

# **“BREQUE DOS APPS”: A TEMPORAL ANALYSIS OF COMMUNITIES AND INFLUENCERS IN ONLINE PUBLIC DEBATE ON TWITTER**

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## **ABSTRACT**

The purpose of this article is to examine the dynamics of the debate on social networking platforms from the perspective of collective identity and collective action concepts. More specifically, we seek to identify who are the central actors on Twitter in the debate about the two delivery app workers' strike against the work regime and working conditions during the pandemics (Uber-Eats, iFood, Rappi, etc.) occurred on July 1 and 25, 2020, in Brazil. We also examined whether the most influential users played a role in the formation of communities around their interpretation of this topic. To do so, we collected 535,178 tweets published in two periods of workers' demonstrations, which occurred between June and July 2020. Based on temporal analysis of clusters, we identified the moment of entrance of each community on the debate and discussed how profiles of influencers, social movements, politicians, and celebrities on Twitter played central roles in mobilizing supporters and fostering public engagement linked to acts on the networks. The results show that social mobilization in digital environments occurs from interactions between groups with great involvement with the causes and profiles of more ephemeral performance, whose participation is fundamental for the promotion and dissemination of acts.

## **KEYWORDS**

collective identity, collective action, social networking platforms, Twitter, *Breque dos Apps*

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# **“BREQUE DOS APPS”: UMA ANÁLISE TEMPORAL DE COMUNIDADES E INFLUENCIADORES NO DEBATE PÚBLICO ONLINE NO TWITTER**

## **RESUMO**

O objetivo deste artigo é examinar a dinâmica do debate nas plataformas de redes sociais sob a perspectiva da identidade e da ação coletiva. Mais especificamente, buscamos identificar quem foram os atores centrais no Twitter em torno do debate sobre duas paralisações de entregadores de aplicativo contra o regime e as condições de trabalho durante o período da pandemia (UberEats, iFood, Rappi, etc.) ocorridas a 1 e 25 de julho de 2020 no Brasil. Examinamos, além disso, se os perfis mais influentes protagonizaram a formação de comunidades em torno de sua interpretação sobre esse tema. Para isso, coletamos um total de 535.178 tweets publicados em dois episódios de manifestações dos trabalhadores, ocorridos entre junho e julho de 2020. A partir da análise temporal de *clusters*, identificamos o momento de entrada de cada comunidade no debate sobre o tema e discutimos como perfis de influenciadores, movimentos sociais, políticos e celebridades desempenharam funções centrais na mobilização de apoiadores e no engajamento público ligado às manifestações nas redes. Os resultados mostram que a mobilização social em ambientes digitais ocorre a partir de interações entre grupos com grande envolvimento com as causas defendidas e perfis de atuação mais efêmeros, cuja participação é fundamental para a promoção e divulgação dos atos.

## **PALAVRAS-CHAVE**

identidade coletiva, ação coletiva, plataformas de redes sociais, Twitter, Breque dos Apps

## **INTRODUCTION**

The importance of social networking platforms in the contemporary public sphere is a consensus among researchers from different fields of knowledge. Social networking is a relatively old concept that has been applied in human sciences even before the rise and popularization of digital platforms. It is understood as a type of relationship between human beings characterized by a flexible structure with dynamic participants (Martino, 2015).

However, the idea of social networking gained strength when the means of communication mediated by technology began helping build social networks connected through digitally constructed environments. From a political point of view, the literature in different areas has sought to debate how these digital environments became indispensable spheres to build bridgings and articulations between political actors (Lowrance, 2016), to promote public actions (Earl & Kimport, 2011), and to provide visibility to agendas, campaigns and topics stemming from different political groups (Vergeer et al., 2011).

Between June and July 2020, in the context of the growing reports of covid-19 cases in Brazil, delivery app workers organized strikes in major capitals in the country, calling attention to the precarious work conditions of this class. This event became known as “Breque dos Apps” (“Stop the Apps”). The mobilizations went beyond national borders and garnered the support of neighbor countries such as Argentina, Mexico, Chile and

Ecuador, with strong media coverage. However, the forms of organization, coordination and political action engendered in digital environments defined the focus of the debate and the visibility of the movement. The #BrequeDosApps reached the trending topics on Twitter and saw the participation of app users, artists, actors of traditional politics and digital influencers, who intensified the spread and amplification of the topics and demands made by workers of that class.

This study analyzed the dynamics of the public debate about the "Breque dos Apps" in these digital environments. More specifically, we sought to examine the phenomenon based on the evolution of the debate about the topic on Twitter over two specific periods: between June 30 and July 3, when the first demonstration happened, and between July 24 and 27, when the second demonstration happened. The research questions driving the study are:

1. How did profiles and influencers join the debate, and what role did they play over the period analyzed?
2. Were these major actors in the debate protagonists in the creation of networks around their interpretation of the topic?

Our hypothesis is that actors from different groups (activists, political actors, influencers, media companies) joined the debate at different times, which influenced the role they played.

In addition to this introduction, the article is divided as follows: we will begin with a theoretical discussion about the role of digital communication and, more specifically, of social networking platforms in the formation of collective identity and collective action. We seek to discuss the dynamics of coordination, mobilization and political action through the idea of connective action in digital social networks. Afterwards, we will present the study's methodological process, which includes data collection, cluster analysis and an analysis of the most influential profiles in the debate about the "Breque dos Apps" on Twitter. Lastly, we will discuss the research results, alluding to research topics within the scope of communication, mobilization and digital actions.

## **THEORETICAL FRAMEWORK**

Understanding the role of communication and social media in today's dynamics of coordination, mobilization and political action requires focusing on the environment in which social groups and movements organize themselves and spread and amplify their causes. The communicative process starts to play a major role in creating interpersonal networks from group identity and collective action, transforming the organization structure traditionally based on the assumptions of collective action. The defining characteristics of digital mediation determine these new dynamics through more personalized networks, which are often larger and have a high capacity to grow, and "this makes highly personalized and socially mediated communication processes structuring elements in the organization of many forms of connective action" (Bennett & Segerberg, 2012, p. 749).

The internet — and, more specifically, digital social networks — offers individuals the opportunity to identify and interact with members outside of their network, consequently increasing their chances of bridging as a way to produce social capital (Ellison et al., 2010). The structure and construction of these bridgings between individuals are characteristic of connective action and have an influence on political movements; therefore, the concept of collective action in the context of the increasing relevance of social media in political manifestations follows the understanding of the role of the collective identity and its creation process, built in these environments (Ellison et al., 2010; Milan, 2015). However, the association of these mobilizations and contemporary manifestations with the identity politics typical of social movements is still unclear. Milan (2015) argues that, particularly for the logic of social media, there is an expansion and reformulation of the processes through which a collective identity is created, reproduced and maintained, which also affect the processes of collective action.

The transformations brought about by these “channels of information spread and social mobilization” (Ruediger et al., 2014) reinforce the relevance of a deeper analysis of their potentialities. This includes determining the elements that distinguish the large mobilizations in the past from contemporary massive manifestations. Social media and its affordances<sup>1</sup> institutes unprecedented facets of political dispute, enables the appearance of “new actors”, and demonstrates “the distancing process between State and society, the delegitimization of intermediaries established by the redemocratization process as representatives and interlocutors of society, and the widening and renewal of the public sphere” (Ruediger et al., 2014, p. 208).

