Social Networks and Mobile Instant Messaging Services in the Election of Jair Bolsonaro as President of Brazil in 2018*

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INTRODUCTION

"All that's left of what we were it's what we have become" The Writing on the Wall, Iron Maiden

n October 28, 2018, Jair Bolsonaro was elected president of Brazil with 55.13% of valid votes. "A well-known though irrelevant backbencher", with the reputation of being "a gaffe-prone extremist and a cartoonish foil for the left" (Hunter, Power, 2019: 75), he gained fame through the efficient use of social networks and mobile instant messag-

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ing services, mainly due to the radical manner in which he aggressively expressed his political ideas, in comparison to those of the left (Almeida, Guarnieri, 2020; Almeida, 2019; Anderson, 2019; Araújo, Prior, 2020).

Bolsonaro's election was also marked by divergence from the pattern of national Brazilian disputes since the return of democracy to the country in 1985. Bolsonaro represented the Liberal Social Party (PSL), a small party without any consistent ideological or social ties, and which in the previous election had won only a single seat in the Chamber of Deputies, Brazil's lower house of Congress. Because the PSL's representation had been minimal that term, according to the Brazilian electoral rules, Bolsonaro would neither receive resources from the main source of public funding for parties, "the Party Fund", nor free television and radio advertising time.

Bolsonaro campaigned in a setting strongly marked by new forms of intermediation between political information flows. In this setting, communication technologies have expanded channels for information exchange, making it more dynamic and allowing voters and candidates to receive and share both thoughts and arguments without going through traditional media. Although already present in Brazilian presidential campaigns since 2010 (Marques, Sampaio, 2011), digital media has expanded greatly with the use of social media such as Facebook, Twitter and YouTube, and with mobile instant messaging services such as WhatsApp.

This article analyzes the result of the 2018 Brazilian presidential election based on data from the Brazilian Electoral Study (ESEB), a national post-electoral survey carried out directly after the second round. But contrary to studies that have analyzed the reasons behind Bolsonaro's election through survey data, focusing on measuring the effects of conjunctural, structural and ideological variables (Almeida, 2019; Amaral, 2020; Rennó, 2020; Setzler, 2020), our objective is to investigate how social networks and mobile instant messaging services are also important to understand his victory. In other words, we want to determine whether the use of social networks and mobile instant messaging services increased the chances of individuals voting for Bolsonaro in the 2018 Brazilian presidential election and, if so, to what extent.

As emphasized by Hunter and Power (2019: 70), Bolsonaro was elected thanks to a "combination of fundamental background conditions (economic recession, corruption, and crime), political contingencies (most

notably, the weakness of rival candidates), and a shakeup in campaign dynamics resulting from a strategic use of social media." However, none of the studies on the topic with an analysis of microdata have given due importance to the role played by social networks and mobile instant messaging services. They either have ignored them completely in their models (Almeida, Guarnieri, 2020; Amaral, 2020), or found contradictory results (Rennó, 2020). In doing so, they have relegated to the media – traditional and new – the role of simply "delivering the message" to voters, and contributed to reinforcing this stereotype, a common view in institutional and behavioral approaches.

This situation is even more important because in recent years, several democracies have seen the rise of authoritarian-populist leaders to power: in Europe, North America and Latin America. In numerous, social media helped politicians like Bolsonaro – irrelevant on the national political scene, resourceless and with restricted access to traditional media – "to expand the reach of their communications among their followers, amplifying the impact of rallies therefore" (Norris, Inglehart, 2019: 55).

It would have been virtually impossible for Bolsonaro to win the presidency without social networks and mobile instant messaging services to channel and amplify his discourse (Piaia, Alves, 2020; Tamaki, Fuks, 2020; Viscardi, 2020). This fact must not only be assumed, but demonstrated empirically, something which has not yet been done. We believe, therefore, that his election is a typical case (Gerring, 2007) and representative of a phenomenon not restricted to Brazil. Given the political and democratic consequences of this fact for the largest country in Latin America, it is crucial to study the impact of the interplay between political, economic and social conditions, social networks and mobile instant messaging services on voters' decisions.

The article is structured as follows. First, we present briefly the historical context in which the 2018 Brazilian presidential took place. Next, we discuss the relationship that political agents and voters experience in the informational setting of contemporary electoral campaigns. Finally, we describe the data and the variables included in the models, and discuss the main results. These show that the use of social networks and instant messaging applications were relevant to explain Bolsonaro's victory, along with the indicators of populism, ideology and antiparty sentiment toward the Workers Party (PT).

THE 2018 BRAZILIAN PRESIDENTIAL ELECTION CONTEXT

Between 2013 and 2018, Brazil went through a period of political, social and economic crises. 2013 was marked by the proliferation of protests in large and medium-sized cities, known as the "June days", seen by researchers as "something similar" to Occupy Wall Street in New York and 15-M in Madrid (Araújo, Prior, 2020). Among the main consequences of these manifestations was the emergence of feelings regarding the incapacity of representative institutions, especially of Congress and of the executive branch, to accommodate for social demands, which led to strong criticism about the functioning of democracy in Brazil.

In 2014, a process of confronting political and business corruption began, which culminated in the construction of a negative image of traditional political actors. A set of investigations involving the Federal Prosecution Service and the Federal Police aimed at combating a bribery and money laundering scheme that moved billions of reais to politicians, parties and business executives, called "Operation Car Wash", brought seemingly endless headlines of arrests of business and political leaders involved in bribery scandals from contracts between Petrobras, the government-controlled oil company, and the nation's largest construction companies. The most important public figure ensnared in the investigations was former President Luiz Inácio Lula da Silva, of the Workers' Party (PT).²

Still in 2014, despite the "specter" of Operation Car Wash, Dilma Rousseff was re-elected as president in a fierce dispute with 51.64% of valid votes, the fourth consecutive victory of a PT member as president. Although during the campaign she had stated she would not undertake economic reforms, 2015 began with the implementation of fiscal adjustment measures that reduced her approval ratings by more than 30 percentage points. In her second term, she also faced serious difficulties in her relationship with parliament (Nunes, Melo, 2017).

