” symbols, differentiating the ones that can be bought (blue marks) and the ones given to verify the authenticity of the account (gold marks). There were also changes regarding the free data availability to researchers and the accessibility to some of the tools for data collection – like the one used for this research. These political and technological changes happened after the data collection for this research had been concluded. Therefore, they can lead to new research lines for the future, but they didn’t significantly impact the current research.

CHAPTER 1

Research Foundations

Theoretical Framework

Communication and Politics

The basis of political communication began with Aristotle and Plato and the studies on democratic discourse but modern political communication, considered a scientific subject since mid-20th century, is an interdisciplinary research area that combines studies and concepts from communication, political science, journalism, sociology, and others (Kaid & Holtz-Bacha, 2008). Lasswell (1936, 1948) distinguishes the study of politics, which is about the "who gets what, when and how", from the study of communication, about "who, says what, in which channel, to whom, with what effect" but a hybrid approach like Powell (1966) discusses how communication is inseparable from all political processes. There are many different definitions of "political communication" but one of the simplest definitions is from Chaffee (1975, p. 15) that defines it as the "role of communication in the political process".

A more recent definition, from Swanson and Nimmo (1990, p. 9), defines it as "the strategic use of communication to influence public knowledge, beliefs, and action on political matters (…)." and refers both to the field of study and the set of professional practices. The development of the field as an academic discipline has been traced to the latter half of the 20th century in the "Handbook of Political Communication" (Nimmo & Sanders, 1981) but there has been previous research that considered the work by Harold Lasswell and Paul Lazarsfeld fundamental for its development , namely in establishing new communication and media theories based on innovative research methods. New definitions for the hybrid scientific field were created when new divisions dedicated to research political communication were created in the American Political Science Association (APSA), the International Communication Association (ICA) and the National Communication Association (NCA). Drawing from those definitions, the Oxford Handbook of Political Communication (Kenski & Jamieson, 2017, p. 5) defines Political Communication as "making sense of symbolic exchanges about the shared exercise of power" and "the presentation and interpretation of information, messages or signals with potential consequences for the exercise of shared power". However, it is important to refer that these authors and the ones cited during this thesis study Political Communication and, some, Political Science in the context of Democratic countries, in particular the United States of America and European democracies.

The evolving definition of "Political Communication" is not a cause but a consequence of ongoing changes in the communicational, mediatic and political context, as well as their actors, processes and relationships. Blumler and Kavanagh (1999) distinguish between three different ages of political communication. The first age is before the mid-20th century and is characterized by the strong

influence of political parties as the source of initiatives and debates, being able to have almost ready access to the mass media of the period. There are stable political institutions and beliefs and a tendency to party-loyalty among voters, which can be considered a paradox as the debates about alternative political directions end up having less effects in changing behaviors and more in reinforcing them. This effect lingers on in what Norris (2000) describes as the virtuous circle of political communication in post-industrial democracies where people with more political interest are also more interested in the news that, in turn makes them more politically interested – but also making the people less interested in politics also those less likely to be reached by their messages.

The second era started in the 1950's with the popularization of television. This era is characterized by four points: 1) less selectivity – making voters more exposed to different points of view in the same medium; 2) an attempt at more impartiality and neutrality; 3) an enlarged audience as televised content could reach even those least interested in political news; and 4) new formats of political communication influenced by the adaptation to televised schedules, short slots and the creation of soundbites, and a more personalized communication style with more care to presentation. It is in this era that professional models of campaigning emerged, with its tactics and processes (J. Blumler & Gurevitch, 1995; Kavanagh, 1995; Swanson, 1992).

The third era is characterized by media and communication abundance, with many new TV and radio channels, available 24-hours, and the advent of the Internet. This proliferation of means of communication is both an opportunity for political actors but also an added pressure as they are expected to "feed the beast". The same goes for journalists who have shorter news cycle and more competition between outlets to get the scoop. In this era there is also an intensification of the professionalization of political communication teams and deepened personalization, populism (that has mixed reviews being both welcomed and criticized), and the "centrifugal diversification" (J. Blumler & Kavanagh, 1999, p. 221) as a counter-point to the fewer selectivity of the second era.

Blumler (2016) writes about a fourth era, resulting mostly from the mass consumption of the internet - mentioning that some of the characteristics of the third era are intensified and other evolutions didn't actually play out as expected in his previous work. There is a high sense of opportunity for new political communication methods, the development of mediatization processes but still a "(…) widespread prevalence of a sense of political inefficacy in the latter respect remains an obdurate problem of democracy." (J. G. Blumler, 2016, p. 29).

It is in this era that Chadwick (2017) writes about the "Hybrid Media System" in which power belongs to those "(…) who are successfully able to create, tap, or steer information flows in a way that suit their goals and in ways that modify, enable, or disable the agency of others, across and between a range of older and newer media settings." (Chadwick, 2017, p. 285). Furthermore, the original framework of Brian McNair (2011) regarding political communication actors, activities and

relationships is updated in a newer edition (McNair, 2018) to integrate the changes caused by new digital media and social media platforms (e.g. the content generated by the users).

Aagaard (2016) also writes about the fourth age of political communication presenting a scheme that compares it with the previous ones (Figure 1) and concluded that the mediatization and digitization in this era has the potential of making policy professionals lead us " (…) into democratic decay, based on elitism and a more centralized public debate, [or] it may also hold fruitful potentials for a more democratic and ethical type of political communication." (Aagaard, 2016, p. 15). This discussion started in the third communication era and continued in the fourth one, and it is that discussion regarding the expectations, issues and risks of political communication in the network society, specially regarding its effects in the Public Sphere, that will be the focus of the next sub-chapter.

Phase	The public sphere	Recipients	Media	Political actors	State form
The premodern phase	Centralized, party press	Passive	Newspapers, party press	The elite, old political parties	The nation state
The modern Phase	two-step models emerge	Passive	Breakthrough of mass media, Still party press, state monopoly on electronic media	Political parties, organized interests groups	The welfare state
The late modern phase	Increased fragmentation, mediatization	Passive, seen as an individualized citizen.	Privatization of media, dying party press, increased professionalization	Elites isolated in 'Bermuda triangles' increased professionalization	The competition state
A fourth phase?	*Interactivity, continued fragmentation, mediatization, algorithms shape public awareness*	*Increasingly active, but still individualized*	*Stagnation of mass media, emergence of digital media.*	*Everyone collects data*	*The digital state*

Figure 1 - Table with the overview of the different phases of political communication development | Source: (Aagaard, 2016)

Political Communication and the Network Society

In the 90's the potential for the Internet and new Information and Communication Technologies (ICTs) as political tools was under debate. Blumler & Kavanagh (1999) reflected on the potential for these new systems to «(…) deepening citizenship, providing for popular "voice" and feedback through talk shows, phone-ins, discussion programs, citizen juries, and cyber politics. It is as if yet another boundary is being transgressed, between representative and direct democracy.» (Blumler & Kavanagh, 1999, p. 226). Other techno-optimists such as Rheingold (2000) and Kellner (1997) also wrote on the potential benefits of the Internet to political communication and new formats of democracy. However, as portrayed by Benkler (2006), two types of criticism regarding the democratizing effects of the internet

emerged. The first was the "babel objection" that focuses on the information overload and fragmentation and polarization of discourse. There followed an almost contradictory argument of more concentration than predicted, with attention being less distributed than originally thought and the divergence from mass media atoned. This is, however counterpointed by Blumler & Kavanagh (1999), as the diversity of communication channels and brands brings more opportunities for new voices to be heard and enter the debate. Although other criticisms have been explored by techno-pessimists, like Margolis and Resnick (2000), it is undeniable that the internet impacts the Public Sphere, the democratic representation, and political communication (Castells, 2004, 2007, 2010, Habermas 1996, 2006).

In theory, a free, decentralized, and open space, such as the internet, would create the perfect conditions for the people to voice their opinions without any constraints, being able to debate and deliberate, and arriving to new rational-based consensus (and organizing collective action) even outside of national borders, furthering the concept of Public Sphere by the German philosopher and sociologist Habermas (1991). However, that concept has been challenged over the years, for instance by Curran (1993), Dahlgren (2005) and more recently by Bruns (2023). As Habermas pioneered the conceptual, rather than physical space, of Public Sphere and its connection with the idea of democracy - expressed through engagement in rational discussion (Iosifidis, 2011) – the same concept has been since then revisited.

It is in the scope of the Network Society - "the social structure resulting from the interaction between the new technological paradigm and social organization at large." (Castells, 2005, p. 3) – that many authors studied the effects of the internet in democracy and its impact on the relationship and balance in the media and political power (Castells, 2007, 2009). Namely, Yochai Benkler (2006) revisited the Habermas view on Public Sphere with the idea of a Networked Public Sphere, with communication being more fluid, less mediated and less reliant on its institutions, hierarchical structures and organization. This can be considered to be an optimistic perspective as it not only identifies favourable points to this type of Public Sphere when compared to the Habermas' one – e.g. less likely to be corrupted by or through large media corporations – but it also doesn't stress some of the issues mentioned by Sunstein (2006) with regards to the potential of echo-chambers.

From the 80's idea of Teledemocracy (Arterton, 1987; Barber, 1984; Becker, 1981), to the idea of virtual communities in the 90's (Rheingold, 2000), the calls for "digital democracy" started well before the massification of the internet. The expectations for its effect were often framed as either a total democratic revolution regarding public governance, a technological fix for the problems of political activity or a new instrument for policy making, all with the assumption that Internet would be or become a democratic medium in and of itself (Hacker & Van Dijk, 2000). Åström (2004) distinguishes between three models of Digital Democracy: the direct model that provides more effective way for

citizens to directly express their opinions on current issues, and for political actors to access to it; the interactive model which provides ways for online discussion and debate strengthening the civic engagement and political activism; and finally, the indirect model which provides a way to improve the democratic institutions' transparency and dissemination of information.

It is also in the context of positive expectations regarding the "network society" and "digital democracy" that some authors try to envision the future of democracy and democratic processes. The concept of "network democracy" (Hacker, 2002) argues that the new ICT systems of digital democracy will allow for new participants to became part of the networked power structures, instead of only adding participation options to those who are already involved on those structures. Coleman (2005) develops the idea of "Direct Representation" that reflects the expectation of a more interactive and participatory form of democracy, with the development of new digital technologies that allow the ongoing communication between citizens and their representatives. This concept highlights the perceived issues of traditional representation and tries to offer a solution for a more responsive, accountable, and legitimate political system. In the same way, Rodotà and colleagues (2007) mention the need for a "Continuous Democracy" in which citizens are more actively engaged in the political process beyond just voting in elections, mainly by using new digital technologies to have a constant dialogue between citizens and their representatives, with more deliberation and leading to more democratic processes. Both ideas or "Direct Representation" and "Continuous Democracy" have in common the expectation that, with the advancement of new online social networks, the citizens will get more involved in the democratic processes, and not only during elections. This expectation is born mainly due to the possibility of two-way interaction between political actors and the electorate, without requiring any mediation besides the platform.

> *"Representative techniques, based on the broadcast-megaphone model, won't provide the requisite depth and richness of interactive communication in the age of the internet. The public wants something closer to the full-blooded, two-way relationship we are calling direct representation" (Coleman, 2005, p. 9).*

However, as referred by Cardoso (2006), the reality doesn't meet these expectations for a more continuous dialogue with the electorate. Even though there has been a change in communication technology and possibilities, it doesn't mean that the practices will change accordingly. Not only that, but the use of internet for political discourse is completely overshadowed by other uses like entertainment and consumerism – a point also made by Blumler (2016) -, and the use for politics is not always rational and participated as expected of a deliberative democracy (Dahlgren, 2005). This idea of deliberative democracy is a further development of the already mentioned work Habermas (1991,

1996) in which the public reasoning and rational debate are key to political action – the public would engage in open discussions in a Public Sphere, an "ideal speech situation" in which everyone could present their point of view, without external influence and deliberate, using a rational-critical discourse to reach agreement. The idealistic perception of a "ideal speech situation" is one of the main criticisms levelled at Habermas' view on deliberative democracy, offline and, afterwards, online as well.

The early political uses of the internet suffer from a replication of its offline communication practices, with low budgets allocated to online campaigning – and even less outside of campaign periods – leading to a continuation of unidirectional communication (Coleman, 2001) and focus on organization and internal communication, such as newsletters (Jackson, 2007). As Dalgren states, "not surprisingly, recent research has shown that online discussions do not always follow the high ideals set for deliberative democracy" (Dahlgren, 2005, p. 156). Even Blumler who had positive expectations of the impact of the internet in the political communication and the democratic process (J. Blumler & Kavanagh, 1999) writes in a more recent work "(…) the chances of enlisting communication in the service of effective citizenship in a meaningful form of democracy appear mixed and cloudy." (J. G. Blumler, 2016, p. 29).

If the early days of the Internet provided the tools, and the promise, for a Digital Democracy (Hacker. & van Dijk, 2000), the development of social media platforms in Web 2.0 offered new channels and platforms for dialogue at global level and expanding the realm for democratic participation and the promise of a global Public Sphere. The Web 2.0 era was characterized by increasing participation and being more collaborative (Kaplan & Haenlein, 2010). In his essay about the first Web 2.0 conference (O'Reilly, 2005), Tim O'Reilley describes one of its main characteristics as the era of "blogging and the wisdom of crowds", making a reference to the work of James Surowiecki (2005) that claims that a large collective of individuals could come up with a better outcome than an elite few. Regarding political communication, as the Web 2.0 developments brought in more and more participatory users, it became possible to have new interaction models with the electorate with much fewer costs than before (Stieglitz & Dang-Xuan, 2012).

It is in the scope of Web 2.0 that Dijck and colleagues (2018) discuss the idea of a Platform Society "(…) a term that emphasizes the inextricable relation between online platforms and social structures" (van Dijck et al., 2018, p. 2). The Platform Society portraits a society in which platforms are an integral part, converging with institutions and practices as most interactions are carried out online. However, as discussed by van Dijck and colleagues (2018), the changes in the Platform Society are not revolutionary ones, with quick massive changes. Instead, platforms infiltrate and converge with the pre-existing institutions and practices (on and offline) of democratic societies gradually. This has

mostly been the case, with no notorious big and quick change in the democratic institutions, but the same cannot be said for non-democratic regimes, as foreseen by Habermas (2006).

Although many have pointed out that social media were not a trigger but a mere resource that only worked in a very specific context of an already ongoing revolution (Alkhouja, 2016; Anderson, 2011; Wolfsfeld et al., 2013), the fact remains that the Arab Spring is highly associated with the use of social media. Indeed, social and civic organization has even resulted in coining "Tunisia's Twitter uprising," "Egypt's Facebook revolution" and "Syria's YouTube uprising" (Lenze et al., 2017). Castells's work (2012) "Networks of Outrage and Hope: Social Movements in the Internet Age", discusses the power of social media on contemporary social movements, including the Arab Spring, in the context of the Network Society, highlighting how these digital networks provided spaces for mobilization when traditional media was tightly regulated. Other views on the events of the early 2010's surrounding the use of social media platforms for civic movements in non-democratic regimes have pointed out that the information policies from social media platforms' companies can also be used to constrain activists and empower the regimes (Youmans & York, 2012) and that current authoritarian governments can even use social media platforms to maintain control. Depending on the forces of three actors – domestic opposition, external forces and governing regime – the social media platforms can have different effects: "It can have a weakening effect on strong democratic regimes, an intensifying effect on strong authoritarian regimes, a radicalizing effect on weak democratic regimes, and a destabilizing effect on weak authoritarian regimes" (Schleffer & Miller, 2021, p. 78). Therefore, it is important to reinforce that this thesis and its conclusions are in the scope of a study case in Portugal, a democratic country since 1974 – in the third wave of democracy in the world (Huntington, 1993)- and a European country.

Use of Twitter

Although User Generated Content (UGC) already existed, it is in the boom of the social media platforms that it becomes more widespread and central to internet use, solidifying the conditions for "self-mass Communication" (Castells, 2007). One of the platforms where this took place is Twitter.

According to the Digital Report 2024 (Kemp, 2024a), Twitter is the 12th social media platform with most users globally, ranking 7th amongst respondents' "favorite" social media platform. More than half of Twitter's active users (60,6%) say they use the platform to "keep up with news and current events", being the activity more active users point out as something they do on Twitter. Currently known as "X", Twitter was bought by Elon Musk at the end of 2022, having changed its name in July 2023.

Twitter was created in 2006, founded by Jack Dorsey, Evan Williams e Biz Stone with the goal to replicate online the short message services popularized on cellphones. The publications

became known as tweets and were limited to 140 characters initially but were duplicated (to 280) by users' request. This limitation led to the style of communication on the platform to be characterized as quick and incisive, as users had to summarize their messages. Because of this, it is considered a Microblogging (Kaplan & Haenlein, 2010, p. 67) platform. Currently, the users that pay a subscription can tweet without this character limitation. Another characteristic associated with the use of Twitter, and its communication style, is the hashtag. The hashtag was originally suggested in a tweet in 2007 but only became available in 2009, and it "connects" different tweets that use the cardinal symbol before the same word or combination of words.

The communication style of Twitter is also called "multicasting", the broadcasting of many to many, that is encouraged both by the use of hashtags and retweets (Murphy, 2013). The use of hashtags, retweets and the suggested posts by the algorithm allow the user to visualize content that is not directly subscribed, nor shared by the accounts that the user follows. This is also another characteristic of Twitter, when compared to other social media platforms, as users frequently encounter content they didn't subscribe to directly and, in the same way, can have viral posts even with a low number of followers. Unlike other popular social media platforms, like Facebook and Instagram, Twitter allows their users' relationships not to be reciprocal (Murphy, 2013) – one account can have many followers and not follow anyone or can follow many accounts and have a low number of followers, for instance. Summarizing these characteristics, microblogging is defined by Murphy (2013) by: 1) users with public profiles that broadcast short messages that don't necessarily have a target audience; 2) the messages become public in an aggregated way to other users; 3) the users can decide from whom they want to follow, but not who follows them – it is not mutual.

These characteristics and its vocation for "Self-mass Communication" (Castells, 2007) – the autonomous communication of one to many, without need of any mediator – made Twitter one of the first social media platforms with high adoption rates among political actors and traditional media professionals, to leverage the reach of their news and messages. As mentioned by Murphy (2013, p. 15) Twitter, as a platform, is «(…) an ideal one for politicians who wish to bypass the press and create their own "direct" account of issues.». Twitter has become known by its "(…) niche uses for well-defined communities such as journalists and political and entertainment elites" (Klinger et al., 2023, p. 5).

"In recent years, large scale communication has experienced a deep technological and organizational transformation, with the rise of what I have called mass self-communication, based on horizontal networks of interactive, multidirectional communication on the internet (…)"
(Castells, 2012, p. 220).

The openness of Twitter, allowing users to follow and read all others, that, in theory, allows al users to join conversations relays the notion of "Twittersphere" (Maireder et al., 2012, p. 152). The Twittersphere in Portugal has been defined as a place where the information and political debate flow, in real time, and different actors from the political and media world connect (A. Barriga, 2017).

As can be seen in table 2, according to the DNR, the percentage of population that uses of Twitter in Portugal both for any use and to read news is always lower than the selected countries to do the international average. Regarding Europe in specific, another study (Haman & Skolnik, 2021) concludes that the adoption rate of Twitter by the general population and by the MPs in Portugal is the lowest in comparison with the other Western democracies.

In Portugal, according to the Digital Report 2024 (Kemp, 2024b), Twitter is the 9th social media platform with highest percentage of users from the number of internet users from 16 to 64 years old (32.7%). It is the favorite social media platform of 2.7% of the internet users, being ranked 6th in this category. According to "X" ad reports mentioned by the Digital Report 2024 (Kemp, 2024b), the year-on-year ad reach increased 5.5%. According to the Digital News Media Report Portugal 2024 (Cardoso et al., 2024) the Twitter adoption rate in Portugal is 11%, and has been in decline since 2021. However, it is the only social media platform which users have as a «preferred source of news» political actors and activists (51%, and the second one is TikTok with 27%). Therefore, we can still perceive a relationship and association between Twitter and the political landscape in Portugal.

Table 2 - Use of Twitter in Portugal and Internationally for any purpose (all) and for news | Source: Digital News Report (DNR)

Year	% of sample using Twitter				Sources
	Portugal		International*		
	News	All	News	All	
2016	5.2%	N/A	10%	19%	(Cardoso et al., 2016; Newman et al., 2016)
2017	6.4%	15.0%	10%	20%	(Cardoso et al., 2017; Newman et al., 2017)
2018	5.3%	13.0%	10%	20%	(Cardoso et al., 2018; Newman et al., 2018)
2019	5.1%	11.7%	10%	21%	(Cardoso et al., 2019; Newman et al., 2019)
2020	8.2%	15.4%	12%	23%	(Cardoso et al., 2020; Newman et al., 2020)
2021	11.2%	19.8%	11%	22%	(Cardoso et al., 2021; Newman et al., 2021)
2022	6.9%	14.6%	11%	21%	(Cardoso et al., 2022; Newman et al., 2022)
2023	8.0%	14.9%	11%	22%	(Cardoso et al., 2023; Newman et al., 2023)
2024	6.0%	11.0%	10%	17%	(Cardoso et al., 2024; Newman et al., 2024)

*) Average of a set of countries done by DNR

Regarding the use of Twitter by political actors in Portugal, a 2016 report by the "Laboratório de Ciências da Comunicação no ISCTE-IUL" (Comunicação ISCTE-IUL, 2016) concluded that of the 62 members and ex-members of the XXI Government (ministers and state secretaries), only 22 had a Twitter account – and not all were being actively used. The same study mentioned that of the 282 Members of Parliament (MPs) that already had been in functions during the legislative work of that Government, 110 had a Twitter account (39%). A more recent article (Haman & Skolník, 2021) analyzed the use of Twitter by the MPs of different European countries. It concluded that Portugal was an exception in the scope of the "western democracies", as the adoption rate by the Portuguese MPs (41%) was much lower than the neighbouring countries, like Spain (91%), France (93%) and Italy (76%), for instance. Furthermore, even the MPs with a Twitter accounts, according to the same study, were less active on the platform with only 14% of the MPs having written at least 32 tweets (the study median) in January 2021.

Studies on the use of Twitter for political communication

First wave – Content analysis: Broadcasting vs. interaction

As already mentioned, the social media platforms developed in the Web 2.0, like Twitter, were discussed as having the potential to contribute to the idea of "Direct Representation", creating new dialogues, more transparency and not being just a new way for political propaganda. A first wave of studies on the use of Twitter by MPs studied exactly that.

As mentioned by (Graham et al., 2013, p. 695) "Twitter too can allow a candidate to engage in a conversation; candidates can listen to and engage in political talk with citizens in this mutually shared space". Larsson and Moe (2011, p. 730) also conclude that Twitter can contribute "to a broadening of participation in public debate, and to what extend it merely serves as yet another arena for already established societal actors" and Maireder and Ausserhofer (Maireder & Ausserhofer, 2014, p. 306) agree that "The open, transparent, and low-threshold exchange of information and ideas on Twitter allows shows great promise for reconfiguration of the structure of political discourse towards a broadening of public debate by facilitating social connectivity.".

However, these and other European studies (Graham et al., 2013; Larsson & Moe, 2011; Vergeer et al., 2011) concluded that political actors were not using all the platform's affordances and, therefore, not fulfilling its promises for democratic debate. These three studies were done during election periods and concluded that candidates were using Twitter mostly to broadcast their messages. However, there were some exceptions as pointed out by Graham and colleagues (2013): "By examining candidates' Twittering behavior, the authors show that British politicians mainly used Twitter as a unidirectional form of communication. However, there were a group of candidates who used it to

interact with voters by, for example, mobilizing, helping and consulting them, thus tapping into the potential Twitter offers for facilitating a closer relationship with citizens" (Graham et al., 2013, p. 692). In this study, Labour and the Liberal Democrats had a higher interaction rate on Twitter than the Conservative candidates that mostly used Twitter mainly as a form of unidirectional communication.

Outside of the campaign period other studies (Agarwal et al., 2019; Baxter et al., 2016; Enjolras, 2014) presented similar conclusions and theorized that this could happen because of the high demand for the MPs attention, both on and offline, not giving much time to enter in dialogue, and also due to the abusiveness of some messages

In the US, an early study that analyzed the accounts of 69 congresspersons concluded that "Very few informational posts did anything to improve transparency in government. The posts generally expressed sentiments or opinions in a form similar to a sound bite." (Golbeck et al., 2010, p. 1621). A different study (Hemphill et al., 2013) done a couple of years later (and with a bigger scope of 380 congressmen) concluded the same thing, saying «Congress appears to use Twitter as yet another broadcast mechanism rather than as a way to engage in dialogue with the public or as a "call to action" to organize constituents.» (Hemphill et al., 2013, p. 8).

This first wave of studies regarding the use of Twitter by political actors was mostly done using content analysis methodologies, firstly focused on just a few categories, but have been redone with newer categories as the use of the platform evolves and new research questions are formulated. Recent studies that probe the contents of MPs Twitter use also include categories like the use of humour (Mendiburo-Seguel et al., 2022).

In Portugal, possibly due to the lower adoption rate of Twitter, there were no similar studies published at the beginning of the 2010's. There is an article that compared the interaction of the two presidential candidates in Brazil, for the 2010 elections, and Portugal, for the 2011 presidential elections (Araújo, 2011) but the number of tweets posted by the Portuguese candidates was very low – only 1 tweet responding to a question. However, recent empirical analysis of the use of Twitter by candidates of the 2019 legislative elections concluded that Twitter reinforces the power structures already in place, and does not defy them – as most candidates with better financial help can have better campaigns both off and online (Amaral, 2020). The study by Gonçalves (2023) explored the Twitter connections (mentions, retweets and links) of four Portuguese party leaders, presenting different strategies of communication – connective, auto-referential or hybrid – but it is important to highlight that most interactions were with political accounts (not with citizens) and many connections were to the traditional media. Barriga (2020) analysed a non-representative network of 55 Twitter profiles (associated with politics and media) in a period of 7 months in which there were two political campaigns in Portugal (presidential and legislative elections). The study concludes that the main protagonists in the online space don't interact with the accounts with less notoriety, and offline

"friendships" also weigh more online. The main topics online also follow the trends of the traditional media, with few opportunities for new topics and new players (the "outsiders") to establish themselves in the network. Nevertheless, even if rarely, it does happen so the author concludes that Twitter is an "alternative sphere", but it is distant from Habermas' idea of Public Sphere.

Second wave - Algorithmic and Network analysis: media relationship and political homophily

A second wave of studies regarding Twitter and its uses for political communication have been mostly focused on algorithmic and network analysis, including the relationship between Twitter and the traditional media (Bravo & Del Valle, 2017; Keller, 2020; Maireder et al., 2012; Reveilhac & Morselli, 2022; Ruoho & Kuusiplao, 2019; Spierings et al., 2018) and study of the Echo Chamber and Filter Bubble effects (Colleoni et al., 2014; Guo et al., 2020; Valle & Bravo, 2018).

Although, as already mentioned, most political actors are not using Twitter to have a mutual interaction with the electorate, its use, even if just for broadcasting, changes their interaction with the media. By allowing a direct way to transmitting information, social media platforms such as Twitter changed the power dynamics between political actors and traditional media (Castells, 2007), that were the primary intermediary between politicians and the electorate in the mass communication era. However, it also becomes a valuable source for journalists. According to a Pew Research Center survey (Gottfried, 2022), nine in ten media professional in the US use social media platforms for their job, being the main one Twitter that is used by 69%. In Europe, a study on the citation or reference of Twitter by news media in Germany (Kapidzic et al., 2022) concluded that Twitter was mostly used as source by tabloids for soft pieces but regarding political and economic topics it was mostly used by quality papers, weekly magazines, and broadcasters (40%). Therefore, this relationship between political actors and journalists on Twitter has been widely studied.