Considering the Brazilian context, the “Jornadas de Junho” (June Journeys, a series of mass protests in major Brazilian cities in June 2013) marked this inflection point in political expressiveness and action mediated by social media, inaugurating a cycle of several other protests and mobilizations that overlapped in the online and offline environments. As protests are a political resource (Lipsky, 1968) that is strongly conditioned by other resources (for instance, socio-economic resources), it is important to investigate how social media expanded the structures for political opportunities for contestation activities.

To understand the thread that starts with digital mobilizations and ends with protest actions, we must raise and discuss a few specific aspects of communication and interaction on social media. According to Bennett and Segerberg (2012), the logic of connective action (that is, familiarity with the different practices of communication and organization) provides a repertoire that is useful for action, which is enabled by social networks. Therefore, the uses (which are often daily and widely shared on social media) distinguish manifestations from collective action.

Traditionally, collective action depends on shared understandings and identities, connective structures stemming from interpersonal networks, and trust and cooperation developed among the individuals composing these arrangements (Tarrow, 2011). Social media reinforce these elements of identity and belonging, connecting people and

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<sup>1</sup> For more information on the concept of “affordance”, please see Bucher and Helmond (2017).

narratives, and assigning sense and meaning to their actions (Bennett & Segerberg, 2012; Ellison et al., 2010; Milan, 2015).

Gerbaudo (2012) highlights the interposition of these channels in the communication and organization of contemporary social movements, which he calls the "choreography of assembly"<sup>2</sup> (p. 4) — in other words, the creation of a shape for what individuals have in common. Indeed, Ellison et al. (2010) state that the logic of digital media is capable of reformulating interpersonal networks, and from this derives the social capital of the members of a given social network. In this context, Gerbaudo (2012), in reference to Granovetter (1974), argues that the relationships established in digital environments are predominantly formed by "weak ties" and strong collective identities are a rare exception.

Nevertheless, the absence of more structured identities and organizations is not incompatible with collective action; the attributions of communication and communicators, which are characteristic of digital environments, would be to define the scenario that enables action. In this sense, the appearance of opinion leaders, particularly digital influencers, becomes a key factor.

The organization carried out by contemporary activists through the use of social networks does not automatically mean an elimination of leadership. On the contrary, the adoption of social media among activists is accompanied by the appearance of subtle and emotional forms of leadership, which are often indirect and invisible, but still effective in providing collection action with a certain measure of coherence and a sense of direction. This is the type of subtle and dialogical leadership that the term "choreography" attempts to describe. (Gerbaudo, 2012, p. 157)

Bennett and Segerberg (2012) point out the fact that the frame of action does not appear or spread automatically, and that it is necessary to appropriate it and then spread it over personalized sharing networks. According to the authors, the forms of collective action facilitated by social media may also reflect increasingly complex actions and mechanisms, especially because they are strongly permeated by contextual elements that are constantly transforming.

The next empirical steps of the study will focus on the importance of digital communication in the action dynamics of groups, how they organize and how they are communicated to the public — specifically on Twitter, a platform with wide political mobilization from the organization of movements until their spread (often in real time; Gerbaudo, 2012). This section sought to emphasize the importance of digital communication in political organization and action, as well as the role of weak ties and bridging, focusing on personalized communication and on digital influencers as opinion leaders, and the reformulation of collective identity and collection action enabled by connective action.

This study belongs to a field whose goal is to investigate the contemporary work relationships in platforms (Filgueiras & Antunes, 2020; Grohmann & Qiu, 2020),

<sup>2</sup> "They are means not simply to convey abstract opinions, but also to give a shape to the way in which people come together and act together" (Gerbaudo, 2012, p. 4).

contributing to the analysis of a series of demonstrations organized by delivery service workers known as “Breque dos Apps”. More specifically, the strikes involved the organization and participation of thousands of bikers and cyclists who are delivery app workers (in apps such as iFood, Rappi, Uber Eats, and Loggi) and were denouncing precarious work conditions. The demands of this class were an increase in the minimum delivery fees and in the fees per kilometer traveled, ending unjustified blocks and the scoring system (which some apps utilize), as well as demands for health and accident insurance and distribution of personal protective equipment. The demonstrations happened in the context of the covid-19 pandemic, which made the demands even more apparent and serious, also considering the increase in the number of individuals interested in this form of income (Abílio et al., 2020; Peres, 2020). The first delivery worker strike happened on July 1, 2020, in the country’s major capital cities. Publications about the mobilization were strongly circulated on social networks and also covered by traditional media outlets. On the day of the demonstration, users were also encouraged to boycott the apps as a way to support the action, by not ordering food on that date and leaving negative reviews of the apps in their download platforms. The second national strike happened on July 25, 2020, and obtained higher adhesion, which was reflected on the volume of data analyzed.

## METHODOLOGY

To develop the investigation proposed in this study, we first collected and classified a corpus composed of public posts made on Twitter in two different periods. This data collection involved the elaboration of linguistic instructions — a sequence of values articulating terms and phraseologies through logical operators — and the execution of these instructions through a data collection script using the Twitter Application Programming Interface (API). The linguistic instructions used for data collection about the “Breque dos Apps” debate on Twitter were:

precarização OR precarizado OR precarizados OR precarizada OR precarizadas OR entregadores OR greve OR grevista OR grevistas OR breque OR paralisação OR paralização OR subprofissao OR subprofissoes OR subemprego OR subempregos OR motoboys OR subtrabalho OR subtrabalhos OR #brequedosapp OR #brequedosapps OR #grevedosapp OR #grevedosapps OR #1diasemapp OR #1diasemapps OR #apoiobrequedosapp OR #apoiobrequedosapps OR #grevedosentregadores OR #entregadores OR #entregadoresantifascistas OR #euapioibrequedosapps OR #euapioibrequedosapp OR #amanhãtembrequedosapps OR #amanhãtembrequedosapp OR #amanhãtembrequedosapps OR #amanhãtembrequedosapp OR #euapioibrequedosapps OR #euapioibrequedosapp OR #apoioibrequedosapps OR #apoioibrequedosapp OR #idiasemapp OR #entregadoresemetroviariosunidos OR #brequenosapps OR #grevenosapps OR #entregador.

To elaborate the linguistic instructions, we considered terms and phraseologies that could represent, to some extent, the topic in question — in this case, the “Breque dos Apps”. We prioritized hashtags, which are keywords indexed by the graphic sign # (hash; for instance, #brequedosapps). In the context of new social media, hashtags are recurring components with high visibility, especially on Twitter. As linguistic items, these components translate discursive strategies whose roles may include, among other things, (a) cataloguing the post, since they can indicate the topic to which the post might belong (or, in a strict sense, its semantic and pragmatic field), or (b) an inter-subjective function, since they may also trigger affiliation processes (to a person, a group or a cause, for example; Zappavigna, 2015). In this sense, hashtags, like keywords, work as markers of the interpretations, meanings and positions of individuals in digital environments. The appropriation of this discursive tool that is characteristic of online environments enables new strategies for political communication in the digital sphere<sup>3</sup>.