In 2016, Dilma Rousseff underwent a controversial impeachment process, where she was accused of illegal management of public accounts, specifically of using short-term loans from government-controlled banks to fill budget gaps so as not to violate the Fiscal Responsibility Law. Although she had chaired Petrobras' board of directors during most of the period the corruption came to light with Operation Car Wash, she was not accused of any wrongdoing in that respect. But this certainly tarnished her public image, further aggravated by the

deepening economic crisis. Several street demonstrations took place both in favor of and against her impeachment, demonstrating a sharply divided country. On August 31, she was removed from office and formally replaced by then Vice-President, Michel Temer, a member of the centrist MDB party and an old-school politician par excellence.

In May 2017, Joesley Batista, one of Brazil's biggest businessmen and owner of JBS, one of the the world's largest food processing companies, delivered to the Public Prosecution Service recordings in which Temer allegedly acted to limit Operation Car Wash's investigations. Furthermore, in those same recordings, former senator Aécio Neves – of the center-right Brazilian Social Democracy Party (PSDB), the candidate defeated by Rousseff in 2014 and one of the main voices of the opposition – is heard asking for R \$ 2 million from JBS in order to cover personal legal costs. Due to scandals of this nature and his inability to improve the country's dismal economic performance, Temer ended his term with approval ratings below 10% and disapproval ratings above 60%.

Therefore, the country's political landscape between 2013 and 2018 was remarkably hostile towards traditional parties and leaders. The perception that "old politics" now worked against the country spread and took shape, with revolt particularly against the PT (*antipetismo*): a set of feelings and perceptions among voters who blame the PT for the economic, political and moral crises taking hold of the country (Borges, Vidigal, 2018; Ribeiro, Carreirão & Borba, 2016; Samuels, Zucco, 2018). This scenario, favorable to change, helped pave the way for a discourse in favor of radical change by candidates such as Bolsonaro.³

CHANGES IN MEDIA ENVIRONMENTS

The 2018 Brazilian elections took place within a fragmented media land-scape. One consequence of this setting was the deepening of new intermediation in political information flow, a phenomenon associated with the expansion of internet use to allow for direct contact between voters and political agents (Chadwick, 2011; Chadwick, Dennis & Smith, 2016; Lobera, Sampedro, 2018; Mancini, 2013; Stier *et al.*, 2018a; Stromer-Galley, 2014).

In Brazil, internet access increased from 34% in 2008 to 74% in 2019, and virtually all Brazilians use smartphones as their main form of access, followed by computers at home and cybercafés (Cetic.BR, 2019). As

for social networks and messaging applications, the estimate in September 2019 was that 87% of the population accessed social networks and mobile instant messaging services (Comscore, 2019).

In the face of a more diverse media environment, some habits of information consumption have become more pronounced. Among Brazilians who access the internet, 67% do so to search for information on social networks and mobile instant messaging services - a percentage equivalent to those who turn to TV sources, which registered 66% (Newman *et al.*, 2020). In October 2018, a few days before the second electoral vote, 46% stated they had used Facebook or WhatsApp to inform themselves on the election (Datafolha, 2018).⁴

This greater fragmentation of political information flows should not be interpreted as an override of sources in the digital universe in relation to traditional means of communication (Prior, 2007). As noted by Lobera and Sampedro (2018), instead of a substitution or disintermediation, new intermediaries in information flows began emerging. Traditional sources, political parties and TV broadcasters, continued to play a relevant role, but without a monopoly on information flows and electoral communication.

What was then estabilished was a hybrid media system, in which the cycles of political information broke away from traditional gatekeepers, such as the press or television advertising, either through the dissemination of information directly to voters via digital platforms, or the use of new sources in the internet universe to produce content with the potential to circulate and attract voters (Chadwick, 2011; Chadwick, Dennis & Smith, 2016; Stier *et al.*, 2018b). In this model, the content generated by voters and political agents fought the flow of information from traditional media for voters'attention.

One of the effects of this phenomenon, especially in the universe of digital media, was the occurrence of a "derangement of visibility", in which political actors, previously marginalized from the traditional and political media system, managed to extend the reach of their messages (Alves, 2019). Leaders began to depend less on traditional media channels or political parties to build their image, mobilize followers and position themselves in political disputes (Stromer-Galley, 2014).

Thus, this new media environment affected electoral communication at least in three important aspects. The first concerns the agenda-setting process, previously dependent on the performance of traditional media. This model is now influenced by a greater diversity of sources and by new actors who have come to occupy the digital environment. The dynamism present within this context would promote what some authors classify as a "diffusion agenda", a term for an interactive communication environment, use of social media, multiple step-flows as well as the sharing and promotion of agendas (Weimann Brosius, 2016).

The impact on agenda-setting is directly related to the gatekeeping process, previously associated with the power of journalism to select topics and emphasize those that will be news or part of the public agenda. In the digital model, the audience has not only the opportunity to produce and disseminate information without these traditional gates, but also to seek alternative sources or to question the interpretations of mainstream journalism, acting more directly and dynamically (Aruguete, Calvo & Ventura, 2020; Friedrich, Keyling & Brosius, 2016).

But the context of the 2018 communication environment should also be analyzed from a third perspective: the difficulty in silencing minority groups, as proposed by one of the premises of the Spiral of Silence theory. The increase in alternative sources of information, either through direct contact via digital platforms or through new web channels, expands the possibilities for voters to seek sources aligned with their own political opinion, reinforcing the notion of consonance. This dynamic, specific to the digital environment, would limit the silencing effect of the political opinion perceived as the minority (Eilders, Porten-Cheé, 2016) .

POLITICAL CAMPAIGNS IN THE NEW INFORMATIONAL ENVIRONMENT

To understand what happened in Brazil during the presidential election of 2018, it is also important to discuss how electoral processes have developed in contemporary democracies, taking into account the role of digital communication environments as a privileged space for relationships between populist leaders and followers (Bucy *et al.*, 2020; Gil de Zúñiga, Koc Michalska & Römmele, 2020). ⁵ We call attention to this fact because, as will be shown, Bolsonaro used several of these stratagems to gain political substance, launch his candidacy and conduct his campaign.