However, regarding the social network of political actors and journalists on Twitter there have been different conclusions. For instance, Maireder and colleagues (2012), that present an early map of the Austrian political Twittersphere, conclude that journalists and politicians have their own networks, but journalists sometimes mention politicians in certain situations (for instance, when they had a piece of news on them, or a question) – and not the other way around. Ruoho and Kuusiplao (2019) present a more recent study on the network of journalists and political actors in Finland that concluded that although journalists and politicians do have their own networks, they also have strong ties and frequent interactions, mainly between the "Twitter Elite" (Ruoho & Kuusiplao, 2019, p. 71), and some "super nodes", people with more connections and help weaker links in their interactions. However, these two works, as well as the research by Spierings and colleagues (2018) – on who has access to the MPs of Holland, all concluded that there is a "Twitter Elite", that is basically formed by

political actors and journalists, that is mostly closed off and doesn't interact with other accounts often, even when mentioned.

The relationship between the electorate, political actors and media is not a new field of study. Far away from the "Hypodermic Needle Theory" of Harold Lasswell (1927) and with new models proposing a more complex perspective on the "Two-step Flow of Communication" from the Erie County Study (Lazarsfeld et al., 1948), Gans (2005) in its 1979 original work compares the relationship between political actors and journalists to a dance in which both look for and need each other but also both want to lead. Both the political and media perspective (push and pull) of mediatization have been defined in the glossary. One step of that "dance" is the attempt of political actors to adapt their practices and messages to better fit what media and its audiences are looking for in terms of formats, deadlines and genres, in a process of mediatization and self-mediatization (Skogerbø & Krumsvik, 2015). Media, however, are also influenced by political actors in that "dance", namely in the scope of the intermedia-agenda setting in which contents can be transferred in between different media (Atwater et al., 1987). One of those media can be Twitter. There has been different studies focused on the influence of Twitter contents to traditional media agenda (Conway et al., 2015; Harder et al., 2017; Lewandowsky et al., 2020; Rubio García, 2014; Su & Borah, 2019) even if they reach different conclusions or indicate different variables as significant (the owner of the tweet, the timeframe, etc.).

However, Maireder and Ausserhofer (2014) not only reflect on the relationship between Twitter and traditional media in one direction, but also on how it created a new "news cycle" – as each tweet can not only become a source for an article, but also include a news article itself or even comment on another one. This is the "unbundling" and "rebundling" of news contents (van Dijck et al., 2018) by different political and media actors in a kind of cycle. Recently, in his book, Cardoso (2023) elaborates on the Communication of Communication – the new communication cycles, that are leveraged by social media platforms, in which a single event can create a chain of publications and news that are interpreted, commentated and analyzed in a way that can lead to new events, articles and so on. However, it is important to state that research on this thesis is mostly focused on the political communication perspective – the mediatization and self-mediatization processes – and not on the media perspective.

Regarding the study of filter bubbles and echo chambers, firstly it is crucial to refer that the discussion about the diversification of the diet of political news is not a new topic. We may have reached the lowest point of selectivity during the second communication era in which Television had few channels and most of the electorate would all consume the exact same political news and information. However, the third communication era already had a "centrifugal diversification" (J. Blumler & Kavanagh, 1999, p. 221) with people being able to choose what type of political content to consume depending on their preference for different channels and mediums. The novel question being

studied in the fourth era is that the high level of personalization in the social media platforms and digital news consumption becomes not only a consumer active choice, but possibly also a reinforced result of the algorithm.

Secondly it is important to define and distinguish the two concepts. Although many times they are used interchangeably (Bruns, 2019), both are different cases of homophily, "(…) the principle that a contact between similar people occurs at a higher rate than among dissimilar people." (McPherson et al., 2001, p. 416). While filter bubbles are the homophily in the interaction network, echo chambers are the homophily in the social network. For instance, in Twitter, the interaction network is the comments, retweets, mentions and quote-retweets, and the social network are followers and who we follow. Lazarsfeld and Merton (1954) further distinguish two types of homophily: status homophily and homophily based on values, attitudes and beliefs. Political homophily is usually said to be an example of values homophily.

Sunstein (2001, 2006) is known for his early work on the echo chamber effect, a result of the "cacophony" of too many voices in the networked Public Sphere that leads to an overload of information and a need to prioritize which ones to hear and which ones to voice off – leading to people prioritizing the voices with which they agree with (Friedland et al., 2006). This effect is also based on the "Daily me" concept that was popularized by Nicholas Negroponte in the 1990's as the daily news website that could personalized its newsfeed, and the idea of confirmation bias, first coined by Peter C. Wason in 1960's (Oswald & Grosjean, 2004). Confirmation bias is a psychological term describing how people are biased to confirm their own beliefs, being associated with the echo chamber and filter bubble effects as people will satisfy that bias by personalizing their experiences (directly or indirectly through their actions and the algorithm) on social media, leading to homophily and polarization.

This issue has been addressed directly by Habermas. Habermas states that, although the internet has its "democratic merits", especially in authoritarian regimes, it would not solve the issue of deliberation in political communication as it also creates fragmentation (Habermas, 2006). On one of his most recent papers (Habermas, 2022), in which he dedicated a section to analyzing the implications of digitalization in the Public Sphere, Habermas refers the potential decrease of the "deliberative quality" of public debate, downgrading the supposedly open Public Sphere to a semi-Public Sphere (Staab & Thiel, 2022) as there is no "inclusive space for possible discursive clarification of competing claims to truth" (Habermas, 2022, p. 166).

Regarding filter bubbles, Pariser (2011) coins the concept and mentions they are a result of the technological advances from the Web 2.0, as platforms try to further personalize the user experience.

> *"The new generation of Internet filters looks at the things you seem to like … and tries to extrapolate. They [the algorithms] are prediction engines, constantly creating and refining a theory of who you are and what you'll do and want next. Together, these engines create a unique universe of information for each of us—what I've come to call a filter bubble—which fundamentally alters the way we encounter information online"* (Pariser, 2011, p. 9)

In Pariser's perspective, even if the users try to avoid the echo chamber effect, following people with different points of view, eventually the algorithm will mostly show them the type of content they mostly interact with - the content they agree with – and, therefore, creating a filter bubble. However, this theory has been criticized. Talamanca and Arfni (2022) suggest that although some "politically savvy users" on Twitter may experience the filter bubble, the typical user would not, and points out the technological determinism behind Pariser's theory, arguing that it does not seem to consider the impact of offline interactions on online behaviors. This critique, regarding technological determinism, was also mentioned by Bruns (2019) pointing out that individuals not only have human agency to search, connect and make engagement choices, but also consume information from their offline lives and multiple different platforms. Furthermore, these metaphors hide the true issue that is growing social and political polarization, that is not caused just (or mainly) by technology (Bruns, 2021).

Political homophily on social media also has parallels with cultivation theory, mainly the "mainstreaming" process, proposed by George Gerbner (Gerbner et al., 1980), which suggests that the long exposure to the same type of contents (in this case, the same opinions), would lead to similar points of view, reinforcing them. This phenomenon is also related to the idea of "spiral of silence" by Elisabeth Noelle-Neumann – in which people would tend to not voice opinions contrary to the majority of the group – as users that are shown posts that they don't agree with and see a majority supporting, would not raise their opinions. However, there is also a contrary point of view by Möller (2021) with the idea of "spiral of noise" – a phenomenon in which social media users with more radical viewpoints encounter like-minded peers and feel more confident to voice their novel and extremist opinions, even outside of their bubbles, affecting the broader climate of opinion. This idea is supported by Klinder and colleagues (2023) that say that, perhaps counter-intuitively, social media provides the opportunity for citizens to find (even if by accident) diverse opinions.

Regarding empirical studies, a study that synthesized different empirical studies on the filter bubble effect have concluded that there is little empirical evidence (Borgesius et al., 2016). However, some recent studies have supported this idea of political homophily and echo chambers on Twitter, leading to the degradation of the Public Sphere (Furman & Tunç, 2020; Guo et al., 2020).

Even early studies that analyzed social networks provided some insights. Vergeer and colleagues (2011) studied the use of Twitter by the candidate to the 2009 European Parliament and concluded that there were few shared members in the different candidates' networks. A more recent study on political homophily in Cataluña (Valle & Bravo, 2018) provided mixed results, depending on the type of interaction being analyzed, a conclusion that was also reinforced by Bruns (2019).

> "First, the affordances of Twitter networks are conducive to different types of communication— that is, the following-follower network is a relational network, the retweet network is a support network, and the mention network is a dialogical network." (Valle & Bravo, 2018, p. 1729)

Other authors pointed out different factors that could impact the way homophily was perceived when analyzing Twitter interactions. Colleoni and colleagues (2014) distinguished Twitter as a social medium and Twitter as a news medium (that has less homophily), Grossetti and colleagues (2019) performed a mathematical analysis that identified the number of interactions as a relevant variable for the probability a Twitter user would be affected or not by filter bubble effect – the higher the number of interactions, the lower the probability.

More recently the association of political communication on Twitter to disinformation and polarization has also been studied. For instance, if ideology can be a determinant factor on the level of political polarization (Bail, 2021; Kubin & von Sikorski, 2021). However, these two phenomena are much broader and are research areas of their own, using the political communication on Twitter as a research method and not necessarily as a research topic.

Pertinence and current debate

Bruns' (2023) most recent work points out compelling arguments against Habermas' Public Sphere, mainly criticizing the idea of a single Public Sphere ("the" Public Sphere) and its lack of empirical analysis, particularly in the Internet Studies arena. It presents a new toolkit based on empirical studies that set the building blocks of the contemporary spaces for political communication, namely personal publics, issue publics, interest publics and communities of interest and public spherules and Public Spheres. The author concludes that, despite the empirical evidence of clustering tendencies, there is interconnection of "personal publics" when different forms of connection and interactions afforded by the platforms are considered. Therefore, we can say that, although this field of study has been active for over a decade, it still has new contributions that are relevant to the field. This thesis provides three aspects that, together, aim to provide novelty and pertinence to the current debate: the country, the period and the methodologies.

Regarding the country, as already mentioned, the filter bubble and echo chamber phenomenon have never been studied empirically in Portugal, and the use of Twitter for political communication has been mostly focused on political parties' use during elections. Furthermore, the country and, in specific, its political landscape affect the media (and social media) landscape and uses, as described in the politics-media-politics model by Wolfsfeld and colleagues (Wolfsfeld, 2013; Wolfsfeld et al., 2022). As also pointed out by Klinger and colleagues, these "(…) different political systems, democratic institutions and cultures, social structures (such as inequality), and social groups (…)" (Klinger et al., 2023, p. 23) are one of the reasons why empirical studies on the effects of platforms change from country to country. Many studies on the use of Twitter by MPs have been done in countries with high level of Twitter adoption (in which MPs having Twitter is almost a guarantee) and/or single-seat constituencies, in which there are higher motivation for direct interaction with the electorate by the MPs – like in the United States or United Kingdom.

However, Portugal has a Western Europe's representative democracy model that is strongly party-based, which means that MPs are elected in a closed list and legislative recruitment in mostly done based on party organization, which presents low motivation for the MPs to interact with the electorate directly (Teixeira et al., 2012) and more with their peers. Portugal also has multiple parties with different parliamentary sizes, which is different from countries with two-party systems where the filter bubble and echo chamber effects have been studied. In those two-party systems, these phenomenon may also be a consequence of a high political polarization (Urman, 2020), rather than a more direct consequence of personalization on social media platforms and audience fragmentation (Sunstein, 2006).

Furthermore, as already mentioned, Portugal has one of the smallest percentages of Twitter adoption by the general population and the MPs in Europe and the lowest in Western Europe (Haman & Skolník, 2021). In this sense, Twitter adoption in Portugal seems less like a must-have by MPs, but a conscious choice. Finally, Portugal has a singular media ecosystem that is mostly without relevant political bias in traditional media (Santana-Pereira, 2015), and, therefore, less polarized, allowing the study of political clusters without such strong interference of mediatic ones. This differential political and media landscape adds value to the study of the use of Twitter by the MPs in Portugal, particularly their interactions on the platform.

One of the goals of this research is to study the use of Twitter by the MPs outside of the election period, which also offers a different perspective from its use during elections either by political actors or political parties. As already mentioned, the concept of Continuous Democracy (Rodotà et al., 2007) reinforces that idea that the new models of communication online would allow a more continuous dialogue and civic engagement - not just during election periods.

As is further explored in the next chapter dedicated to the research guideline and methodology, some of the added value of this research lays in its methodological choices. This added value is particularly clear in two choices: the inclusion of different interaction formats in the social network analysis of the MPs and the application of a questionnaire directly to a representative sample of MPs.

Most empirical work regarding the MPs interactions on Twitter is based on follow/followee (Guo et al., 2020; Vergeer et al., 2011), retweets and mentions (Valle & Bravo, 2018) and retweets and reply (Keller, 2020). However, almost none has all public forms of interactions: retweet, quote-retweet, replies and mentions. One of the possible reasons is that for some of these formats, it requires manual analysis (e.g. quote-tweet is a tweet with a link to another tweet, being necessary to manually analyze all the links in the tweets contents). Bruns (2019, 2021) had already pointed out that some differences in empirical studies on the existence of filter bubble may be a result of the different interaction types studied in each studies.

Finally, there are three main communication functions – monitoring, interaction and disseminating - that can be translated to Twitter uses (Frame & Brachotte, 2015) as seen in Figure 1. However, most studies have focused on the uses that don't necessarily require direct enquiry to the users, like writing (disseminating and interacting). Two previous studies in Europe have questioned MPs directly on the use of Twitter, one in France by Frame and Brachotte (2015) and other in Germany (Bauer et al., 2023). The French study interviewed five MPs directly on what they think would be good strategies on Twitter and their practices to use it as a PR tool. In Germany it was applied a questionnaire to a non-representative sample of MPs, mostly focused on the political limitation they felt when using their account. These two studies provide some clues on the MPs perspective as Twitter users, but there are still questions to be answered, like their key motivations to join and use the platform, as well as their main target audience. Therefore, this thesis is pertinent also in its methodology, as it may provide new insights by applying a questionnaire directly to a significant sample of MPs on their Twitter uses.

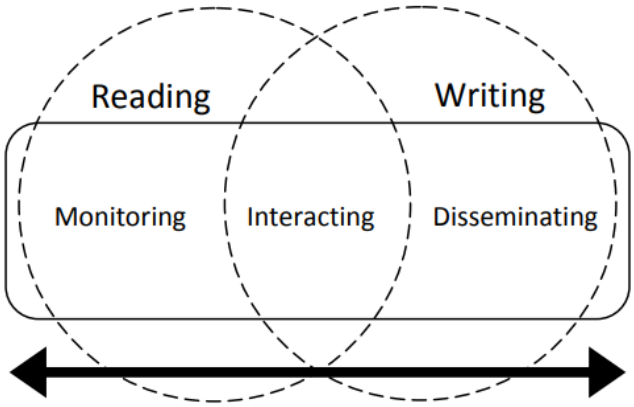


Figure 2 - Correspondence between activity on Twitter and 3 main communication functions | Source: Frame & Brachotte (2015)

Methology

Research Design

Research Objectives

Taking into consideration the previous research on the use of Twitter by political actors, our first goal is to deepen that research by providing a new case study: in a new country (with a differential political and media landscape), outside of campaign periods and broadening the scope of research to the three main communication functions (monitoring, interacting and disseminating). This research also aims to contribute to the current debate with a second goal: to analyze if political actors are using Twitter to broaden their participation in public debate, or if their democratic uses are restricted (either algorithmically or not) by filter bubbles or other forms of homophily.

Research Plan

Although the original unidirectional and linear model of communication by Lasswell (1948) that analyses communication in five basic questions (Who?; Says what?; In What Channel?; To Whom? With What Effect?) has been contested with new more complex proposals, it can provide a baseline and inspiration for a methodological approach. Therefore, to achieve the research objectives defined, it was designed a research plan based on three main points:

- WHAT: What do MPs do on Twitter?
- WHO: Who adopted and uses Twitter? Who among the MPs interacts most? With whom do MPs interact on Twitter?
- WHY: What are their motivations to join and use Twitter?

As seen in table 1, each main question is addressed in a different article, and they are subdivided into different research questions, based on previous research that creates an empirical baseline but also with some innovation to add pertinence to the current research.

Table 3 - Research plan | Source: Own elaboration

Article	Research Question	Empirical baseline	Innovation/Pertinance
1 – WHAT?	What do MPs do on Twitter?	(Baxter et al., 2016, 2016; Enjolras, 2014; Golbeck et al., 2010; Graham et al., 2013; Hemphill et al., 2013; Jungherr, 2016; Larsson & Moe, 2011; López-Meri et al., 2017; Mendiburo-Seguel et al., 2022; Silva & Proksch, 2022; Small, 2010; Vergeer et al., 2011)	To study a new case in a country with low Twitter adoption rate and different political system. To allow comparability with previous studies and contrasting results from older and newer analysis.
	What does the popularity and influence of MPs on Twitter depend on?	(Bravo & Del Valle, 2017; Hemphill et al., 2013; Rauchfleisch & Metag, 2020)	
2 – WHO ?	Are there sociodemographic and/or political characteristics that make the adoption and use of Twitter by MPs more likely?	(Jacobs & Spierings, 2019; Larsson, 2015; Larsson & Kalsnes, 2014; Quinlan et al., 2018; Scherpereel et al., 2017)	
	Do MPs use Twitter for interaction or just broadcasting?	(Graham et al., 2013; Larsson & Moe, 2011; Vergeer et al., 2011)	
	With whom do MPs interact on Twitter?	(Enjolras, 2014; Keller, 2020; Ruoho & Kuusiplao, 2019)	To include not only left/right political homophily analysis, but also homophily analysis for different “types” of actors with whom MPs interact (e.g. media, influences, companies, etc.).
	Is there political homophily on different Twitter interaction types?	(Bruns, 2019, 2021; Guo et al., 2020; Keller, 2020; Praet et al., 2021; Talamanca & Arfni, 2022; Valle & Bravo, 2018)	To present a comparison of four different interaction types,

			including some that need manual coding.
3 – WHY ?	Why do MPs adopt or decide not to adopt Twitter?	N/A	To have a deeper understanding of the key motivations for MPs to join Twitter and their own view of their uses (and comparing with other social media platforms), as well as who they see as target audience.
	How do MPs see their own use of Twitter?	(Bauer et al., 2023; Frame & Brachotte, 2015)	
	Who is the main target audience of MPs on Twitter?	(Gilardi et al., 2022; Heravi & Harrower, 2016; Parmelee, 2013; Su & Borah, 2019; Su & Xiao, 2024)	
	How do MPs compare their motivation to join and use Twitter with other social media platforms?	(Cardoso, 2006; Cardoso et al., 2023)	

As can be seen by the dates of empirical research that supports each research question, as baseline questions are answered (that already have been answered in different context but not for Portugal), the research progresses to more current discussions and introduces new perspectives, both theoretical and methodological.

Methodological guide

To be able to answer the research questions it was necessary to apply a multimethod approach. By combining different methods it is possible to combine different types of data and approaches, which may not only answer the research questions but also point out to new investigation lines (Bryman, 2012; Pearce, 2012; Woolley, 2009). For instance, as pointed out by Terren & Borge (2021) that analyzed 55 empiric studies on the existence of echo chambers, the methodology may change the results. Therefore, the authors recommend a combination of self-reported data and digital trace data, as was done in this project.

Table 4 - Research methods | Source: Own elaboration

Method	Research questions	Article
Secondary data collection and analysis, social media data collection and analysis & quantitative analysis (General Linear Model)	Are there sociodemographic and/or political characteristics that make the adoption and use of Twitter by MPs more likely?	1
	What does the popularity and influence of MPs on Twitter depend on?	

Social media data collection and analysis using a combination of deductive and inductive approach (Corbin & Strauss, 2015) and quantitative analysis	What do MPs do on Twitter?	
	With whom do MPs interact on Twitter?	2
Social media data collection and analysis	Do MPs use Twitter for interaction or just broadcasting?	
Social Network Analysis (SNA) and quantitative analysis	Is there political homophily on different Twitter interaction types?	
Questionnaire with a quota sample (N=94)	Why do MPs adopt or decide not to adopt Twitter?	3
	How do MPs see their own use of Twitter?	
	Who is the main target audience of MPs on Twitter?	
	How do MPs compare their motivation to join and use Twitter with other social media platforms?	

The first article sets the baseline for the other two, characterizing the use of Twitter by the Portuguese MPs – its adoption, usage, level of use, the contents, and what makes the MPs Twitter more popular and/or influent. Therefore, the methods used or based on secondary data collection and analysis (e.g. MPs name, gender, age, electoral district, participation on traditional media, etc.), social media data collection and analysis based on a Codebook – that will be further explained in this chapter and can be found in Appendix B (e.g. collection of MPs' tweets and metadata during a period, its codification and analysis) and quantitative analysis (e.g. general linear model to explain the impact of different variables on popularity and influence).

The second article was focused on the MPs' interactions on Twitter – if they interacted, with whom and if there was homophily on those interactions. Therefore, the methods used were the characterization of the nodes in the network and Social Network Analysis (SNA) for different types of interaction. To do so, we used the open-source software Gephi (Bastian et al., 2009) that allows the analysis and visualization of social networks.

For the first and second article it was necessary to identify a method and define a timeframe for the Twitter data collection. The first step was to identify which MPs had a Twitter account. To do so, we created a list of all 230 Portuguese MPs on the official website of the Portuguese Parliament on 2nd April 2022. We were able to identify Twitter accounts for 129 MPs, of which 128 had public access. At the time of data collection – between April and July 2022 – Twitter had available a free platform to retrieve data using their Application Programming Interface (API) for free just for academic research. This platform is no longer available.

The choice of the timeframe from which to retrieve data was based on previous studied on the use of Twitter by MPs in European Countries (Baxter et al., 2016; Haman & Skolník, 2021) that used a four-weeks period in their analysis. However, some precautions were taken to avoid electoral periods (as the goal of the research was not to analyze the campaign behavior) and to avoid bias that could result from the Parliamentary work cycles (e.g. budget discussions). To do so, the four-week period was divided into four periods of one week each - 2nd to 9th April, 2nd to 9th May, 2nd to 9th June and 2nd to 9th July – making sure different periods of the Parliament work cycle would be portrayed in the data. The data collection for this timeframe resulted in 2,192 tweets from 69 different MPs from the 8 political parties represented in the Portuguese Parliament.

The third article adds another perspective on the first two – what do MPs do on Twitter and with whom they interact – by asking these questions directly to the MPs, as well as including passive uses (e.g. monitoring) and comparing the motivations to join and use with other social media platforms. To have the MPs' point of view, the method used was applying a questionnaire to a quota sample based on the size of the different political parties represented in the Parliament. The way the questionnaire was developed will be further explained in this chapter and in the appendix of Article 3, and the questionnaire can be fully read in Appendix C. The population was 230 MPs, and we aimed to achieve a sample of 92 MPs to have a confidence level of 95% and an error margin of 8%. A final sample of 94 MPs was obtained. The administration mode was a self-completion questionnaire. This was first sent to the chiefs of staff of each parliamentary group, but as some didn't reply, it was also hand-delivered directly to MPs by the researcher. However, no questionnaire completion was supervised, as even the hand-delivered could be given back to the researcher either by being sent by email, delivered by the MP to the chief of staff or given back directly.

The questionnaire was structured in five parts: 1) sociodemographic and political characterization; 2) Use of Internet; 3) Media diet; 4) Social media platforms use; 5) Twitter adoption and usage. Nevertheless, not all parts and questions were used for the current research.

The full explanation of each methodology can be found in each article, including its limitations.

Regarding methodological choices and advancements, some methods had previous studies as baseline so that they have been proven, but also to build on their knowledge and reliability. However, there have also been improvements combining previous methods with feedback from more recent studies or even development in some of the research methods used.

The initial segments of the questionnaire applied to the MPs in the third article have tried and tested questions from previous studies used as baseline: "Sociedade em Rede 2013" (Cardoso et al., 2015) and "Digital News Report 2022" (Cardoso et al., 2022) – e.g. sociodemographic questions, use of internet and use of social media. Similarly, the analysis of tweets' content and the definition of

the coding categories in the first article were also influenced by previous studies: the definition of the categories used a combined deductive and inductive approach (Corbin & Strauss, 2015) and the top-down approach - that formed the main categories - was based on previous studies (Enjolras, 2014; Golbeck et al., 2010; Hemphill et al., 2013) to allow for comparative analysis.

Three methodological improvements based on feedback from more recent studies were: 1) the subcategories of coding scheme for the tweet content analysis; 2) the coding of the accounts with whom the MPs interact; 3) and the MPs interactions' data collection and analysis.

Regarding the scheme for the content analysis and the accounts coding, the inductive bottom-up approach was used to defined the subcategories, based on a thematic analysis to identify, analyze and report themes within data (Braun & Clarke, 2006). This inductive approached allowed us to introduce new subcategories in the content analysis that are related to more recent research, like the use of humor, based on the study of Mendiburo-Seguel and colleagues (2022), but also completely new ones based on thematic patterns discovered. However, some of the new subcategoried defined required the use of manual coding, firstly to better capture the use of sarcasm and humor (Baxter et al., 2016), but also to be able to analyze the use of links – for instance, media links and what was the purpose of their use by the MPs. The accounts coding (the categorization of the accounts with whom the MPs interacted with) was also a mix of deductive and inductive coding, identifying categories like "political influencers", separating "journalists" and "media", and "politicians" and "other political agents", which has not been done in previous studies.

Regarding the interactions' data collection, previous studies on the use of Twitter by MPs, including its interactions, used hashtags to identify tweets related with the election (Larsson & Moe, 2011). However, the low interaction rate that was concluded in that study can also be a result of the method selected as other studies have concluded that hashtags are not usually added in the interactions (Maireder et al., 2012). This study used a user-centric approach to data collection, and not a thematic approach based on keywords and hashtags. Moreover, another reason to manually code the tweets and analyze the use of links (besides the new coding subcategories) was to be able to include the interaction format of Quote-Retweet, that is seen as a link to another tweet in the data output. This is another improvement in the interactions' data analysis compared to previous studies.

Finally, as mentioned, the questionnaire applied had some sections that used other research questionnaires as a basis, but the final section, regarding the MPs use of Twitter (or the reason why they didn't use it) was designed by the researcher based on the literature review, the research questions and the results from the other methods applied. The design of each questionnaire topic (of those used in this research) can be seen in the appendix of article 3.

Research challenges

Every research has its own specific challenges, and this one was no exception. One of the first challenges was the identification of the Twitter accounts by the MPs. This was a specially hard issue because of two factors: 1) traditionally, Portuguese names are long and many people don't use their first and last name publicly, but a different combination of two or more names; 2) some of the Portuguese MPs had inactive Twitter accounts, with very few followers, almost no information on their bio or even no publications, which made it difficult to confirm the validity of the account. This challenge was overcome by combining different techniques to confirm if the MP had a Twitter account and which was its handler: 1) combine different names of the MP – not just the first and last one, but first and last two as well, for instance; 2) check if the account was verified – at the time of data collection it was not yet possible to pay for account verification; 3) check the photo, comparing it with the official one in the parliament website; 4) read the bio of the account to verify if it mentioned the MP occupation or party filiation; 5) check the followers and who followed the account – for instance if other MPs were following or being followed by the account; 6) analyse the posts of the account – for instance if it was sharing political information and/or interacting with other political actors.

A second challenge of this research was the data collection, mostly because of the change of ownership of Twitter and the end of free access to the API by academics. This risk was flagged in time and mitigated, by collecting all the data necessary for the investigation before the platform was made unavailable.

Another challenge was on the content analysis of the tweets, specifically the coding of the subcategories that were defined for this project. Many of the MP's tweets had links that required analysis, nuanced text that required understanding of the context and even the analysis of the use of emojis, gifs and other images. To overcome this challenge, besides developing a codebook – Appendix B, a training session was performed with a different researcher who coded 10% of the tweet sample to do an Intercoder Reliability Test. The results of the Cohen's Kappa (Cohen, 1960) led to the exclusion of two coding variables from the analysis – mostly because they were not expressive enough in the sample.