The application of linguistic instructions using the Twitter API helped us collect two different corpora: (a) one corpus about the demonstration on July 1, with posts that corresponded to the linguistic instructions and were made between June 30 and July 3, 2020; and (b) another corpus about the demonstration on July 25, with posts made between July 24 and 27, 2020. To ensure an accurate contextualization for the analysis, the temporal section for both collections included the day of each demonstration and the previous day for both of them, recording the moments when the movement was being organized and the calls for support, as well as 2 days after the demonstrations, when the mentions gradually started to lose force. Therefore, the first corpus in this study is composed of 432,430 posts, and the second corpus is composed of 102,748 posts, for a total of 535,178 messages published on Twitter in the two periods analyzed. The collections about the first demonstration were carried out retroactively from July 2 to July 8. For the data on the second demonstration, we used a script capable of collecting Twitter messages in real time<sup>4</sup>.

We elaborated a map of interactions for each corpora based on the posts collected. Each interaction considered when elaborating each map corresponds to one retweet. On Twitter, a retweet is the forwarding or sharing of a post between two user profiles on the network: one profile, from which the interaction begins, retweets (or shares), and another profile, where the interaction arrives, is retweeted. Maps of interactions are represented as graphs (for instance, Recuero, 2017), which are sociograms whose nodes correspond to the profiles of the interactions and whose edges correspond to the interactions between them, meaning the retweets.

For this analysis, the visualization of the graphs was generated through the free application Gephi (<https://gephi.org/>; Gephi Consortium). This tool enables identifying

<sup>3</sup> The conflict between different interpretation of political facts, events and phenomena is approached by some authors from a contraposition of programs, anti-programs and the effort of neutrality when employing key words adopted by actors of the public debate. For more information, please see Rogers (2017).

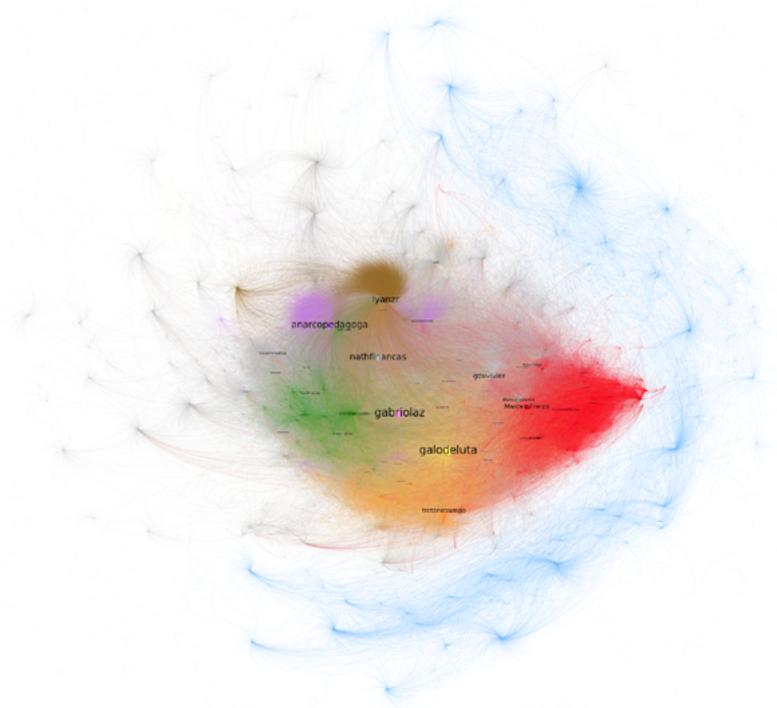
<sup>4</sup> These two methods of data collection from Twitter are provided for in the API of the platform used for this study (v.1.1). For more information, please refer to <https://developer.twitter.com/en/docs/twitter-api/v1>

the formation of communities based on the relationships established between profiles, acting as a bridge between this relationship and the content shared or retweeted. To that end, we use the Louvain algorithm (Blondel et al., 2008) as a method to detect communities, seeking to maximize modularity, a metric whose calculation compares the amount of edges inside and among communities, measuring the density of the cluster. For this study, we considered communities to be prominent when they concentrate 5% or more of the profiles participating in the debate, which resulted in eight communities in the first period. To enable the comparison between the two periods, we chose to keep the same amount of groups when observing the formation of clusters in the second period analyzed. In addition, we assessed the degree of importance of the actors composing the network, seeking to determine whether they constitute a network of profiles around them, sharing their content and their interpretation of the debated topic.

Afterwards, each corpus comprising a period of 4 days (or 96 hours) was segmented into 16 sub-corpora, each composed of posts made every 6 hours. Therefore, in addition to the graphs with the total number of interactions in each corpus, we generated graphs with the interactions in each sub-period of 6 hours. This segmentation of the interactions inside the temporal plane allowed us to monitor the appearance of new profiles in the debate, as well as the evolution of the respective interactions among them, over each period analyzed.

## RESULTS ANALYSIS

With data collected from the Twitter API through the search based on the linguistic instructions described previously, we analyzed a total of 535,178 tweets on the network made in the two distinct periods of the demonstrations of delivery app workers (Figure 1). For the demonstrations on July 1, we collected tweets published between June 29 and July 3, which includes: (a) the day before the demonstration, when the movement was being organized and support was being called; (b) the day of the street demonstration, when the tweets expressed support as well as criticism against the protests; and (c) the days after the demonstration, when the number of messages mentioning the movement started to decrease.



**Figure 1** Complete Graph of Interactions About the “Breque dos Apps” (Data Collected Between June 30 and July 3)

In quantitative terms, this first moment of debate about the “Breque dos Apps” on Twitter mobilized 180,985 profiles and 432,430 tweets, of which 350,562 were retweets (81.06%). From these tweets, we carried out analyzes about the network of interactions engaged by them, that is, the communities formed around the retweets, which always involve two profiles — the one retweeting and the one being retweeted.

Using the Louvain method (Blondel et al., 2008), we detected eight communities that stood out in the debate about the “Breque dos Apps” in this period. The community with the largest number of profiles, represented in the figure above in red, mobilized 16,721 distinct profiles, or 10.8% of the users participating in the debate. This community is composed of profiles of political actors and organizations at the left side of the ideological spectrum, such as the politicians @MarceloFreixo, @samiabomfim and @GuilhermeBoulos, the representation of the Worker’s Party at the Chamber of Deputies (@PTnaCamara), as well as social leaders or movements with progressive agendas (@)\_LIVRES and @LeonelRadde). In terms of the number of interactions, this cluster garnered more than 60,000 retweets, which corresponds to 19.6% of the sample of interactions among the most prominent clusters according to the Louvain method.