According to Bennett and Segerberg (2012), the logic of current political movements, organized via digital platforms, depends heavily on the personal identification of citizens. They personalize content and express

themselves on networks through the sharing of information. Personal and direct involvement among users is a central feature of the model, and thus part of its organizational strength (Goh *et al.*, 2019; Valenzuela, Bachmann & Bargsted, 2019). In elections, the personalization of everyday relationships weakens the ties between citizens and representative institutions, opening more space for politicians with populist profiles.

Combined with the strength of personal identification in networks, the increase in sources within the digital environment has intensified the competition for users' attention (Marques, Sampaio 2011). This fact has influenced the strategies adopted by political leaders to mobilize voters (Evans, Cordova, & Sipole 2014; Rossini *et al.* 2018). Social networks are no longer only associated with content published by political leaders, but with the way in which they interact with users, generating a sense of authenticity and transparency between the two parties (Enli, Skogerbø, 2013). Consequently, the direct participation of candidates through their interactions with voters reinforces the sense of proximity and personalism in messages (Enli, Skogerbø, 2013). Although occurring virtually, the social presence of a candidate simulates the experience for the user of having a connection with the candidate themselves, something that exists only in face-to-face communication (Mcgregor, 2018).

In the debate regarding the potential spawning of populist leaders within this scenario, Engesser, Fawzi, and Larsson (2017) argue that there is a tendency for these agents to adopt a communication style centered around simplification, emotionality and negativity in these social networks. The use of these three dimensions works as a strategic opportunity online, as they enhance the economy of attention. Since there are many sources vying for attention in the online world, the use of this communication style helps populist leaders attract attention and mobilize their followers through networks.

From the same perspective, Ernst *et al.* (2017) noted that direct communication between political leaders and their followers enhances the personalism of relationships, since many messages written by these leaders are about their lifestyle, their feelings and emotions, skills and professional activity. In other words, the characteristics of the hybrid electoral communication model, in which the digital environment and traditional media operate together, has increased the possibility of direct contact between candidates and voters, allowing leaders who

previously had had no broad access to television, radio and newspapers to competitively participate in the information market, producing content and attracting electoral engagement.

In this scenario, the use of social networks and mobile instant messaging services by candidates encourages a greater sense of closeness as well as personal and political identification with voters. If candidates are interested in building ties of identification, they find today a broadly favorable communication model, less dependent on traditional channels and their respective gatekeepers.

The organization of users around networks connected by nodes expands the number of possibilities of disseminating political content between different groups, allowing content to "go viral". Each social media user is a potential activist or supporter, helping circulate a political message to other users (Aggio, Lucas, 2013). With regards to the usage of WhatsApp, the formation of groups for message exchange led to the formation of interconnected networks, with sets of users in different decentralized interest groups associating themselves with other sets of users from diverse groups, and all of them working towards enhancing the dissemination of political information (Bastos dos Santos *et al.*, 2019; Boczkowski, Mitchelstein & Matassi, 2018; Mitchelstein, Boczkowski, 2017).

More decentralized communication environments, with greater participation of voters who are directly connected to political agents social media, can favor populism. Many elements of political populism were employed by Bolsonaro in his campaign speeches, through live posts and messages on social media, even before 2018 (Cioccari, Persichetti, 2019; Dias, Fernandes, 2020; Santos *et al.*, 2020). He sought to express the anti-system sentiment present at the time, emphasizing attributes such as courage and strength to confront "old politics" and to overcome what he called "leftism", supposedly responsible for the moral degradation of Brazilian society and the loosening of anti-crime policies, due to the connection between progressive groups and human rights activism.

This new communication environment, which fueled the direct con-tact between Bolsonaro and his supporters, also affected many interactions within networks, especially those between supporters themselves, in charge of disseminating the messages of the candidate, of his political group or even of other voters. This typical network communication relationship, built through social media or messaging applications, con-

tributed to dynamically amplifying the reach of the then-candidate's messages, their flags and political arguments. As Aruguete, Calvo & Ventura (2020) observes, Bolsonaro's most engaged voter base was typically involved with the dissemination of information from alternative sources, with low journalistic reputation as well as more willing to produce content aligned with the political perceptions of said group. There was, therefore, not only a technological environment that favored the consumption of decentralized information, without the coverage of traditional media, but above all, there was the interconnection and political engagement of these voters.

In the context of the Brazilian presidential election, this means that we can expect not only that social networks and mobile instant messaging services increased the likelihood of one voting for Bolsonaro, but also that these new media increased the effects of populist views and discourses associated with the PSL candidate. In the model of the digital campaign that prevailed in 2018, there was a greater opportunity for more direct contact between Bolsonaro and his supporters, as well as between his supporters themselves, who were in charge of disseminating the candidate's message, that of his political group or that of other voters. This typical relationship of network communication, built through social media or messaging applications, contributed to dynamically stretch the reach of the then-candidate's messages, their flags and political arguments.

Therefore, our research hypothesis is:

H1: the use of social networks and mobile instant messaging services increased the likelihood of such users voting for Bolsonaro in the Brazilian presidential elections of 2018.

We consider, however, that there are differences between these dynamics of digital platforms and messaging applications. While social networks are influenced by platform algorithms, which can increase or limit the visibility of a publication, mobile instant messaging services make it possible for an individual to send content directly to other network participants, enhancing and stimulating sharing (viralization) in other groups. Despite this difference, social networks and mobile instant messaging services are connected by the possibility of sharing links and encouraging the engagement of their audiences (Santos *et al.*, 2019).

