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Article

Far-Right Digital Activism in Polarized Contexts: A Comparative Analysis of Engagement in Hashtag Wars

Viktor Chagas [1,*], Rodrigo Carreiro [2], Nina Santos [2], and Guilherme Popolin [3]

[1] Department of Media and Cultural Studies, Fluminense Federal University, Brazil
[2] National Institute of Science and Technology for Digital Democracy, Federal University of Bahia, Brazil
[3] Communication Graduate Program, Fluminense Federal University, Brazil

* Corresponding author (viktor@midia.uff.br)

Abstract
Literature on influence operations highlights the coordinated actions of digital activists aimed at persuading audiences. Scholars have discussed many angles of this behavior and emphasized repertoires based on specific contentious actions. However, little is discussed about how these disputes allow us to apprehend different models of political action in polarized contexts. On a whole, studies have not considered a broader understanding of digital activism performed by supporters of far-right governments. How does the far-right spread its agenda and support the government in "hashtag wars"? What kind of strategies are employed? This study seeks to compare patterns of coordinated behavior in hashtags created by supporters and detractors of the Bolsonaro government in Brazil that occupied the trending topics on Twitter. The statistical analysis is based on 6.1 million tweets taken from 20 political hashtags collected over a three-month period from May to July 2020. Data was scraped using Twitter's Search API v3.0 for academic use. We analyzed the overall volume and peaks of tweets, the users they engaged with, and their network of influence, as well as the length of each hashtag. The results show an intense use of hashtag activism by Bolsonaro supporters, with users struggling for greater prominence in social media in the face of political events in Brazil. This article sheds light on how the far-right appropriates digital platforms to promote the government's public image in times of political tension and how it promotes coordinated actions aimed at framing social media audiences.

Issue
This article is part of the issue "Protesting While Polarized: Digital Activism in Contentious Times" edited by Homero Gil de Zúñiga (University of Salamanca / Pennsylvania State University / Diego Portales University), Isabel Inguanzo (University of Salamanca), and Alberto Ardèvol-Abreu (Universidad de La Laguna).

1. Introduction

"Hashtag wars" on Twitter have gained considerable prominence as one of the repertoires used by activist groups (Bonilla & Rosa, 2015; Goswami, 2018; Recuero et al., 2015). In highly polarized political environments, disputes often occur between interest groups, both in support of or in opposition to certain agendas or certain politicians (Ozaydin, 2021; Papacharissi & Fatima-Oliveira, 2012). This not only provides greater visibility to

highly engaged audiences but also allows new audiences to join the actions carried out by an articulated group.

Study for this article aimed at exploring the features of political hashtags for trending topics on Twitter in Brazil during a three-month period, from May to July 2020. All hashtags analyzed were either in favor of or in opposition to Jair Bolsonaro's far-right government. As such, by comparing far-right hashtags with oppositional hashtags, this study seeks to show how these actions are distinguished and to what extent it is possible,

based on these differences, to identify political practices concerning these political-ideological spectrums.

Our research seeks to compare patterns of coordinated behavior in hashtags created by supporters and detractors of the Bolsonaro government in Brazil. The analysis is based on a sample of 6.1 million tweets within 20 political hashtags. We analyzed the overall volume and peaks of tweets, the users they engaged with, and their network of influence, as well as the length of each hashtag.

The results unveil the formation of ideological and homophilic bubbles composed of highly engaged militants which can contribute to distorting the public debate, giving visibility to certain agendas, to the detriment of others. In this sense, far-right hashtags are much better articulated and rise much faster than oppositional hashtags, suggesting that Jair Bolsonaro supporters have been able to incorporate the platform's affordances much more effectively and efficiently.

2. History and Origin of Hashtags on Twitter

Objectively speaking, hashtags can be defined as "sociotechnical networks" (Omena et al., 2020) that represent discourses, audiences, and communities, identifying conversations through marked messages (Recuero et al., 2015; van den Berg, 2014) and making them searchable (Scott, 2015). The first known use of hashtags on Twitter occurred in 2007. The idea, as explained by Bruns and Burgess (2011), was to create a content aggregation mechanism to generate groups and subgroups with shared interests. Messina (2007) proposed the hash symbol (#) to work as a content aggregator on Twitter, as a way to follow events in real-time (Scott, 2015).

Two years later, the platform itself adopted the feature. Its success was partly due to the ease with which the mechanism could be activated and widely used, "with the internal cross-referencing of hashtags into search results and trending topics" (Bruns & Burgess, 2011, p. 3). Although there are no further details on how the trending topic algorithm works, it is known that not only the number of tweets but the number of tweets in a specific time interval is important to trend (Twitter, 2022).

Bruns and Burgess (2011) explain that hashtags are also used to give visibility to some publications by attaching them to a larger topic. Burgess and Baym (2020) also argue that it became common for activist groups to hijack (or "hash-jack") some hashtags, hitching a ride on trending topics to opportunistically draw attention to distinct agendas.

It is an indexing system that allows quick retrieval of previously tagged content and denotes meanings attributed through the conversation (Bonilla & Rosa, 2015). Bruns and Burgess (2011) believe that the use of hashtags in these circumstances has decisively shaped a particular mode of civic participation and the hashtag thus has become a powerful tool for increasing the reach of political and social statements.

3. Hashtag Activism

The increasing dispute for online attention made digital strategies such as hashtag activism a key component to social movements (Santos & Reis, 2022). The idea of hashtag activism first appeared in the English newspaper *The Guardian* in 2011 during one of the most impactful events in digital politics, the Occupy Wall Street movement (Goswami, 2018). The protesters used the hashtag to organize the movement's information, thus creating a model of activism that was consolidated in digital environments with essential characteristics for any activist movement: bottom-up approach, facilitated organization process, collaborative mobilization, support for resources, and information coordination (Mueller et al., 2021). Since then, various movements around the world have gained strength and reach, represented by hashtags such as #MeToo, #ArabSpring, #TahirSquare, #BlackLivesMatter, #UmbrellaRevolution, and #ForaBolsonaro.