The coding of the accounts with whom the MPs interacted was also a challenge. Mostly not regarding the account type (e.g. politician, other political actor, media account, journalist, etc.), but regarding the political inclination. We decided to take a conservative approach and, in cases in which the researcher was not sure about the political spectrum of the account (based on the bio, tweet contents, google research, etc.) it was not characterized as either left- or right-wing. However, it is also important to point out that the fact there was mostly low interaction levels by the Portuguese MPs, and that the Twitter adoption in Portugal is relatively low, helped this endeavour – most accounts that

Portuguese MPs interacted with were from public personalities (other politicians, journalists, etc.), media and other companies or political influencers that are well known in the social media network.

Finally, the most challenging component of the research was the survey fulfilment. The MPs are key political actors in Portugal, with a very busy agenda and lots of demands on their attention. This makes them very difficult to reach out to (and get an answer). To get the number of answers that had been defined (and the quota sample), it was necessary to resort to different strategies: 1) request authorization of the President of the Parliament to send the questionnaire to the Chiefs of Staff from each Parliamentary group; 2) be in constant contact with the Chiefs of Staff – by email and personally whenever possible – to be updated about the number of replies already in their possession; 3) in the case of Parliamentary Groups in which the Chiefs of Staff didn't answer or were not being able to get replies to the questionnaire, go directly to Parliament and try to deliver the questionnaire directly to MPs.

These strategies took several months and a high level of effort to have a successful result, specifically because the MPs had to sign the informed consent in the questionnaire, which many forgot to do – making those questionnaires unusable. Before this challenge, it was part of the research design to also do interviews with some of the MPs to add a qualitative method and have a deeper understanding of their motivations and uses of Twitter. However, it became apparent that very few MPs would have the necessary availability (or willingness) to further assist in the same research in a short time frame.

Ethical considerations

Internet research, including the one associated with social media platforms, has very specific ethical concerns, namely the data classification (Markham & Buchanan, 2012). Pace and Livingstone (2005) refer that online communication can be used in research if: 1) the information is publicly available and of ready access; 2) is not necessary to have a password to have access to the information; 3) the thematic is not sensitive in nature; 4) the website in which the information is does not forbid its use. By excluding the MP with a protected account, all the other four requisites were met at the time of data collection.

Furthermore, there are also other similar published studies that also collected tweet content and metadata for analysis without any previous authorization, assuming the data as public, including: 1) studies that used the text of tweets as examples, naming its author (Golbeck et al., 2010); 2) studies that show interaction networks and the main nodes indicating the name of the Twitter account (Maireder et al., 2012; Ruoho & Kuusiplao, 2019); 3) studies that identify – by Twitter handle – the accounts with which the political actors most interact, and characterize them (Enjolras, 2014).

We can conclude that the analysis done does not bring any ethical concerns by not having been requested previous authorization to collect and analyze the tweets by political actors, nor to identify and characterize their main social network on Twitter.

However, even if the data classification doesn't present an ethical concern, the way the data is collected also must mitigate any ethical risk. Namely to meet the requirements of the first and fourth rule of Pace and Livingstone (2005) regarding the use of internet content, the best practice is to use an Application Programming Interface (API) provided by the website owner, in this case Twitter. Not only did this investigation use Twitter's API, but it also even had the "Academic Research Access Application" approved for this specific project to use the developer portal – and the interface of Twitter Downloader, that no longer exists - for free up to a certain capacity.

Regarding the questionnaire, there was one main ethical concern that had to be mitigated: the fact that there were parliamentary groups very small or even of a single MP that would make impossible to guarantee the complete anonymity of the questionnaire respondents during the process of its analysis. This concern was mitigated by informing the MPs of this possibility (the analysis of the questionnaire not being anonymous) in the informed consent that all had to sign for the questionnaire to be used in the investigation – Appendix C. Furthermore, the presentation of the questionnaire results was not done by political parties, to make sure there would not be issues of anonymity with single seat or small Parliamentary Groups.

Finally, the current research abide to the four main ethical concerns of Diener & Crandall (1978) and the research plan was presented and approved by the ISCTE-IUL Ethics Committee, as it respected the general principles of the ISCTE-IUL Ethics Code (ISCTE, n.d.).

CHAPTER 2

Published Paper 1

What do Portuguese MPs use Twitter for? A study case of political communication in a country with a small Twitter Adoption rate.

Portugal has the smallest Twitter adoption rate in Western Europe and a political system that doesn't incentivize direct contact with the electorate. So, what are Portuguese Members of Parliament (MPs) using Twitter for? We collected and manually coded 2.192 tweets by MPs. Our analysis reveals that MPs mostly use Twitter as a business tool to cater to a niche "Twitter Elite". Twitter is significantly more adopted by male MPs, from small and non-conservative parties and from the largest electoral districts. While following on Twitter is impacted by public recognition, influence is only impacted by activity on the platform.

Keywords: Political communication, Twitter, Members of Parliament, social media, Portugal

Para que é que os deputados portugueses utilizam o Twitter? Um caso de estudo de comunicação política num país com uma taxa de adoção do Twitter pequena.

Portugal tem a taxa de adoção do Twitter mais baixa da Europa Ocidental e um sistema político que não incentiva o contacto direto com o eleitorado. Portanto, para que usam os deputados portugueses o Twitter? Recolhemos e codificamos manualmente 2,192 tweets de deputados. A análise revela que os deputados usam principalmente o Twitter como ferramenta de trabalho focados na niche "Elite do Twitter". Twitter é significativamente mais adotado por deputados do sexo masculino, de partidos pequenos e não conservadores e dos maiores distritos eleitorais. Embora seguir no Twitter seja impactado pelo reconhecimento público, a influência só é impactada pela atividade na plataforma

Keywords: Comunicação Política, Twitter, Deputados, social media, Portugal

¿Para qué utilizan Twitter los diputados portugueses? Un estudio de caso de comunicación política en un país con una baja tasa de adopción de Twitter.

Portugal tiene la tasa de adopción de Twitter más baja de Europa occidental y un sistema político que no fomenta el contacto directo con el electorado. Entonces, ¿para qué utilizan Twitter los parlamentarios portugueses? Recopilamos y codificamos manualmente 2192 tweets de parlamentarios. El análisis revela que utilizan Twitter principalmente como herramienta de trabajo enfocada a la niche "élite Twittera". Twitter es significativamente más adoptado por parlamentarios varones, de partidos pequeños y no-conservadores y de los distritos electorales más grandes. Aunque

el seguimiento en Twitter se ve afectado por el reconocimiento público, la influencia sólo se ve afectada por la actividad.

Keywords: comunicación política, Twitter, parlamentarios, redes sociales, Portugal

1-Introduction

Early studies of political campaigns online showed how the promise of "direct representation" (Coleman, 2005) or "continuous democracy" (Rodotà et al., 2007) went unfulfilled. Low budgets were allocated to online campaigning, leading to unidirectional online communication that was a replication of offline strategy (Coleman, 2001). Nevertheless, the Web 2.0 era was characterized by increasing participation and more collaboration (Kaplan & Haenlein, 2010). Although user generated content already existed, social media platforms allowed it to develop and for "self-mass communication" to solidify (Castells, 2007). One of the platforms developed in the Web 2.0 era is Twitter.

Most of the early studies on Twitter focused on its use during election campaigns, as reviewed by Jungherr (2016). This research focused on countries with high Twitter adoption and/or single-seat constituencies, such as in the United States or the United Kingdom, in which political actors have a clear motivation for adoption and constituent interaction. That is not the case in Portugal, which presents a novel perspective.

Enjolras (2014) studies Twitter use in Norway, which shares with Portugal an electoral system based on direct closed list-elections, where, "with the exception of the most profiled politicians, the electorate therefore votes mainly for a party and secondarily for a personality." (Enjolras, 2014, p. 11). This affects how politicians perceive their need to engage with voters and, consequently, how they use social media platforms. These party-focused democracies create different incentives for political socialization and communication compared to single-seat constituencies, such as in the United States or the United Kingdom. The way MPs can ensure re-election is by consolidating their position in the party, as party career is considered an important factor for legislative recruitment (Teixeira et al., 2012). Therefore, there is low motivation for the MPs to interact with their constituents as legislative recruitment in mostly done through party organization.

Portugal has one of the smallest percentages of Twitter adoption by the general population and by Members of Parliament (MPs) in Europe and the lowest in Western Europe (Haman & Skolník, 2021). Nevertheless, its user levels have been growing in younger generations (Cardoso et al., 2023). Taking into consideration the low levels of Twitter adoption in Portugal, one could argue that being on Twitter in Portugal is a deliberate choice and not an expectation.

The goal of this research is to better understand what are the main factors that explain political actors' Twitter adoption in Portugal's particular context of low adoption rate and low political incentives for individual electoral engagement.

2-Related Literature and research questions

Most recent comparative studies on the use of Twitter in different countries by politicians have not included Portugal in the analysis, like van Vliet and colleagues (2020), Praet and colleagues (2021) and Silva & Proksch (2022). However, the study by Haman & Skolnik (2021) did, mentioning the adoption of Twitter by the Portuguese population and politicians as an exceptional case: Portugal is the country in Western Europe that has the smallest percentage of population (14%) and of MPs (41%) using Twitter (Haman & Skolnik, 2021). The Portuguese Digital News Report 2023 (Cardoso et al., 2023) estimates only 14,6% of Portuguese use Twitter, but with growing use amongst younger generations (18-24 years old). The "Portuguese Twittersphere" has been described by having most of its users related to the political and media spheres (Barriga A. , 2017), aligned with the idea of a "Twitter Elite" (Ruoho & Kuusiplao, 2019).

Studies that focused on the use of Twitter by the Members of the European Parliament (Larsson, 2015, Scherpereel, el al, 2017), concluded that Portugal has one of the lowest medians regarding MEP Twitter Activity when compared to other countries, but one of the largest error margins. This suggests there are Portuguese MEPs with a very high activity and others that don't use Twitter at all, but no explanation was offered.

2.1 -Twitter Adoption and Level of Activity Factors

Most studies about Twitter in the Portuguese context are focused on the use of Twitter in political campaigns (Moreira, 2011), especially by newer parties in Portugal (Penha, 2023). These offer no analysis on the overall factors that may influence the MPs Twitter adoption and activity.

Early studies of Twitter use in campaign periods in Portugal show that Twitter was mainly a "communication strategy" for politicians to broadcast content and for journalists who were alerted to use it as source for their pieces (Moreira, 2011). However, more recent studies highlight that new Portuguese political parties have different strategies for their Twitter use. Penha (2023) concluded that Iniciativa Liberal (IL) use Twitter more than all other platforms. Since 2019, IL is considered "the Twitter Party" (Pinto, 2019) due to its high level of activity in the platform, including by party leaders. However, Chega (CH), a far-right populist party, used Twitter the least compared with other social media platforms. This corroborates Jacobs & Spierings's findings (2019) that "(…) politicians of populist parties are actually slower to adopt Twitter." (p. 1682). While this literature can offer some clues on Twitter use for political communication in Portugal, all of them study campaign periods and focus on political party usage and not individual politicians use.

There has not been, furthermore, any studies on which variables affect politicians' Twitter adoption in the specific context of Portugal - a country where the overall Twitter adoption rate is low,

and the close-list political system doesn't incentivize politicians to look for direct interaction tools with the electorate.

Based on research made at the European level (Larsson, 2015, Scherpereel, el al, 2017) and at country level (Larsson & Kalsnes, 2014, Quinlan et al., 2018) , we could say that sociodemographic characteristics (e.g. age and gender), political party characteristics (e.g. vote percentage, position on the political spectrum) and district characteristics (e.g., average age, average income, etc.) can be considered factors that influence the adoption and level of activity of MPs on Twitter.

However, regarding the characteristics of the political party in which politicians are more likely to adopt Twitter there is still not a consensus. Some authors like Scherpereel and colleagues (2017) conclude that being from a Left Party was a significant variable for both adoption and activity. Larsson & Kalsnes (2014) concluded that ideology influenced neither Twitter adoption nor use. Instead, falsifying their original hypothesis that MPs from larger and well-established parties were more likely to adopt Twitter, "vote percentage" and the size of the political party influenced the level of Twitter adoption but not its use. Quinlan and colleagues (2018) also find that smaller and less conservative parties like "Pirate Parties" are more likely to adopt Twitter as they already use it to promote the party and communicate with other party members, as well as their views on Internet Freedom.

Furthermore, while most studies focus on Twitter adoption (having an account) and/or use (use at least once in the analysis period), we believe level of activity (how many tweets the MP publishes in the period) should be analysed.

Considering the previous literature review, in particular the lack of consensus on the type of political party characteristic that may influence MPs' Twitter adoption and activity, we will analyze the following sets of hypotheses:

H1: Male and young MPs are more likely to: H1a) have a Twitter account; H1b) use their Twitter account; H1c) use more the Twitter account.

H2: MPs from larger electoral districts are more likely to: H2a) have a Twitter account; H2b) use their Twitter account; H3c) use more the Twitter account.

H3: MPs from left-wing political parties are more likely to: H3a) have a Twitter account; H3b) use their Twitter account; H3c) use more the Twitter account.

H4: MPs from smaller and less conservative political parties are more likely to: H4a) have a Twitter account; H4b) use their Twitter account; H4c) use more the Twitter account.

Activity and type of content on Twitter

Besides identifying key factors that can help explain the adoption, use and levels of activity of the MPs on Twitter, it is also relevant to understand what they do on the platform. Several studies have studied

what politicians do on Twitter, especially during elections period (Jungherr, 2016) and in countries with high levels of adoption.

Early studies focusing on the use of Twitter by politicians all mention the use of Twitter for "broadcasting". This is the case both for the U.S. (Golbeck, et al., 2010; Hemphill, et al., 2013) and Europe, as well as during election period (Graham et al., 2013; Larsson and Moe, 2011; Vergeer et al. 2011), and outside the election period (Enjolras, 2014; Baxter, et al., 2016). As defined by Small (2010) "broadcasting occurs when information follows in one direction from a single sender to the audience." (Small, 2010, p. 45), reflecting how Twitter use is not for interaction.

More recent studies also mention the "amplifier" effect as "parties and politicians go online to amplify the reach of the same message they already push in other arenas." (Castanho Silva & Proksch, 2022, p. 778).

A study by Enjolras (2014) concluded that on average only 7% of the tweets had any form of interaction. Furthermore, in studies with a higher percentage - such as Ozcetin (2013) that showed 34% of tweets were a form of interaction - the "quality" of the conversation was questioned as many of the interactions between politicians and their followers were greetings, like "good morning" or "thank you".

Another common research topic on the type of content politicians publish on Twitter is the use of the platform in relation to traditional media. For instance, how politicians can use Twitter to contextualize their participation or opinion on traditional media news to promote online discussion (Barriga A. C., 2015), and share their future presence in traditional media by announcing the program and time they will be on (López-Meri, et al., 2017). This relationship has also been studied at a party-level, showing how parties take advantage of Twitter to amplify the impact of their interventions in mass media, like debates on television (Marcos-García, Alonso-Muñoz, & López-Meri, 2021).

Finally, another common research topic on Twitter use by politicians is how they use it to create a connection with the electorate, either by sharing personal tweets or by using humor.

Baxter and colleagues (2016) mention that politicians were just as likely, if not more, to tweet about non-political events and their personal lives. Other studies (Graham et. al, 2018; Small, 2010) have shown how politicians use these tweets to reduce the disconnection and create a more intimate relation with the electorate.

Regarding the use of humor, it is not very commonly used, but when it is besides building a connection with the other users, it also showcases intelligence and makes the message easier to remember (Mendiburo-Seguel, et al., 2022). As exemplified by López-Meri and colleagues (2017), humor can be a successful tool, as the humorous tweet by Pablo Iglesias in the Spanish electoral campaign of 2016 was the most retweeted of the election.

It is relevant to analyze if the low adoption rate of Twitter by the Portuguese population and MPs changes the trends pointed out in previous studies. To investigate this, our first research question is:

RQ1: What type of content is published on Twitter by the Portuguese MPs?

2.2- Popularity and Influence on Twitter

Finally, what influences adoption, use and activity level on Twitter becomes all the more relevant if the regular use of the platform – and how it is used – can affect the level of popularity and influence of the MP on it.

In his work, Barriga (2015) discusses theoretically if the political discussion on Twitter reinforces the presence of the actors that already have a strong presence in traditional media, or if it introduces changes in that "space" of public opinion. One of the factors taken into consideration is the strong presence of politicians in the "political commentary" space in the traditional media. As mentioned by the 2022 report on the Portuguese TV Commentary (Cardoso, et al., 2022) politicians and aspiring politicians are commonly invited to become "resident" or invited TV commentators. Therefore, established political actors on traditional media could transpose their influence to social media platforms.

This idea is reinforced by a Portuguese study (Amaral, 2020) that concluded that Twitter reinforces the already established power structures, and does not challenge them, as the more active users are the ones that have more financial capacity to campaign both on and offline. In that sense, Twitter could be seen as a new outlet of the elite that is already established in mainstream media and political life in general (Larsson & Moe, 2011), especially in the following-follower and mentions network (Rauchfleisch & Metag, 2020; Bravo & Del Valle, 2017).

However, media attention and leadership positions inside the political party may not have any substantial effect on the number of retweets and replies. Therefore, while media attention gives some politicians an advantage online, other politicians that use the platform very actively can also grow in popularity and influence (Rauchfleisch & Metag, 2020; Bravo & Del Valle, 2017).

Taking into consideration the Portuguese context, we want to analyse if the conclusions of previous studies, both theoretical and empirical, will hold true.

H5 – MPs with higher political position and presence in traditional media are more popular on Twitter but don't have more influence.

H6 – MPs with more activity on Twitter are popular and have more influence.

3. Methodology

3.1 - Data collection

At the time of data collection - between April and July 2022 -, MPs had been newly elected after the general election in January 2022. After the election, 8 political parties were represented in Parliament – 4 left-wing parties: Partido Comunista Português (PCP), Bloco de Esquerda (BE), Livre (L) and Partido Socialista (PS); 1 party that identifies outside of the left-right spectrum: Partido dos Animais e da Natureza (PAN); and 3 right-wing parties: Partido Social Democrata (PSD), Iniciativa Liberal (IL) and Chega (CH), a far-right party.

After the general elections in January 2022, at the time of data collection, PS had a majority of seats and formed government. The political parties had the following seats in Parliament: PS - 120; PSD - 77; CH - 12; IL - 8; PCP - 6; BE - 5; PAN - 1; Livre – 1.

Following Maireder et al. (2012), we employed a user-centered approach, as the object in study is the tweets of the Portuguese MPs and not a specific topic. We collected the list of 230 MPs, as well as their public data - full name, preferred name, birthday, electoral district, and political party - using the Parliament official website (www.parlamento.pt) on the 2nd April 2022.

Of the 230 MPs, 129 had an identifiable Twitter Account and 128 of those had public access – table 1.

Table 1 – Social Demographic and Political analysis of the MPs, MPs with Twitter Account and MPs that tweeted at least once during the analysis | adoption rate by political party. Source: Authors' own elaboration

	TOTAL	%	%M	%F	PCP	BE	L	PS	PAN	PSD	IL	CH	Average Age
# MPs	230	100 %	62%	38%	2.6%	2.2%	0.4%	52.2 %	0.4%	33.5 %	3.5%	5.2%	51
# MPs with a Twitter account	128	56%	70%	30%	2.3%	3.9%	0.8%	50.8 %	0.8%	32.0 %	5.5%	3.9%	48
Adoption rate	-	-	-	-	50%	100 %	100 %	54%	100 %	53%	88%	41%	-
% MPs with at least 1 tweet during the analysis period (active account)	69	54% *	72%	28%	2.9%	7.2%	1.4%	44.9 %	1.4%	29.0 %	8.7%	4.3%	46
# tweets/MP with active account	32**	-	33	30	41	46	101	31	38	16	55	39	-

*** of those with Twitter**

****average**

Using the Twitter API, we collected the tweets - and associated metainformation - of the 128 MPs with a public Twitter account during four one-week periods outside of any electoral campaign: 2nd to 9th April, 2nd to 9th May, 2nd to 9th June and 2nd to 9th July. The use of one-week periods across four different months diminishes the bias towards Twitter use during specific moments such as the budget debate or party congresses. Such approach followed other studies procedures on the use of Twitter by MPs in Europe (Haman & Skolnik, 2021; and Baxter, Marcella, & O'Shea, 2016).

The data collection resulted in 2,192 tweets from 69 different MPs from the 8 political parties represented in the Portuguese Parliament.

3.2- Data analysis

The Tweets were manually coded to better capture the use of sarcasm and humor (Baxter, Marcella, & O'Shea, 2016), but also to analyze the use of links.

Regarding the analysis of the content, the coding categories were defined using combined deductive and inductive approach (Corbin & Strauss, 2015). The deductive top-down approach was based on previous studies to allow for comparative analysis, namely the coding scheme of Enjolras (2014), that was based on Hemphill and colleagues (2013) and inspired by the study of Golbeck and colleagues (2010) - the so called “Goldeck scheme”. The coding scheme of Enjolras (2014) is the most recent variance with 7 categories.

The inductive bottom-up approach aimed to complement those with relevant subcategories that used a thematic analysis to identify, analyze and report themes within data (Braun & Clarke, 2016) like the different possible ways of "directing information" and "narrating", but also based on more recent literature, like the subcategory of "other - humor" based on the work of Mendiburo-Seguel and colleagues (2022) and "other - personal", based on the work of Baxter, Marcella, & O'Shea (2016). Therefore, we were able to develop a new coding scheme, that still allows comparative analysis, but adds a new layer.

The coding categories and subcategories (table 2) were coded as non-exclusive, with one tweet being able to be coded to 1 or 2 subcategories.

Table 2 – Coding categories | Source: Authors' own elaboration

Enjolras (2014) categories	Subcategories created	Definition
Positioning	Positioning	Situating oneself in relation to another politician or political issue

Thanking	Thanking	Saying nice things about or thanking someone else or any kind of “formalities”, e.g. congratulations, thanking, a message of mourning, etc.
Directing Information	Directing Information - Media	Directing information (usually with a link) to a media article or webpage.
	Directing Information – Self Promotion	Directing information (usually with a link) to a webpage that promotes the MP, e.g. their Instagram
	Directing Information – Self Promotion in Media	Directing information (usually with a link) to a media article or webpage that was written by or about the MP
	Directing Information – Other	Directing to any other form of information (usually with a link), e.g. the website of the political party
Conversation	Conversation	Responding to tweets or engaging another user in a conversation
Requesting Action	Requesting Action	Explicitly telling followers to do something
Narrating	Narrating - Past	Telling a story about their day, describing current or past activities
	Narrating - Future	Telling what they will do during their day/week, describing future activities
Other	Other – Personal	Any tweet that has no political value but is of personal nature
	Other – Humor	Using humor or sarcasm in the tweet
	Other – Other	Doesn’t fit in any other Action category, or one can't tell what they're doing. e.g. correcting a typo

The coding was first done by the lead author. After a training session, the codebook and a sample of 10% of the tweets were sent to a second coder to do an Intercoder Reliability Test. Results of the Cohen’s Kappa (Cohen, 1960) for each variable are on Table 3, and besides the variables “Thanking” and “Requesting action”, all others can be interpreted as having results from “Substantial” to “Almost Perfect”. “Thanking” and “Requestion action” tweets were taken off the analysis.

Table 3 – Cohen’s Kappa results | Source: Authors own elaboration

Variable	Cohen's Kappa
Directing Information - Media	0.960
Directing Information - Other	0.720

Directing Information - Self-promotion in Media	0.960
Directing Information - Self-promotion	0.648
Positioning	0.967
Thanking	0.496
Narrating - Past	0.865
Narrating - Future	0.939
Conversation	1.000
Other - Humor	1.000
Other - Personal	0.650
Other - Other	0.881
Requesting Action	undefined*

3.3. Other variables and methods:

3.3.1. Political Leadership and TV Commentary

For the variable "Political Leadership", we used the official websites of Parliament and political parties to collect available data about which MPs were part of Party or Parliamentary Group Leadership. Using the report on the Portuguese TV Commentary 2022 (Cardoso, et al., 2022), we also created the variable "TV Commentary" identifying the MPs that have a regular appearance on TV to comment political topics. According to the Digital News Report (DNR) by Reuters, Portugal is characterized as keeping television as the main source of the information, with 67,6% of the Portuguese using it to access news (Cardoso, et al., 2023).

3.3.2. Popularity and Influence

The "popularity" and "influence" variables for each MP were estimated based on different types of "interactions" with other users. Following the method by Enjolras (2014), popularity will be studied by the number of followers, and influence by the number of retweets generated by the MPs on their original content (excluding retweets to posts that were already a retweet done by the MP). In examining influence, the variables "number of tweets" and "number of positioning tweets" and MP retweets were excluded as they are not the authors of that content.

3.3.3. Electoral District and Type of political party

For the analysis of the H2, H3 and H4 it is necessary to create the dummy variables "MPs from a Large Electoral District"; "MPs from a Left Party" and "MPs from a Small and non-conservative party". The "MPs from a Large Electoral District" variable included all MPs from the four larger electoral districts

(Lisbon, Porto, Braga and Setúbal). The variable "MPs from a Left Party" included all MPs from PCP, BE, L and PS. The variable "MPs from a Small and non-conservative party" included all MPs from BE, IL, L and PAN.

3.3.4. Use of SPSS and Models

To analyze the significance level of the variables for the MPs' use and level of activity on Twitter and their level of popularity and influence, we used the Statistical Package for the Social Sciences (SPSS) to create binomial and linear regressions.

The dependent variables for H1 (to have a Twitter account) and H2 (to use the Twitter account) are binary, therefore we created two Logistic Binomial Regressions, but for the H3 as the dependent variable is discrete (number of tweets) we created a Linear Regression. For the three models the independent variables were: age, Male MP (dummy), MP from a Large Electoral District (dummy), MP from a Left Party (dummy) or MP from a Small and Non-Conservative Party (dummy). As there are political parties that are both left wing and small and non-conservative, the last two variables can't be fitted in the same model.

To answer H5 and H6, regarding the effect of political position or presence on traditional media in popularity (dependent variable number of followers) and influence (dependent variable number of retweets per tweet) of the MPs on Twitter, we built two hierarchical Linear Models with two control variables – 1) MP from a Small and non-conservative Political Party and 2) MPs from a large electoral circle – and two levels of main effects: 1) regular commentary on TV and political position; and 2) number of tweets and number of tweets of "positioning".

When preforming the regression assumption test, we concluded that the discrete dependent variables (number of tweets; number of followers; number of retweets per tweet) were not fully normalized with a constant variance profile – with some noticeable outliers in the upper end side (MPs with much higher number of followers, for instance). Therefore, as the other regression assumptions were confirmed and the sample is considered large, we performed a bootstrapping of 1000 samples as suggested by Pek and colleagues (2018).

4. Results

4.1. Twitter Adoption, use and level of activity by the MPs

As can be seen in table 1 in the data collection chapter only roughly half of the MPs have a Twitter account (Twitter adoption), and, of those, only half used it during the analysis period.

Table 4 – Logistic Binomial Regression results for the dichotomous dependent variable "Has a Twitter Account" | Source: Authors own elaboration.

Has a Twitter Account	Model 1		Model 2	
	Beta	Exp(Beta)	Beta	Exp(Beta)
Constant	2.200**	9.025	1.986*	7.283
Male MP	0.848**	2.336	0.880**	2.412
Large Electoral District	0.577*	1.781	0.426	1.531
Age	(-0.056)**	0.946	(-0.051)**	0.950
Left Party	0.067	1.069		
Small & Non-Conservative Party			2.05	7.283
Nagelkerke R2	0.178		0.208	
Cox & Snell R2	0.133		0.155	
"- 2 log likelihood"	283.082		277.13	
No of Observations	230		230	
Chi-square	32.821**		38.772**	
correctly classified	67%		66.70%	

*p<0,05 | **p<0,01

As seen in table 4, two logistic regressions were performed to ascertain the effects of age, gender, being from a bigger electoral district and from a left or from a Small and Non- Conservative political party on the likelihood that the MPs have a Twitter account. In both models, being a male and younger are significative variables to explain Twitter adoption, while the political party nature is not.