DATA AND VARIABLES

Our data comes from the Brazilian Electoral Study (ESEB), a national post-electoral survey similar to the Comparative Study of National Election Studies. It was carried out directly after the second round of the 2018 presidential election, which took place from October 31 to December 28. The sampling method was probabilistic without substitution. All told, 2,506 Brazilian voters, aged 16 or older, were interviewed. The margin of error was \pm 2.2%, for a 95% confidence interval.⁶

Dependent variable

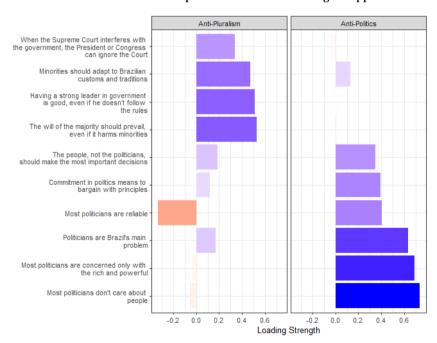
Our dependent variable is the interviewee's declaration of having voted for Bolsonaro: 33.4% in the first round and 40.8% in the second . When considering only the valid votes in our sample – that is, excluding abstentions and invalidated votes – the values would be 44.8% in the first round and 59% in the second round, numbers close to those of actual valid votes, which were 46.03% and 55.13% respectively. However, in order to avoid a large data loss, we chose to work with the complete sample.

Independent variables⁷

Media use. Studies have shown the importance of traditional media in Brazilian elections (Sarmento; Massuchin; Mendonça, 2020). The inclusion of indicators that address social networks and mobile instant messaging services is essential due to the increasing presence of these platforms in electoral campaigns (Jungherr, 2016; Stier et al., 2018b) and for their importance to Bolsonaro's electoral strategy. Thus, we included six binary variables in the model based on questions regarding which medium the voter used the most to obtain political information: three from the traditional media – radio (4.4%), television (41.3%) and newspapers and magazines (8.9%) – and three from social networks – Facebook (35.7%), WhatsApp (14.2%) and YouTube (8.5%). We are fully aware that these measures are overly simplistic. However, the only questions addressing media use in the ESEB were derived from two pre-coded, single-answer questions that asked "which of these media" and "which of these social networks" had respondents used most to obtain political information.

Populism. To test the congruence between populist values and the vote for a candidate who advocates for these beliefs, we created two indexes, both derived from the index of populist values proposed by Akkerman, Mudde and Zaslove (2014). The ESEB questionnaire presented respondents with ten phrases, asking them to state whether they agreed a lot, a little, were neutral, disagreed a little or a lot. Due to the limitations of the available data, our index was adapted to the Brazilian context. We sought to preserve the minimal definition of populism, which places the virtuous "people" as a counterpoint to corrupt and minority political elites who try to destroy the lifestyle of the majority. To decide which of them could make up the indicators of populism, we carried out exploratory factor analysis, through parallel analysis, which simulates real data with simulated data and recommends extracting factors that have eigenvalues above that of the simulated sample (Hayton, Allen & Scarpello, 2004).8 The results are shown in Figure 1.

Figure 1
Exploratory factor analysis results. Extraction of two-factor solutions with oblique rotation. Detailed results are provided in the methodological appendix.



Source: Brazilian Electoral Study, 2018.

Two groups of beliefs were extracted. The first measured the interviewee's belief in politicians' responsiveness to the wishes of citizens. The second mainly described how much they believed in a utilitarian view. The indexes were created from the sum of the variables grouped in each factor. We titled the first "anti-political discourse" (range 0 to 1, M = 0.79, SD = 0.28), and the second "anti-pluralist discourse" (range 1 to 1, M = 0.49, SD = 0.28).

As stated above, Bolsonaro became a competitive candidate in the presidential election by delivering strident antiestablishment speeches against the old political system, centered on his persona as a former army captain – capable of leading and making tough decisions – and as a fierce opponent of social policies aimed at specific groups, which he always claimed was negative karma Brazil carried after years of PT-led governments. We believe that these two indices, although not perfect, are sufficient to test the relationship between populist discourse and voting for Bolsonaro.

Contextual measures. We included three variables that measure contextual dimensions, with the aim of not neglecting the analysis of important aspects of studies on voting decisions, specifically measures of institutional, government and economic performance (Fisher *et al.*, 2018). The objective was not to control the media variables by government retrospective evaluations, the impact of economic variables and issue voting. The first variable was the perception of corruption. A value of 1 was attributed to the responses stating that it is very widespread within the political class (82%), and zero for other responses. The other two were the assessment of the country's economy in the last 12 months, on a 5-point scale, where 1 indicates "much worse" and 5 "much better" (M = 2.06, SD = 1.15), and the assessment of government performance, where 1 indicates "terrible" and 5 "excellent" (M = 1.79, SD = 1.18).

Ideology. The ideological positioning has been pointed out by literature as a predictor of voting in Brazil (Carreirão, 2007; Izumi, 2019; Singer, 2000). The ESEB employed a voter self-identifying question on a scale from 0 = left to 10 = right, which generated many unanswered items. ¹⁰ Thus, we adopted the proposal of Wood and Oliver (2012) to deal with this problem, recoding the scale of ideological positioning in 4 different dummies: left (0 to 3), center (4 to 6), right (7 to 10) and non-ideological (absent cases), with the center as reference category. Then, all of them

were cross-examined with the indicators of education level: low (up to complete primary school, reference category); medium (up to complete secondary school); and high (bachelor's degree or equivalent or higher).

Antipetismo. The recent literature on electoral behavior in Brazil has demonstrated the influence of party identification with the PT as a determinant of electoral behavior (Borges, Vidigal, 2018; Ribeiro *et al.*, 2016; Samuels, Zucco, 2018). The ESEB asked interviewees, on a scale from 0 to 10, how much they liked the party . But because other studies have already shown that *antipetismo* was crucial to voting in favor of Bolsonaro in 2018 (Nicolau, 2020), this variable was inverted, where 0 = "likes a lot" and 10 = "does not like at all", as to capture the impact of the *antipetismo* sentiment (M = 6.22, SD = 3.87).

Social mobility. Recent literature has shown that social mobility is key to understanding voting in Brazil (Peixoto, Rennó, 2011; Ribeiro, Israel, 2016). The ESEB asked respondents (1) if they had experienced a change in their own social class; (2) which class they had belonged to eight years prior; and (3) to which class they currently belong to – the second and the third were posed only for those who answered positively to the first. To compose a mobility indicator, question (2) was subtracted from (3), negative values were grouped as "gone down", positive values as "gone up" and absent cases as "no change". This procedure was intended to capture only the decreasing mobilization and remove the social class component of it (Amaral, 2020).