3.1. Social Movements and Hashtags Activism

Studies cover the relation between online mechanisms and political engagement (Badouard, 2013; Bennet & Segerberg, 2012; Gerbaudo, 2012; Valenzuela, 2013) and the topic has gained particular interest in the scientific field since 2010 (Gomes, 2018). Hashtag activism has reshaped the repertoires of some social movements, bringing not only the emergence of a new sociability, but the issue of individual versus collective actions, the temporality and spatiality of the movements, and the connections between online and offline (Santos, 2019), not to mention the dispute for social visibility and influence.

Mainstream news media concentrate and converge their coverage on a particular issue over a certain period, and then subsequently decrease that coverage in favor of another emerging issue (Brosius & Kepplinger, 1995). On the other hand, social media, by allowing a large number of people to publish information, concentrates on new forms of mediation, dynamics of self-communication (Castells, 2009), and personal publics (Schmidt, 2014) being exposed to self-mediated content (Cammaerts & Jiménez-Martínez, 2014). Interest groups quickly noticed these changes and appropriated the platform's affordances. Hashtags were then incorporated, not so much as a mechanism of interpersonal communication but more as a repertoire of collective action.

3.2. Astroturfing and Hashtags

Since Twitter trending topics have become a window of opportunity for social movements and activist groups looking to give visibility to their agendas, the dispute for audience attention has intensified the use of persuasive techniques anchored in what scholars describe as astroturfing (Howard, 2006), influence operations (Friedberg & Donovan, 2019), inauthentic behavior

(Martini et al., 2021), or computational propaganda (Woolley & Howard, 2018). These expressions require a coordinated effort that may or may not make use of bot-nets, cyborgs, or troll armies, the main objective of which is to "achieve a specific effect among a target audience" (Thomas et al., 2020).

The use of bots to raise hashtags has been noted in literature for at least half a decade (Arnaudo, 2017). However, although much of this literature is concerned with identifying these bots and containing their harmful effects, little has been discussed about the role of online militias in the public debate, which often takes on a dissimulated and covert nature. Reis (2015, p. 23) defines astroturfing as a political action based on the "staged manifestation of an audience." This definition shows that, more than automated accounts, sock-puppets, click farms, or ordinary users with high political engagement, the real problem for the public sphere is the deceptive aspect that these actions instill, giving a small number of highly articulated actors the ability to become representatives of a public agenda.

3.3. Hashtag Wars

As a result of the appropriation of Twitter affordances, hashtag wars can be understood as discursive struggles for the meaning of political or social objects (Soares & Recuero, 2021) which seek to engage as many users as possible, gain visibility on the network, and become hegemonic. Social movement literature highlights at least three essential factors for contentious actions to be successful. The first is the very definition of a social movement, which is described as a "persistent and intentional effort" (Jasper, 2014) that differs from isolated events. This means that the *engagement* of individuals needs to be at a level above casual involvement.

Furthermore, studies also draw attention to how protesters promote their causes in arenas that constitute "opportunity structures" (Jasper, 2014) and develop "opportunistic" strategies (Gerbaudo, 2017) to achieve greater *visibility*. Literature on political mediatization has also claimed that social movements are drawing on new media to dispute this visibility space (Schulz, 2014).

Lastly, for protesting groups to become politically relevant it is highly important that they create coalitions and alliances, even if precarious (Van Dyke & McCammon, 2010). These coalitions allow social movements to express greater political *plurality* and reinforce the importance of their agendas to a larger audience.

These three keys also seem to guide political actions in the digital environment. To a large extent, hashtag wars are also competitions to broaden audiences, engage more users, and achieve greater exposure. This means that occupying Twitter's trending topics has a strategic role.

As a form of digital activism, hashtag wars have been established as strategic practices which are often coordinated and covert—such as an astroturfing campaign. Fadillah et al. (2020) explain that this occurs because

there are groups that want to influence other members of the political community, to alter the viewpoints of others on a certain subject.

Hashtag wars are addressed in literature in different ways, but they all analyze how hashtags help to increase activism in terms of visibility, engagement, and plurality. These issues are generally highlighted in electoral contexts, as is the case of disputes over campaign strategies (Ozaydin, 2021). Elections also reveal another side to the phenomenon: Scholars have argued that disputed hashtags often place mainstream media and hyperpartisan news on opposing sides, highlighting the role of misinformation in contexts of high engagement, as was the case in Brazil during the 2018 elections (Soares & Recuero, 2021). Activist groups have called this type of practice the "dispute of narratives," a definition that emphasizes the character of framing confrontations (Wan Hassan, 2016). However, despite the notoriety of this phenomenon, to the best of our knowledge, there are no studies that focus solely on multisite and cross-case analyses to compare the behavior of different hashtags during a cycle of confrontation.

4. Hashtag Wars and the Brazilian Far-Right

Literature on far-right propaganda used on digital platforms in the face of the cultural and political backlash experienced in different parts of the world has been growing in recent years (Fielitz & Marcks, 2019; Norris & Inglehart, 2019). Some studies show that not only is there a transnational articulation between these extremist movements (Caiani & Kröll, 2015), but it is the far-right that invests the most in polarization strategies on social media (Darius & Stephani, 2020).

A number of scholars have drawn attention to recurring repertoires used by far-right supporters, such as online brigades and disinformation campaigns (Benkler et al., 2018; Marwick & Lewis, 2017); however, few studies compare the online performance of government supporters and government detractors in countries ruled by the far-right. In these contexts, hashtag wars take on a new shape. Firstly because the demonstrations are not limited to criticizing the government, they also support it, an unusual behavior among protesters. Secondly, hashtag statements are not just about moral agendas, they are also about the government's public image. One can often find explicit enunciative hashtags that support or criticize the government. Thirdly, this type of contentious action relies, to a large extent, on the participation of agents from the professional field of politics and individuals in public office, many of whom mobilize their electorate to engage. Lastly, government supporters' hashtags, different from traditional social movements, tend to speak only to the converted. These actions are not aimed at gathering new audiences and achieving greater plurality, they are only used to demonstrate strength.