Table 5 - Logistic Binomial Regression results for the dichotomous dependent variable "Uses the Twitter Account"| Source: Authors own elaboration.

Uses the Twitter Account	Model 1		Model 2	
	Beta	Exp(Beta)	Beta	Exp(Beta)
Constant	0.028	1.028	(-0.148)	0.862
Male MP	0.305	1.357	0.417	1.518
Large Electoral District	1.099***	3	0.842*	2.320
Age	(-0.016)	0.984	(-0.014)	0.986
Left Party	0.051	1.053		
Small & Non Conservative Party			2.263*	9.615
Nagelkerke R2	0.109		0.178	
Cox & Snell R2	0.082		0.133	
"- 2 log likelihood"	165.751		158.353	
No of Observations	128		128	
Chi-square	10.913**		18.310**	

correctly classified	63.0%		63.3%	

*p<0,05 | **p<0,01

Regarding Twitter use (Table 5) and level of activity on Twitter (Table 6), the sociodemographic variables were not significant, but, in both cases, the best model was the one with the significant variables being from a "Large Electorial District" and from a "Small and Non-Conservative Party" (Model 2).

Table 6 – Linear Regression results for the discrete dependent variable "# of tweets" regarding level of activity on Twitter| Source: Authors own elaboration.

# of tweets	Model 1ª)	Model 2ª)
Constant	9.531 (10.231)	11.311 (9.537)
Male MP	4.734 (5.509)	6.104 (4.76)
Large Electoral District	17.847*** (4.694)	11.715** 4.451
Age	-0.217 (0.193)	-0.192 (0.197)
Left Party	6.148 (5.232)	
Small & Non Conservative Party		31.552** (11.308)
R2	0.100	0.182
R2 Adjusted	0.070	0.156
N	123	123
ANOVA	F=3.398 (p<0,05)	F=6.858 (p<0.001)

*p<0,1 | **p<0,05 | ***p<0,01 | a) Bootstrap 1000 samples, confidence Interval 95%

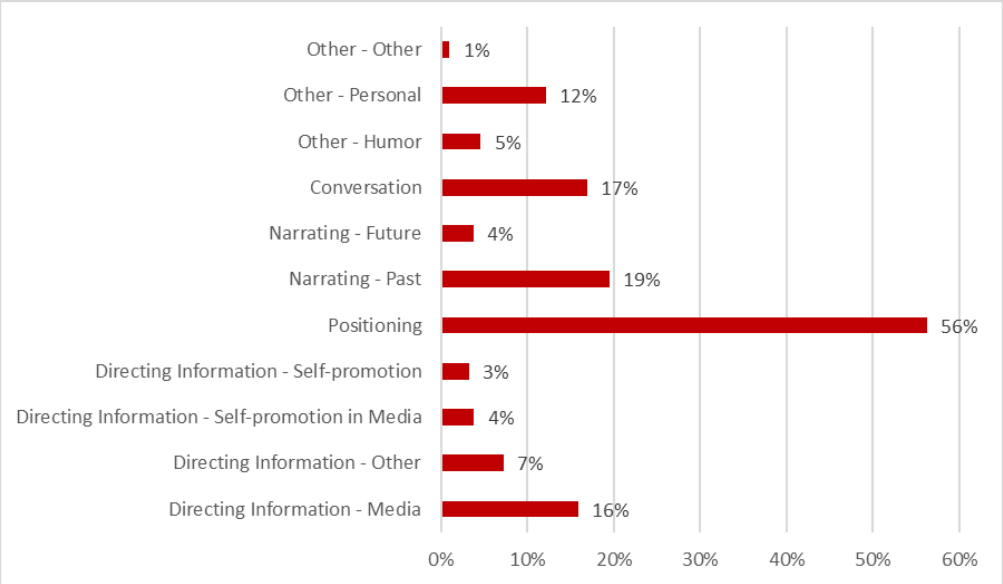
We were able to accept H1a), H2a), H2b), H2c), H4b), H4c) and deny all the other H1, H2, H3 and H4 sub-hypotheses.

4.2. Type of Twitter content by the MPs

The type of content most used by the MPs was "positioning" – more than half (56%) of the tweets by all MPs were to position themselves regarding a topic. As seen in Figure 1, this is followed by "directing information", mainly to the media, with links to news articles, and "narrating", mainly narrating past

events, for instance referring to the presence of the MP in an event. Only 17% of the tweets were of "conversation", which means they were a form of direct interaction with other accounts.

Figure 1 - Percentage of Twitter usage by subcategories (non-exclusive) | Source: Authors' own elaboration.



There is also a high percentage of MPs tweets that are "direct information" (30%). Firstly, they mainly direct information to media content (20% - "Directing Information – Media" and "Directing Information – Self-promotion in media"), but also to their own contents in other platforms (3%).

Overall, MPs from different political parties seem to have different strategies. MPs by the far-right party "Chega" (CH) use "directing information-media" (26%), "directing information self-promotion" (26%) and "positioning" (72%) in higher percentage of their total tweets and have a very low percentage of tweets of "conversation" (less than 1%).

On the contrary, L and IL, two political parties that are considered progressive, have a higher percentage of tweets with "conversation" (29% and 27% respectively). This result reaffirms the idea that IL is the "Twitter party" (Pinto, 2019) due to the regular and unique communication style on the social media platform –both of the party and its main political actors – which can also be seen by the higher percentage of tweets that used humor (12%).

To answer the RQ1 we can say that Twitter in Portugal is mainly used by MPs as a business tool to cater to the "Twitter Elite" (Ruoho & Kuusiplao, 2019): for broadcasting political positions, sharing news and media content and to inform on past events. However, some MPs of particular political parties have different strategies.

4.3. Drivers for popularity and Influence by MPs on Twitter

The results of the Hierarchical Linear Regression Models can be seen in table 7 and 8. Based on these results we can conclude that H5 has been accepted as, the "TV Commentary" and "Political Position" were considered significant variables in the Models for Popularity (table 7) but not for influence (table 8). Regarding H6, it was also accepted, as the activity (number of tweets) and in particular positioning tweets were considered a significant variable in both linear regression models for Popularity and Influence.

Table 7 – Hierarchical Linear Regression Models for the dependent variable "number of followers" - Popularity | Source: Authors' own elaboration

Dependent variable: # followers	Model 1a)	Model 2b)	Model 3c)	Model 4c)
Constant	999.163*** (327.899)	-403.964 (611.101)	-1002.418 (687.988)	-1192.372* (630.338)
Small and non-conservative Political Party	24842.975*** (7267.376)	20290.456** (7428.892)	16818.555** (6860.142)	12919.577* (6703.712)
Larger Electoral Circle	3593.791** (1652.801)	1770.528 (1322.011)	307.67 (1206.417)	-207.549 (1177.759)
TV Commentary		10685.787 (8780.826)	10519.112 (11334.332)	9671.063 (10325.746)
Political Position		9821.894** (3648.240)	8505.445** (3493.358)	6593.323* (3083.081)
# tweets			130.642** (65.783)	
# positioning tweets				385.107*** (109.03)
R Squared	0.311	0.402	0.460	0.519
Adjusted R Squared	0.300	0.382	0.438	0.499
ANOVA	F=28.175 (p<0.001)	F=20.654 (p<.001)	F=20.802 (p<.001)	F=26.327 (p<0.001)

a) Bootstrap 1000 samples (CL 95%)

b) Bootstrap 999 samples (CL 95%)

c) Bootstrap 995 samples (CL 95%)

*p<0,1 **p<0,05 ***p<0,001

Table 8 – Hierarchical Linear Regression Models for the dependent variable "average number of retweets per MP tweet" - Influence | Source: Authors' own elaboration

Dependent variable: # rt/tweet (no retweets)	**Model 1a)**	**Model 2b)**	**Model 3c)**	**Model 4d)**
Constant	0.539* (0.301)	0.444 (0.389)	0.170 (0.360)	0.057 (0.319)
Small and non-conservative Political Party	11.332*** (3.614)	11.016* (4.424)	9.252* (3.998)	7.703* (3.573)
Larger Electoral Circle	1.587** (0.649)	1.409* (0.649)	0.747 (0.517)	0.59 (0.533)
TV Commentary		1.625 (2.547)	1.542 (2.268)	1.397 (2.47)
Political Position		0.661 (1.976)	-0.074 (1.873)	-0.751 (1.948)
# tweets (noRT)			0.083* (0.048)	
# positioning tweets (noRT)				0.226** (0.088)
R Squared	0.318	0.322	0.393	0.465
Adjusted R Squared	0.307	0.300	0.368	0.443
ANOVA	F=29.117 (p<0.001)	F=14.576 (p<0.001)	F=15.802	F=21.242 (p<0.001)

a) Bootstrap 1000 samples (CL 95%)

b) Bootstrap 995 samples (CL 95%)

c) Bootstrap 989 samples (CL 95%)

d) Bootstrap 993 samples (CL 95%)

*p<0,1 **p<0,05 ***p<0,001

5. Discussion and Conclusions

Our first goal was to ascertain which variables influence Twitter adoption, use and level of activity in Portugal. Regarding adoption rate, our results show higher Twitter adoption in Portugal by the MPs than the study by Haman & Skolnik (2021), but it still places Portugal as the country with lower Twitter adoption by the MPs compared to the other European Western countries.

Contrary to what have been discovered in previous studies (Larsson & Kalsnes, 2014; Quinlan et al. 2018; Scherpereel et al, 2017, Wohlgemuth, & Schmelzinger, 2017), in Portugal not only

age (younger), but also gender (being male) are significant variables for Twitter adoption. Unlike Scherpereel and colleagues' (2017) conclusion that left party political actors had higher levels of activity, our data is more aligned with the results from Quinlan and colleagues (2018) that find that smaller and less conservative parties like "Pirate Parties" are more likely to adopt (in this study, to use more) Twitter regardless of the left-right ideology. Howerver, these political party characteristics are only a significant variable in the use and level of activity and not adoption. Being from a left-wing party is not a significant variable in Twitter adoption, use nor level of activity. Meanwhile, MPs in larger and more cosmopolitan electoral constituencies are more likely to use Twitter, which may be because of the profile of MP that is elected in those districts, or because they adopt the tools that best fit their audience.

We find four possible explanations for the variables influencing Twitter use and level of activity. One factor that could influence these results is the type of population that lives in the bigger and more cosmopolitan electoral circles (e.g. level of education, internet use levels, etc.) could be more willing to adopt a niche social media as Twitter is in Portugal. Another factor could be the proximity and relationship that the MPs from these big cities have with the media and journalists, wanting to explore that offline relationship also online. Thirdly, the fact that these smaller and non-conservative parties are also some of the most recent ones, and as they have been created and have developed their practices in an already tech-savvy society, they may be more willing to try out social media platforms that are less mainstream in Portugal. Finally, as MPs from smaller parties, they may have the need to communicate more directly with their electorate and influence the political discussion in a platform with journalists and commentators (the Twitter Elite), as they may not have as many opportunities to expose their communication in traditional mediums as MPs from the larger parties.

Regarding the type of content an MP posts, as has been suggested in other studies, the Portuguese MPs use Twitter mostly for broadcasting – positioning themselves regarding a political topic, narrating past activities or sharing and/or commenting on a media content – but users with other type of content can also be successful, like the ones that also use Twitter to share personal content and/or humor. However, in Portugal, the inclusion of personal content on Twitter by political actors is not as common as in other countries as studied by Baxter and colleagues (2016), which may be explained by the lower rate of Twitter adoption in the country (Haman & Skolnik, 2021) and the focus on political and media content to cater to the "Twitter Elite" (Ruoho & Kuusiplao, 2019) that is predominant in the platform.

Another conclusion is the high percentage of MPs' tweets that are a form of directing information. Mainly this is done directing information to media content, which is aligned with the suggestion by Barriga (2015) that political actors in Portugal use Twitter to both share their presence in the media and to contextualize the media content with further discussion. As the "Twitter Elite" is

composed mainly by political actors and media actors, this may be a cycle in which the media agents produce news about political activities, that are shared and contextualized on Twitter by the MPs and then even read and commented on by media agents on the platform.

On specific party behaviors, the far-right Chega MPs have very low levels of conversation and higher levels of sharing links to media content than MPs of other political parties. This may be done to reframe media content – both ideological and neutral – to broadcast their messages (Peucker et al., 2022).

Finally, our study concluded that other factors that may increase public visibility of the MPs, like holding leadership positions in the party or regular presence in legacy media, are significant variables in their Twitter popularity – number of followers – but not in their level of influence, as it may lead the users to follow familiar names but doesn't improve their willingness to share their content.

However, the political party (small and non-conservative) and the level of Twitter activity – number of tweets, in particular positioning tweets– are significant variables for both the popularity and influence of the MPs on Twitter. This may be explained by the Twitter users valuing the more active MPs that engage and are more well known in the Twitter Elite, as well as these more active MPs being more aware of the type of content that will attract more followers and retweets. Finally, a last explanation for the effect of the political party is that the same assumptions for why MPs from smaller and non-conservative parties value more the use of Twitter and are more active on it (H4) can also be applied to their higher level of popularity and influence on the platform – which reinforces the success of their strategy.

These results are in part aligned with previous studies that mention that although media attention gives some politicians an advantage online, it is possible for other politicians that use the platform very actively to also grow in popularity and influence (Rauchfleisch & Metag, 2020). We can conclude that, on Twitter, it doesn't matter only who you are, but also what you do.

As with all studies, this study has its own limitations. One limitation was the tweets sample size and timeframe, as it was considered preferable by the researchers to do manual coding. The timeframe was also the beginning of a new Parliamentary session after general elections, which can condition the results as new MPs may still be adjusting their communication style to their new office and others may still be using their Twitter style from the campaign efforts.

6. Further work

These conclusions could benefit from further work, especially with direct inputs from the MPs regarding their motivations for Twitter adoption and type of use. Furthermore, the interaction of MPs and journalists, as well as the sharing of media content could also be further studied.

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CHAPTER 3

Published Paper 2

Bursting the (Filter) Bubble: Interactions of Members of Parliament on Twitter

Western European representative democracy models are strongly party-based, generating different incentives for political actors' communication. Using Portugal as an example, our study aims to analyze if and how the Portuguese Members of Parliament (MPs), interact with the electorate on Twitter.

Our study concludes that, although more than half of tweets didn't have advanced interaction, this type of interaction varies significantly across political parties, which may suggest that party organization may affect their MPs' communication style.

We also conclude that party homophily can be found in some forms of interaction but not in others. These results "bursts" the idea that "filter bubbles" are created around values homophily but validates such a claim regarding status homophily as most of the accounts the MPs interacted with (excluding institutional ones) were from the "Twitter Elite".

Key Words: Twitter, Political Communication, Members of Parliament, Social Network Analysis, Filter Bubbles

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Os modelos de democracia representativa da Europa Ocidental são fortemente baseados nos partidos, gerando diferentes incentivos para a comunicação dos actores políticos. Usando Portugal como exemplo, o nosso estudo analisa se e como os deputados portugueses interagem com o eleitorado no Twitter.

O nosso estudo conclui que, embora mais de metade dos tweets não tenham tido interação avançada, este tipo de interação varia significativamente entre partidos políticos, o que pode sugerir que a organização partidária pode afetar o estilo de comunicação dos seus deputados.

Concluímos também que a homofilia partidária pode ser encontrada em algumas formas de interação, mas não em outras. Estes resultados "estouram" a ideia de que "bolhas de filtro" são criadas sobre a homofilia de valores, mas validam tal afirmação relativamente à homofilia de estatuto, uma vez que a maioria das contas com as quais os deputados interagiram (excluindo as institucionais) eram da "Elite do Twitter".

Palavras-chave: Twitter, Comunicação Política, Deputados, Análise de Redes Sociais, Filter Bubbles

1. INTRODUCTION

From the idea of "digital democracy" (Hacker. & van Dijk, 2000) to the potential increase in "direct representation" (Coleman, 2005) and the concept of a "continuous democracy" (Rodotà, 2007), different authors (Blumler & Kavanagh, 1999; Castells, 2004) have mentioned the positive impact the Internet may have on the Public Sphere and on the political and democratic processes. However, several studies have shown that in social media platforms this potential was not being fulfilled as political actors were using the platform to "broadcast" their message rather than to interact (Larsson & Moe, 2011, Vergeer, Hermans, & Sams, 2011; Graham et al., 2013).

Western Europe's representative democracies are strongly party-based, and, in the case of Portugal, parliamentary elections are based on direct closed list-elections at a district level. This generates different incentives for political socialization and communication compared to the single-seat constituencies, such as in the United States or the United Kingdom (Teixeira, Freire, & Belchior, 2012). This has also been suggested by the study of Twitter interactions by Members of Parliament (MPs) in Norway (Enjolras, 2014), whose electoral model is similar to Portugal's. This may impact not only the interaction between MPs and their constituents but also between themselves. In such electoral systems, it is important for MPs to consolidate their position within the party to secure re-election, as party career is considered an important factor for legislative recruitment (Teixeira, Freire, & Belchior, 2012). Furthermore, as suggested by Praet, Martens, & Aelst (2021), parliamentary context influences social networks on Twitter.

Besides political actors' level of interaction on social media, it is also relevant with whom they interact. Habermas (2022) suggests the the introduction of social media can even decrease the "deliberative quality" of public debate, reinforcing his concerns regarding "echo chambers" (Sunstein, 2006), downgrading the supposedly open Public Sphere to a semi-Public Sphere (Staab & Thiel, 2022). Bruns (2021) suggests that "echo chambers" and "filter bubbles" (Pariser, 2011) are metaphors that bear too much technological determinism, thereby hiding that the true issue is not just technological but, mostly, growing social and political polarization.

Bruns' (2023) most recent work suggests that, despite evidence of clustering tendencies, there is an interconnection of "personal publics" when researchers study social networks taking into consideration multiple forms of "connection" afforded by the platform (e.g. on Twitter, analyzing more than just retweets). However, most empirical work has been done using "connections" of Twitter follow/followee (e.g. Vergeer, Hermans, & Sams, 2011 and Guo, Rohde, & Wu, 2020) and retweets and mentions (Esteve Del Valle & Borge Bravo, 2018) or retweets and reply (Keller, 2020). Almost no empirical work has all public forms of interactions: retweets, quote-tweets, replies and mentions. Furthermore, many studies on "filter bubble" and "echo chamber" effects have been done in two-party systems, where these effects may be a possible consequence of higher social and political

polarization of such systems (Urman, 2020), rather than a direct consequence of social media's content personalization and audience fragmentation (Sunstein, 2006).

Portugal is a compelling study case, not only because of its multipartisan closed-list system, but also because it has a singular media ecosystem without relevant political bias (Pereira, 2015), and, therefore, less polarized. This allows for the study of possible political and ideological clusters without the interference of mediatic ones.

Therefore, in analyzing the interaction network of Portuguese MPs on Twitter, our purpose is twofold. Firstly, to analyze if the democratic potential of the internet is being fulfilled with more direct interactions between elected politicians and their electorate, especially in a political system with few incentives for such a type of interaction. Secondly, to support either Habermas' (2022) concerns about "echo chambers" degrading "deliberative quality" or Bruns' (2021) suggestion that the overall interconnection of different "personal publics" surpasses the clustering tendencies.

2. RELATED LITERATURE

Early studies on the use of Twitter by political actors have suggested that the social media platform was not fulfulling its potential for improving the democratic processes as its use by political actors was not as interactive as it could be (e.g. Larsson and Moe, 2011; Vergeer, Hermans, & Sams, 2011; or Graham, et al., 2013). Altought there is a more direct communication between political actors and the electorate, the potential for a two-way interaction (Coleman, 2005) was questioned. Research on the use of Twitter in elections in Europe, like Larsson and Moe (2011), Vergeer, Hermans, & Sams (2011) or Graham et al. (2013) conclude that candidates use Twitter for "broadcasting", simiarly to the communication style adopted offline or in other less interactive websites (like campaign websites). Other early studies that didn't focus on election periods but instead on the use of Twitter by U.S. congresspeople, like Hemphill, Otterbacher, & Shapiro (2013), also reached similar conclusions regarding the use of Twitter mostly to broadcast "soundbites".

In Europe, studies outside election periods have also shown that the use of Twitter for interaction by MPs is very low (Enjolras, 2014) and has been decreasing (Baxter, Marcella, & O'Shea, 2016). One of the explanations proposed was very high level of demand for MPs' attention and the abusiveness of some messages (Agarwal, Sastry, & Wood, 2019; Baxter, Marcella, & O'Shea, 2016). This may align with the idea of "spiral of noise" (Möller, 2021) – a phenomenon in which social media users with more radical viewpoints encounter like-minded peers and feel more confident to vocal their novel and extremist opinions, even outside of their bubbles, affecting the broader climate of opinion.

While there is some level of interaction, this has been defined as focused on the "Twitter elite". Ruoho & Kuusipalo (2019) conceive this as the priviliged interactions between top politicians and journalists. Enjolras (2014) refered to the effect as "a small world of political communication – a

limited network of profiled politicians and new media celebrities" that lead Twitter to be more like an "impression management and power performativity" platform and not a "tool of interactive communication between politicians and citizens" (Enjolras, 2014, p. 24). This doesn't necessarily mean that political actors, such as MPs, don't interact with ordinary citizens at all, but that politicians listen more to actors close to politics and media, possibly because MPs intend to amplify their reach, namely through "vital multipliers such as journalists" (Keller, 2020, p. 193) and political actors with high reach such as other politicians and political influencers.

The literature therefore suggests two research questions:

RQ1: Do politicians use Twitter mostly for broadcasting or for interaction?

RQ2: With whom do political actors interact on Twitter?

2.1 Political discussion, Echo Chambers and Filter Bubbles

There are other "threats" that can delay or prevent the the internet and social media platforms fulfilling their potential to enhance democratic processes. Habermas (2006) mentions that, although the internet has its "democratic merits", specially in authoritarian regimes, it would not solve the issue of deliberation in political communication create its fragmentation (Habermas, 2006) generating "self-enclosed echo chambers (Habermas, 2022, p.159).

The early concept of "echo chambers" is attributed to Sunstein (2006). Sunstein suggests one of the risks posed by the internet is "hidden profiles" which lead to informational cascades and polarization, as people are prone to focus group discussion on common knowledge and, consequently, ignore, supress or even exclude dissident voices. Sunstein (2006, pp. 223-224) refers that, altough the internet has the potential to decrease this issue by offering a way for people to get out of their offline "information cocoons", it also creates, in its attempt for personalized content, its own online "information cocoon".

"Echo chambers" are, therefore, created, as personalization makes polarization more probable and deliberation more difficult because "(…) like-minded people sort themselves into virtual communities that seem comfortable and comforting. Instead of good information aggregation, bad polarization is the outcome." (Sunstein, 2006, p. 97). Another metaphor for this type of "information coccon" in which like-minded people cluster is "filter bubbles". Pariser (2011) identified these as result of the technological evolution of Web 2.0, in which platforms intended to personalize user experience, presenting them content related to their previous preferences on the platform.

Altough "filter bubbles" and "echo chambers" are often used as interchangeble concepts, Bruns (2017) distinguishes them: "echo chambers" are related to homogeny in the relationship network, while "filter bubbles" are an interaction network phenomenon. On Twitter, for instance, "echo chambers" would relate to whom you follow and "filter bubbles" to whom you interact with, be

it through comments, retweets or mentions. As Möller (2021) has suggested, while in "echo chambers" humans have the agency of choosing to connect with people who would echo their thoughs, "filter bubbles" are a result of algorithms, which the author remarks has a sense of technological determinism.

However, the two effects could be related, as suggested by Pariser (2011) and Johnson and Gray (2020), referring that, even if users were to actively avoid "echo chambers", following accounts that share different perspectives – following the idea of "context collapse" (Marwick & Boyd, 2011) - the algorithm would eventually filter content to show that which the user interacts most with, therefore reinforcing interaction homophily – the "filter bubble". This, in turn, reinforces social network homophily as users add to their network those with whom they interact, forming a "feedback loop".

Nevertheless, as mentioned, there has been critizism of both metaphors. Besides the idea of "context collapse" (Marwick & Boyd, 2011), that would in part contradict the concept of "echo chambers", Burns (2019, 2023) and Talamanca & Arfni (2022) critique the technological determinism behind Pariser's theory. These auhors note that users are exposed to information and experiences outside of the platforms that also influence their behavior both off and online.

As Bruns (2023, p. 8) mentions, it is in the "large-scale maps of networks of personal publics", such as blogospheres and Twittersphere, that there is more evidence of clustering around shared interests and identities. Twitter is, therefore, consider a prime social media platform for the study of such a phenomenom. However, compared to other social media platforms, Twitter could also be less prone to the creation of "filter bubbles" as the platform doesn't require mutual connection, allowing for "context collapse", and the algorithm shows content that is not directly subscribed by users – either by suggestion or by the proactive search of hashtags.

Previous studies of "echo chambers" and "filter bubbles" on political Twitter have not reached a definitive conclusion. Some studies point to the idea of "echo chamber" effects. Vergeer, Hermans, & Sams (2011) find that there are a low number of shared members between the networks of European Parliament candidates, suggesting they are disconnected and homophilious, and Guo, Rohde, & Wu's study (2020) on the 2016 US elections uncovers the role of opinion leaders in the creation of homogeneous communities on Twitter.

The study of political homophily in Catalonia MPs (Esteve Del Valle & Borge Bravo, 2018) suggests, on the other hand, different types of interaction (following, retweet and mentions) leading to different levels of homophily. Bruns (2019) also concludes that politics also makes social media clusters work in a different way, finding that while "most clusters retweeted more outside content but kept @mentions more internal", the pattern was the reverse for political clusters, where "users retweeted more internal content and @mentioned more external accounts." (2019, p. 73).

Furthermore, Praet, Martens, & Aelst (2021) also suggest parliamentary context influences social networks on Twitter. Although having a single-party majority during the time of the analysis might indicate less dense parliamentary relations, the fact that there are many parties represented in Parliament may make it more interactive, according to the Praet, Martens, & Aelst (2021) study.

In Portugal, Twitter is not a popular social media platform (Kemp, 2021), with only 14,6% user levels according to (retrived). However, according to the same report, its use by younger generations (18-24 year-olds) is growing rapidly, from 13,1% in 2015 to 40,9% in 2023, which shows the potential growth of the platform in the coming years.

The "Portuguese Twittersphere" is described by having many of its users from the political and media spheres (Barriga, 2017). Previous studies have shown that when overall users have less participation (Grossetti, du Mouza, & Travers, 2019) and there are very "politically savvy users" (Talamanca & Arfni, 2022), there is more probability of political homophily. This makes the "Portuguese Twittersphere", with its low level of users and high political disposition, a good case study for the existence of "filter bubbles" and "echo chambers".

To study the potential clustering effect and existence of "filter bubbles" in the Portuguese MPs' Twitter network, we will answer the following research questions:

RQ3: Are the interaction of political actors online mostly done with people that share their political point of view?

RQ4: Does the type or level of interaction matter in the "filter bubble" effect?

3. DATA AND METHODS

Portugal has 230 Members of Parliament, representing 8 different political parties at the time of data collection: 4 left-wing parties: Portuguese Communist Party (PCP), Left Bloc (BE), "LIVRE" (L), Socialist Party (PS); the Animals and Nature Party (PAN), which identifies itself outside of the left-right spectrum; and 3 right-wing parties: Social Democratic Party (PSD), Liberal Initiative (IL) and "CHEGA" (CH), a far-right party. Considering PAN is an associate member of the Greens–European Free Alliance in the European Parliament, which is widely considered a left-wing group, we have, for the sake of this article, considered PAN as a left-wing party.

At the time of the data collection – April to July 2022 – PS had just achieved an electoral victory (January 2022), obtaining a parliamentary majority and therefore being able to govern without the support of any other party.

3.1. Data collection

Following Maireder et al. (2012), we employed a user-centered approach. Using the official website for the Portuguese Parliament[3], we identified the 230 MPs on 2nd April 2022 and their respective political party. We were able to identify Twitter accounts for 129 MPs, of which 128 had public access.