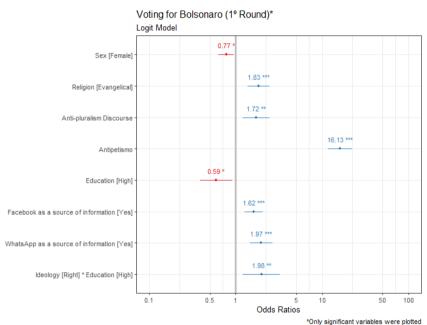
Demographics. In the models, we also included a set of sociodemographic variables: gender (women making up 53% of the sample), age (M = 41.6 and SD = 15.7), education – up to complete primary education (23%), up to complete secondary education (54%) and bachelor's degree or higher (23%) – as well as religion, where two binary variables were created: one for Catholics (54%) and another for Evangelicals (32%).

RESULTS

Two logistic regressions were estimated, one for each round of the election. The results are shown in the graphs in Figures 2 and 3.¹¹ The model coefficients express the odds of voting for Bolsonaro. Thus, values greater than 1 indicate a greater probability of having voted for the

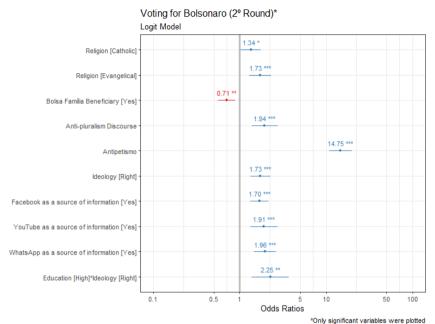
PSL candidate, and values smaller than 1 indicate a greater probability of having voted for another contender. To facilitate the interpretation of results and allow for the direct comparison of magnitudes of the estimated effects, all variables were scaled to the 0-1 range. (Achen, 1982). Only significant variables were plotted. Complete results are provided in the methodological appendix.

 $Figure\ 2$ Odds of voting for Bolsonaro (First Round). R² Tjur = 0.25. Sensitivity = 52.2%, Specificity = 84.2%. Misclassification rate = 27.1%. Detailed results are provided in the methodological appendix.



Source: Brazilian Electoral Study, 2018.

Figure 3
Odds of voting for Bolsonaro (Second Round). R2 Tjur = 0.28. Sensitivity = 68.3%, Specificity = 81%. Misclassification rate = 24.4%. Detailed results are provided in the methodological appendix.



Source: Brazilian Electoral Study, 2018.

The results are in line with other analyses on the determinants of voting for Bolsonaro (Almeida, Guarnieri, 2020; Amaral, 2020; Barros, Silva, 2019; Rennó, 2020). The female vote, education and being a beneficiary of the *Bolsa Família* income transfer program had a negative correlation with the vote for Bolsonaro. The religious vote (Catholic or Evangelical), anti-pluralism discourse, *antipetismo*, right-wing political ideology, high education and having access to social media and mobile instant message services showed positive correlations.

Bolsonaro received less female support as during his campaign there had been an intense mobilization of women against him (Clara *et al.*, 2018), due to his sexist statements and his position against important agendas of the feminist movement. The electoral effects of *Bolsa Família* are widely described in the literature on electoral behavior (Licio, Rennó & Castro, 2009; Nicolau, 2014; Peixoto, Rennó, 2011), indicating a positive correlation between this benefit and greater support for the PT.

With regards to factors which favor Bolsonaro, our data support the assumptions that the candidate benefited from ideological and partisan matters (Rennó, 2020; Setzler, 2020). Ideologically, he received massive support from the religious voter base, mainly from Evangelicals, most likely due to Bolsonaro's "deeply conservative agenda, opposing same-sex marriage and gay rights, abortion, affirmative action, drug liberalization, and arms control" (Almeida, Guarnieri, 2020: 143). Furthermore, the relationship between having right-leaning political beliefs and having bachelor's degree or higher showed statistical significance, and in the direction expected by what is suggested in the literature (Singer, 2000).

The data offers that Brazilian voters were actually more concerned with issues related to the belief system and the fight against social inclusion discourse, near the left, than with a supposed "renewal" of politics. We expected the two indexes constructed to measure populism to bring significant results; however, the data suggests that this occurred only with the anti-pluralism index, which positively impacted the vote for Bolsonaro in both electoral rounds . Bolsonaro "introduced himself as an outsider running against the elites, the political establishment, and the 'rotten' party system" (Almeida, Guarnieri, 2020: 143). However, taking into consideration the results obtained from the models , the convincing power of this rhetoric must be questioned. In fact, one of the questions raisedduring the candidate's campaign was exactly how a congressman, with 27 years in office, could have legitimacy to claim outsider status.

Bolsonaro's anti-pluralism rhetoric was more convincing. Authoritarian verve and training as an army officer – albeit with problems from the military justice system – may have given him the veneer of a strong leader. The nationalist and religious motto of his campaign – "Brazil above everybody, God above everything" – and his strident discourse against the left (Almeida, Guarnieri, 2020: 143), made him a vehicle of the dissatisfactions felt by a segment of the population against affirmative action policies and political correctness. Contrary to what happened with the anti-politician discourse, it is not possible to say that the adoption of these political positions was a fraud or just an attempt by Bolsonaro to maximize voter support.

Bolsonaro also managed to successfully channel *antipetismo* sentiment. This variable is extremely important to explain his election to which the outcome was strongly expected, as recent research has demonstrated antipetismo's importance to the Brazilian context (Ribeiro *et al.*, 2016; Samuels, Zucco, 2018). Since other analyses of the 2018 election have already explored this relationship in depth (Amaral, 2020; Nicolau, 2020), we will not go into it further .

BOLSONARO AND THE NEW MEDIA

Bolsonaro had always been a legislator deemed politically insignificant. In the years just before the election, however, specifically since the impeachment of President Rousseff, his public/political image grew substantially, through the efficient use of social networks and mobile instant messaging services. As the main objective of our analysis is to better understand how social networks and instant messaging apps helped Bolsonaro's presidential victory, we believe that the effect of these variables on voting in the 2018 election deserve separate analysis.