The Brazilian case is notable because, since his election, Bolsonaro has outlined a strategy that favors

digital platforms over advertising in traditional media, such as television. With the very intense use of mobile messaging services and a large network of supporters distributed by political discussion groups in applications such as WhatsApp (Chagas, 2022), the so-called Bolsonarist network gained notoriety for disputing spaces for visibility on digital platforms through a pool of highly engaged supporters. Making use of a cross-platform operation, connecting WhatsApp groups with YouTuber channels, influencers on Facebook and Instagram, and online brigades on Twitter, materializing what Chadwick (2013) calls a hybrid media system, users who are part of this network tend to respond quickly to calls to action and actively participate in collective actions.

4.1. Bolsonaro's Office of Hate

Bolsonaro's 2018 campaign in Brazil was widely accused of spreading disinformation online (Soares & Recuero, 2021). Once elected, the Bolsonaro government redirected its efforts toward a permanent campaign environment characterized by the performance of different online militias. This network of supporters, consisting of blogs and various social media platforms, constitutes a "toxic environment" and is responsible for attacking political opponents, spreading "seeds of hatred," and threatening democratic institutions (Mello, 2020). Although it is not known for sure how these brigades work and how many people are working them, the operating model acts as a kind of shadow cabinet popularly known as the Office of Hate.

The Office of Hate is, at worst, an allegory to the actions of Bolsonaro government supporters on social media, particularly promoting agendas and participating in online disputes, which include hashtag wars. There are reports of bots being used to inflate political actions by government supporters. A study showed that 55% of pro-Bolsonaro messages on Twitter regarding anti-democratic acts and the government crises were posted by bots (Kalil & Santini, 2020), but identifying bots on social media is always difficult and controversial. For this reason, this study discusses the organizational action model of these brigades and not the bots. Several studies have already explored the context of antagonism in hashtag wars in Brazil, from the impeachment of Dilma Rousseff (Penteado et al., 2021; von Bülow & Dias, 2019) to the 2018 elections (Vinhas et al., 2020), but as far as we know, there is no longitudinal and comparative study of multiple hashtags or an analysis that focuses on descriptive statistics of the organizational model of each hashtag and not on their content or the profile of the individuals involved.

4.2. Hashtag Wars During the Covid-19 Pandemic

Although the online militias of Bolsonaro government supporters already had a strong presence in hashtag wars, the successive crises that the government went through in 2020 have further intensified the political temperature among the far-right. At the beginning of the pandemic, the denialism of Bolsonaro and his supporters put him in direct conflict with then-Minister of Health, Luiz Henrique Mandetta, who resigned from his position in April 2020. In the same month, one of the main guarantors of the government, former judge Sergio Moro, then Minister of Justice, also resigned, alleging direct interference by the president in the management of the Federal Police. The following month, another Minister of Health, Nelson Teich, resigned, and the Supreme Court's investigations into Moro's allegations started a series of conflicts between the Executive and the Judiciary. Restrictions during the pandemic also led to conflicts with mayors and governors due to the politicization of the health crisis (Pereira & Nunes, 2021). The government's disapproval rating reached an all-time high at that point. This scenario sparked even greater engagement among government supporters who reacted on social media with proselytizing messages.

Between May and July 2020, the hashtag wars reached their zenith in government. In late July the Supreme Court ordered the suspension of a number of accounts of government supporters on social media, thus causing some operations to lose steam. Furthermore, as government approval ratings slowly started showing signs of improvement, the hashtag wars also lost their *raison d'être*.

The three-month period between May and July was a unique opportunity for the study of this kind of repertoire. This is a period in which Bolsonaro's far-right government was cornered and needed to count on its support base. On the other hand, the opposition tried to take advantage of the moment by promoting a series of attacks, including those sponsored not only by sectors from the left but also the center-right.

Hashtag wars between the far-right and the opposition became a game for visibility and engagement. But, unlike the opposition, which sought to present a "broad front" against the government, the far-right increasingly lost support (Gomes, 2020), and became more homophilic and uniform, with less plurality.

This study is anchored in a comparative analysis of the pro-Bolsonaro government and oppositional hashtags to identify distinctive characteristics. The literature argues that the use of political hashtags has become a repertoire used by grassroots organizations to vocalize protests (Santos & Reis, 2022), but little is discussed about how hashtag wars have been used strategically by supporters of far-right governments. What are the specifics of the organizational model of political actions in hashtag wars performed by the far-right? Can hashtags that support the Bolsonaro government be compared to the dimensions that are usually used to analyze other types of contentious actions, namely the engagement of individuals, the search for visibility, and the plurality of its audiences? And what do the hashtag wars

between the far-right and the opposition in Brazil say about Bolsonarism?

The hypotheses presented here comprise these three dimensions of digital activism and seek to compare the Bolsonarist hashtags with those from the opposition. Such hypotheses hold that (H1) far-right hashtags from Bolsonaro supporters have greater individual engagement among users than oppositional hashtags, (H2) Bolsonarist hashtags also last longer and achieve greater visibility, and lastly, (H3) hashtags in favor of the Bolsonaro government have a more homophilic nature to them and permit less plurality. Regarding this last hypothesis, it is worth noting that this article does not focus on a debate about political pluralism, but seeks to observe a tendency for collective actions to encompass distinct users, and therefore multiple audiences.

5. Methods

This study is based on a sample of 6,129,850 million tweets created by 536,004 users associated with 20 political hashtags collected over a three-month period. All hashtags originally circulated on Portuguese-speaking Twitter and were primarily aimed at Brazilian users. The selection criteria involved systematic monitoring carried out by the researchers themselves, collecting the top 50 trending topics on Twitter every ten minutes. These 50 trends were then analyzed and any hashtag not directly related to political themes were discarded. Later, for simplification, we decided to keep only the hashtags that enunciatively presented themselves as either supporting or criticizing the Bolsonaro government. As a result, the period between May and July 2020 was detected as a highly political mobilization period on Brazilian Twitter, with 49 hashtags related to Bolsonaro, either supporting or criticizing him.

Each of these hashtags was collected individually using Version 3 of Twitter's Search API intended for academic use. The data collection interface is based on the R language and the academictwitteR package which allows access to historical data. A uniform criterion was adopted, which also helped reduce the massive amount of data to be analyzed. As a result, hashtags that had less than 20,000 tweets in total and/or had the highest peak of activity in a 15-minute interval of less than 1,000 tweets were left out.