The orange cluster also stood out with 8% of the profiles participating in the debate ( $N = 12,338$ ). Although it is a prominent community, this cluster is strongly centered around the profile @tretanotrampo, one of the profiles responsible for the organization of the demonstrations. In terms of content, during the period analyzed, this profile focused on publishing and commenting on videos published by the delivery workers

during the street demonstration. Other single profiles that stood out in the formation of communities were the activists @gabriolaz and @anarcopedagoga in the pink and lilac clusters, respectively. Together, the communities formed around these two activists aggregated 13.2% of the users participating in the debate about the "Breque dos Apps".

Another activist profile assuming a central role in the debate about the demonstrations on Twitter was @galodeluta. This profile composed the yellow cluster, which is formed by 8,970 profiles, representing 5.8% of the users participating in the debate. Although the number of participants involved in this community is lower than in the other communities, it is important to highlight that these publications mobilized 7.6% of the interactions mapped in this study, which is higher than the interactions mobilized by the lilac cluster, for instance.

Lastly, a community was formed around profiles that participated in a scattered way, around the central part of the network formed by more prominent actors in the debate. This community is represented in blue and is formed by 9,711 profiles, or 6.4% of the users participating in the debate on Twitter. Although there were no prominent profiles like in the other clusters, the participation of these profiles was decentralized and focused mainly on criticizing the demands made by the demonstrators, the effects of the strike and the illegitimacy of the movement. Here are some examples of messages criticizing the movement: "a strike of self-employed workers is like living alone and running away from home"<sup>5</sup> (@CorrupcaoMemes), "Brazil is the country where the 'antifascist', self-employed delivery boy goes on 'strike' to get the fascist labor laws"<sup>6</sup> (@Ilisp\_org) and "a strike of self-employed workers is as effective as riding an armored car with the windows down"<sup>7</sup> (@spinellirio). In general, these types of publication represent only 4% of interactions in the form of retweets, which means a relatively low number compared to the total interactions in the other clusters expressing support for the demonstrations.

The communities represented in brown and green are formed by supporters of the demonstration and converge in terms of the users composing them. The brown cluster is structured around messages supporting the demonstration published by the artist @lyanzr, which obtained more than 8,476 retweets. This community obtained the lowest number of interactions in the first demonstration (3.3%). In turn, the green cluster has a more scattered structure in terms of the distribution of the importance of each profile. This community represents 5.1% of the users who published about the topic.

Lastly, still regarding the first demonstration, the profiles of the comedian @gduvivier and of the financial education content creator @nathfinancas were also important. Although these profiles were important on the network due to the number of retweets they obtained, they are part of a group of profiles that formed communities with no significant interactions with the major clusters identified in the debate, according to the modularity index used in this study. That does not mean that these profiles were less

<sup>5</sup> Retrieved from <https://twitter.com/CorrupcaoMemes/status/1278380178469801986>

<sup>6</sup> Retrieved from [https://twitter.com/Ilisp\\_org/status/1278492844144156673](https://twitter.com/Ilisp_org/status/1278492844144156673)

<sup>7</sup> Retrieved from <https://twitter.com/spinellirio/status/1278357171516964866>

important in the debate about the “Breque dos Apps”, but that the communities formed around these tweets had a lower density than the other clusters, representing less than 5% of the profiles participating in the discussion about the topic. Figure 2 represents the relationship between the number of retweets received and the number of profiles composing each of the clusters that generated tweets about the first demonstration of delivery app workers.

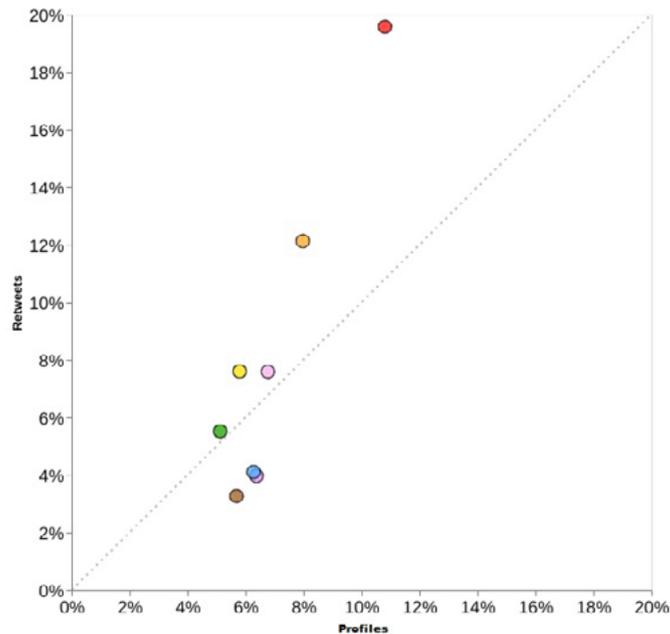
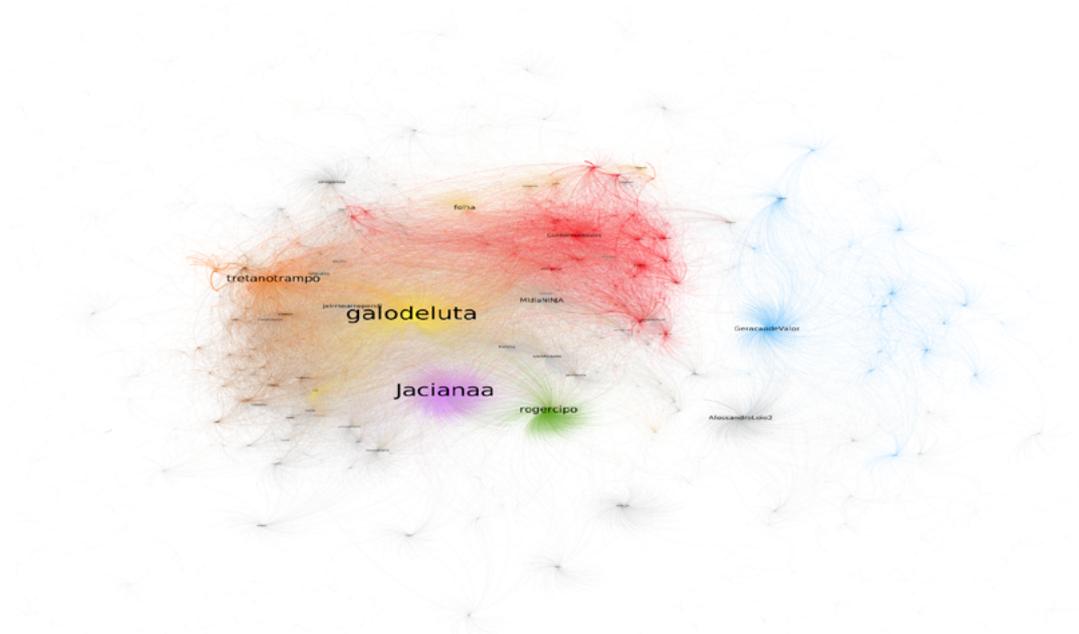