The graphs in Figure 4 present the predicted probabilities of voting for Bolsonaro and the form of new media consumption. Using social networks and mobile instant messaging services as sources of political information had a positive impact on the vote for Bolsonaro: In the first round, frequent use of Facebook and WhatsApp as sources of political information almost doubled the odds of voting for him. In the second round, the same relationship was observed, only complemented by the use of YouTube. This places them at a level of importance, similar to that of other variables, such as antipluralist speech and being Evangelical. Based on these results, we believe to have presented evidence that new media are among the set of variables that led Bolsonaro to presidency.

Predicted Probabilities for Media Use and Voting for Bolsonaro WhatsApp Facebook YouTube 50.0% 40.0% 30.0% 20.0% 10.0% 0.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0%

Figure 4 Predicted probabilities of voting for Bolsonaro and the type of new media use.

Source: Brazilian Electoral Study, 2018.

In the presidential campaign, Bolsonaro was given little time in Electoral Advertising Time, both on radio and television (which is allotted proportionally to the party's votes in the previous election). With regards to traditional media, there is no robust evidence that mainstream outlets and newscasts supported him enthusiastically or favored him substantially. Thus, he resorted to social networks and mobile instant messaging services, which he used "very effectively to convey himself as an ordinary, simple man confronting the political elites, the leftist cosmopolitan intellectuals, and above all, the PT 'communists'" (Almeida, Guarnieri, 2020: 143). So much so, that by 2018 Bolsonaro had become a well-known figure with a strong impact on social media, which probably made him the most influential Brazilian politician on social networks such as Facebook, Twitter and YouTube (Murta *et al.*, 2017), and their use was pivotal for the consolidation of his election (Nicolau, 2020).

Specifically regarding WhatsApp, it is known nowadays that Bolsonaro's campaign relied on a strategy financed by businesses and not stated in the campaign accounts, for the dissemination of messages through the app (Mello, 2019; Nicolau, 2020). This was efficiently used to spread fake news and attacks, as well as grow political polarization against the PT party and former presidents Lula and Rousseff through a strategic rhetoric of fear (Chagas, Modesto & Magalhães, 2019). In addition, a recent study by Piaia and Alves (2020), which analyzed 21 Bolsonaro WhatsApp support groups during the election also showed there had been strategic campaign actions with a broad dissemination of YouTube videos and Facebook posts in support of the "captain". As its authors stated, this type of strategy was important not only to spread positive information about Bolsonaro, which was likely shared with others – such as family and friends – but to neutralize any damage his image may have incurred during the campaign .

The results also suggest, unlike traditional media, that social networks and mobile instant messaging services were capable of a more subtle, and perhaps for this reason, more efficient penetration. These messages can reach politically disinterested or disillusioned people accidentally, as a byproduct of other activities (Fletcher, Nielsen, 2018; Gil de Zúñiga, Diehl, 2019; Gil de Zúñiga, Weeks & Ardèvol-Abreu, 2017), or indirectly, through relationships (family and friends). These tended to generate less resistance from recipients and in the case of instant messaging services, offered a more welcoming environment for political discussion (Valenzuela, Bachmann & Aguilar, 2019; Valenzuela, Bachmann & Bargsted, 2019).

It is clear, therefore, why the use of social networks and mobile instant messaging services was both important and beneficial to Bolsonaro. They were a strong source of communication and information between conservative and anti-traditional party voters, who sought a representative without space in traditional media before 2018. So, the large number of followers Bolsonaro attracted on social media gave him political substance. This was important for him to launch his candidacy and be competitive from the beginning of the campaign. And, along with WhatsApp, they were also an effective campaign tool to present his proposals and negative propaganda against opponents, as well as reduce or cancel the effects of the attacks received in the electoral dispute.

CONCLUSIONS

In the Brazilian presidential election of 2018, Jair Bolsonaro managed to capitalize on the wishes of the more conservative and anti-traditional party electorate, which saw the left as the main supporter of the feared progressive agendas. The economic crisis and successive corruption scandals, started in 2015, reinforced the distrust in the political class as a whole, although it mainly affected the PT, the party that ruled Brazil from 2002 to 2016 and which was the main focus of the accusations.

The results show that none of this would have been possible without the presence of social networks and mobile instant messaging services. If Bolsonaro had only used traditional media, he would likely not have emerged from the lot as the leader going into the first round. Therefore, Bolsonaro won due to his ability to aggregate conservative longings, the discrediting of the political class among voters - who saw in the PT the main culprit of the country's problems - and his communication strategy, which innovated by making massive use of social networks and mobile instant messaging services. One of the important findings of this article is precisely the evidence that demonstrates this symbiosis, which has not been done so far in any of the analyses of the 2018 election in Brazil.

Because of this, analyses of the determinants of voting in 2018 that have only mentioned the importance of new media in a descriptive manner are incomplete, by not including media variables in the models or working with these indicators in the wrong way, as if WhatsApp and Facebook were equivalent platforms, with similar mechanisms and forms of interaction and whose political effects were the same. This is not valid, since they are platforms with different forms of engagement, interaction and language (Halpern, Valenzuela & Katz, 2017; Rossini *et al.*, 2020; Valenzuela, Correa & Gil de Zúñiga, 2018). This is an old omission in a relevant part of the literature on voting decisions in Brazil, but also happens even in excellent works discussing Latin American elections and voters in a broad sense (Carlin, Singer & Zechmeister, 2015; Nadeau *et al.*, 2017).

Finally, it should be mentioned that both indexes used to understand populism and the media variables utilized can be more appropriately measured. The variance of the factors, which was explained, could be enhanced in future surveys, especially with better or more complete sets of questions. The media variables are just binary choices that are

far from representing true media exposure and reception in relation to traditional media, and do not reflect the way people actually use social media: evaluating, sharing and interacting with the messages they receive. They also do not allow any kind of inference about the size and number of networks in which voters are inserted (Gonzalez-Bailon, Kaltenbrunner & Banchs, 2010; Ikeda, Boase, 2011). That is, the results found here can be challenged by analyses that work with more consistent indicators, or can be confirmed for the same reasons, which we strongly believe is most likely to occur.