The final sample consists of 11 hashtags in favor of the Bolsonaro government and nine hashtags against it. The first group contains hashtags such as: #Patriotas ComBolsonaro (#PatriotsWithBolsonaro), #EuApoio Bolsonaro (#ISupportBolsonaro), and others. The second group has hashtags such as: #ForaBolꞩonaro (#OutBolꞩonaro), #Somos70Porcento (#WeAre70 Percent), and #ImpeachmentJa (#ImpeachmentNow).

The distribution of tweets between the hashtags in support of Bolsonaro and those against him is lopsided. Hashtags supporting Bolsonaro have 4,709,565 tweets from 264,469 users. Hashtags against Bolsonaro have 1,420,285 tweets from 308,099 users. These initial discrepancies illustrate distinct patterns of action between the hashtag activists and may provide explanatory factors for the analyses below.

After collecting the tweets associated with each hashtag, we then performed descriptive statistical analyses. Among the observed metadata, we considered the total number of tweets for each hashtag, the maximum peak of tweets, the average and median of tweets in a 15-minute interval, the time difference between the first and the last moments when the hashtag accumulated 1,000 tweets, and the engagement rates provided by Twitter itself. These descriptive data were coupled with simple social network statistics, such as indegree, which is the number of users who published tweets associated with each hashtag.

Our analysis shows that not only are the behavior of hashtags and the volume of tweets and users associated with them very different between oppositional and far-right hashtags, but these differences help us understand the action strategies each of these groups employ in the digital environment. The data show that the far-right is more effective at optimizing the visibility of its agendas and the engagement of its users, yet it is prone to lesser plurality since users affiliated with these groups assume more radical views and integrate more homophilic audiences (Dvir-Gvirsman, 2016).

6. Results

There are basically two ways to observe the evolution of a hashtag. The first is by the simple distribution of tweets over time and the other is by the cumulative sum of tweets over time. These two methods allow us to identify the peak of activity of a collective action on Twitter and the acceleration of its growth, the latter based on the sigmoid interpolation represented by a kind of S-shaped curve. Epidemiological curves like these have been efficient at assessing the effects of the Covid-19 pandemic in recent months. Although there are important ontological and epistemological differences between studying the spread of diseases and the diffusion and circulation of tweets, there is a body of research that proposes to understand how political actions can be understood through logistic curves similar to those used for monitoring viral dynamics in public health. Christiansen (2009) reviewed previous studies and determined four stages of social movements: emergence, coalescence, bureaucratization, and decline. All of these stages can be represented within an S-shaped curve, which suggests that social movements often flourish, spread, are co-opted or repressed, and die. The overall trajectory of these movements, and of digital activism in particular, given the proportions, essentially follows a dynamic of viralization and suggests that statistical methodologies similar to those that monitor the spread of a virus can be incorporated by social scientists.

Thus, the comparative observation of these curves for each of the analyzed hashtags allows us to understand structural differences between far-right and oppositional hashtag activisms. The first point worth mentioning here is that, on a normalized scale, the cumulative curves of tweets in hashtags favorable to Bolsonaro generally reach much higher levels.

As shown in Figure 1, Bolsonarist hashtags reach a higher plateau faster than anti-Bolsonarist hashtags. This means that their degree of coordination is probably greater as more tweets are published in a shorter time span, thus appearing on Twitter's trending topics sooner.

As Figure 1 and Table 1 demonstrate, most Bolsonarist hashtags exceeded the threshold of 250,000 tweets (avg = 428,142.3, median = 281,555), a number reached only on two occasions for hashtags in opposition to Bolsonaro (avg = 157,809.4, median = 107,869). In both cases, they were driven by center-right sectors that supported the critics of the government and promoted oppositional hashtags. In addition, regarding the 15-minute interval peaks of activity, Bolsonarist hashtags have a much higher volume of user participation than anti-Bolsonarist ones (avg = 8,464.6 compared to avg = 5,072.4). All these indices suggest that Bolsonaro supporters are more organized and do not disseminate or waste time with opposition hashtags.

These statistics can support H1. Far-right hashtags definitely have higher individual engagement among users than oppositional hashtags. It is worth noting that the metrics used here to assess engagement within a hashtag are considerably different from those used by the Twitter platform to assess engagement within a specific tweet. In fact, what Twitter calls engagement metrics for individual tweets can be perceived as visibility metadata for hashtags because the more an individual engages with digital content on social media, the more this content becomes visible to other users.

Therefore, the next step towards determining whether Bolsonarist hashtags last longer and achieve greater visibility should involve social metrics from the platform itself, such as the number of likes and retweets in the collected tweets. In addition, the number of followers of users who participate in each of these hashtags can offer an interesting glimpse into the influence network these collective actions have. Of course, the length of time that hashtags continue to receive new tweets is another interesting element.

Regarding the latter index, one can notice that the average time difference between the first and the last moment when hashtags reached 1,000 tweets is considerably higher among Bolsonarist hashtags (avg = 2.71 weeks) than it is for anti-Bolsonarist hashtags (avg = 2.43 weeks). This means that hashtags mainly integrated by far-right actors and Bolsonaro government supporters last around 48 hours longer than the average of anti-Bolsonarist ones, with at least 1,000 tweets published every 15 minutes.

In addition, there are more retweets on average among far-right hashtags (avg = 655 RTs per tweet) than among oppositional (avg = 457), although curiously there are fewer likes per tweet in the first case (avg = 1.96) when compared to the second (avg = 2.95), which may indicate that, for the far-right, the circulation of messages is more important than interest manifestation.

Twitter has two different metrics that relate user accounts to each other: the number of accounts followed (also called friends or followees) and the number of followers. We focused on the statistics for followers. The first aspect to consider is that the average number of followers for each user participating in anti-Bolsonarist hashtags (avg = 2,723) is greater than the average number of followers for users who participate in hashtags that support Bolsonaro (avg = 2,141). However, as we can see in Figure 2, Bolsonarist hashtags present a regular dispersion in the data. When it comes to opposition hashtags, only three of them present this kind of dispersion, all from celebrities boosting the campaigns. This observation is an indication that users with many followers participate more often in Bolsonarist hashtags, while some opposition hashtags rely mostly on ordinary users whose influence is more restricted. Although these profiles were not categorized, our study observed that the 50 users with the most followers in each of the segments included many celebrities, influencers, politicians, parties, intellectuals, and journalists. Media outlets also appeared here, but at a relatively low rate, ranging from 12% (hashtags pro-Bolsonaro) to 16% (hashtags against Bolsonaro).