Using the Twitter API[4] we collected tweets and their associated metainformation like the interactions and author's account information from MPs accounts in four one-week periods: 2nd to 9th April, 2nd to 9th May, 2nd to 9th June and 2nd to 9th July. These four weeks were outside any campaign period. We selected one week in four different months in order to avoid bias due to the political calendar (e.g. budget discussion). Other studies on the use of Twitter by MPs in European Countries like Haman & Skolnik (2021) and Baxter, Marcella, & O'Shea (2016) also used a four-week period for their analysis. The result of the search was 2,192 tweets from 69 MPs (from all the political parties).

3.2. Methodology

3.2.1. Tweet Format

There are four types of public interactions on Twitter, "(…) namely like (promoting a tweet), retweet (sharing a tweet with the followers), reply (answering to a tweet), and quote (commenting to a tweet while sharing with the followers)." (Toraman, Şahinuç, Yilmaz, & Akkaya, 2022, p. 2). For this study, we didn't evaluate "likes" as these are not a new tweet. We also subdivided the "reply" format in two: the "replies" (@reply) and the "mentions" (@mention), when an account was mentioned in a tweet, but it was not a direct reply to a previous tweet. Therefore, each tweet was coded as either a "Tweet" (T), a "Reply" ®, a "Retweet" (RT), a "Quote-tweet" (QT) or a "Tweet Mention" ™. One of the innovations of this research was the inclusion and differentiation of quote-tweets, as it requires the analysis of all the links in the tweets of the analysis period (quote-tweets are shown as a tweet with a link).

Other than a Tweet, all other formats require some interaction with other accounts. Nevertheless, as mentioned by Toraman et al. (2022) the retweet is a simpler form of interaction, as it does not require any added content by the author. Therefore, the coding of the format was as follows: No interactions (T); Simple interaction (RT); Advanced interaction: (R, QT, TM).

3.2.2. Accounts Coding

Every account with which an MP interacted on Twitter during the 4-week period was identified. During the analysis period the MPs interacted with 790 different accounts.

[3] www.parlamento.pt
[4] https://developer.Twitter.com/apitools/downloader

Out of the 790 accounts, 33 were deleted or private at the time of the coding, so the 757 public accounts with which the MPs interacted were coded based on their Twitter profile and recent tweets, but also with the help of Google search. The categories were defined using a combination of deductive and inductive coding (Corbin & Strauss, 2015), in which the deductive

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Politicians: Members of Parliament, Members of Government, International Politicians

Other Political Agents: Parliamentary Group, Official International Political Accounts, Official Government accounts, National and local Party Accounts

Media: Legacy and digital native Media

Journalists: Journalists

Political Influencers: Commentators, Political Influencers

Companies and Institutions: Companies, Institutions and Associations

Other Voters: Voters (not included in the other categories)

Others: Celebrities and non-political influencers

For the categories "Politicians", "Influencers" and "Other Voters", we also established, whenever possible, their political affiliation (either just "Left" or "Right"), based on the profile description (bio), recent tweets content and google search for public figures.

3.2.3 Social Network Analysis

We used a Social Network Analysis approach (Haythornthwaite, 1996) and the open-source network visualization software Gephi[5] for the network visualization, as suggested by Bruns (2012) for Twitter conversations.

Firstly, we mapped the network of interactions between MPs for RT and R, as there were too few QT and mentions to be mapped. For the RT network, the node size was based on its in-degree (the more the MP tweets were retweeted, the bigger the node), as it would show whose content was considered more valuable by other MPs. For the R network, the node size was based on the out-degree, to visualize the MPs who engaged more in conversation with others.

Next, we repeated this exercise using all the accounts with whom MPs interacted. The MPs were identified by party, while media and journalist accounts were aggregated into a single category and all remaining accounts were identified as either "right", "left" or "non-identifiable", using different colors.

3.2.4 Other methods

After a first data analysis regarding tweet activity and tweet formats, we used Statistical Package for the Social Sciences (SPSS) to generate a General Linear Model (Miller, Acton, Fullerton, Maltby, & Campling, 2002) that incorporates dependent variables (in this case the number of RT, QT, M, R for each MP) and categorical or continuous independent variables – in this model with the political party as a "fixed value".

[5] https://gephi.org/

4. FINDINGS AND DISCUSSION

Regarding the first research question "Do politicians use Twitter mostly for broadcasting or interaction?", we examined the different tweet formats used by MPs during the four weeks. Most tweets did not have an advanced form of interaction, with 44% being stand-alone tweets and 25% being retweets. From the advanced interactions, 17% were replies, 8% quote-tweets and 6% tweets with at least one mention. This seems to be aligned with early studies on the use of Twitter by political actors (Larsson & Moe, 2011, Vergeer, Hermans, & Sams, 2011, Graham et al., 2013) and its lackluster performance in improving the democratic process.

When analyzing per political party, there is a clear difference in the Twitter use by MPs of the far-right CH, with almost no interaction at all (2%). The only MP of L was very interactive on Twitter, including more advanced forms of interaction like replies (31%), quote-tweets (11%) and tweet mentions (21%).

Parties closer to the ideal of "network parties" developed by Klimowicz (2018) – namely, BE, L and IL - are responsible for a higher amount of interaction, when compared to the number of MPs they have on Twitter. For instance, although only 5% of the MPs with Twitter account are from IL, they are responsible for 23% of the replies and 17% of quote-tweets. Klimowicz (2018) characterizes "network parties" as a movement of parties in Europe developed mostly after the financial crises of the late 2000's, with tech savvy leaders and a collaborative network approach to communication and leadership. The party that fits best this description in Portugal is "Livre", both in the communication style and in its internal democracy, but both IL and BE are very close to the definition. Although BE was created before the financial crisis the rest of the definition fits perfectly as it has a "(…) collegial leadership style, a much factionalized functioning, an emphasis on participatory tools and bottom-up mobilization." (Lisi & Cancela, 2019, p. 393). IL doesn't have a collegial leadership style as BE nor open primary elections as "Livre", but it was created after the financial crisis, can be considered a "new right party" and has a very digital presence, even being called the "Twitter Party" (Pinto, 2019, p. 50) because of the regular use of the platform by the party's leaders.

Regarding MPs' interaction patterns, the complete opposite to "network parties" happens with the center-right PSD and the far-right party CH, with both being responsible for a much lower percentage of the interaction formats compared to their number of MPs on Twitter.

To confirm this effect, using SPSS, we estimated a General Linear Model with the political party as a "fixed value". Using "advanced interaction" (sum of QT, TM and R of each MP) as dependent variable the result was considered significant – R Square of 0.353 and $p<0.001$ -, but it is not significant for RT as dependent variable.

These results can point to the idea of "appropriation" (Silverstone & Haddon, 1996) in the sense that MPs use Twitter in different ways depending on their political goals and the communication

strategies associated – for instance, MPs from "network parties", with their collegial leadership and open legislative recruitment, seem to find interaction on Twitter a good fit for their strategy, as other parties like the far-right CH does not.

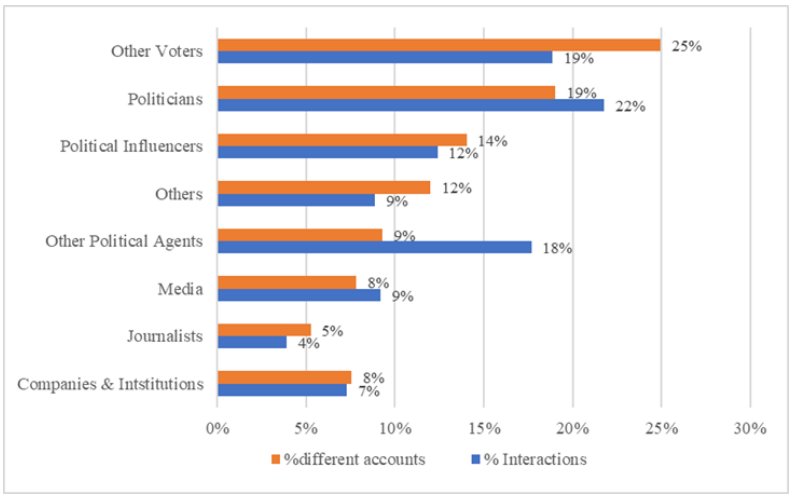
When answering RQ2 "With whom do political actors interact on Twitter?", it is possible to conclude that many of the interactions registered are with other politicians (19%), political influencers (14%), journalists (5%) and media accounts (8%). Outside of the professional political "elite", other voters represented only 25% of accounts interacted. These results seem to be in line with previous studies regarding the existence of a "Twitter elite" (Ruoho & Kuusipalo, 2019), mainly composed by political and media actors, extending to citizens with more political influence in the network, which have been considered "vital multipliers" (Keller, 2020, p. 193).

As shown in Figure 1, although politicians are 19% of the accounts with whom there was any type of interaction, 22% of the total interactions were with politicians. This is the category of accounts with the most interactions. Among the "politicians", 36% were "other Members of Parliament, 30% "other politicians", 26% "international politicians" and 8% "Members of Government". We can conclude that political actors are often the target of interaction on Twitter by MPs, which is aligned with the communication impact of a political system in which party-career is key for legislative recruitment (Teixeira, Freire, & Belchior, 2012).

For the more grassroots category of "other voters", we observe the opposite phenomenon, of representing 25% of the accounts interacted with, but only 19% of total interactions, which means more plurality but less frequency or intensity in interaction. One possible explanation for these results is that MPs understand the value of interacting with "ordinary citizens", but their interactions are an occasional one-time interaction with some of them, as if to perform a duty, and not a recurrent on-going conversation as they may do with other political actors, influencers, or journalists that they consider more valuable or with whom they have already an established relationship.

Around 34% of the interactions occurred with institutional accounts – accounts that don't represent a person but an institution. These compose a variety of different institutions, ranging from "other political agents" (18% of interactions), media accounts (9%) and "companies and institutions" (7%). As seen in figure 2, "other political agents" and "companies and institutions" accounts are mainly retweeted or mentioned. The subcategory of "other political agents" is broad and includes, for instance, the accounts of the parliamentary groups, where MPs often retweet their own speeches. One possible explanation is that these types of interaction are to promote their work, either in a call out (in a mention) of institutions the MPs visited, are working with or have been mentioned by (e.g. retweeting a tweet in which they are mentioned).

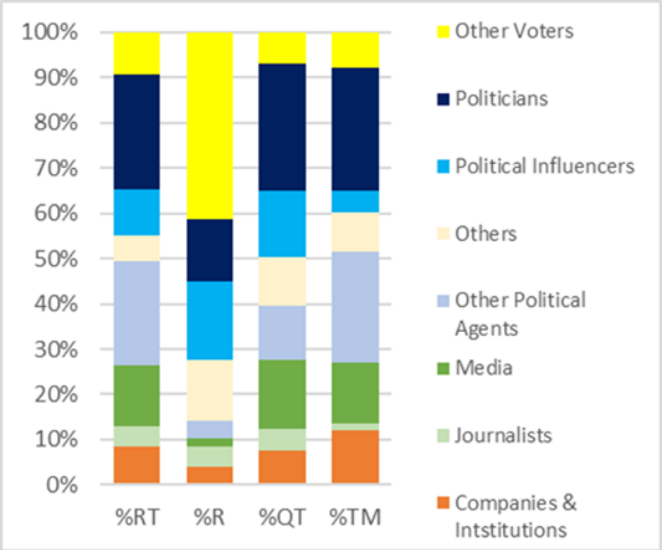
Figure 1 - Distribution of interactions by account type and distribution interactions with different accounts by account type



In Figure 2, the analysis of the distribution of interactions for each tweet format shows us other differences worth noting. 41% of the MPs' replies are to "other voters", the "ordinary citizens", and 17% are to "political influencers" which means that more than 50% of the replies are to constituents. While a low percentage of interactions means these results don't fully contradict the idea that MPs are underusing Twitter's potential for interaction with constituents, constituents do have a significantly greater weight among replies, showing a more advanced level of interaction with this type of users.

However, this percentage is significantly lower in other tweet formats, with interactions concentrating more on politicians and other political agents. Media and Companies & Institutions are also not accounts that MPs usually reply to, likely due to them not being individual accounts with which MPs can engage in conversation. Depending on the tweet format (RT, R, QT, TM), the MPs interact with different types of account.

Figure 2 – Distribution of interactions by account type for each tweet format



To answer RQ3 “Are the interactions of political actors online mostly done with people that share their political point of view?”, we started by analyzing the social network of MPs’ interactions with each other. The result of the retweet network could be considered a “fragmented network” (Praet, Martens, & Aelst, 2021), as there is interaction between MPs of the same political party, but almost nonexistent (RT) interaction between MPs of different political parties which, as a first explanation, seems to be aligned with the idea of “filter bubbles” (Pariser, 2011). The only exception is a tweet from a PS MP that was retweeted by an IL MP regarding a topic of interest of the region that both the MPs represent. In this case, the RT was based not on a political party alignment but in the interests of the region that elects both.

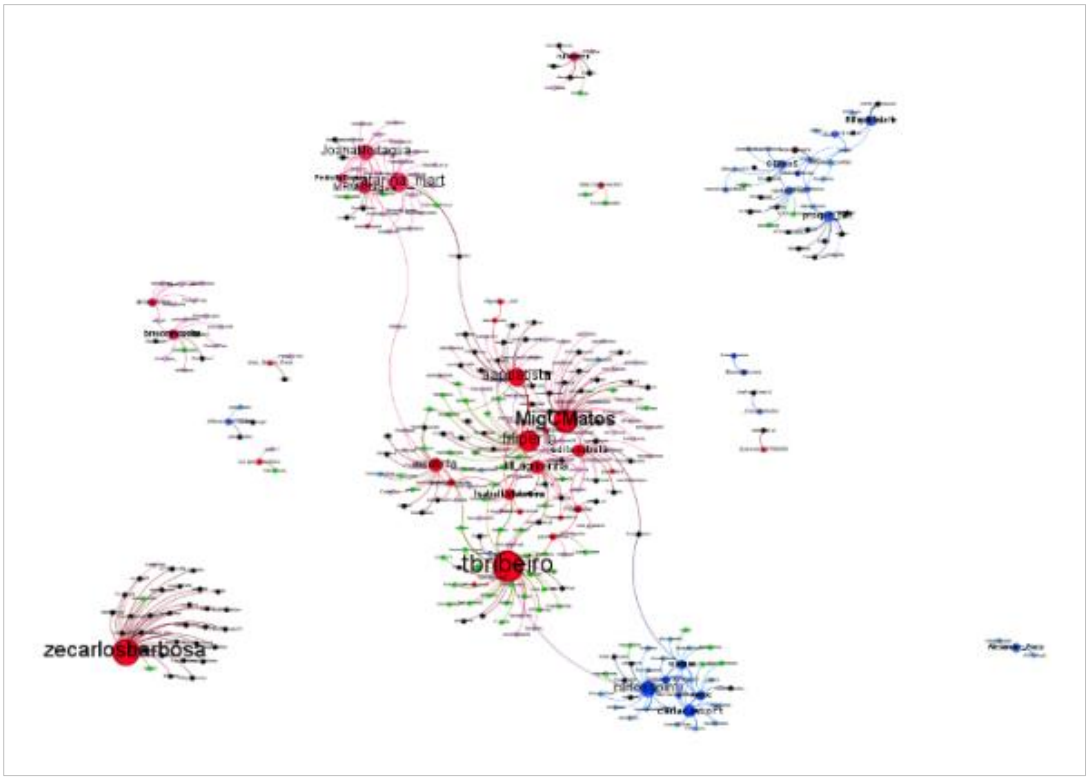
However, in the reply network, there is not such clustering around party ideology, as different MPs reply to MPs of other parties. However, there is still a level of ideologic homophily as almost all the replies from left-wing MPs were to other left-wing MPs, except for a conversation between a BE MP (left) and an IL MP (right).

This analysis also allows us to start answering RQ4 “Does the type or level of interaction matters in the effect of “filter bubble”?” - as it becomes clear that party homophily level of the retweets and replies is very different.

The retweet network (Figure 3) shows a fragmentation with just a few nodes (accounts) that are retweeted by MPs from different “communities” (based on modularity). The only accounts that unite different ideologic “communities” are institutional accounts, like @EuropeElects - that was retweeted by MPs of PS and IL, or academic accounts, like @RBReich - that was retweeted by MPs of BE and PS.

Figure 3 also shows that there is a particular case is of a PS MP, @zecarlosbarbosa, that has a “community” of his own, separated from the nodes of the other MPs, including from the same party. This exception led us to investigate if there was a common pattern of this MP’s interactions. This MP mostly interacts with accounts related to trains in which, based on his public curriculum, he seems to be a professional and have a personal interest and not just a political one. This case shows different uses of Twitter by the MPs, as the use of the platform for personal, professional, or political purposes will affect their interactions and common nodes with other MPs, in line with the idea of Bruns (2019) that offline interests and interactions reflect on online ones and decrease the potential for “filter bubbles”.

Figure 3 – Retweet network (size based on out-degree, colors based on right-left political position and media)



Analyzing Figure 3, it is also clear that there is a right-left homophily in the retweet social network, with all the accounts with a known or perceived filiation to the Left in red and to the right in blue, the media in green and the non-identifiable in black.

As seen in Table 1, political parties closer to the center in the right-left spectrum (PS and PSD) are less prone to retweet accounts from the same political inclination, while among more radical political parties (PCP, BE, IL, CH) 80% or more of the accounts they RT can be identified as having the same political inclination as the retweeting MP. However, not having the same political inclination doesn't mean it is an opposite one (it can be, for instance, a company that doesn't have a political inclination at all).

Therefore, we analyze the percentage of accounts the MPs interact with that have an identifiable opposite inclination (table 1). The results clearly show that, regardless of the party, for different formats of tweets (R, TM, QT, R) there are different levels of interaction with accounts with an opposite point-of-view: RT and TM being mostly nonexistent, and QT and Reply with some level of interaction.

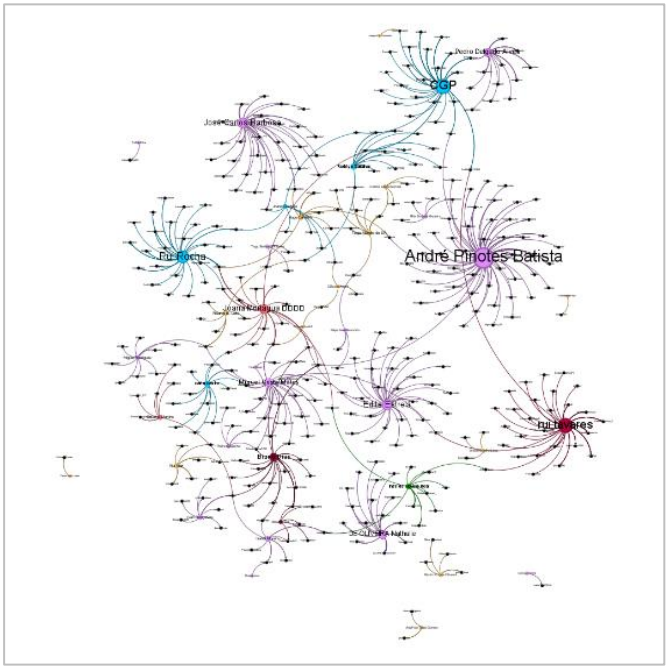
Table 1 - Percentage of retweets, tweet-mentions, quote-tweets and replies from MPs to other accounts of the same and of the opposite political inclination (left-right)

	Of same political inclination				Of opposite inclination			
	% RT	% TM	% QT	% R	% RT	% TM	% QT	% R
PCP	83%	40%	33%	77%	0%	0%	50%	4%
BE	89%	68%	100%	45%	0%	0%	0%	39%
L	44%	80%	55%	26%	0%	0%	25%	29%
PS	38%	21%	35%	30%	7%	14%	21%	23%
PAN	50%	79%	25%	46%	0%	0%	0%	25%
PSD	56%	63%	55%	36%	0%	0%	8%	32%
IL	80%	69%	46%	50%	2%	10%	32%	30%
CH	100%	0%	0%	0%	0%	0%	0%	0%

This conclusion can also be visualized, for instance, comparing Figure 3 – the retweet network - with Figure 4 – the reply network. The reply network is not nearly as fragmented, showing many different nodes that are a target for interaction by MPs of different political parties.

These results corroborate the results of previous research (Bruns, 2019; Esteve Del Valle, M.; Borge Bravo, R., 2018) in showing that different tweet formats have different levels of political homophily and are aligned with the results from RQ2 that different tweet formats are used to interact with different types of accounts.

Figure 4 – Reply Network (size based on out-degree, colors based on party)



5. STUDY LIMITATIONS

Although this study provides relevant analysis and conclusions, it has some limitations. This study doesn't address the content or quality of the interactions. In order to manually analyze all the accounts that the MPs interacted with and to include the analysis of QT and TM, the timeframe of analysis was relatively short.

6. CONCLUSIONS

Our results suggest that the Portuguese MPs do interact on Twitter, but "one size does not fit all". Although most of the tweets didn't have any form of advanced interaction (being just tweets or retweets), the level of interaction of MPs is not the same for all political parties. MPs of the far right-wing party CH almost didn't interact at all with other accounts, while MPs from "network parties" (BE, IL and "Livre") interacted the most, suggesting that party organization affect MPs' communication style.

Furthermore, although engagement with constituents ("influencers" and "other voters") didn't represent most of MP's total interactions, they were most of their replies. This is arguably the most "democratic" format of interaction, as it adds content to the interaction (unlike retweets) and shows a willingness to engage in a conversation - unlike quote-tweet or tweet-mentions, that are often considered more a "call out". It is also in this form of interaction – replies - that we could find less political homophily, with almost one third, on average, of all accounts with whom the MPs interacted being from the opposite left-right alignment.

One of the reasons that can explain both the existence of a lower interaction rate in the "catch all" parties – PS and PSD – and the inexistence of the "filter bubble" in the MPs' replies is the concept of "spiral of noise" (Möller, 2021). As some of the MPs' tweets comment sections are filled with dissonant voices, they may give up on interacting on Twitter or, indeed, forgo using Twitter at all - as referred by Baxter, Marcella, & O'Shea (2016). This is specially likely as Portugal has a political system that is strongly party-focused (Teixeira, Freire, & Belchior, 2012) and the interaction of MPs and voters is not key for their legislative recruitment.

If the phenomenon of "filter bubbles" based on political ideology was not found in the reply and quote-tweet networks, in the retweet and tweet mention networks there is a clear homophily, especially if we exclude from the analysis all the accounts that don't have a clear political alignment (e.g. institutional accounts). However, even if MPs don't usually retweet accounts that have an opposite political alignment, they do retweet accounts that have a neutral or non-identifiable one. This doesn't only happen with media accounts, as MPs retweet the news, but also with institutional accounts and, in some cases, MPs also use Twitter also for personal or professional (non-political) gain and interact with accounts that are not politicized. We can conclude that, in line with Bruns (2019,

2023), “filter bubbles” cannot be analyzed as a phenomenon regardless of the interaction format (RT, QT, TM, R) or the motivation for the use of the social media platform.

If, in one hand, at a first glance this analysis seems to suppress Habermas’ (2022) concerns regarding the decrease of quality of democratic deliberation, there is still the issue of the “type” of account with whom MPs interact with. We can observe not a full homophily of political values, but a certain level of another type of homophily mentioned by Lazarsfeld & Merton (1954), status homophily, based on major, formal or informal social status characteristics, and not on values, attitudes and beliefs.

Therefore, the other conclusion of our research is aligned with Möller (2021) that, more than a left or right echo chamber, there is a chamber of people interested in the politics and current affairs and those who are excluded. This is evidenced by the fact that almost 40% of accounts with whom MPs interact - or 60% of the accounts if we exclude institutional or anonymous accounts – are from either politicians, political influencers, or journalists. This suggests that there is, indeed, a “Twitter elite” (Ruoho & Kuusipalo, 2019) that doesn’t absorb fully MPs’ attentions but definitely has a high influence on it.

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CHAPTER 4

Published Paper 3

Political elite social listening: How Portuguese MPs perceive their own motivations to join and use Twitter/X

Most studies on political actors' use of Twitter focus on content and social network analysis, but not on their motivations and passive usage. We applied a questionnaire to a significant sample of 94 Members of Parliament (MPs), with a quota sample sized by political party representation in Parliament, to survey their motivations to have or not a Twitter account, their target audience and their uses.

We concluded that MPs see Twitter mostly as a political tool unlike other social media platforms. The most common motivation to join and use Twitter is to read other politicians' opinions which helps explain why the small Twitter adoption in Portugal does not deter its use as their peers and political elite is on the platform. That twitter elite can even be a motivator to join as their peer social capital is key to re-election in closed list-elections countries such as Portugal.

Keywords: Twitter; Members of Parliament; Fear of Missing Out; Political Communication

INTRODUCTION

The study of Twitter[6] adoption and uses by different political agents, including MPs, as a tool for political communication has already been done in previous literature (Bauer et al., 2023; Baxter et al., 2016; Golbeck et al., 2010; Graham et al., 2013; Hemphill et al., 2013; Said Hung et al., 2023; Segado-Boj et al., 2016; Silva & Proksch, 2022). However, those studies are mostly done in countries in which political agents are expected to use Twitter, mainly because of the high Twitter adoption rate among the general population in those countries (e.g. US, UK, Spain, etc.). This is not the case in Portugal in which the use of Twitter by the general population is only 14,9% (Cardoso et al., 2023) - although it has been on the rise in the younger population. Furthermore, these previous studies have mostly used Twitter data and secondary data to analyze behavior patterns, networks, and content, but have not directly surveyed political agents regarding their views on the platform, their passive use, and how they compare it to other social media platforms.

[6] During part of the data collection and analysis period the social media platform was called Twitter. It has currently been renamed "X".

In this study, we surveyed a significant sample of MPs, with a quota sample sized by political party representation in Parliament, on their motivations to have or not have a Twitter account, their use of the platform, and how they use it in comparison to other social media platforms. The main goal of this research is not to have a clear portrait of how MPs interact or post on Twitter, which could be analyzed by their posts, but what are their motivations, their target audience, their perspective on their use, or why they choose or not to use it.

RELATED LITERATURE

Twitter adoption in Portugal by the general population and by MPs is the lowest in the Western European Union with only 14,9% of the population in the platform but it is growing in the younger generation (Cardoso et al., 2023). This low adoption rate can help explaining why many MPs don't have a Twitter account, as only 41% of Portuguese MPs had a Twitter account in 2020 (Haman & Skolník, 2021) and 56% in 2022 (Ferro-Santos et al., 2024a). It can also explain why some of the most recent comparative studies on the use of the social media platform by political actors have not included Portugal (Praet et al., 2021; Silva & Proksch, 2022; Vliet et al., 2020).

One possible factor that can also impact the lower adoption rate of MPs when compared to single-seat constituencies, like the United States and United Kingdom, is that Western Europe's representative democracies, such as Portugal, have a strong party-based system that is based on direct closed list-elections at a district level (Teixeira et al., 2012). This can impact the political socialization and communication of the MPs as also suggested in a study in Norway (Enjolras, 2014) that has a similar political system. If, in one hand, it means that MPs have less incentives to be on a social media platform – specially in which the general population is not massively adopting – it can, in other hand, become an incentive for MPs to be present in a social media platform in which their colleagues are, given that party recruitment is key.

Previous literature of the use of Twitter for political communication in Portugal is mainly focused on campaign periods and on the political party use and not individual (Moreira, 2011; Penha, 2023). However, a recent study that analyzed the Twitter usage by Portuguese MPs (Ferro-Santos et al., 2024a) concluded that the platform is significantly more adopted by male MPs, from small and non-conservative parties and the largest electoral districts. Portuguese MPs seem to use the platform to cater to a niche "Twitter Elite" and their following is impacted by public recognition (e.g. TV commentary and leadership positions) but their popularity on the platform is not, just being impacted by their level of activity.