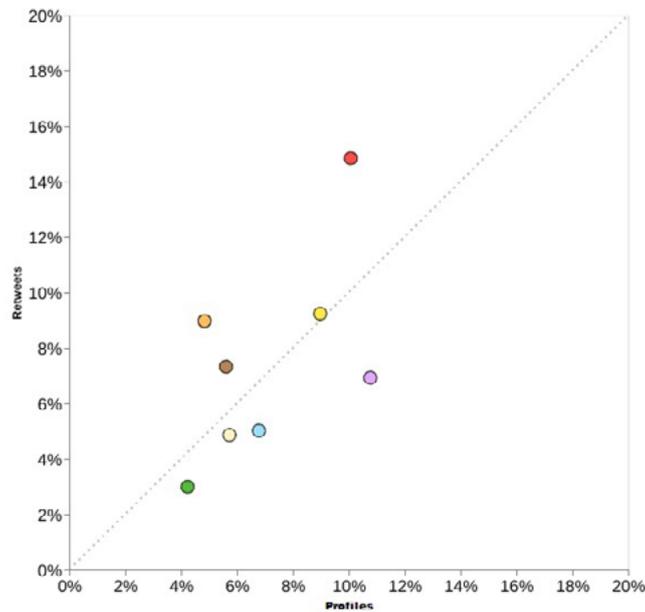
Figure 2 Percentage of Profiles per Percentage of Retweets for Each Community in the First Demonstration

The data collection for the second demonstration, which happened on July 25, 2020, followed the same pattern as the first one, including on the day before and on the 2 days after the protest. Figure 3 represents the map of interactions about the “Breque dos Apps” between July 24 and 27, 2020. Compared to the first demonstration, the second period analyzed had a drop of 70.6% in the number of profiles involved, and of 80.8% in the number of interactions about the topic on Twitter, mobilizing 55,039 profiles and 102,748 tweets (of which 67,451 are retweets). The decrease in the volume of debate is graphically represented in the density of clusters, which presented more transparency and space between the nodes.



**Figure 3** Complete Graph of Interactions About the "Breque dos Apps" (Data Collected Between July 24 and 27)

However, there are a series of similarities between the two protests. Firstly, the profiles of the delivery workers @galodeluta and @tretanotrampo were central in the debate and figured among the major mobilizers in both events, becoming articulators of debate and leaders of the movement. The two profiles were at the center of the yellow and orange clusters, which obtained 9.2% and 9% of the interactions, respectively, making these groups the second and third clusters with the most interactions in the second cycle of demonstrations. The red cluster, which was composed of actors of institutional politics, garnered the highest number of interactions in both protests (14.8%). These were the social groups with the most diverse participation during the entire demonstration, with tweets calling for action, recommendations, justifications and stories about the protests. Figure 4 represents the relationship between the number of retweets received and the number of profiles composing each of the communities in the debate about the second demonstration of delivery app workers.



**Figure 4** Percentage of Profiles per Percentage of Retweets for Each Community in the Second Demonstration

As in the first protest, the dynamics of mobilization also included communities formed around viral tweets made by profiles that are not so closely related to the movement. For instance, that is the case of the purple and green clusters, which mobilized around calls to action made by the profiles @jacionaa and @rogercipo, who shared the message “DO NOT ORDER DELIVERY FOOD TODAY”<sup>8</sup>. These two clusters had a star-shaped format and were concentrated around isolated profiles, with no formation of a more spread-out set of nodes. Unlike the first protest, a small cluster was formed composed of profiles of media outlets.

While in the first demonstration the cluster criticizing the movement (in blue) was formed by comic profiles joking about the demonstration’s demands for rights for self-employed workers, the second demonstration saw a larger presence of profiles connected to institutional politics, especially profiles related to parties of liberal orientation, such as the Partido Novo and the Democratas. These profiles commented on a public opinion survey indicating that 70% of the delivery workers preferred to work as self-employed, while only 30% fought for fixed and exclusive labor ties with the app platforms (Sena, 2020).

Compared to the first protest, there was a larger presence of artists and celebrities among the profiles mobilized. Another relevant decrease was the number of profiles connected to the Black movement, which had spread over different groups and even formed a majority cluster in the first protest. Profiles such as @jacionaa and @rogercipo stood out, but only in isolated clusters due to viral tweets, and not by forming a network like in the first protest. The lower participation of these groups in the second protest may lead to the elaboration of hypotheses about the relationship between these groups and the size of the delivery workers’ demonstrations, either regarding the thematic and political

<sup>8</sup> Retrieved from <https://twitter.com/jacionaa/status/1287084235363418114>

approximation between workers' social movements and the Black movement or regarding the amplitude and reach of the debate, a factor to which artists and celebrities contribute when they spread the topic for publics less interested in the debate.

### TEMPORAL ANALYSIS

The temporal analysis of the maps of interactions shows how the formation of the networks happened over time during the periods analyzed. In the first demonstration (Figure 5), which happened between June 30 and July 3, we found that the first community was formed around the publication of the artist @lyanzr, in which he called his followers to participate in the boycott of delivery platforms.