Another statistic that supports this conclusion is the median. Unlike the mean, a very low median suggests that the upper threshold of a sample may contain some outliers. Among the hashtags we analyzed, the average median for the number of followers for each user participating in pro-Bolsonaro hashtags is 534, while in the hashtags against Bolsonaro this number drops to 434. We can also see (Figure 2) that there were only four oppositional hashtags that had users with more than 3,000 followers, while all the Bolsonarist hashtags had users with more than 4,000 followers.

The results, therefore, support H2. Far-right hashtags last for a longer time, have a greater number of individual retweets, achieve greater circulation, and ultimately have more influential users participating, these users having a greater number of followers.

But are greater engagement and greater visibility reflected in a greater plurality of positions among users associated with these hashtags? To better understand this participatory dimension, we took into account the number of unique users, the number of tweets, and the relationship between users and hashtags across the entire sample.

Some users participated in more than one collective action, including some who participated in hashtags that both support and criticize Bolsonaro. Table 2 summarizes this information. The number of total users
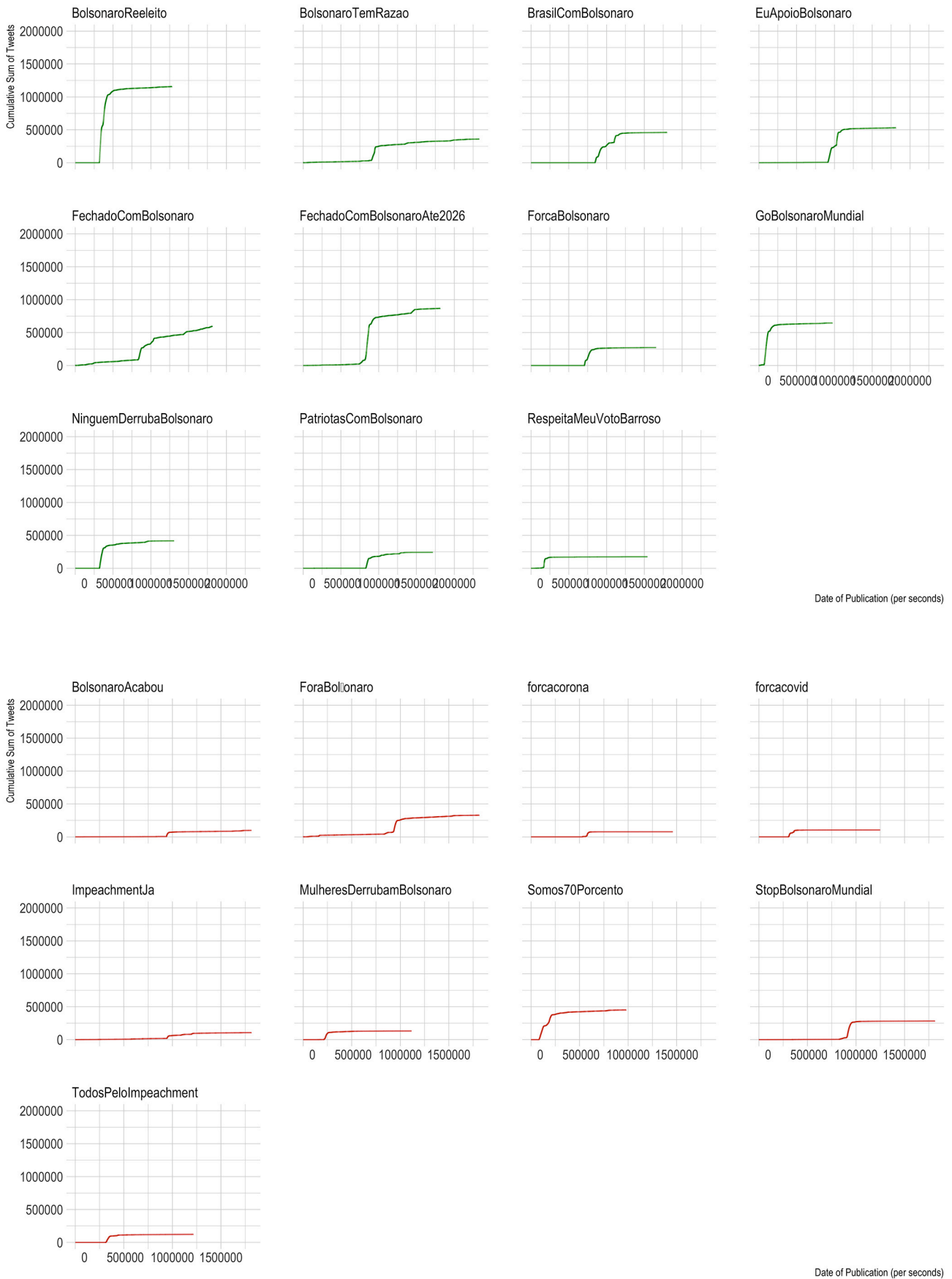
Figure 1. Cumulative sum of hashtag tweets over time.