Research on Twitter adoption by political actors has already been done also at European level (Larsson, 2015; Scherpereel et al., 2017) and other countries (Larsson & Kalsnes, 2014; Quinlan et al., 2018), but, as it was done in Portugal (Ferro-Santos et al., 2024a), the focus has mostly been

sociodemographic and political variables, observable variables that can answer the question “What characteristics have the MPs that adopt Twitter” but not “Why”. The main difference is the methodology needed to answer the second question as only direct questioning of MPs would allow a further comprehension of their motivations to join the platform.

Previous European studies have questioned MPs directly on their Twitter use (Bauer et al., 2023; Frame & Brachotte, 2015) but not on their motivations to join the platform. One explanation is that their studies were done in countries with high adoption rates, therefore MPs having a Twitter account is almost a given. That is not the case in Portugal, so we directly surveyed a sample of Portuguese MPs on why they have or have not joined Twitter and confirm if their motivations to join the platform are similar or different to other social media apps.

RQ1: Why do MPs join or do not join Twitter?

RQ1.1: Are the MP's reasons to join Twitter different than other social media apps?

Previous studies that have questioned MPs directly on their Twitter use in European countries were in France (Frame & Brachotte, 2015) and in Germany (Bauer et al., 2023). In France, the study interviewed 5 MPs but focused mainly on what they thought would be wining strategies on Twitter and its limitations. In Germany a questionnaire was applied to a non-representative sample of the Germany MPs but focused on the limitations the MPs felt when using the account.

The study by Frame and Brachotte (2015) offered an analysis of the activity on Twitter with three main communication functions: monitoring, interacting, and disseminating. Most studies on the activity of political actors on Twitter have only focused on the latter two (interacting and disseminating), as they are the most “active” and visible ones. That may be the reason why those studies, both in the US (Golbeck et al., 2010; Hemphill et al., 2013) and Europe (Baxter et al., 2016; Enjolras, 2014; Graham et al., 2013; Larsson & Moe, 2011; Segado-Boj et al., 2016, 2016; Vergeer et al., 2011), mostly concluded that the use of the MPs is for “Broadcasting”. Recent studies also mentioned the term “amplifier” (Silva & Proksch, 2022), as political actors seem to go online to spread even wider the messages they are pushing in other arenas.

As the methodologies of these studies only allow for the analysis of two communication functions, their focus has been mostly on the contents published – for instance in their relationship with traditional media (López-Meri et al., 2017; Marcos-García et al., 2021; Oceja et al., 2019) or use of personal and humorous content to relate with the electorate (Baxter et al., 2016; Graham et al., 2018; López-Meri et al., 2017; Mendiburo-Seguel et al., 2022) – and on their interactions (Agarwal et al., 2019; Baxter et al., 2016; Enjolras, 2014). Both communication functions have also been analyzed for the use of Twitter by Portuguese MPs (Ferro-Santos et al., 2024a, 2024b). However, there is still a gap in the literature regarding the third communication function - monitoring – which can only be answered directly by the MPs.

RQ2: How do MPs perceive their use of Twitter?

RQ2.1: Is the MPs' perceived use of Twitter different than other social media apps?

Social media platforms, such as Twitter, have also been criticized as Habermas (2022) suggests that there is a decrease of the "deliberative quality" of the discussions online due to the "echo chambers" (Sunstein, 2006), with less and less shared view of reality due to the "reinforcing spirals" (Slater, 2007). This could be indeed disruptive to public spheres (Klinger et al., 2023) and downgrade the open public sphere to a semi-public one (Staab & Thiel, 2022).

The question regarding the level of interaction the MPs have on Twitter, and their deliberative quality regarding values and political homophily, is also analyzed by another type of homophily mentioned by Lazarsfeld and Merton (1954): status homophily. This type of homophily is based on social status characteristics and has been identified as well in the interactions of political actors on Twitter, for instance in the privileged interactions between journalists and politicians (Enjolras, 2014; Ruoho & Kuusiplao, 2019). This idea also fits with the "amplifier" function of Twitter (Silva & Proksch, 2022) as journalists can be considered "vital multipliers" (Keller, 2020, p. 193).

Previous studies have focused on the intermedia agenda-setting and its direction from and to traditional and social media, including Twitter (Gilardi et al., 2022; Su & Borah, 2019; Su & Xiao, 2024) and the use of Twitter by journalists as a source of information (Heravi & Harrower, 2016; Parmelee, 2013), or how Twitter posts could be considered the contemporary "press release" (Shapiro & Hemphill, 2017). Many of these studies focused on content analysis or interviews with journalists, but not on the intentionality of political actors, for instance if politicians see journalists as a target audience when posting on Twitter.

In Portugal this "Twitter Elite" (Ruoho & Kuusiplao, 2019) has been theoretically described by Barriga (Barriga, 2017) and empirically studied by Ferro-Santos and colleagues (Ferro-Santos et al., 2024b). However, it is not clear whether the MPs do have journalists and/or other political actors as their main target audience when posting on Twitter, as their posting agenda may be different than their interaction one.

RQ2.2: What is the target audience of the MPs when posting on Twitter?

METHODOLOGY

Survey development

The survey was designed in five parts: 1) sociodemographic questions; 2) use of the Internet; 3) media diet; 4) use of social media platforms; 5) Twitter participation. The survey design was from the general internet use to the particular use of the social media platform Twitter. However, the focus of the current research is mainly on the fourth and fifth segments.

Most questions in the fifth segment were designed by the research team to answer the research questions and were based on previous literature on the use of Twitter by political actors. However, most questions from the other segments were tried and tested questions taken from previous research surveys "Sociedade em Rede 2013" (Cardoso et al., 2015) and "Digital News Report 2022" (Cardoso et al., 2022) in order to have tested questions as a baseline. The lead researcher of the surveys used as inspiration gave consent for them to be used in this study. In Appendix A there is a guide to how the variables that were used in this study were developed.

The survey was approved by the ethical committee from the authors' university. The informed consent had to be signed and delivered along with the answered survey to be considered for the research.

Sampling and administration of the survey

At the time of the questionnaire distribution - between January and May 2023 -, it had been one year since the general election in January 2022. After the election, 8 political parties were represented in Parliament – 4 left-wing parties: Partido Comunista Português (PCP), Bloco de Esquerda (BE), Livre (L) and Partido Socialista (PS); 1 party that identifies outside of the left-right spectrum: Partido dos Animais e da Natureza (PAN); and 3 right-wing parties: Partido Social Democrata (PSD), Iniciativa Liberal (IL) and Chega (CH), a far-right party.

After the general elections in January 2022, PS had a majority of seats and formed the government. The political parties had the following seats in Parliament: PS - 120; PSD - 77; CH - 12; IL - 8; PCP - 6; BE - 5; PAN - 1; Livre – 1.

The population was 230 MPs, and we aimed to achieve a sample of 92 MPs, representative of the size of the parliamentary group with a minimum of one (table 1), to have a confidence level of 95% and an error margin of 8%.

The first mode of administration of the survey was a self-completion questionnaire, delivered by e-mail. After approval by the Parliament President, the survey was sent to the chiefs of staff of each parliamentary group (one per political party) to be distributed to the MPs. However, some chiefs of staff didn't respond to the email, so the researchers distributed the survey directly to the MPs in the Parliament building until the number of MPs for the representative sample was achieved. When the survey was hand-delivered by the researchers to the MPs, it was given back to the research team either by being sent by email, delivered by the MP to the chief of staff or given back directly to the research team, but no questionnaire completion was supervised.

The sample cannot be considered completely a random sample as there may have been a sampling bias towards MPs that were considered more likely to answer by the chiefs of staff or more present in the Parliamentary meetings where the questionnaire was personally distributed by the research team. In this sense, we have a quota sample, that "(…) is claimed by some practitioners to be

almost as good as a probability sample" (Bryman, 2012, p. 201). The quota sample size can be analyzed in table 1.

Table 1: Quota sample size

Party	Number of MPs 2023	% MPs per political party	Number of MPs per party for the sample goal	Minimum of one per political party	Number of collected survey answers
PS	120	52.2%	48.0	48	48
PSD	77	33.5%	30.8	31	31
Chega	12	5.2%	4.8	5	5
IL	8	3.5%	3.2	3	3
PCP-PEV	6	2.6%	2.4	2	2
BE	5	2.2%	2.0	2	3
PAN	1	0.4%	0.4	1	1
Livre	1	0.4%	0.4	1	1
Total	230	1	92	93	94

Source: Own elaboration

Although the sample was not aimed to be representative of the percentage of MPs with a Twitter account per political party, we also analyzed the final sample to ensure we had enough replies in the last segment of the questionnaire that was regarding the use of Twitter. Therefore, we established a minimum number of MPs per party with a Twitter account based on 1) the percentage of MPs from that party that had an identifiable Twitter account on 2nd April 2022; 2) the number of MPs per party in the quota sample. This minimum number was achieved for every party and even overachieved in some cases.

RESULTS

RQ1: Why do MPs join or not join Twitter?

Out of the 94 MPs from the sample, 93 answered the question regarding their knowledge of what Twitter was and 89 of them (96%) replied that they knew what Twitter was. However, out of the 92 that replied regarding if they had a Twitter account, 49 (53%) said they had an active account (opened it in the last month), 9 (10%) said they had an account but didn't use regularly (i.e. didn't open the app in the last month but opened it in the last six months), 11 (12%) said they had an account but didn't use it and 23 (25%) said they didn't have an account. Therefore, we can say that in our sample, 69 MPs had a Twitter account, but out of those, only 60 (49 with an "active account"; 9 that didn't use regularly

but used it in the last six months; 2 that didn't answer that question) were invited to answer the third part of the questionnaire regarding their use of the platform.

Regarding the MPs' motivations to join Twitter (table 2), the four main motivators were all regarding a passive use of Twitter – to read my colleagues' opinion (73%), to be updated on the news (71%), to understand the opinion of the voters (70%) and to keep up with the pages of official political entities (66%). However, more than half of the MPs that answer this question also mention more active motivations when they started using the app - sharing their political position (61%), to share and inform on their political party's position (57%) and to communicate their parliamentary work (54%).

On the media related motivations to join Twitter, the main motivation is to be updated on the news (71%), followed by to share news (43%) and to promote their presence in the media (30%), but just 5 MPs (9%) said that one of their motivations was to answer questions from journalists.

Finally, regarding non-political and personal motivations, 34% said their motivation was to keep up with non-political topics and 18% to share non-political topics and to interact with other accounts on non-political topics.

Table 2: Motivation to join Twitter - multiple choice (N=94; N/A= 36; NR= 2)

Motivations to join Twitter (multiple choice)	#	%
To read my colleagues' opinion	41	73%
To be updated on the news	40	71%
To understand the opinion of the voters	39	70%
To keep up with the pages of official political entities	37	66%
To share my political position	34	61%
To share or inform on my political party's position	32	57%
To communicate my parliamentary work	30	54%
To share news	24	43%
To identify topics that I can do parliamentary work on	23	41%
To keep up on non-political topics	19	34%
To share my daily activities	18	32%
To promote my presence in the media	17	30%
To answer questions from the electorate	15	27%
To promote my future activities	13	23%
To share non-political content	10	18%
To interact with other accounts on non-political topics	10	18%
To answer questions from journalists	5	9%
To involve the electorate in the elaboration of bills and other parliamentary work	4	7%
Other motivations	4	7%

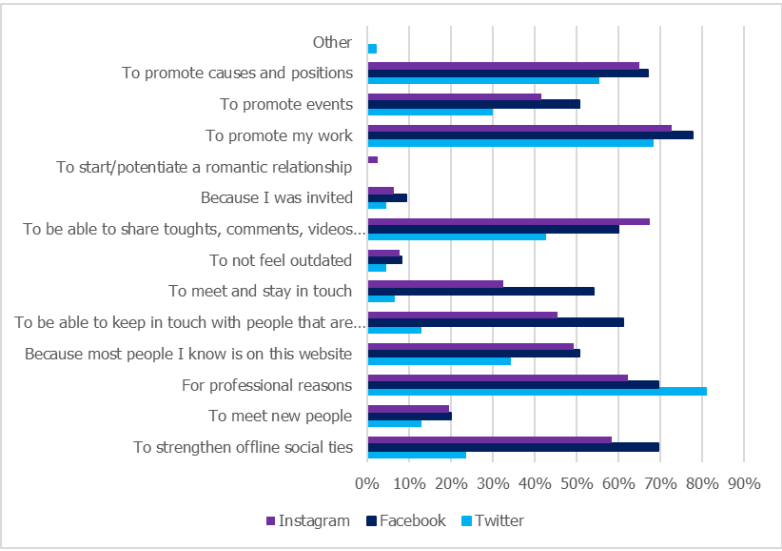
Souce: Own elaboration

The main reason the MPs identified for not having a Twitter account or not using it for more than six months is that they "don't see any added value to the platform" (n=12; 44%) and is followed by "lack of time" (n=9; 33%). Other reasons MPs have selected for not joining or have used Twitter in the last 6 months were "Keeps informed on what is happening on Twitter without needing an account" (n=5, 19%); "Don't know how to use Twitter" (n=2, 17%); "Is afraid of negative consequences from the use of Twitter" (n=1, 4%); "Doesn't know many people that are active users on Twitter" (n=1, 4%). No MP selected the option "Doesn't know what Twitter is". From the MPs that also selected "other reason" (n=5, 19%) and elaborated on that, two identified the toxicity and conflict between Twitter users as the reason to not join the platform, and one mentioned that they would create an account soon.

RQ1.1: Are the MPs reasons to join Twitter different than other social media apps?

The MPs that use the different social media platforms were invited to answer what were their motivations to join them (Figure 1). Comparing the percentage of users that selected the different motivations for each platform, there are some notorious differences between the motivations of the Twitter users to join and the other platforms analyzed: Facebook and Instagram. The first and main one is "For professional reasons", in which more than 80% of the Twitter users selected as a motivation which is the only motivation of the possible choices that had a higher percentage than of the other social media platforms. On the other hand, the motivations "To meet and stay in touch", "To be able to keep in touch with people that are far away" and "To strengthen offline social ties" were barely selected as motivations to join Twitter in comparison with the other social media platforms analyzed.

Figure 1: Motivations to join Twitter, Instagram and Facebook (N=94; Twitter: N/A=47, Facebook: N/A=9; Instagram: N/A=17)



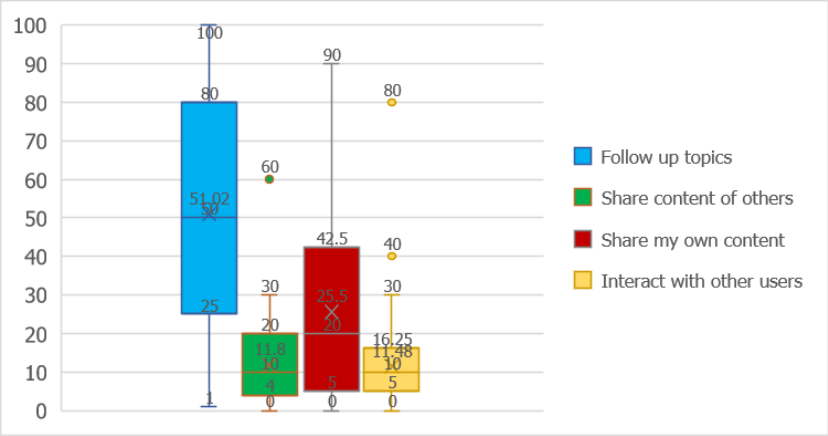
Souce: Own elaboration

RQ2: How do MPs perceive their use of Twitter?

Of the MPs that answered the questionnaire and used Twitter in the last six months (N=58; NR=3), 50 (91%) were only them publishing in their own account and 5 (9%) also shared the account details with a political advisor for them to publish content in their name.

In Figure 2 we can analyze the MPs' self-perception of the percentage of time spent on 4 different Twitter actions. Out of the 51 MPs that answered the question, 40 clearly stated that they spent more time in one action than the others: 27 in following up topics of interest, 11 in sharing their own content, 1 in sharing content of others and 1 in interacting with other accounts.

Figure 2: Boxplot of MPs' self-perception of percentage of time spent on 4 different Twitter actions (N=94; N/A= 36; NR=8)



Souce: Own elaboration

The way the Portuguese MPs use Twitter is mostly as they expected or what motived them to join Twitter in the first place (table 2 and 3). However, as shown in table 3, there were some uses that surprised the MPs, like “To identify topics that I can do parliamentary work on” and “To promote my presence in the media”, and other uses that were more identified as motivations but not real uses like “To answer questions from the electorate”.

Table 3: Motivation to use Twitter, surprise uses and not as expected (N=94; N/A= 36; NR= 2)

Reasons to use the Twitter account (Multiple-choice)	#	%	Surprise uses (A)	Not as expected (B)
To read my colleagues' opinion	43	77%	6	4
To be updated on the news	42	75%	3	1
To understand the opinion of the voters	40	71%	4	3

To keep up with the pages of official political entities	38	68%	4	3
To share my political position	34	61%	4	4
To communicate my parliamentary work	32	57%	7	5
To identify topics that I can do parliamentary work on	30	54%	10	3
To share or inform on my political party's position	29	52%	3	6
To promote my presence in the media	23	41%	8	2
To share news	22	39%	3	5
To keep up on non-political topics	21	38%	7	5
To share my daily activities	21	38%	5	2
To promote my future activities	14	25%	7	6
To answer questions from the electorate	12	21%	4	7
To share non-political content	11	20%	4	3
To interact with other accounts on non-political topics	10	18%	5	5
To involve the electorate in the elaboration of bills and other parliamentary work	9	16%	6	1
To answer questions from journalists	9	16%	4	0
To read my colleagues' opinion	43	77%	6	4

Source: Own elaboration

(A) #MPs - didn't select as motivation but selected as reason to use
(B) MPs - select as motivation but didn't select as a reason to use

RQ2.1: Is the MPs perceived use of Twitter different than other social media apps?

The MPs were asked about different uses for different social media platforms, including different political and personal usages. Of the MPs that use each platform and answered that question (Twitter n=53, Facebook profile n=71, Instagram n=76), there is a much higher percentage of MPs that replied they only use Twitter for political reasons (N= 21, 40%), than Facebook (N= 15, 19%) and Instagram (N=9, 12%).

RQ2.2: What is the target audience of the MPs when posting on Twitter?

When asked who the MPs' target audience was when posting on Twitter (multiple choice, N=94, N/A=36; NR=3), 78% of the MPs replied it was their electorate, 45% their colleagues, 35% journalists, 27% their friends and 13% said they didn't have any one in mind when posting.

LIMITATIONS

Like any study this one also has its own limitations. The main one is that we are extrapolating analysis based on a sample, that although significant, still can't fully comprehend the complexity of the universe

in study. Although that analysis was not done for this study, the MPs answered political filiation and sociodemographic questions in the questionnaire and signed an informed consent form that was approved by the investigators' university ethical committee. Although their answers to the questionnaire were anonymized, we must consider that the replies to the survey are not only a self-perception but also what the MPs want to publicly answer.

DISCUSSION, CONCLUSIONS AND FURTHER RESEARCH

Fear of Missing Out (FOMO) on the peer network and news

To answer the first research question - Why do MPs join or not join Twitter? - we can say that the main motivation for MPs to join Twitter was to keep up with political topics - either by reading their colleagues' posts, news, the voters' opinions, or pages of official political entities. The first conclusion that is of particular interest is that the motive most selected by MPs to join Twitter was to read what their colleagues were posting.

Regarding the motivation to not join or not have used their Twitter account in the last 6 months, the key reasons were not seeing any added value to the use of the platform and lack of time to use it. Interestingly, only one MP selected as reason "Doesn't know many people that are active users on Twitter" which is of relevance because it reinforces the idea that although the overall Portuguese population has a small Twitter adoption rate (Cardoso et al., 2023) which could be a barrier to new users joining a network in which they don't know many active users, the political elite, such as MPs, have a much larger adoption rate, so, that would not be a deterrent for its adoption. On the contrary, as their peers are increasingly more on the platform, and as party recruitment is key for their re-election, that may be a strong motivation as their symbolic and social capital can be reinforced by belonging to that network. This idea reinforces the first main conclusion regarding the importance of the peers' network in Twitter as a key motivation to join Twitter.

This analysis could even be extended to the idea of Fear of Missing Out (FOMO) that has already been linked to the use of social media platforms (Fioravanti et al., 2021) and the consumption of news online (Shabahang et al., 2021) which is also a motivation to join the platform and a preferred activity by MPs on Twitter. Previous research on the Twitter adoption of Portuguese MPs (Ferro-Santos et al., 2024a) concluded that MPs from small and non-conservative political parties were significantly more likely to join the platform, we can argue that in those parties the "peer pressure" to not be the one-out of the platform would be clearer.

Further work could develop on the peer pressure influence for MPs and other political actors adopting and using social media platforms and dwell in more detail on the FOMO feeling including its measurement using scales as suggested by Abel and colleagues (2016).

Political elite social listening tool

In answering the second research question we can say that most MPs use Twitter in a more passive way - almost as a social listening tool to check on their colleagues and voters' opinions, be updated on the news, and follow up institutional accounts - only posting and interacting on occasion. However, there are also some MPs that use Twitter more as "dumping" tool, closer to the idea of broadcasting (Enjolras, 2014; Golbeck et al., 2010; Graham et al., 2018; Larsson & Moe, 2011; Segado-Boj et al., 2016), in which they mainly open the platform to post their own content and get out of the app. A second conclusion that we can point out is that this idea of most MPs using Twitter as a social listening tool, and not just as broadcasting tool, still keeps the use of the platform away from the promises of "direct representation" (Coleman, 2005) and "continuous democracy" (Rodotà et al., 2007). Firstly, because it lacks the interaction of most MPs in the platform, and, secondly, because, in a country with such low Twitter adoption rate, the voters they "listen to" are a more politically and/or technologically savvy than most and, therefore, not truly representative of the electorate – and specially if some MPs mostly "listen" to each other and some Twitter elite.

The MPs mostly use Twitter as they expected when they joined the platform, but there are some uses they didn't expect like "To identify topics that I can do parliamentary work on" and "To promote my presence in the media", and other uses that were more identified as motivations but not real uses like "To answer questions from the electorate". The use of Twitter "To identify topics that I can do parliamentary work on" is of special interest and demonstrates the use of Twitter as a social listening method – MPs may not interact much with the constituents on Twitter, but they use the platform to listen to them. This effect had also been studied regarding the impact of Facebook publications on the UK MPs participation (Bollenbacher et al., 2022) but with a content analysis method.

Mostly (just) business – Twitter as a political tool

A third important conclusion of this study is the use of Twitter, by the MPs, mostly as a political tool and not a personal one as seen in other countries (Baxter et al., 2016; López-Meri et al., 2017) . Before joining, the Portuguese MPs seemed to see Twitter mostly as a political tool, with just a few respondents including non-political motivations to start using Twitter, which is also replicated in their replies regarding their actual use of the platform. When compared with their motivations to join other social media platforms, such as Facebook and Instagram, they again considered Twitter a more professional tool, joining mostly for "professional reasons", and not as much as keeping in touch or strengthening their offline relationships. Furthermore, this can also be seen as a way of professionalization of political communication in Portugal and reinforces the idea of Media Ideology (Gershon, 2010) and appropriation (Silverstone & Haddon, 1996). As individual political

communication is up to the MPs most of the times (95% in the case of Twitter), with no help from advisors or a team – unlike in other countries (Bauer et al., 2023), the MPs consciously define different uses and contents for different social media platforms which shows some level of sophistication and strategy in their communication. This conclusion must be contextualized as most people in Portugal that are outside of certain thematic circles as politics and media don't use Twitter.

More to keep up with the news than to set the news

Regarding the MPs' target audience when posting on Twitter, the fact that most MPs chose the electorate as one of their target audiences is of special interest because in a previous study (Ferro-Santos et al., 2024b) that analyzed their interactions on the platform, the electorate was not the type of accounts that the MPs mostly interacted with, but their colleagues, other politicians, and political influencers. This can have two possible explanations: firstly, they may have as target audience to their posts the electorate but prefer to interact with colleagues and other political actors that they know or know of; secondly, they may have the intention of interacting more with the electorate than they do, and this survey shows of their self-assessment based on intention and not the reality of their actions.

Another point of notice is that most of the MPs on Twitter don't have journalists as their target audience, which can be a relevant finding because clearly there is a close relationship between the media and the political sphere on Twitter. Previous studies show that Portuguese MPs share a lot of media content (Ferro-Santos et al., 2024a) and 71% of MPs did point out that "keeping up the with news" is an activity they use Twitter for. On the other hand, there are news pieces that use politicians' tweets as news source, although there has never been a study that shows how much it happens in Portugal. Therefore, it begs the question: do MPs not see journalists as a valuable target audience on Twitter or just don't admit it? And are they an actual valuable target audience for MPs on Twitter? Further research is needed on this topic, including how much the traditional media in Portugal uses and quotes MPs and other political actors based on their Twitter posts.

This study concludes that most Portuguese MPs see their own use of Twitter as political tool and not a personal one, unlike other social media platforms. Twitter as a political tool is not only seen as a broadcast device by some MPs, as other studies have pointed out, but also as a social listening tool. Nevertheless, this use can have its shortcomings as the percentage of Twitter adoption in Portugal is low and, therefore, the MPs may be "listening to" a very close tight "Twitter Elite". Finally, although the Twitter adoption in Portugal is low, the MPs do want to be on Twitter because of this political use and the fact that their colleagues are also on the platform, which can create, specially in some parliamentary groups, a peer pressure to also be on it.

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Appendix: Variable definition for the current study

Research Question	Macro level variables	Based on
RQ1	Motivations to join Twitter	Previous literature review that mentions different political actors' motivations to use Twitter: interaction with electorate and broadcast political positions (Baxter et al., 2016; Enjolras, 2014; Silva & Proksch, 2022), relationship with the media (López-Meri et al., 2017; Marcos-García et al., 2021), relationship with peers (Ferro-Santos et al., 2024b), and personal content (Baxter et al., 2016; Graham et al., 2018; López-Meri et al., 2017). Different variables were defined to account for different levels of engagement (e.g. read, share, interact) based on the three communication functions mentioned by Frame and Brachotte (2015).
RQ2	Motivations to use Twitter	
RQ1	Reasons to not join or not have used Twitter for more than 6 months	Own elaboration
RQ1.1	Motivations to join a specific social media platform	Based on the motivations on question L.12 of the survey "Sociedade em Rede 2013" (Network Society 2013) (Cardoso et al., 2015) and applied to the social media platforms Instagram, Facebook and Twitter
RQ2	Who can publish in the account	Based on a study (Bauer et al., 2023) that estimates that only one third of the members of the German Bundestag in 2020 operated their Twitter accounts alone.
RQ2	Self-perception of percentage of time spent on different Twitter actions	Own elaboration
RQ2.1	Political, Personal and Mix use of Twitter, Facebook (profile) and Instagram	Own elaboration, based on the conclusions of previous studies (Ferro-Santos et al., 2024a) that the Portuguese MPs use of Twitter is not as personal as in other countries, and decision to compare it to other social media platforms
RQ2.2	Target audiences in the use of Twitter	Own elaboration, to test the idea of MPs using Twitter as intermedia agenda-setting (Shapiro & Hemphill, 2017) and the possibility of MPs seeing journalists as target audience for their Twitter publications

Source: Own Elaboration

CHAPTER 5

Conclusions

The main goal of this thesis was to better understand who, why and how the Portuguese political actors use Twitter, in particular drawing conclusions on whether that use is closer to a public communication channel or if it has interference of Filter Bubbles. This was done by also providing a new case study in Portugal - that has a specific political and social media context – and by intersecting different methodologies and trying to improve their application from previous studies, to research the three main communication functions (monitoring, interacting and disseminating). To achieve the defined research objectives, a research plan was designed based on three main questions – What do MPs do on Twitter? (WHAT); Who are the MPs on Twitter, who interacts the most and with whom do MPs interact on Twitter? (WHO); What are their motivations to join and use Twitter? (WHY).