In any case, we believe that the article makes important contributions to the study of elections and voting in Latin America in general, and Brazil in particular. Our aim is not to suggest that all works on the topic should be media-centered, but only that analyses and research that do not consider media variables of all sorts are incomplete, especially in today's media-centered society. For this reason, post-electoral surveys cannot do without a battery of questions framed to capture the exposure and reception of content from traditional media and mainly from new media.

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NOTES

- In Brazil, these parties are also called "parties for rent": "small parties that in the
 elections negotiate their free advertising time on radio and television. They are identified by their leaders and not by program content and benefit from the party fund,
 in addition to advertising in the mass media funded by the National Treasury" (Neto,
 Cunha, 2019, p. 211).
- Ex-President Lula was arrested in 2018 by order of Judge Sérgio Moro, who headed Operation Car Wash and then served as Minister of Justice and Public Security in the Bolsonaro administration between January 2019 and April 2020.
- This is not new in Brazilian political history. In 1989, Fernando Collor (PRN)'s campaign
 centered around personal traits, such as strength, youth and courage, in addition to the
 image of anti-corruption, organized around the fight against the "maharajas" (traditional
 political leaders) and political chiefs close to his predecessor, José Sarney (MDB).
- 4. The information campaign environment still presents some characteristics of the pre-internet model. Traditional institutions/media groups continue to be the first choice for Brazilians who access the internet. The group/set of the most accessed vehicles of TV, radio and the print media include, for example, TV Globo and GloboNews, Record, SBT,

- and BandNews. This behavior is similar with regards to online vehicles: GloboNews, UOL, Record News, O Globo online (Newman *et al.*, 2020).
- 5. Although an important consideration, it is not among the objectives of this article to present yet another discussion seeking to clarify the concept of populism. There are several incisive works where this is done (Barr, 2009; Kaltwasser *et al.*, 2017; Weyland, 2001). So, we interpret populism "as a set of generally demagogic ideas and as a political communicational strategy," which "prospers as an anti-establishment pursuit led by a charismatic leader, praising the role of 'the people' and aiming to dichotomize the political arena and society into 'us, the people,' versus 'them, the elites' (Gil de Zúñiga; Koc Michalska; Römmele, 2020, p. 586).
- 6. The 2018 Brazilian Electoral Study was conducted by the Center for Public Opinion Studies (CESOP) of State University of Campinas (Unicamp). All the ESEB's technical information and database are available (in Portuguese) and can be downloaded at CESOP's website: https://www.cesop.unicamp.br/eng/eseb. The R script for data treatment and model estimations used in this article can be requested from the main author or downloaded as supplementary material.
- 7. Detailed descriptive statistics are provided in the methodological appendix.
- 8. We also extracted the factors through Varimax rotation, but it produced a similar attribution of the items to dimensions.
- 9. Hair et al. (2010) stated that a factor loading greater than 0.3 indicates the existence of a latent dimension, but that the ideal would be values above 0.5. We assumed here a minimum limit of 0.45. Thus, we decided to keep these variables in the model, where two indexes were constructed for each extracted factor.
- 10. Approximately 21% of respondents in the 2018 edition of ESEB did not answer or did not know how to express a position.
- 11. Because we had a loss of 17% of the data, we imputed it through multivariate imputation by chained equations (MICE) (Azur *et al.*, 2011) and ran the regressions with a complete dataset. The results did not differ.

REFERENCES

- ACHEN, Christopher H. (1982), Interpreting and Using Regression. Newbury Park, Sage Publications, 1982.
- AGGIO, Camilo; LUCAS, Reis. (2013), "Campanha eleitoral no Facebook: usos, configurações e o papel atribuído a esse site por três candidatos eleitos nas eleições municipais de 2012". Revista Compolítica, v. 2, pp. 155–188.
- AKKERMAN, Agnes; MUDDE, Cas; ZASLOVE, Andrej. (2014), "How Populist Are the People? Measuring Populist Attitudes in Voters". *Comparative Political Studies*, v. 47, n. 9, pp. 1324–1353.
- ALMEIDA, Maria Hermínia Tavares De; GUARNIERI, Fernando Henrique. (2020), "The unlikely president: the populist captain and his voters". *Revista Euro Latinoamericana de Análisis Social y Político*, v. 1, n. 1, pp. 139–159.
- ALMEIDA, Ronaldo de. (2019), "Bolsonaro presidente: conservadorismo, evangelismo e a crise brasileira". Novos Estudos Cebrap, v. 38, n. 1, pp. 185–213.
- ALVES, Marcelo. (2019), Desarranjo da visibilidade, desordem informacional e polarização no Brasil entre 2013 e 2018. Tese (Doutorado em Comunicação Social), Universidade Federal Fluminense, Rio de Janeiro.
- AMARAL, Oswaldo E. do. (2020); "The Victory of Jair Bolsonaro According to the Brazilian Electoral Study of 2018". *Brazilian Political Science Review*, v. 14, n. 1, pp. 1–13.
- ANDERSON, Perry. (2019), "O Brasil de Bolsonaro". Novos Estudos Cebrap, v. 38, n. 01, pp. 215–254.
- ARAÚJO, Bruno; PRIOR, Hélder. (2020). "Framing Political Populism: The Role of Media in Framing the Election of Jair Bolsonaro". *Journalism Practice*, v. 0, n. 0, pp. 1–17.
- ARUGUETE, Natalia; CALVO, Ernesto; VENTURA, Tiago. (2020), "News Sharing, Gate-keeping, and Polarization: A Study of the #Bolsonaro Election". Digital Journalism, v. 0, n. 0, pp. 1–22.
- AZUR, Melissa J.; STUART, Elizabeth A.; FRANGAKIS, Constantine; LEAF, Philip J. (2011), "Multiple imputation by chained equations: what is it and how doesit work?". *International Journal of Methods in Psychiatric Research*, v. 20, n. 1, pp. 40–49.
- BARR, Robert R. (2009), "Populists, outsiders and anti-establishment politics". *Party Politics*, v. 15, n. 1, pp. 29–48.
- BARROS, Laura; SILVA, Manuel Santos. (2019), #EleNão: Economic crisis, the political gender gap, and the election of Bolsonaro. *IAI Discussion Papers*, n. 242
- BENNETT, W. Lance; SEGERBERG, Alexandra. (2012), "The logic of connective action: Digital media and the personalization of contentious politics". *Information Communication and Society*, v. 15, n. 5, pp. 739–768.
- BOCZKOWSKI, Pablo J.; MITCHELSTEIN, Eugenia; MATASSI, Mora. (2018), ""News comes across when I'm in a moment of leisure": Understanding the practices of incidental news consumption on social media". New Media and Society, v. 20, n. 10, pp. 3523–3539.