Table 1. Descriptive statistics of hashtags.

| Hashtag	Stance	No. tweets	Peak	Avg 15 min
PatriotasComBolsonaro	pro	197,788	4,646	1,796.0
BrasilComBolsonaro	pro	273,928	4,713	1,568.9
EuApoioBolsonaro	pro	281,555	4,885	1,013.1
BolsonaroReeleito	pro	1,111,599	22,074	1,141.1
FechadoComBolsonaro	pro	449,229	5,222	572.1
BolsonaroTemRazao	pro	201,412	3,131	746.3
RespeitaMeuVotoBarroso	pro	128,460	10,582	1,153.7
NinguemDerrubaBolsonaro	pro	370,265	8,359	1,113.3
FechadoComBolsonaroAte2026	pro	794,297	12,218	968.5
GoBolsonaroMundial	pro	630,494	11,371	845.5
ForcaBolsonaro	pro	270,538	5,910	286.9
		average = 428,142.3 median = 281,555	average = 8,464.6 median = 5,910	average = 1,018.7 median = 1,013.1
BolsonaroAcabou	against	77,418	5,036	443.5
ForaBolⵣonaro	against	241,056	5,601	395.6
forcacorona	against	62,949	6,093	270.3
forcacovid	against	81,918	5,184	221.3
ImpeachmentJa	against	87,837	3,849	150.9
MulheresDerrubamBolsonaro	against	131,485	4,254	125.6
Somos70Porcento	against	347,444	5,133	549.9
StopBolsonaroMundial	against	282,309	7,582	233.3
TodosPeloImpeachment	against	107,869	2,920	577.0
		average = 157,809.4 median = 107,869	average = 5,072.4 median = 5,133	average = 329.7 median = 270.3
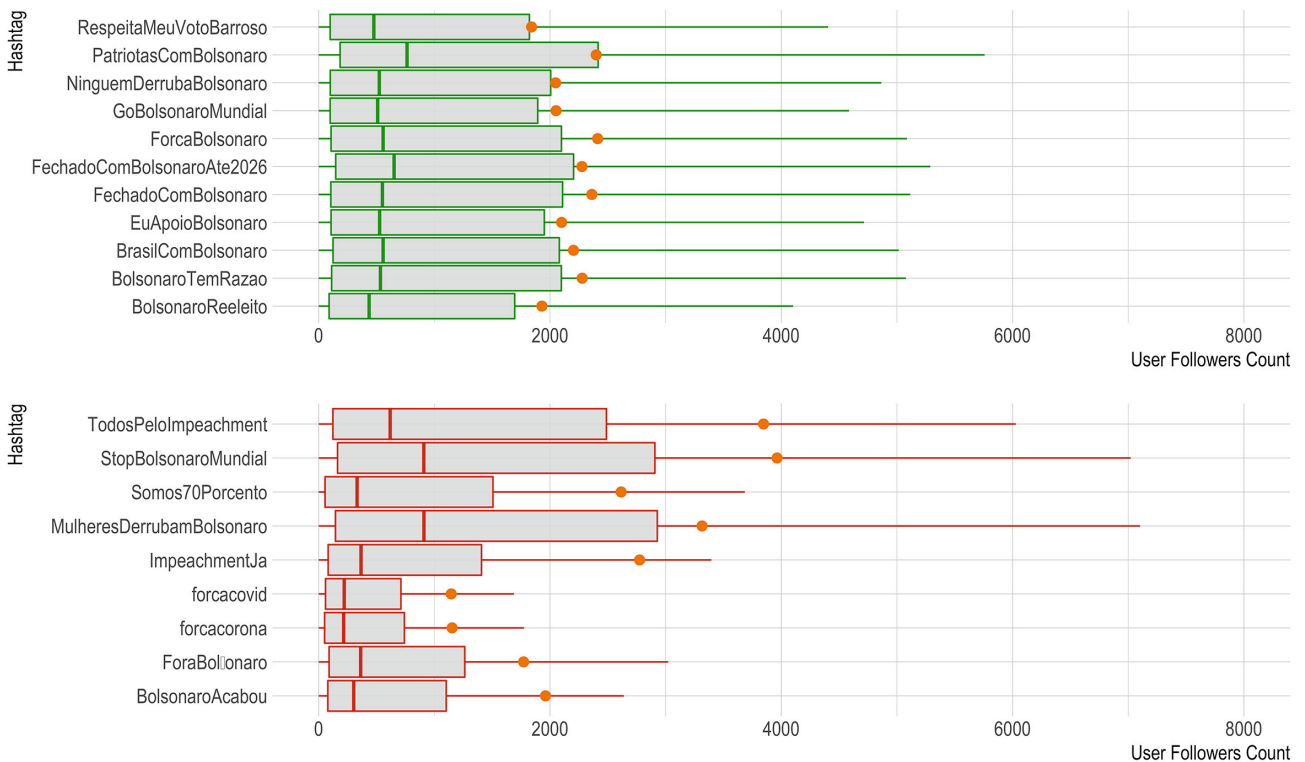
Figure 2. User followers count per hashtag.

Table 2. User engagement metrics for hashtags.

Hashtag	Stance	No. users	Retweets per tweet (average)	Followers per user (average)
PatriotasComBolsonaro	pro	40,289	506	2,400
BrasilComBolsonaro	pro	63,178	565	2,203
EuApoioBolsonaro	pro	59,599	587	2,100
BolsonaroReeleito	pro	131,423	489	1,930
FechadoComBolsonaro	pro	73,339	434	2,362
BolsonaroTemRazao	pro	51,784	623	2,279
RespeitaMeuVotoBarroso	pro	34,675	1,085	1,841
NinguemDerrubaBolsonaro	pro	66,249	888	2,049
FechadoComBolsonaroAte2026	pro	89,054	859	2,276
GoBolsonaroMundial	pro	87,618	799	2,052
ForcaBolsonaro	pro	66,615	536	2,412
		average = 69,438.5 *median = 66,249* *total users = 763,823* *unique users = 264,469*	*average = 655* *median = 2*	*average = 2,141* *median = 534*
BolsonaroAcabou	against	37,117	610	1,961
ForaBolꜱonaro	against	104,465	976	1,772
forcacorona	against	37,829	667	1,154
forcacovid	against	48,997	188	1,146
ImpeachmentJa	against	29,834	260	2,775
MulheresDerrubamBolsonaro	against	25,185	144	3,315
Somos70Porcento	against	86,769	479	2,615
StopBolsonaroMundial	against	50,629	247	3,964
TodosPeloImpeachment	against	27,878	286	3,846
		average = 49,855.9 *median = 37,829* *total users = 448,703* *unique users = 308,009*	*average = 457* *median = 4*	*average = 2,723* *median = 434*
Total		*average = 60,626.3* *median = 55,691.5* *total users = 1,212,526* *unique users = 536,004*	*average = 561.4* *median = 550.5*	*average = 2,322.6* *median = 2,239.5*

who participated in pro-Bolsonaro hashtags is 763,823. However, if we consider only unique users, that is, the ones who do not participate in multiple hashtags, this number drops to 264,469 (ratio of 2.89). For the hashtags against Bolsonaro, there are 448,703 total users and 308,009 unique users (ratio of 1.46). More users participate in multiple hashtags supporting Bolsonaro than users who participate in oppositional hashtags.