Regarding "What", as seen in the first article (Ferro-Santos, Cardoso, et al., 2024b) most MPs use Twitter almost exclusively for political content, with a very low percentage of personal content being shared (12% of total number of tweets analysed) compared to other countries (Baxter et al., 2016). In the third study (Ferro-Santos, Santos, et al., 2024) only 20% of the MPs that answer that question said that they user Twitter "to share non-political content" and 18% "to interact with other accounts non-political topics". These conclusions are also aligned with the results from Loureiro (2023) regarding the use of Twitter by the party leaders, including the Prime-Minister, that is seen as a "Daily Log" of their political events and no personal content is posted. However, some MPs indeed share personal content which are also some of the ones that use more the platform in general.

This low level of personal content may be related to the low level of adoption of Twitter in Portugal, being mostly used by the Twitter Elite and being perceived as a business tool for MPs. The low level of adoption by the overall population creates two phenomena: firstly, many MPs only start using Twitter for professional/political motives – as concluded in the third article (Ferro-Santos, Santos, et al., 2024) – not having an active account before with already personal content that is then adapted to also include political one; secondly, as far as their perceived and intended audience on the platform, although the electorate was pointed out by most MPs as a target audience, it can be argued that Twitter users are a specific share of the electorate that already has a special interest in political discussion that is on Twitter. This "Twitter Elite" has been referred by previous studies (Ruoho & Kuusiplao, 2019, p. 71) and also described as being the main users in Portuguese Twittersphere (A. Barriga, 2017).

The first article (Ferro-Santos, Cardoso, et al., 2024b) also shows that there was a high percentage of tweets that were "direct information" (30%), mostly to media content (20% - "Directing Information – Media" and "Directing Information – Self-promotion in media"), but also to their own

contents in other platforms (3%). This aligns with the idea of Communication of Communication by Cardoso (2023) and of “unbundling” and “rebundling” of news contents (van Dijck et al., 2018).

Furthermore, as discussed in the first study (Ferro-Santos, Cardoso, et al., 2024b), not all political parties seem to have the same Twitter strategy. That is clearer in cases of smaller parliamentary groups – like Chega MPs that have a higher percentage of “directing information-media” (26%), “directing information self-promotion” (26%) and “positioning” (72%) and almost no “conversation” (less than 1%). This results are aligned with the conclusions from Gonçalves (2023) regarding the use of Twitter by André Ventura, the CH party leader, that the author consider to have an auto-referential strategy, sharing what is being said about him and his party in traditional media on the social media platform, also as a way to gain credibility. However, L and IL, two political parties that are considered progressive, have a higher percentage of tweets with “conversation” (29% and 27% respectively). It is important to highlight that the three political parties – CH, L and IL – are all recent parties, all founded already at a time where use of social media platforms is prevalent. This point can lead to further reflexion on how three new parties – all formed in the high period of Web 2.0 – have adopted the platform but in different ways as we will further discuss with the concept of “appropriation” (Silverstone & Haddon, 1996), specially regarding their uses of Twitter for interaction.

The first article (Ferro-Santos, Cardoso, et al., 2024b) only allow us to partially answer the question of what MPs are doing on Twitter because it only analyses their active participation on the platform (posting and interacting), and not the passive one (reading). Therefore, it is important to also analyse the results of the third article (Ferro-Santos, Santos, et al., 2024) to complete this information with the self-assessment of MPs regarding their use. The most predominant use of Twitter as assessed by MPs is in a passive way – as a social listening tool to check on their colleagues and voters’ opinions, be updated on the news, and follow up institutional accounts - only posting and interacting on occasion. On a first glance, this use could be, in a way, aligned with the ideals of “direct representation” (Coleman, 2005) and “continuous democracy” (Rodotà et al., 2007). However, to completely reach these ideals, there are still three factors missing: firstly, there is a lack of interaction from most MPs on the platform; secondly, the activity most MPs identified as doing on Twitter is reading what they colleagues are posting (77%) and not the electorate (which ranks third on the number of MPs performed activity on the platform); and, finally, in a country with such a low Twitter adoption rate, the voters they "listen to" are more politically and/or technologically savvy than the general electorate. As a result, these voters are not truly representative of the broader population, especially if some MPs mainly "listen" to each other and to a selective Twitter elite.

To address the “What” are MPs doing on Twitter, we can affirm they mainly use it in a passive way to keep themselves informed firstly on what their colleagues post, and then on what is posted by the media, voters and institutional accounts. However, some also use it as a broadcasting

tool, only opening the app, "dumping" their text and then exiting (Ferro-Santos, Santos, et al., 2024). The type of content they post is mainly for the "Twitter Elite" (Ruoho & Kuusiplao, 2019) as they utilize the platform to broadcast their political stances, disseminate news and media content, and report on previous events. Nonetheless, MPs from certain political parties adopt distinct strategies.

A final, but important, conclusion of the first paper was that although popularity – number of followers - can be driven by traditional media appearance and political visibility (being in leadership roles in the political party), the influence on the platform – number of retweets - is not, being only influenced by activity on the platform. On Twitter it doesn't only matter who you are, but also what you do.

Regarding "Who" we have three sub questions: 1) who, from the MPs, is on Twitter and is active on the platform; 2) who interacts the most; and 3) with whom they are interacting. One important conclusion is that although the Twitter usage by the general population in Portugal has been decreasing since 2021, the MPs level of adoption increased. This may raise the question on what is the motivation for MPs to adopt and use Twitter. This will be further discussed on the "Why" section of our conclusion.

Table 5 - Use of Twitter in Portugal by general population and Twitter adoption by Members of Parliament | Source: on table

	Portugal		
Year	All users*	MPs**	Source
2016	N/A	39%	(Cardoso et al., 2016; Comunicação ISCTE-IUL, 2016)
2017	15%	N/A	(Cardoso et al., 2017)
2018	13%	N/A	(Cardoso et al., 2018)
2019	11.7%	N/A	(Cardoso et al., 2019)
2020	15.4%	41%	(Cardoso et al., 2020; Haman & Skolník, 2021)
2021	19.8%	N/A	(Cardoso et al., 2021)
2022	14.6%	56%	(Cardoso et al., 2022; Ferro-Santos, Cardoso, et al., 2024b)
2023	14.9%	N/A	(Cardoso et al., 2023)
2024	11%	N/A	(Cardoso et al., 2024)

*) Twitter use **) Twitter adoption

The conclusions from the first article (Ferro-Santos, Cardoso, et al., 2024b) point to political party (small and non-conservative) being a significant variable for both popularity and influence of the MPs on Twitter, as well as use and level of activity in combination with being from a large electoral circle. However, these variables were not considered relevant for adoption rate unlike the gender (male) and age (younger).

A possible explanation offered is that MPs from larger and more cosmopolitan constituencies are more likely to use (not adopt) Twitter because of four factors: 1) the MPs from bigger cities will most likely want to target an audience with higher level of education and internet use levels (mostly likely to use a niche social media platform); 2) these MPs may have a closer relationship with national traditional media (that have offices in these cities) and they may want to replicate that relationship online as well. On the other hand, the reason why MPs from smaller parties have higher usage of Twitter may be that 3) these smaller and non-conservative parties are some of the most recent ones, already having been created in a tech-savvy society, and therefore may be more willing to be present in less mainstream social media platforms in Portugal, even before they were on Parliament; or 4) these smaller parties and their MPs have less time and space in traditional media, needing other ways to communicate more directly to their audience.

Furthermore, if they are more likely to use and post regularly on the platform, they would also be more likely to understand the social norms, become better-known with other regular users and become part of the "Twitter elite", therefore also having a better chance to gain influence on the platform. However, there are also MPs from catch-all parties with this type of Twitter use, though they represent a smaller percentage of the parliamentary group.

The second question on "who", is about with who is interacting most among the MPs. If in the first paper (Ferro-Santos, Cardoso, et al., 2024b) there was already an analysis of the tweets in the category "conversation" – amounting to 17% overall, in the second paper (Ferro-Santos, Cardoso, et al., 2024a) the interactions are further analysed with different formats being taken into account: 44% of tweets don't have any form of interaction, 25% were just retweets (RT), 17% were replies (R), 8% quote-tweets (QT) and 6% tweets with at least one mention (TM). Of these formats, besides normal tweets with no interaction, retweets were also not considered an advanced form of interaction, as they are more like a way to share the content. The third article (Ferro-Santos, Santos, et al., 2024) found only 21% of the MPs answered that they use Twitter "to answer questions from the electorate" and 16% "to answer questions from journalists".

As already mentioned, one of the conclusions from the first study (Ferro-Santos, Cardoso, et al., 2024b) was that MPs from different political parties seem to have different Twitter strategies regarding the type of content they share. In the second study (Ferro-Santos, Santos, et al., 2024) this analysis is deepened using a General Linear Model with political party as a "fixed value" and "advanced interaction (sum of QT, TM and R of each MP) as a dependent variable that was considered relevant – but not RT. A further analysis concluded that MPs from parties closer to the ideal of "Network Parties" (Klimowicz, 2018) – namely BE, L and IL – are responsible for a higher percentage of interactions when compared to the number of MPs they have on Twitter. These results may be in line with the concept of "appropriation" (Silverstone & Haddon, 1996), indicating that MPs use Twitter differently based on

their political objectives and communication strategies. For example, MPs from "network parties," characterized by tech-savvy participants, collegial leadership and/or open legislative recruitment, find Twitter interaction better suited to their strategy and habits.

The third question on "who", is about with whom do MPs interact. The category of accounts with most interactions were politicians, being 19% of the accounts with whom MPs interact and 22% of total interactions. For the grassroots category of "other voters" there is more plurality but less frequency in interaction, showing that MPs do interact with them (mostly with replies) but this is often a one-time interaction and not an on-going conversation as they do with other political actors with whom they already have an established relationship. The categories "other political agents" (e.g. parliamentary groups pages) and "companies and institutions" accounts are mainly retweeted or mentioned – this interaction may be call-outs to institutions the MPs visited, are working with or have been mentioned by or it is often to share their own work in other ways like sharing their parliamentary speeches that were posted by party accounts. We can conclude that the target of interaction depends on tweet format, each one serving for different purposes. In the third article (Ferro-Santos, Santos, et al., 2024) 78% of MPs recognize as their target audience the electorate, 45% their colleagues, 35% journalists, 27% their friends and 13% said they didn't have anyone in mind when posting. This can be perceived in two ways: firstly, MPs answered this question with mostly replies (R) as the interaction type, not considering other formats (like RT or even direct messages); secondly, MPs answer this question with whom they idealize as their target audience (who they think it should be or want it to be) and not who it actually is.

We can conclude that this study reinforces the the idea of "Twitter elite" as 40% of accounts with whom MPs interact - or 60% of the accounts if we exclude institutional or anonymous accounts – are from either politicians, journalists or political influencers. This also increase the idea of Twitter being used as a peer network, a political tool, and less as a social media platform for personal interaction.

Concerning the political homophily analysis, results depend on the interaction format, being stronger in the retweet and tweet mention networks and weaker in the reply and quote-tweet networks, specially if we exclude from the analysis all the accounts that don't have a clear political alignment (e.g. institutional accounts).

Regarding "Why" MPs use Twitter, in the questionnaire, the reasons the MPs selected to adopting Twitter are the ones they selected as why they didn't adopt it. Only one MP selected the reason "Doesn't know many people that are active users on Twitter" which may indicate us that the low level of Twitter use on the overall population doesn't affect the MPs interest in joining the app, as their peers are on the app and that peer network may be a key factor to join. As the first study (Ferro-Santos, Cardoso, et al., 2024b) concluded that MPs from small and non-conservative political parties

were significantly more likely to join the platform, we can also say that MPs from those parties may have a higher peer pressure to be on Twitter in order not be the odd-one-out of the platform.

The motive most selected by MPs to join Twitter was to read what their colleagues were posting. This is further explored in the third article (Ferro-Santos, Santos, et al., 2024) noting that this effect may be related with the Fear of Missing Out (FOMO) phenomenon, in which MPs may be concerned with being left out of off- and online conversations if they are not informed of the latest news and ongoing political discussions on the news and political network of choice: Twitter. This analysis is also aligned with recent studies on the need for digital disconnection as a result of the pressure and mental pressure to be constantly online (Nassen et al., 2023) including the creation of commodities to do so (Karppi et al., 2021).

As Blumler and Kavanagh (1999) mention, communication and media abundance in the third era of communication created a pressure on political actors for "feeding the news". In the fourth era, this pressure expresses itself in a different way: not only do political actors feel pressure to feed the news but also to be always updated on them. The questionnaire concluded that 75% of MPs use Twitter "to be updated on the news". This pressure to be updated on the news can be a result of different factors such as 1) the possibility of being asked to comment any subject at any time (e.g. with a live interview on the street); 2) the availability of the news 24 hours both on the traditional media as well as on digital platforms; 3) and the higher level of information the electorate can already get on their own, expecting the political actors to be as or even more informed as themselves. However, as already mentioned, not many see journalists as their target audience, so the "feeding the news" pressure may be differently perceived, although journalists do use tweets as news sources and MPs do use Twitter for self-promotion as mentioned by the first article. It begs the question if the MPs don't actually see journalists as a valuable target audience, if they just don't admit it or if they are more focused on self-promotion in general.

When comparing the motivations to join Twitter to the motivations to join Instagram and Facebook, there is a clear difference. The motivation "for professional reasons" is selected by many more MPs for Twitter and the motivations "To meet and stay in touch" and "To be able to keep in touch with people that are far away" are barely selected regarding Twitter but selected by many MPs for the other social media platforms.

On Table 6 there is a summary of the key conclusions to the three main questions "What?", "Who?" and "Why" regarding the presence and participation of Portuguese MPs on Twitter.

Table 6 - Summary of conclusions on the three main questions What? Who? Why? | Source: Own elaboration

WHAT	WHO	WHY
• Predominant use of Twitter by most MPs is in a passive way – as a social listening device - only posting and interacting on occasion • When they post, it is mostly political content, and almost no personal content • Use of Twitter to share media content, including self-promotion • Not all MPs use Twitter the same way • Popularity depends on who you are (e.g. appear on TV and be party leader), but influence also depends on what you do (use of Twitter)	***Who is on Twitter?*** • Male and young MPs are more likely to adopt Twitter • MPs from small and non-conservative parties from large electoral circles are more active on Twitter ***Who interacts on Twitter?*** • Political party is a significant variable for advance interaction but not RT • MPs from "network parties" interact more ***With whom are MPs interacting?*** • Reinforcement of "Twitter Elite" idea: larger interaction percentage is with other political actors, journalists and political influencers • However, 78% of MPs in the sample identify the electorate as the main target audience • Replies are mostly to other voters and political influencers but mentions and retweets are mostly done to politicians, other political actors and companies/institutions. • Level of political homophily depend on interaction type. • There should be more analysis on value homophily than status homophily	• The main motivation most MPs identified as to why they joined Twitter is to keep up with political topics – firstly to read their colleagues' posts and then news. • Unlike other social media platforms, Twitter is mostly seen as a political work tool • More to keep up with the news than to set the news – or so they say. • Even if the electorate is the most identified target audience, the fact that there is a small adoption rate by the overall Portuguese population doesn't seem to be a detractor. Possibility because their peers are on it.

Another key question that was aimed to be answered with this thesis regarding the adoption and use of Twitter by the Portuguese MPs is if it can be considered a public communication channel or if it is affected by the Filter Bubble effect. As mentioned by Bruns (2019, p. 33), more than a duality, this analysis should be a «(…) measurement of a user's degree of "chamberness" or "bubbleness" – that is, of their communicative enclosure.». However, it is possible to point out different findings from the three studies that either reinforce the use as a public communication channel or the existence of Filter Bubbles.

The findings that mostly support the use as public communication channel are the use of Twitter as a social listening tool, for colleagues (77%), news (75%) and voters (71%), as well as using it "to identify topics that [MPs] can do parliamentary work on" (54%). Furthermore, there are interaction formats that have lower political homophily levels like the quote-tweets and specially the replies in which almost one third, on average, of all accounts with whom the MPs interacted with being from the opposite left-right alignment.

However, there are also findings supporting the existence of homophily, like political homophily in the interactions format of retweets and mentions, especially if we exclude from the analysis all the accounts that don't have a clear political alignment (e.g. institutional accounts). Moreover, it can be concluded that other forms of homophily were found like status homophily, with the MPs' interactions being mostly with other politicians, political influencers and journalists – the Twitter Elite. These findings also reinforce Bruns (2019, 2021) conclusions that "filter bubbles" cannot be confirmed as phenomenon in disregard for the format of the interaction (RT, QT, TM, R) nor the motivation for the use of the social media platform.

If Möller (2021) concluded that more than a left and right echo chamber, there is a chamber of people who are in the interested in the politics and currents affairs and those who are excluded, we can add that there is a chamber of people who get the attention of those in politics and current affairs and those, with few exceptions, who don't. This can also mean that a finding like using Twitter as a social listening device can also be a risk given what is being listening to may be diversified in terms of political alignment but may not be diversified in terms of social, symbolic and/or intellectual "status".

One of the reasons that can explain this effect is that more than left or right, the MPs tend to interact with accounts from people they know or know of. As mentioned by Baxter, Marcella & O'Shea (2016), in the MPs' comments sections there are plenty of dissonant voices and some give up interacting on Twitter or even using the platform at all. Other studies on Social Media Influencers also identified their need to have different coping mechanisms to deal with increasing aggressions online (Ouvrein et al., 2023). The interactions with people who MPs know or know of may be less aggressive and/or the perceived gain in symbolic capital may seem to be worth the level of aggression. However, as pointed out by Prior (2021), Twitter, as other social media platforms, present a high risk for political actors to see any lapse become a meme.

Overall the ideas of a new "Network Democracy" (Hacker, 2002), "Direct Representation" (Coleman, 2005) and "Continuous Democracy" (Rodotà et al., 2007) may seem to have fallen short on their promises, in particular regarding the entry of new players in the established power structures and the level of interaction with elected political actors. However, that does not mean that there is no use for Twitter as a useful political tool for political actors. Members of Parliament do use Twitter to

keep informed on current political discussions (even if distorted by the "Twitter elite bubble") and to self-promote their work (even if mostly to the "Twitter elite bubble") which keeps other informed.

Finally, the use of Twitter by MPs can then be seen as a balanced analysis of three different factors: 1) being active on the platform that is driven by the wish to self-promote their and their party's work (e.g. broadcasting it or sharing it when it is on the news), 2) increase symbolic capital online by interacting with high status accounts; 3) wanting to be in-the-know to increase symbolic capital offline and having FOMO, wanting to know what is happening on both the peer-network and news-network. The balance of these factors, allied with their capacity and willingness to deal with dissident voices will depend on the MP and can even change over time for the same MP which explain different uses.

These three different factors can lead to four Twitter User types – as the first two factors can be seen in a matrix and the third one is the absence of the first two but still the willingness to be on Twitter. Therefore, in Table 7 we can find the matrix of the four Twitter Use types as MPs with examples from different accounts. However, it is important to note that as the weight from each factor changes – due to different perceived risks or rewards, differences in time constraints or even other social and psychological factors – the same MP may change their style completely.

Table 7 - Four types of Twitter Users as MPs | Source: Own Elaboration

High Interaction	**"Symbolic Capital Hunters"** Mostly interact (RT, TM, QT, R) on Twitter with the Twitter Elite to elevate their own symbolic capital. If there are dissonant voices they may reply if the value perceived is greater than the risk Eg. @editeestrela; @carlacastroPt; @MigCMatos	**"Twitter Natives"** Use all Twitter functionalities, probably also post personal / non-political content. Are the ones that are most likely to answer to electorate replies and not just the Twitter Elite Eg. @cgpliberal; @zecarlosbarbosa; @Aapbatista; @Ruitavares
Low Interaction	**"Just looking – FOMO"** Use Twitter mostly to know what is happening in their peer and news networks. May like and retweet but see posts and interaction as high risk and low reward now *(will not be included examples to keep the personal information from questionnaire anonymous)*	**"Broadcasters"** Use Twitter mostly to promote their own or their parties' activities and work, both by posting directly or sharing news of it (T/RT). Don't engage with the interactions and avoid confrontation E.g, @AndreCVentura; @ASantosSilvaPAR; @rpdsousa
	Low # tweets	**High # tweet**

Different types of Twitter users may also lead to MPs using Twitter closer to a public communication channel – like the "Twitter Natives" – or having more influence of Filter Bubbles – either political/values homophily, like "Broadcasters", or status homophily, like "Symbolic Capital Hunters". As based on the work of Grossetti and colleagues (2019), the higher the number of interactions, the lower the probability of filter bubble effect. Therefore, the "Just Looking-FOMO" type can also be at risk of higher homophily. Even with the challenges already identified around status homophily, we could even say that Twitter has the potential to be a tool for the three models of Digital Democracy (Åström, 2004) depending on the MPs who use of it: the direct model is will be mostly taken advantage of by the "Just Looking-FOMO", the interactive model mostly by the "Symbolic Capital Hunters", and the indirect model by the "Broadcasters", and "Twitter Natives" will make use of all of them.

Future directions of research

In any study there are always new questions because of the current research, new lines of investigation that can be taken and it is a challenge to know when to wrap up and present the currents results without wanting to dig deeper. As that time has come, one can only offer their thoughts on what threads can still be pulled and which related questions are still to be answered as future directions of research.

The first future line of research that can be a natural step from this thesis is the comparison between the use of Twitter by the MPs and by other political actors. If we concluded that the use of Twitter by the MPs can vary between themselves and even over time, it will most likely also differ from other political actors that perceive the three factors differently. As a hypothesis, a prime-minister or a mayor may use Twitter mostly as "Broadcaster", as they have executive functions that lead them to constantly want to self-promote their and their party's work (the first factor) but have less direct peers and less time to weigh so much of the other two factors.

A second line of research would be in the realm of comparative studies. For instance, analyzing the results regarding political actors willingness to post, as well as the level of political homophily of the electorate on Twitter in comparison to other social media platforms used in Portugal as has already been done for Canada, France, the United States and United Kingdom by Boulianne and colleagues (2024), which would also allow country comparison. This line of research is of special interest in the context of a change in the social media platform landscape, with TikTok being more used than Twitter as a news source in 2024 internationally (Newman et al., 2024).

The third line of future research proposed is the analysis of how the changes in the Portuguese Parliament may have affected the use of Twitter by the different parliamentary groups or even by the same MPs that were re-elected. A clear lead is that the parliamentary group of CH has

grown from 12 MPs to 50 MPs, which can not only influence their willingness to interact with each other, but also having a different evaluation of the risk in interacting with other accounts as they feel that their party and its ideals gain legitimacy. Expected results could be less MPs using Twitter in the "Broadcaster" style and moving towards a "Twitter Native" style and MPs that were not present on the platform becoming "Just Looking-FOMO" as they have more peers in the network that they wish to follow.

Finally, a fourth possible line of future research would be to analyze how the change of Twitter ownership influenced their use – in general and by political actors. The initial fear that the change would lead to less users didn't occur, at least in the first years after its acquisition. A possible explanation is that the "Twitter Elite" that provides content and value to the platform doesn't want to abandon the symbolic and social capital gained in that platform by opting out or moving to another, thus continuing to make it relevant. However, new technological features may lead to changes in the way the platform is used and even in its social role.

Firstly, the change in the blue "verified" mark that can now be bought, but also the new golden mark that was introduced with almost the same intent as the old blue one. Previous studies have shown that users rely more on other cues than the verification to judge information quality (Edgerly & Vraga, 2019). It will be important to assess if this has changed with the possibility of people buying the blue mark and with the introduction of the new golden ones. Secondly, another main feature is the community notes in which a group of users (that have been accepted to participate in the program based on certain criteria) can write and evaluate notes associated with a specific tweet. Only after a certain level of positive evaluation on a community note is reached, can it be viewed and voted by all users. In a way, it would be interesting to compare these community notes to an editorial team, not in a way of determining what is or not published (for that there were already features like the "report" of a post that didn't follow the platform guidelines) but as an additional context that will undermine the level of credibility of the original post. Regarding its political implications, it would be possible for a political party to ask their party members to apply for the "community notes" program, becoming Twitter users with the possibility to write and vote on community notes in its early stages – for instance, by targeting posts of opposition parties or their members and, with numbers, being able to make that community note public to all uses and thus, undermining the credibility of the original post.

Taking into consideration the concepts of "appropriation" (Silverstone & Haddon, 1996), of mediatization and auto-mediatization, as long as there are changes in the media landscape, either by technological change or other type, there will be a process of adaptation for political actors to reinvent their own use of those media in order to better serve them. As this is an ongoing process – as described

by Wolfsfeld (2013) with the Politics-Media-Politics principle – there will always be a need to further research these changes.

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Appendix A – Proof of published papers

Ferro-Santos, S., Cardoso, G., & Santos, S. (2024b). What do Portuguese MPs use Twitter for? : A study case of political communication in a country with a small Twitter Adoption rate. Cuadernos.Info, 58, Article 58. https://doi.org/10.7764/cdi.58.72109

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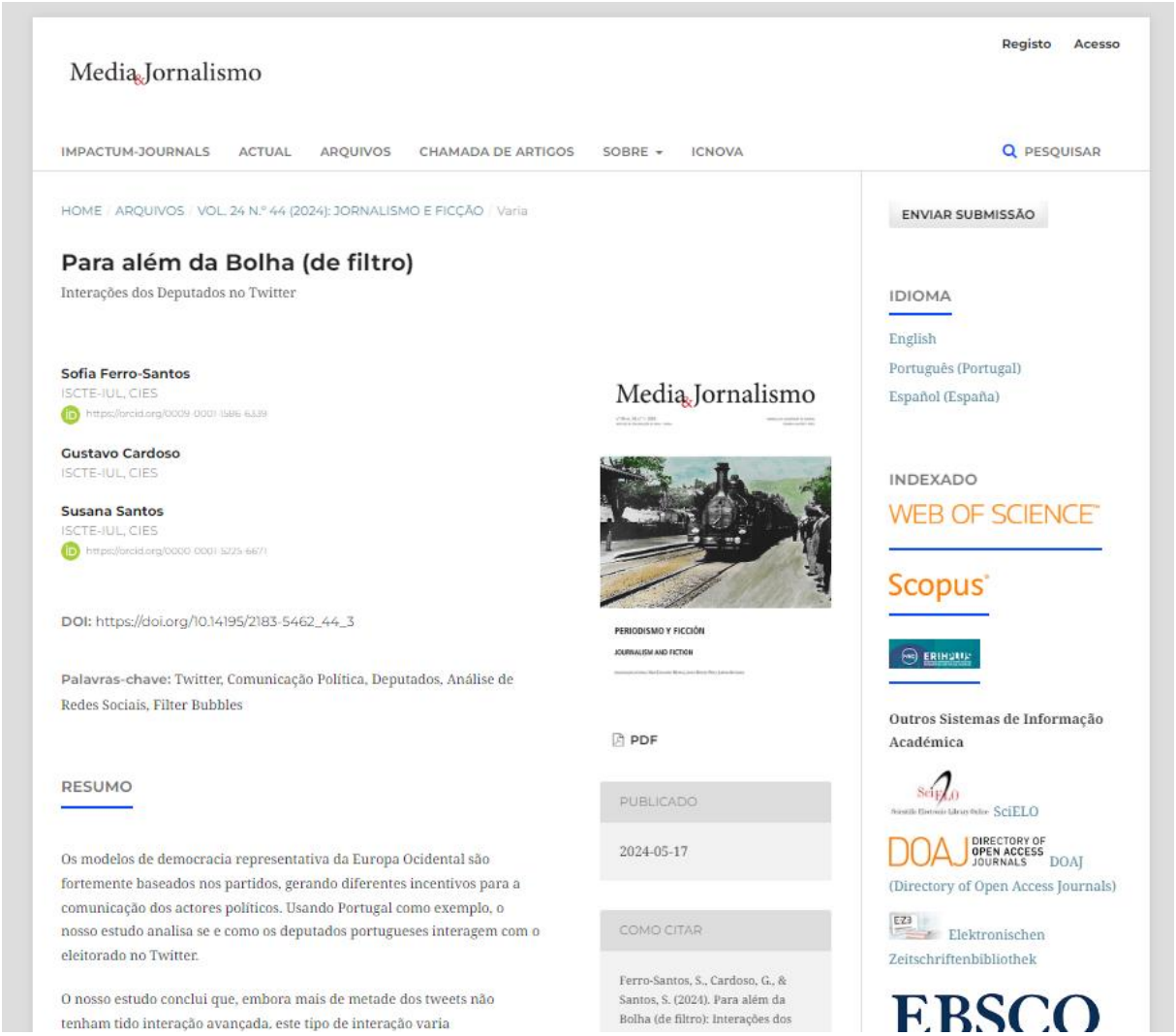

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Appendix B - Codebook

Material a codificar

O material a codificar são os tweets publicados pelos Deputados da Assembleia da República nos seguintes períodos temporais:

- 1º semana: 2 a 9 de Abril
- 2º semana: 2 a 9 de Maio
- 3º semana: 2 a 9 de Junho
- 4º semana: 2 a 9 de Julho

Os tweets a codificar incluem não só os *Tweets*, mas também os *Quote-Tweets* (tweets com links para outros tweets), os *Retweets* e as *Replys*.