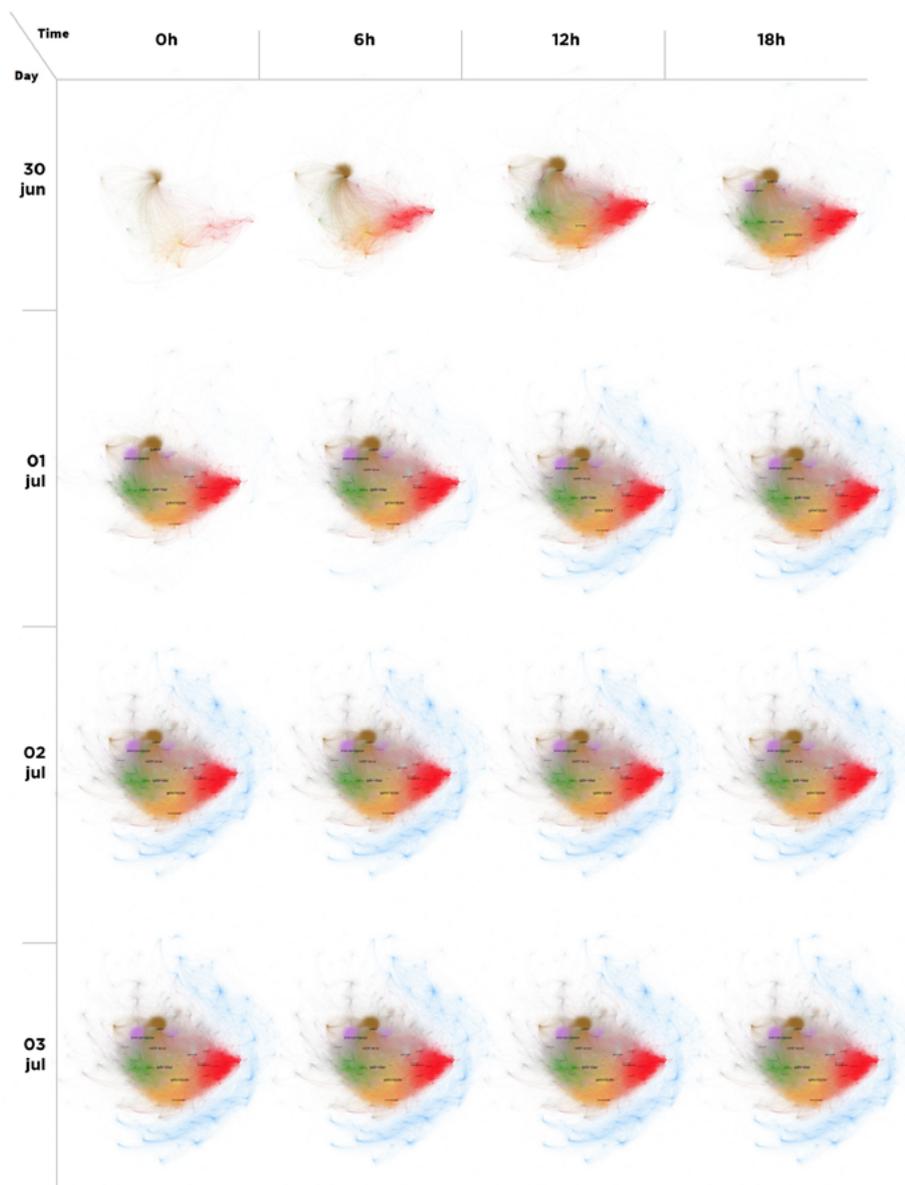


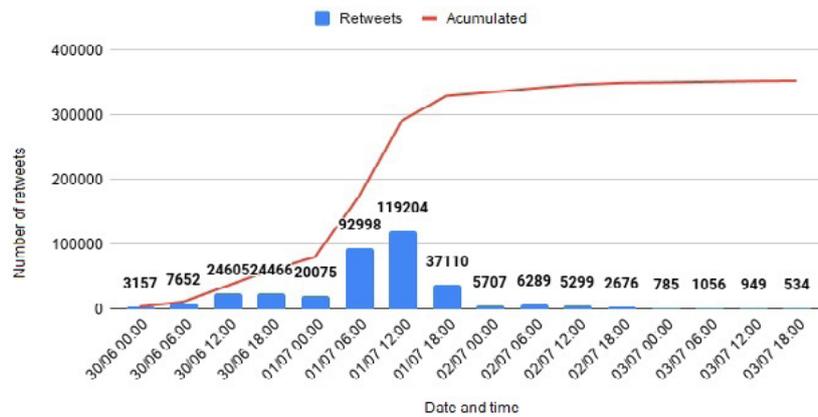
Figure 5 Map of Interactions During the First Demonstration (Data Collected Between June 30 and July 3)

Early in the day before the mobilization, the red and yellow clusters started to stand out as relevant actors of the debate. To a large extent, they contained tweets about the acts on the streets and requests for app users not to use delivery services as a way to support the demonstration. During the morning on June 30, the group represented in green started to stand out, especially due to its articulation with the brown cluster, as we mentioned previously. A fourth community appeared in the afternoon of that same day, represented in lilac and led by a publication of the activist @anarcopedadoga. What stood out the most in this first day was the growth and predominance of the red cluster, composed primarily of profiles associated with institutional politics, such as the congressmen @MarceloFreixo and @samiabonfim, the candidate for mayor of São Paulo @GuilhermeBoulos and the former president @LulaOficial. This demonstrates how the actors of institutional politics connected to the left-wing sought to support the delivery workers' movement since it was called.

On the day of the demonstration, the communities mentioned previously were maintained and intensified their activity on the networks, with the publication of videos and stories about strikes in several Brazilian capitals. Some highlights at that point include the participation of profiles such as @tretanotrampo and @galodeluta, who focused on publishing content they received from delivery workers who participated in the street demonstrations that day.

There was also the appearance and increasing activity of profiles criticizing the demands raised by the delivery workers. These profiles, located inside the blue cluster, began posting messages opposing the movement in the early hours of the day, and their participation intensified until the end of July 1. In the 2 days after the demonstration, that was one of the few groups still growing, focusing on commenting negatively about the acts and their supporters on the networks.

Figure 6 shows the evolution in the number of retweeted publications about the delivery workers' strike in quantitative terms over the period analyzed. The highest increase in the number of retweets happened in the morning of the demonstration day. The figure below shows that 60.18% of the retweets about the "Breque dos Apps" happened between 6 a.m. and midday on July 1. Between midday and the end of the afternoon, the number of retweets dropped significantly, and continued to fall until the end of the period analyzed.



**Figure 6** Evolution of the Number of Retweets During the First Demonstration (Data Collected Between June 30 and July 4)

The second demonstration happened on July 25. The temporal analysis of the map of interactions for that demonstration shows a few aspects that stand out when compared to the first demonstration (Figure 6). Like in the first cycle of mobilizations, the profiles who started the debate were distributed among the clusters composed primarily of delivery workers' movements and actors of institutional politics. However, there is an important difference regarding the moment the clusters were formed. Unlike the first protest, when the major clusters were well established since 6 p.m. the day before the demonstration, in the second protest, the formation of the major clusters started only at midday of the protest day, which means the movement was already under way. The last clusters to join the debate (green and purple) were formed around viral tweets made by influencers connected to the Black movement. This highlights the potential for engagement around mobilizations overlapping the two causes, and contributes with another evidence of the hypothesis that the lower participation of profiles connected to the Black movement could explain the decrease in the debate about the second demonstration.