Nevertheless, the average participation for each government-friendly hashtag is 69,438 users per hashtag for far-right supporters and 49,856 users per hashtag for the opposition. The number of tweets follows the same logic, with an average of 428,142 tweets per hashtag for supporters and 157,809 tweets per hashtag for the opposition. The histogram presented in Figure 3 shows that fewer users are participating in just one pro-Bolsonaro hashtag compared to opposition hashtags, and proportionately more users participating in multiple hashtags.

Lastly, Figure 4 presents these relational data in a social network analysis graph. The graph was modeled based on the Force Atlas 2 distribution algorithm (Jacomy et al., 2014) and colorized through categorical edge classification. In the graph, oppositional hashtags are more spatially dispersed than far-right hashtags since there is a greater number of overlaps from users who participate in multiple actions simultaneously in the latter segment. One interesting case is the hashtag #ForcaBolsonaro, the one that is hijacked the most. As widely discussed in the literature (Burgess & Baym, 2020), it is quite common for some hashtags to be hijacked by activists. The wording of this hashtag, in Portuguese, is originally favorable to Bolsonaro and can be read as something like #GoBolsonaro, but lacks a cedilla (Ç). Without this diacritical mark, the word *força* (strength) becomes *forca* (gallows), and the whole meaning falls apart. This is why #ForcaBolsonaro, although initially launched by
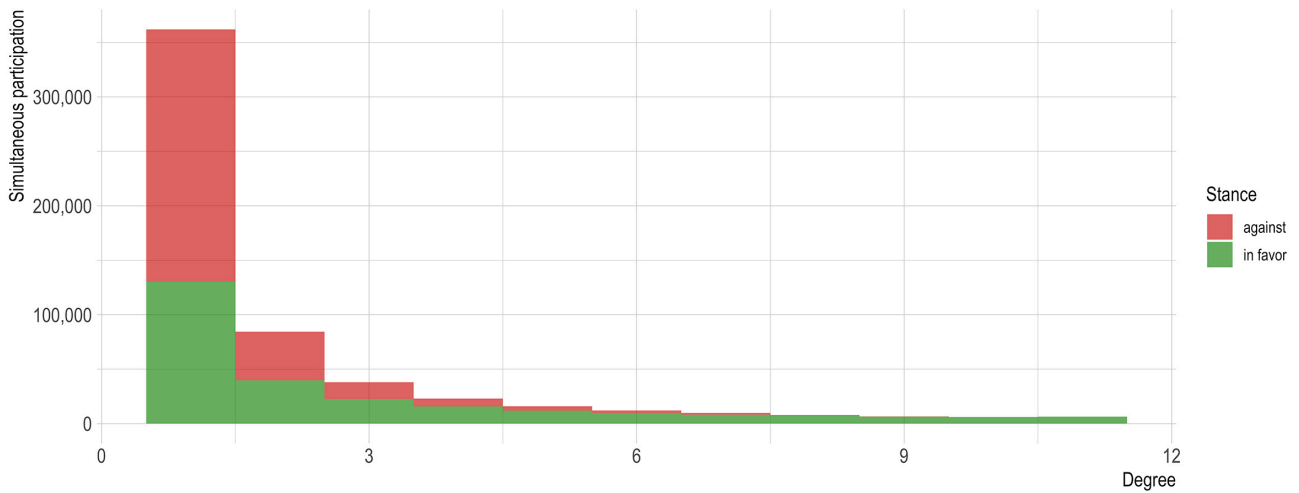
Figure 3. Simultaneous participation histogram of hashtag users.

government supporters, was quickly dropped after the opposition started using it as a satire.

Each hashtag, therefore, has its own history. Some work as a trial, a prequel or a sequel to others, as is the case with #FechadoComBolsonaro and #FechadoComBolsonaroAte2026 (#TogetherWithBolsonaroUntil2026). Other hashtags relate directly to their counterparts. Studies on social movements argue that movements often frame their claims by directly responding to or denying other movements (Ayoub & Chetaille, 2017; Benford & Hunt, 2003). Significant examples of this can be seen in enunciative disputes in hashtags like #BlackLivesMatter and #AllLivesMatter, or in memes like "I Am the 99 Percent" and "I Am the 53 Percent" during

the Occupy Wall Street demonstrations (Milner, 2016). Most of the hashtag wars between the far-right and the opposition in Brazil are conducted through this type of meta-enunciative buzzword. In some of these statements, knowledge of the context and relational data are essential for understanding the meaning. A hashtag like #forcacovid (#gocovid, in free translation) can only be understood if observed as a reaction to the original statement #ForcaBolsonaro in support of Jair Bolsonaro, who had announced that he had contracted Covid-19 a few days prior. Something similar occurs with the hashtags #MulheresDerrubamBolsonaro (#WomenTakeBolsonaroDown) and #NinguemDerrubaBolsonaro (#NobodyTakesBolsonaroDown), both related to polls
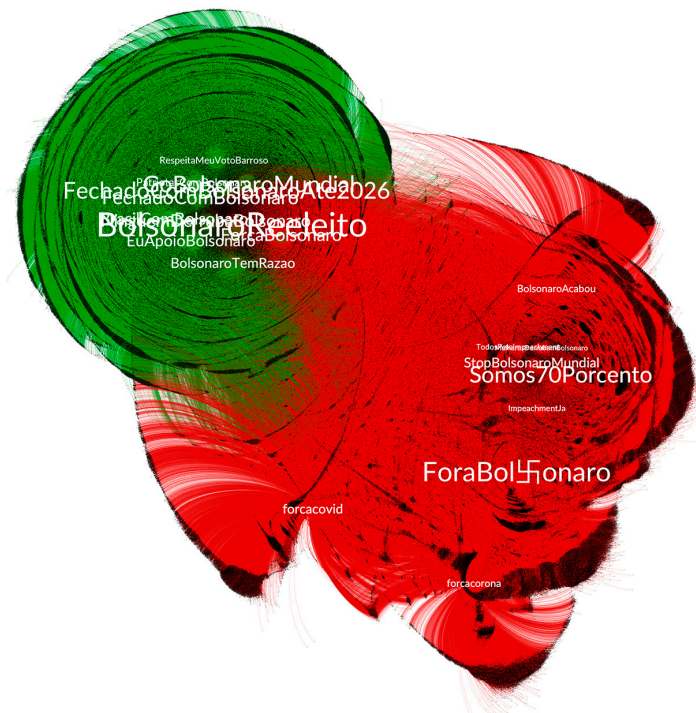

Figure 4. Relational data of hashtags.

showing that the Bolsonaro government's popularity was lower amongst women.