No caso dos Quote-Tweets e dos Retweets, deve ser tido em conta também o tweet que é partilhado pelo deputado (mas que foi escrito por outro utilizador), porque o que está a ser analisado é a mensagem que o deputado quer passar, mesmo que não tenha sido escrita por este.

Todos os links que estão no excel devem ser abertos e tidos em conta na codificação, quer sejam para websites externos ao Twitter (p.ex. websites de jornais), para o próprio Twitter (outro tweet – no caso dos quote-tweets – ou uma imagem que o deputado tenha partilhado).

Codificação do Conteúdo

Todos os tweets devem ser codificados com o mínimo de 1 código de análise de contéudo e no máximo com 2 códigos. No caso de um tweet ser susceptível de ser codificado com mais do que 2 códigos, deve escolher-se apenas os dois principais / mais relevantes.

As categorias de codificação são as seguintes:

- **Directing Information – Media**

Posts com partilha de links, print screens (imagens) ou vídeos dos media.

Inclui: partilha de uma imagem ou gráfico que é facilmente identificado como tendo sido retirado de um jornal; quote-tweet ou retweet de alguém que tenha partilhado um link ou imagem dos media. Partilha de uma notícia que fala do deputado que partilhou o link, mas o autor não é esse deputado.

Não inclui: partilha de informação de jornalistas no Twitter, só fonte dos media oficiais e não dos seus colaboradores. Partilha de artigos de autoria do deputado que partilhou o artigo ou de vídeos em que o deputado aparece a falar (Directing Information - Self-promotion in Media)

- **Directing Information - Self-promotion in Media**

Posts com partilha de links e print screens (imagens) de artigos dos media que são da autoria do deputado que partilhou o artigo ou de vídeos em que o deputado aparece a falar.

Inclui: quote-tweet ou retweet de alguém que tenha partilhado um link ou imagem do artigo ou video do deputado nos media. Partilha de uma notícia que fala do deputado que partilhou o link, mas o autor não é esse deputado.

Não inclui: Partilha de uma notícia que fala do deputado que partilhou o link, mas o autor não é esse deputado; Partilha de links com participação nos media de outros deputados que não o próprio que é autor do tweet. (Directing Information – Media).

- **Directing Information - Self-promotion**

Posts com partilha de links para páginas de redes sociais e blogs do próprio deputado que as partilha ou para páginas não-media mas que o conteúdo seja um vídeo ou foto do deputado.

Inclui: Partilha de links para páginas do instagram, facebook ou youtube do próprio deputado (independentemente do conteúdo partilhado); Partilha de links para páginas do instagram, facebook ou youtube de outros autores mas cujo conteúdo é um vídeo ou foto do deputado.

Não inclui: Partilha de uma notícia que fala do deputado que partilhou o link, mas o autor não é esse deputado (Directing Information – Media)

- **Directing Information – Other**

Posts com partilha de links, print screens (imagens) ou vídeos de qualquer outra fonte que não seja dos media ou de formas de auto promoção (p.ex. redes sociais do próprio deputado).

Inclui: partilha de links para websites dos partidos, para website da Assembleia da República, para qualquer outro website que não seja de media ou de redes sociais dos deputados; quote-tweet ou retweet de alguém que tenha partilhado um link ou imagem.

Não inclui: partilha de links para websites ou redes sociais dos partidos para partilhar um vídeo ou foto do próprio deputado (p.ex. partilha no youtube da página do partido com um vídeo de uma entrevista sua) – considerado auto promoção.

- **Positioning**

Posts com partilha direta ou indireta de uma posição ou opinião sobre temas não pessoais (p.ex. políticos, económicos, sociais, etc) . Se quem ler o tweet, retweet, resposta ou quote-tweet ficar a perceber o posicionamento do deputado em relação ao assunto em discussão.

Inclui: Utilização de emojis ou hashtags para partilhar opinião sobre um assunto (p.ex. #fightlikealiberal).

Não inclui: Preferências ou opiniões sobre temas pessoais, como séries, filmes ou jogos de computador ou de futebol.

- **Thanking**

Posts com alguma expressão de agradecimento e outras situações de cumprimentos formais ou pessoais.

Inclui: Dar os parabens, desejar as melhoras ou os sentimentos no caso da morte de alguém.

Não inclui: Celebração de eventos políticos como "dia de…", a não ser que seja seguido de "damos os parabéns" ou "agradecemos".

- **Narrating – Past**

Posts a narrar eventos passados ou presentes (tudo o que já aconteceu ou está a acontecer), excluindo eventos históricos ou pessoais.

Inclui: Posts do género de "Estive presente…", "Decorreu hoje…", "Votou-se hoje…", "Encontro-me…" etc.

Não inclui: Celebração de eventos políticos como "dia de…" com descrição de eventos passados históricos. Descrição de eventos pessoais.

- **Narrating – Future**

Posts a narrar eventos futuros (tudo o que ainda não aconteceu), exluindo eventos pessoais.

Inclui: Posts do género de "Estarei hoje…", "Será hoje…", "Amanhã estarei…"

Não inclui: Celebração de eventos políticos como "dia de…". Descrição de eventos pessoais.

- **Conversation**

Posts em diálogo com outros utilizadores. Todas as Reply são posts de "conversation" e algumas "quote-tweet" também o são.

Inclui: Respostas do foro político, mas também pessoal

Não inclui: Quote-tweets em que o texto do deputado é para leitura geral (p.ex. um comentário sobre o tweet ao qual se faz quote) e não de conversa mais direta com o outro autor.

- **Requesting Action**

Posts com um ou vários pedidos diretos para ação por parte do deputado às pessoas que estão a ler o tweet.

Inclui: Palavras de ordem diretas, por exemplo "Votem!", "Venham assistir!", etc.; Verbos no imperativo.

Não inclui: Pedidos indiretos ou vagos, por exemplo “Podem votar aqui…”, “Vou estar aqui…”; “Assistam online aqui…”; “Podem ouvir o meu novo…”, etc.

- **Other – Humor**

Posts com objetivo de fazer rir quem os lê, com alguma forma de humor.

Inclui: Posts com memes, posts com piadas políticas ou pessoais, etc. Por exemplo, retweets do Inimigo Público.

- **Other – Personal**

Posts que sejam relacionados com interesses pessoais do deputado

Inclui: Posts sobre hobbies, sobre animais de estimação, sobre futebol e outros desportos, sobre atividades de lazer ou família, etc. Posts sobre hobbies que podem estar relacionados com política, mas que não têm um ponto de vista político (p.ex. sobre comboios ou sobre jogos online, mas sem nenhum posicionamento políticos ou partilha de informação relevante politicamente).

Não inclui: Posts sobre hobbies que estão relacionados com política e que mostram esse ponto de vista político – p.ex. sobre regulação de e-games, sobre comboios do ponto de vista de políticas da ferrovia.

- **Other - Other**

Posts que não podem ser categorizados com nenhuma outra categoria, por exemplo posts a corrigir um erro ortográfico de um post anterior ou apenas com a anunciar a alteração da foto de perfil com a mensagem “padrão”.

Codificação do Formato

Para cada tweet é preciso codificar, para além do conteúdo, a forma do mesmo. Cada tweet pode ser codificado apenas com 1 formato, por isso estes são mutuamente exclusivos. Os formatos são:

- **T** – Tweet
- **TM** – Tweet com mention
- **RT** - Retweet
- **QT** – Quote-Tweet
- **R** - Reply

As menções a empresas de tecnologia que são mencionadas de forma automática pelos links utilizados (p.ex. FacebookWatch e Youtube) não contam para o TM (Tweet mention) porque não servem para “conversar”/interagir com outros utilizadores.

Quando é uma auto-reply ou auto-quote-tweet (ou seja, resposta a si mesmo ou quote-tweet a um tweet do próprio deputado), conta como apenas um tweet porque não servem para “conversar” /interagir com outros utilizadores.

Appendix C - Questionnaire

Objetivos da pesquisa e Consentimento Informado.

No âmbito do Doutoramento em Ciências da Comunicação, estou a desenvolver um estudo sobre os meios de comunicação preferenciais dos Deputados da Assembleia da República.

Para tal, solicito a sua participação no preenchimento de um breve questionário, com uma **duração aproximada de 10 minutos.**

Não existem respostas certas nem erradas. O que interessa é o seu ponto de vista e a sua opinião. É importante que responda a todas as questões. A participação nesta investigação é de caracter voluntário, pelo que pode negá-la ou decidir interromper o preenchimento do questionário se assim o entender. Este estudo não lhe trará nenhuma despesa ou risco.

Neste questionário, não são recolhidos dados pessoais que o permitam identificar diretamente. Contudo, tendo em conta as características do Parlamento (p. ex. dimensão das bancadas parlamentares) e das questões de caracterização presentes no questionário, não será possível garantir a anonimidade total do questionário na recolha e tratamento do mesmo. Neste contexto, consideramos que o presente questionário recolhe dados pessoais e trataremos esses dados de acordo com a legislação em vigor para o tratamento de dados pessoais.

Os resultados do questionário a nível individual serão confidenciais.

Ao entregar o questionário e ao assinar este documento, indica o seu consentimento para a utilização dos dados recolhidos, após o seu tratamento, na realização da Tese de Doutoramento e em artigos científicos que sejam publicados pela autora da investigação.

Os dados pessoais recolhidos são apenas os necessários para a caracterização sociodemográfica dos inquiridos e para ser possível fazer análises comparativas entre bancadas parlamentares. O ISCTE-Instituto Universitário de Lisboa é o único Responsável pelo Tratamento dos dados no âmbito do fundamento legal para o tratamento de dados pessoais - art. 6º, nº1, a) e art 9º, nº2, a) do RGPD. Os dados pessoais serão conservados num prazo máximo de 5 anos antes de serem destruídos.

Se pretender algum esclarecimento sobre este estudo, se tiver interesse em conhecer os resultados da investigação ou se pretender retirar o seu consentimento, pode contactar a investigadora responsável enviando um e-mail para: sofia.ferro.santos@iscte-iul.pt.

O Iscte não divulga ou partilha com terceiros a informação relativa aos seus dados pessoais.

O Iscte tem um Encarregado de Proteção de Dados, contactável através do email dpo@iscte-iul.pt. Caso considere necessário tem ainda o direito de apresentar reclamação à autoridade de controlo competente – Comissão Nacional de Proteção de Dados.

Declaro ter compreendido os objetivos de quanto me foi proposto e explicado pelo/a investigador/a, ter-me sido dada oportunidade de fazer todas as perguntas sobre o presente estudo

e para todas elas ter obtido resposta esclarecedora. Aceito participar no estudo e consinto que os meus dados pessoais sejam utilizados de acordo com a informações que me foram disponibilizadas.

Sim	
Não	

_____ (local), _____/____/_____ (data)

Nome:_____

Assinatura:_____

QUESTIONÁRIO

Parte 1 de 5 – Caracterização do Inquirido.

1- Idade: _____ anos

2- Género:

Selecione com um "X" a resposta que se aplica a si

Masculino	
Feminino	
Não-Binário	
Outro	

3- Partido ou Coligação pelo qual foi eleito/a para a AR:

Selecione com um "X" a resposta que se aplica a si

PS	
PSD	
Chega	
PCP-PEV	
BE	
IL	
PAN	
Livre	

4- Era deputado entre Abril de 2022 e Julho de 2022?

Selecione com um "X" a resposta que se aplica a si

Sim	
Não	

5- É o seu primeiro mandato na AR?

Selecione com um "X" a resposta que se aplica a si

Sim	
Não	

6- Qual é o nível de instrução mais elevado que concluiu?

Selecione com um "X" a resposta que se aplica a si

2º ciclo do ensino básico (6º ano de escolaridade) ou inferior	
3º ciclo do ensino básico (9º ano de escolaridade)	
Ensino secundário (12º ano de escolaridade)	
Bacharelato/curso médio/CET	
Licenciatura	
Mestrado	
Doutoramento	
Outro. Qual?	

Parte 2 de 5 – Utilização da Internet

7- É um utilizador de Internet?

Selecione com um "X" a resposta que se aplica a si

Sim	
Não	

Se respondeu "Não", por favor continue para a pergunta 9

8- Independentemente do motivo, com que frequência utiliza a Internet?

Deve incluir o acesso de todos os equipamentos e de qualquer localização. Selecione com um "X" a resposta que se aplica a si

Mais de 10 vezes por dia	
Entre 6 a 10 vezes por dia	
Entre 2 a 5 vezes por dia	
1 vez por dia	
4 a 6 dias por semana	
2 a 3 dias por semana	
1 vez por semana	
Menos de 1 vez por semana	

Parte 3 de 5 – Dieta dos Media

9- Qual das seguintes frases melhor descreve a forma como segue as notícias.

Selecione com um "X" a resposta que se aplica a si

Sigo as notícias de perto apenas quando algo importante acontece.	
Sigo as notícias de perto a maior parte do tempo, aconteça ou não algo importante.	
Não sigo notícias.	

10- Que tipo de notícias mais lhe interessam?

Selecione com um "X" todas as respostas que se aplicam

Internacionais		Política		Saúde mental/ *wellness*	
Locais e Regionais		Negócios, Finanças e Economia		Entretenimento e celebridades	
Estilo de Vida (p. ex. viagens, moda, etc.)		Cultura (p. ex. música, filmes, arte, etc.)		Educação	
Desporto		Ciência e Tecnologia		Ambiente e Alterações Climáticas	
Coronavírus		Justiça Social (p.ex LGBT+)		Crime e segurança pessoal	
Notícias com piada (p. ex. Sátira)		Não sei		Nenhuma destas	

11- Destas diferentes fontes, às quais pode ou não recorrer para obter informações, indique quais usou a semana passada.

Selecione com um "X" todas as respostas que se aplicam

Programas de Televisão e Noticiário		Canais 24 horas de notícias		Jornais Impressos	
Revistas Impressas		Websites/apps de Jornais		Websites/apps de Revistas	
Websites/apps de empresas de TV ou Rádio		Websites/apps de outros meios noticiosos		Social Media (p.ex. Facebook, Twitter, Instagram, etc.)	

Blogs		Nenhum destes		Não Sei	

12- Da seguinte lista, quais das seguintes marcas utilizou para aceder a **notícias *offline*** na última semana?

Selecione com um "X" todas as respostas que se aplicam

BBC News		CNN (internacional)		RTP (p.ex. RTP1, 2)	
SIC		TVI		CNN Portugal (ex TVI24)	
Diário de Notícias		Público		Jornal de Notícias	
Correio da Manhã		Expresso		Jornal de Negócios	
TSF		Rádio Renascença		RDP Antena 1	
A Bola		Record		RTP 3	
Sic Notícias		Correio da Manhã TV		Euronews	
Rádio Comercial		RFM		Uma rádio local ou regional	
Um jornal local ou regional		M80		Rádio Observador	
Nenhum destes		Outro. Qual?			

13- Da seguinte lista, quais das seguintes marcas utilizou para aceder a **notícias *online*** na última semana?

Selecione com um "X" todas as respostas que se aplicam

BBC News online		CNN.com		New York Times online	
HuffPost (Huffington Post)		MNS News		Yahoo! News	
TVI		SIC		RTP Notícias	
Público		Diário de Notícias		Jornal de Notícias	
Sapo		Correio da Manhã		Expresso	
Jornal de Negócios		Dinheiro Vivo		Observador	
Notícias ao Minuto		TSF		Rádio Renascença	
RDP Antena 1		A Bola		Record	
SIC Notícias		CNN Portugal (ex: TVI24)		Euronews	
RFM		Jornal Económico		Rádio Comercial	
Jornal ECO – Economia Online		Correio da Manhã TV		Outro website de uma rádio regional ou local	
M80		Mensagem de Lisboa		Website de outro jornal local ou regional	
Nenhum destes		Outro. Qual?			

Parte 4 de 5 – Meios de comunicação e plataformas online preferenciais.

14- Das seguintes plataformas online, indique quais utiliza para comunicar:

Selecione com um "X" todas as respostas que se aplicam para cada uma das linhas

	Trabalho parlamentar	Trabalho partidário	Época eleitoral	A nível pessoal	Não utiliza
Facebook (perfil)					
Facebook (página)					
WhatsApp					
Email					
Twitter					
Linkedin					

Google+					
Badoo					
Hi5					
MySpace					
Orkut					
Tiktok					
Reddit					
Instagram					
Outro. Qual?					

15- Ordene o seu TOP3 plataformas preferenciais para comunicar com ….

Escreva "1", "2" e "3" em cada uma das colunas - sendo 1 a plataforma que utiliza mais e 3 a plataforma que utiliza menos para comunicar com o grupo de pessoas descrito no topo da coluna

	… os eleitores sobre a sua atividade na AR	… Jornalistas	… amigos / familiares
Facebook			
Whatsapp / SMS / Chamada			
Email			
Twitter			
TikTok			
Instagram			
Reddit			
Outro. Qual?			
Não uso nenhuma			

(Se só utilizar 1 ou 2 destes meios, preencha só 1 e/ou 2)

16- Dos seguintes motivos, quais os que o fizeram inscrever-se numa dada rede social?

Selecione com um "X" todas as respostas que se aplicam para cada uma das colunas

	Facebook	Instagram	Twitter	Nenhuma
Fortalecer os laços sociais que já existem offline				
Conhecer pessoas novas				
Motivos profissionais				
Porque a maioria das pessoas que conheço está nesse tipo de sites				
Para poder manter contacto com pessoas que estão longe				
Para encontrar e manter contacto com pessoas que já não vejo há muito tempo				
Para não me sentir excluído				
Para poder partilhar pensamentos/comentários/vídeos/fotos				
Porque me convidaram				
Iniciar/potenciar uma relação amorosa				
Para promover o meu trabalho				
Para promover eventos				
Para promover causas ou posições				
Outro. Qual?				

Parte 5 de 5 – Participação no Twitter

17- Conhece a rede social Twitter?

Selecione com um "X" a resposta que se aplica a si

Sim, conheço	
Já ouvi falar, mas não sei o que é	
Não conheço	

Se respondeu "Já ouvi falar, mas não sei o que é" ou "Não conheço" termine aqui o questionário

_____ Fim do questionário caso não saiba o que é o Twitter _____

18- Tem conta no Twitter?

Selecione com um "X" a resposta que se aplica a si

Sim, ativa – abri a app/página web pelo menos 1 vez no último mês	
Sim, mas não uso regularmente - não abri a app/página web pelo menos 1 vez no último mês, mas abri a app/página web nos últimos 6 meses	
Sim, mas não uso - não abri a app/página web nos últimos 6 meses	
Não tenho conta	

Se respondeu "Sim, ativa" ou "Sim, mas não uso regularmente" – responda às questões 19 a 30.

Se respondeu "Não tenho conta" ou "Sim, mas não uso"– responda à questão 31.

_____

Se respondeu "sim, ativa" ou "Sim, mas não uso regularmente", responda às seguintes questões:

19- A conta que tem no Twitter é verificada?

Selecione com um "X" a resposta que se aplica a si

Sim		Não	

20- Na conta do Twitter, pode publicar:

Selecione com um "X" a resposta que se aplica a si

Apenas o/a deputado/a	
O/A deputado/a & assessores	
Apenas assessores	

21- Em relação à sua utilização da plataforma Twitter, selecione, para cada coluna, a reposta que se aplica melhor a si:

Selecione com um "X" apenas uma resposta por coluna

	Abre a aplicação Twitter	Interage no Twitter *Fazer "Gosto" ou Retweets*	Publica no Twitter *Fazer publicações, comentários ou quote-retweet*
Várias vezes ao dia			
Pelo menos 1 vez ao dia			

Pelo menos 1 vez por semana			
Pelo menos 1 vez por mês			
Menos do que 1 vez por mês			

22- Normalmente, quando faz uma publicação no Twitter tem em mente como público-alvo:

Selecione com um "X" a resposta que se aplica a si

Amigos	
Eleitores	
Jornalistas	
Colegas / Outros agentes políticos	
Não tem ninguém/nenhum destes grupos em mente	

23- Ordene com quem mais interage (faz gosto, retweets, comentários ou quote-tweet) no Twitter:

Escreva "1", "2", "3" e "4" - sendo 1 o grupo de pessoas com quem mais interage e 4 o grupo com quem menos interage. Caso não interaja com ninguém no Twitter, selecione, com um "X" a última opção.

Amigos	
Eleitores	
Jornalistas	
Colegas / Outros agentes políticos	
Não interage com ninguém/nenhum destes grupos no Twitter	

24- Utiliza o Twitter maioritariamente de forma:

Selecione com um "X" a resposta que se aplica a si

Pessoal	
Profissional	
É um misto	

25- Preencha a percentagem de tempo que dedica a cada uma destas atividades no Twitter.

A soma não poderá passar os 100%

Acompanhar tópicos de interesse (ler ou meter "gostos" em tweets)	%
Partilhar conteúdo de outros (retweet ou partilha de links)	%
Partilhar conteúdos próprios (quote-retweets ou publicação)	%
Interagir com outros utilizadores (comentários ou menções)	%

26- Selecione, com um "X", todas as frases que são verdadeiras para si em relação à sua **motivação** para ter criado conta no Twitter, independentemente de utilizar o Twitter para essa finalidade:

Criei uma conta de Twitter para…

… estar a par das notícias	
… acompanhar temas não políticos/profissionais (p.ex. futebol, música, filmes, etc.)	
… perceber a opinião dos eleitores sobre as notícias / assuntos políticos em discussão	
… ler a opinião / posicionamento dos meus colegas sobre assuntos políticos	

… acompanhar páginas de organismos oficiais políticos (p.ex. do governo, de câmaras municipais, da União Europeia, etc.)	
… comunicar o meu trabalho parlamentar (p.ex. intervenções em plenário, novo projeto de lei em que tenha trabalhado, etc.)	
… promover a minha presença nos media (p.ex. artigos de opinião, entrevistas, etc.)	
… partilhar notícias sobre a atualidade	
… partilhar informação ou posições políticas do meu partido político	
… partilhar o meu posicionamento político	
… partilhar as minhas atividades diárias (passadas ou presentes)	
… promover as minhas atividades futuras (p.ex. presença num evento)	
… responder a questões de eleitores sobre o meu trabalho	
… responder a questões de jornalistas sobre o meu trabalho	
… identificar novos temas sobre os quais posso desenvolver trabalho parlamentar	
… envolver os eleitores no processo de desenho de projetos de lei e outros trabalhos parlamentares (p.ex. perguntar sobre as suas experiências no tema, encontrar especialistas no tema, analisar o interesse no tema, etc.)	
… partilhar conteúdos não políticos	
… interagir com outras contas sobre assuntos não políticos	
Outra motivação. Qual?	

27- Selecione, com um "X", todas as frases que são verdadeiras para si em relação à sua **utilização** do Twitter **durante o último ano**:

Durante o último ano, usei o Twitter para…

… estar a par das notícias	
… acompanhar temas não profissionais (p.ex. futebol, música, filmes, etc.)	
… perceber a opinião dos eleitores sobre as notícias / assuntos políticos em discussão	
… ler a opinião / posicionamento dos meus colegas sobre assuntos políticos	
… acompanhar páginas de organismos oficiais políticos (p.ex. do governo, de câmaras municipais, da União Europeia, etc.)	
… comunicar o meu trabalho parlamentar (p.ex. intervenções em plenário, novo projeto de lei em que tenha trabalhado, etc.)	
… promover a minha presença nos media (p.ex. artigos de opinião, entrevistas, etc.)	
… partilhar notícias sobre a atualidade	
… partilhar informação ou posições políticas do meu partido político	
… partilhar o meu posicionamento político	
… partilhar as minhas atividades diárias (passadas ou presentes)	
… promover as minhas atividades futuras (p.ex. presença num evento)	
… responder a questões de eleitores sobre o meu trabalho	
… responder a questões de jornalistas sobre o meu trabalho	
… identificar novos temas sobre os quais posso desenvolver trabalho parlamentar	
… envolver os eleitores no processo de desenho de projetos de lei e outros trabalhos parlamentares (p.ex. perguntar sobre as suas experiências no tema, encontrar especialistas no tema, analisar o interesse no tema, etc.)	
… partilhar conteúdos não políticos	
… interagir com outras contas sobre assuntos não políticos	
Outra utilização. Qual?	

28- Selecione, com um "X", a frase que se aplica a si em relação às contas **que segue** no Twitter:

Sigo maioritariamente contas com as quais estou alinhado a nível político	
Sigo maioritariamente contas com as quais não estou alinhado a nível político	
Quando sigo uma conta, normalmente não me interessa o seu posicionamento político	

29- Selecione, com um "X", a opção que se aplica a si em relação às contas com as **quais interage** no Twitter:

Selecione, com um "X" uma opção para cada linha. Se não interage com nenhuma conta no Twitter por favor salte esta questão.

	…contas com as quais estou alinhado a nível político	…contas com as quais não estou alinhado a nível político
Respondo a comentários de…		
Faço Retweet de…		
Faço Quote-tweet de…		
Menciono nos meus tweets…		

30- Considera que usar o Twitter é:

negativo para a imagem pública		---------->							positivo para a imagem pública	
0	1	2	3	4	5	6	7	8	9	10

Por usar o Twitter, poder-lhe-á ser pedido também para participar numa entrevista no âmbito deste estudo. Agradeço, desde já, a sua cooperação.

_ Fim do questionário caso tenha conta no Twitter e a tenha usado nos últimos 6 meses __

Se respondeu "Não tenho conta" ou "Tenho, mas não uso", responda às seguintes questões:

31- Selecione, com um "X", o(s) motivo(s) pelo(s) qual/quais não tem conta no Twitter. Pode assinalar todos os motivos que se apliquem.

Não sabe o que é o Twitter	
Não sabe utilizar o Twitter	
Falta de tempo	
Não vê mais-valias na utilização do Twitter	
Receia consequências negativas na utilização do Twitter	
Não conhece muitas pessoas ativas no Twitter	
Mantém-se informado sobre o que se passa no Twitter sem ter conta (p. ex. alguém lhe envia links)	
Outro. Qual?	

_____ Fim do questionário _____

***Debreifing* do Questionário**

Muito obrigada pela sua participação.

O presente questionário enquadra-se no projeto de Tese de Doutoramento da investigadora Sofia Ferro Santos como o tema "Participação de Atores Políticos no Twitter: Filter Bubble ou Canal de Comunicação Pública".

O principal objetivo da investigação é caracterizar as interações dos agentes políticos – em particular dos Deputados da Assembleia da República - no Twitter, procurando determinar o impacto dessa interação na sua capacidade de divulgar a agenda política. Algumas das interações que se pretende estudar são as interações com os jornalistas, com os media e com os eleitores.

Relembramos que se pretender algum esclarecimento sobre este estudo, se tiver interesse em conhecer os resultados da investigação ou se pretender retirar o seu consentimento, pode contactar a investigadora responsável enviando um e-mail para: sofia.ferro.santos@iscte-iul.pt.

Após o preenchimento do mesmo, por favor entregue este questionário junto dos/das Chefes de Gabinete do seu Grupo Parlamentar.