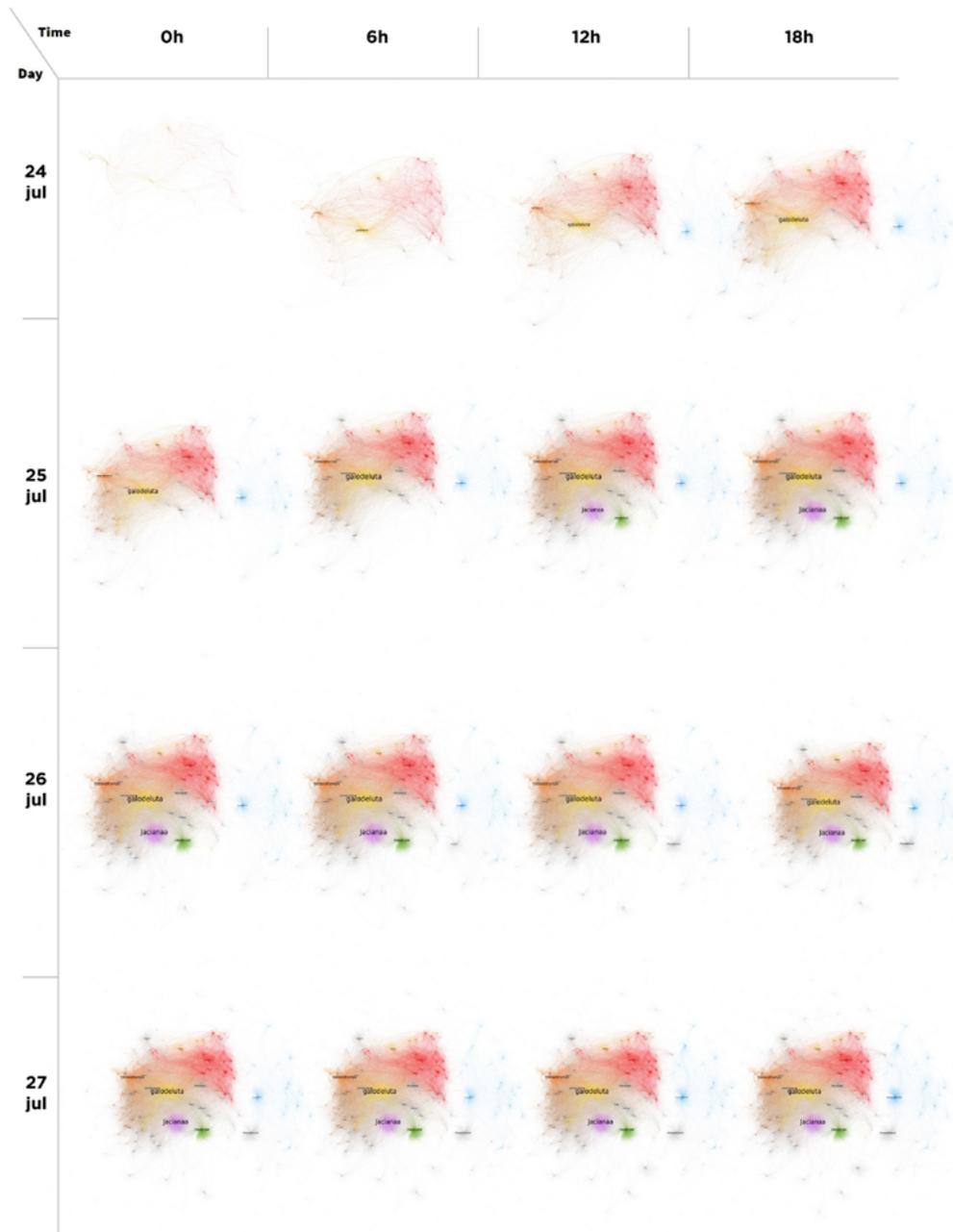


Figure 7 Map of Interactions During the Second Demonstration (Data Collected Between July 24 and 27)

The debate in the 2 days after the second demonstrations did not change much compared to the first protest but increased slightly after July 27. This increase is related to the growth in the number of interactions in the blue clusters, formed by politicians and profiles of liberal orientation who criticized the delivery workers' mobilization. This critical reaction may indicate the beginning of a stronger narrative regarding the protests, which appeared in the blue cluster as a reaction to the two demonstrations. In the second event, it gained a less ironic nature, incorporating arguments to discuss the demands

made by the delivery workers. This characteristic is an evidence of the disputed nature of the movement. Although it was mostly connected to sectors aligned with the left side of the political spectrum, it started being incorporated into the liberal discourse of parties aligned with the right wing through narratives of freedom, competition and deregulation.

Regarding the evolution in the number of retweets during the second period analyzed, we saw once again that the day of the actual demonstration accumulated a significant majority of the publications about the topic: almost half of the volume occurred until the end of the morning on the 25th (Figure 8).

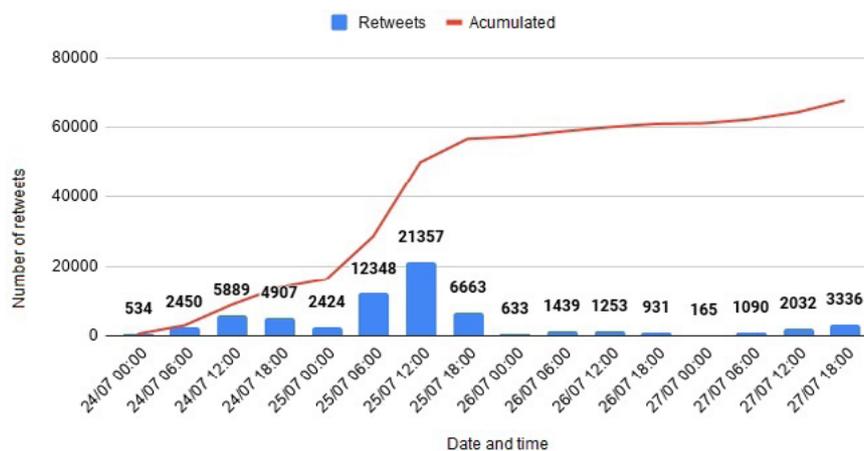


Figure 8 Evolution of the Number of Retweets During the Second Demonstration (Data Collected Between July 24 and 27)

However, contrary to what we observed in the first demonstration analyzed, there was an increase in the number of publications in the last day of the period. A possible explanation for that could be the decentralized participation of right-wing groups, who focused on criticizing the issues raised by the movement. One example of that is a tweet published at 3:24 p.m. on July 27 by the entrepreneur Flávio Augusto (@GeraçãoDe-Valor), who said:

APP delivery workers have given up labor laws. This movement now is to open their own cooperative and compete with iFood. Some time from now, they'll realize there's no magic and that they stopped working for an evil entrepreneur and started working for a crooked syndicalist.<sup>9</sup>

In summary, in this section, we examined the evolution of the debate about the demonstration of the "Breque dos Apps" over two different periods of the protest. We found that supporters of the issues raised by the movement are predominant in the publications about the topic on Twitter. In the two events analyzed, there was the participation of different communities formed by groups of supporters in different sides. This suggests that the "Breque dos Apps" mobilized actors with different types of political,

<sup>9</sup> Retrieved from <https://twitter.com/GeracaodeValor/status/1287816165318959104>

cultural and institutional capital. However, it is important to mention that profiles criticizing the demonstration also expressed their opinion in a decentralized and scattered way. Having examined the role of communities in the debate about the "Breque dos Apps", in the next section we will focus on the participation of the most influential profiles inside the debate in general.

### **ANALYSIS OF THE MOST INFLUENTIAL PROFILES**

After analyzing the social groups that engaged in mobilizing the delivery workers' protests on Twitter, we will begin an investigation into the behavior of the main influencers of the debate in each of the demonstrations, seeking to identify the permanence of profiles in the discussion, profiles that joined it, and their roles. Our reference was the 200 profiles with the highest number of retweets for each period analyzed. These profiles represented 78.3% and 84.6% of the messages retweeted in each demonstration, respectively.

Regarding the presence and role of these profiles in each of the events, we can distinguish three behaviors that help us to understand the process of building a discussion about delivery workers on Twitter. We start from the understanding that, due to the platform's characteristics, Twitter amplifies heterogeneous compositions of social actors that tend to connect in an ephemeral way in favor of specific causes, while certain groups and actors use the space to build a more clearly defined common identity.

### **PROFILES THAT PARTICIPATED IN BOTH DEMONSTRATIONS**

The profiles of individuals and organizations among the 200 most retweeted users in the first demonstration and remained in this group in the mobilization cycle for the second act constitute potential actors for the construction of a collective identity around the fight for better work conditions of delivery workers. Of the 200 major influencers in the first protest, 121 remained active in the second, which represents a permanence level of around 60%. Of these, 61 remained among the 200 major influencers in the two demonstrations.