The relational perspective is also important for understanding that users engage in a multifaceted way in these actions. The clusters formed around each hashtag in the graph below show that there are specialized cores whose participation is limited to a specific episode or agenda. So, #TodosPeloImpeachment (#AllFor Impeachment), #ImpeachmentJa (#ImpeachmentNow), #StopBolsonaroMundial and #Somos70Porcento (#We Are70Percent, alluding to the government disapproval in the polls) occupy a joint space of articulation or a "broad front" against Bolsonaro. Most of these hashtags were from not only left-wing voters but also sectors of the center-right. One can see that, in relation to the other oppositional hashtags, these ones have a greater degree of articulation and coordination, and the users who are associated with them are not spatially dispersed as in the other cases.

Moreover, the distance between the nodes for oppositional hashtags suggests that there is a greater diversity of agendas within the engaged users, which somewhat reflects the very fragmentation of opposition sectors. The further away from a concentric arrangement (like the one that nodes for far-right hashtags present, acting like an echo chamber) the less overlap there is between co-participating users and the greater the likelihood that networks will manifest different interests and feelings with a more diverse audience, and consequently, become less homophilic or more plural. Hashtags located in the periphery of the graph show a degree of dispersion and, statistically speaking, have less relevance (eigenvector centrality) in relation to the whole figure. The data seem to support H3. Even with greater engagement and visibility, Bolsonarist hashtags are not as plural as anti-Bolsonarist hashtags, at least in terms of the number of users engaged in the collective actions they leverage.

7. Conclusion

Indeed, this study has an important set of limitations, among which is the fact that the analysis refers to a specific period in time and a relatively small set of political hashtags under comparison. It should also be noted that hashtag wars are only part of the dispute between political groups on Twitter, with a large contingent of politically polarized messages not being associated with hashtags, and therefore, were not addressed in this article. This study is also unable to account for other political realities that are circumstantially different from the Brazilian scenario. Nor can it answer for digital activism practices on platforms other than Twitter. In addition, although this article brings results that account for different patterns and behaviors between far-right supporters and oppositionists when engaging in hashtag wars, up to this point we cannot claim that there are influence operations and hierarchical distribution of tasks between users, as there is no assessment of whether the disseminated content is organically or strategically published. Even still, we believe it does shed light on important aspects of hashtag warfare in polarized political contexts and can contribute to a better understanding of the strategic uses of digital platforms for political activism.

Among the main contributions of this article, it is observed that digital activism in contexts where the far-right is in charge has proved to be an efficient weapon for the dispute over agendas and eventual political proselytism. The level of organization of far-right groups in social media demonstrates that not only have activist repertoires become popular and normalized among different sectors (Karatzogianni, 2014; Morozov, 2017) but digital platforms can also be co-opted by groups that appropriate its affordances the best, including those that support anti-democratic agendas.

The data included in this study seems to substantially support the idea that far-right hashtag activism has managed to appropriate the platform's affordances better than other groups and, as a result, has had a greater impact on the collective actions it organizes, even though it has a less diverse audience than oppositional hashtags. In an extremely polarized political environment such as Brazil's, this characteristic suggests that far-right groups occupy highly visible spaces in social media arenas due to the engagement of their audiences. These findings are not generalizable to other scenarios, but one can note important similarities in the repertoires and organizational models of the Brazilian far-right with other far-right groups around the world, so much so that a transnational comparative research agenda would represent an important advance.

Acknowledgments

Conflict of Interests

The authors declare no conflict of interests.

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About the Authors

Viktor Chagas is an associate professor at the Department of Media and Cultural Studies and a researcher at the Communication Graduate Program at the Fluminense Federal University, Brazil. He has a Productivity Fellowship (PQ2) from the Brazilian National Council for Scientific and Technological Development and a Young Scholar Fellowship from Carlos Chagas Filho Foundation for Research Support of the State of Rio de Janeiro (Faperj). He holds a PhD in history, politics, and cultural assets from the Getulio Vargas Foundation.

Rodrigo Carreiro holds a PhD in contemporary communication and culture from the Federal University of Bahia (UFBA), a master's degree from the same institution, and is an expert in journalism and media convergence. He is currently a researcher at the National Institute of Science and Technology for Digital Democracy (INCT.DD), where he is developing a post-doctoral internship project. At the institute, he develops research in the areas of participation, social networks, and online political discussion.

Nina Santos is a researcher at the Brazilian National Institute of Science & Technology for Digital Democracy (INCT.DD) and at the Centre d'Analyse et de Recherche Interdisciplinaires sur les Médias (Université Panthéon-Assas). She is also the current academic coordinator of *Desinformante and the director of Aláfia Lab. She holds a PhD in communication and information sciences from Université Panthéon-Assas and her thesis was awarded with the Prix de thèse de l'Université Paris II Panthéon-Assas.
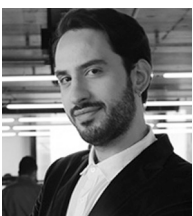
Guilherme Popolin is a PhD candidate at the Communication Graduate Program at Fluminense Federal University. His research is focused on right-wing conservative political memes and sexual orientation and gender identity issues. He is also an associate researcher at the Research Laboratory for Communication, Political Cultures and Economies of Collaboration (coLAB/UFF).