Among the major groups that composed the debate, there are profiles linked to institutional politics. Most of the profiles were linked to left-wing parties, such as the Worker's Party, the Socialism and Liberty Party and the Democratic Labor Party, including the 2018 presidential candidates, *Ciro Gomes* (@cirogomes) and *Guilherme Boulos* (@GuilhermeBoulos), and the Worker's Party's candidate for vice-president, *Manuela D'Ávila* (@ManuelaDavila). In addition, the presence of communication companies (@folha, @bbcbrasil, @UOLNoticias), activists linked to the Black movement (@gabrielaz, @andrezadelgado) and alternative media vehicles (@MidiaNINJA, @J\_LIVRES, @brasildefato) stood out.

It is important to highlight the permanence of the profiles @galodeluta and @tretanotrampo, which established themselves as the most important profiles linked specifically to the delivery workers' movement, becoming the leaders and the more defined

expression of the demonstrators' identity. Between the start of data collection for the first protest and the last day of data collection for the second, the profile @galodeluta obtained a 26.8% increase in the number of followers, with 9.2% in the 4 days of the first protest alone. There was also an increase in the number of followers of the profile @tretanotrampo, who grew by 13.8% over the entire period analyzed, with 5.4% in the first cycle of demonstrations alone.

In addition to the profiles among the 200 with the most retweets in both demonstrations, there were also 60 profiles that remained in the debate in the second protest, but left the group of the 200 most retweeted. There are no major differences in terms of topic or social composition between these two groups. As in the first group, there is a presence of institutional political actors (especially from left-wing parties), artists and social movement activists.

A qualitative analysis of the intensity of engagement of these profiles in the second protest can help explain the difference in the impact they obtained compared to the first. Examples of reduced engagement can be seen in profiles such as the financial education content creator @nathfinancas, who had 10 interactions (four tweets and six retweets) in support of the campaign in the first demonstration, but only one retweet in the second, as well as the comic character @startupdareal, who criticizes entrepreneurial thinking and decreased from 12 interactions in the first demonstration (five tweets and seven retweets) to only one retweet in the second. Artists such as the singer @emicida and the actress @patriciapillar obtained significant engagement in the first protest, with only one tweet in support of the cause, but did not reach the same projection in the second, when they only retweeted messages from other profiles. Lastly, other highlights include institutional political actors who did not take action in the second protest, but were brought into the debate due to retweets of the posts they made in the first act; that was the case of the former president of Brazil @LulaOficial and the congressman @MarceloFreixo.

In addition to the analysis of the profiles among the 200 most retweeted in the first protest, there are 101 profiles that were not in this group in the first protest, but became part of it in the second. With a social composition similar to that of the previous groups, 71 of the 101 profiles in this group obtained an increase in retweets between the first and the second protests, indicating that their rise to the group of the 200 most retweeted did not happen only due to the lower engagement or departure of influential profiles, but also due to the greater capacity of mobilization around these profiles. This element is important because it indicates the strengthening of ties between these profiles and the delivery workers' cause.

#### **PROFILES THAT PARTICIPATED IN THE FIRST DEMONSTRATION ONLY**

Among the 200 most retweeted profiles in the first protest, 79 did not engage in the second demonstration, which represents a drop of almost 40% in permanence. These profiles were responsible for 22.1% of the retweets in the first demonstration and garnered approximately 26,900,000 followers between June 29 and July 3. Among

these profiles, artists such as the comedians José Simão (@jose\_simão), Marcelo Adnet (@MarceloAdnet) and Gregório Duvivier (@gduvivier) stood out, with 5,200,000, 3,300,000 and 1,400,000 followers, respectively. The same can be said about political leaders such as the former president Dilma Rousseff (@dilmabr), the former minister Marina Silva (@MarinaSilva), and the congressman and president of the Workers' Party, Gleisi Hoffmann (@gleisi).

The discontinuity of the engagement of these profiles in the delivery workers' demonstrations indicates a weak tie with the cause, but it also shows how even weak ties are capable of boosting engagement in social causes in the digital environment, amplifying the reasons for mobilization and the coordination of actions such as boycotts and promotion of hashtags.

### NEW PARTICIPANTS

Lastly, among the 200 profiles with the most retweets in the second demonstration, 39 were new actors, meaning they did not participate in the first demonstration and became prominent users in the second. This group has several profiles that helped composed the blue cluster, which was the group of users criticizing the July 25 demonstration. The highlights among them include the profile of the businessman Flávio Augusto (@geracaodevalor), with more than 500,000 followers, and profiles linked to the liberal party Partido Novo, such as the presidential candidate in 2018, João Amoedo (@joaoamoedonovo), the party's official profile (@partidonovo30), the congressman Paulo Ganime (@pauloganime), and the congressman for São Paulo, Daniel José (@danieljosebr). The appearance of influencers in the liberal institutional political debate after the second demonstration corroborates the hypothesis that protests became the object of dispute, especially regarding the issues associated with the establishment of labor ties between delivery workers and application platforms.

### CONCLUSIONS

The purpose of this study was to examine the dynamics of the public debate on Twitter about the delivery app workers' strike from the perspective of collective identity and collective action. To do so, we collected two corpora composed of 535,178 tweets published during the two episodes of workers' demonstrations, which happened between June and July 2020. We performed a temporal analysis of the maps of interaction, seeking to identify the formation of clusters over the duration of the periods of demonstration. In addition, the study also proposed an analysis of the most influential profiles during the two episodes analyzed, seeking to identify the behavior of the main actors who participated in the debate about the "Breque dos Apps".

In general, the research found that most of the profiles that participated in the debate on Twitter about the delivery workers' strike originate from communities formed by supporters of the topics demanded by the protesters. The organizers of the demonstration,

actors of institutional politics and activists from different social movements were among the main protagonists of the debate about the "Breque dos Apps" in the two periods analyzed. In addition to the formation of communities around the profiles of the delivery workers who articulated and disseminated the movement's message in the Twitter environment, the role of left-wing actors of institutional politics was present in all stages of mobilization and predominated in terms of engagement and reach. Critical and right-wing profiles were also present in both episodes. However, it is clear from this temporal assessment that there was an inflection of behavior, which was previously merely disapproval of the movement but became an ideological (and, to an extent, partisan) dispute between conflicting fields of discourse. The findings indicate that the notions of identity and collective action, (re)formulated and enabled by connective action, necessarily permeate the role of political parties in their own construction and maintenance. It is a challenge to understand the extent to which bridgings and shared meanings are effectively established to structure mobilization and political action through social media, especially since Twitter commonly allows for weak ties.

We emphasize that the mobilization around the rights of delivery workers is still ongoing, having established itself as a research topic that should more deeply incorporate the weight and role of social networks in the process of mobilization and internal organization of delivery workers, as well as in their relationships with actors such as platforms, State agents and institutions, and a wide variety of social movements with progressive agendas or that defend agendas such as the deregulation of work, the reduction of the role of the State and the de-bureaucratization of the public sector.

**Translation: Lucas Peixoto**

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