- BORGES, André; VIDIGAL, Robert. (2018), "Do lulismo ao antipetismo? Polarização, partidarismo e voto nas eleições presidenciais brasileiras". *Opinião Pública*, v. 24, n. 1, pp. 53-89.
- BUCY, Erik P. FOLEY, Jordan M.; LUKITO, Josephine; DOROSHENKO, Larissa; SHAH, Dhavan V.; PEVEHOUSE, Jon C.W.; WELLS, Chris. (2020), "Performing populism: Trump's transgressive debate style and the dynamics of Twitter response". *New Media and Society*, v. 22, n. 4, pp. 634–658.
- CARLIN, Ryan E.; SINGER, Matthew M.; ZECHMEISTER, Elizabeth J (eds). (2015), The Latin American Voter: Pursuing Representation and Accountability in Challenging Contexts. Ann Arbor, University of Michigan Press.
- CARREIRÃO, Yan De Souza (2007), "Identificação ideológica, partidos e voto na eleição presidencial de 2006". *Opinião Pública*, v. 13, n. 2, pp. 307–339.
- CETIC.BR. (2019), TIC Domicílios 2019. Available at: https://bit.ly/30xNEbi >. Accessed: 26 jun. 2020.
- CHADWICK, Andrew. (2011), "The political information cycle in a hybrid news system: The British prime minister and the "Bullygate" affair". *International Journal of Press/Politics*, v. 16, n. 1, pp. 3–29.
- CHADWICK, Andrew; DENNIS, James; SMITH, Amy P. (2016), "Politics in the age of hybrid media: Power, systems, and media logics", in A. Bruns, G. Enli, E. Skogerbø, A. O. Larsson and C. Christensen (eds), *The Routledge Companion to Social Media and Politics*. New York, Routledge, pp. 7–22.
- CHAGAS, Viktor; MODESTO, Michelle; MAGALHÃES, Dandara. (2019), "O Brasil vai virar Venezuela: medo, memes e enquadramentos emocionais no WhatsApp pró-Bolsonaro". *Esferas*, n. 14, pp. 1–15.
- CIOCCARI, Deysi; PERSICHETTI, Simonetta. (2019), "A campanha eleitoral permanente de Jair Bolsonaro: O deputado, o candidato e o presidente". *Lumina*, v. 13, n. 3, pp. 135–151.
- CLARA, Maria; BITTENCOURT, Aquino; SANTA, Marlon; DIAS, Maria. (2018). "A disputa de narrativas sobre a constituição de um grupo de mulheres no Facebook na campanha presidencial de 2018". Comunicação & Inovação, v. 20, pp. 149–168.
- COMSCORE. (2019), Global State of Mobile. Available at: < https://bit.ly/3DQQUNk >. Accessed: 26 jun. 2020.
- DATAFOLHA. (2018), *Uso de redes sociais Eleições 2018*, São Paulo: Available at: < https://bit.ly/3G2FyYv >. Accessed: 17 jul. 2020.
- DIAS, Lucia Moreira; FERNANDES, Carla Montuori. (2020), "Campanha de Jair Bolsonaro para presidência em 2018: a construção do Mito Político". ECCOM, v. 11, n. 22, pp. 477–488.
- EILDERS, Christiane; PORTEN-CHEÉ, Pablo. (2016), "The Spiral of Silence Revisited", in G. Vowe and P. Henn (eds.), *Political Communication in the Online World: Theoretical Approaches and Research Designs*. New York, Routledge, p. 88–102.
- ENGESSER, Sven; FAWZI, Nayla; LARSSON, Anders Olof. (2017), "Populist online communication: introduction to the special issue". *Information Communication and Society*, v. 20, n. 9, pp. 1279–1292.

- ENLI, Gunn Sara; SKOGERBØ, Eli. (2013), "Personalized campaigns in party-centred politics: Twitter and Facebook as arenas for political communication". *Information Communication and Society*, v. 16, n. 5, pp. 757–774.
- ERNST, Nicole; ENGESSER, Sven; BÜCHEL, Florin; BLASSNIG, Sina; ESSER, Frank. (2017), "Extreme parties and populism: an analysis of Facebook and Twitter across six countries". *Information Communication and Society*, v. 20, n. 9, pp. 1347–1364.
- EVANS, Heather K.; CORDOVA, Victoria; SIPOLE, Savannah. (2014), "Twitter style: An analysis of how house candidates used twitter in their 2012 campaigns". *PS Political Science and Politics*, v. 47, n. 2, pp. 454–462.
- FISHER, Justin; FIELDHOUSE, Edward; FRANKLIN, Mark N.; GIBSON, Rachel; CANTI-JOCH, Marta; WLEZIEN, Christopher (eds.). (2018), *The Routledge Handbook of Elections*, Voting Behavior and Public Opinion. New York, Routledge, 2018.
- FLETCHER, Richard; NIELSEN, Rasmus Kleis. (2018), "Are people incidentally exposed to news on social media? A comparative analysis". New Media and Society, v. 20, n. 7, pp. 2450–2468.
- FRIEDRICH, Katja; KEYLING, Till; BROSIUS, Hans-Bernd. (2016), "Gatekeeping Revisited". in G. Vowe and P. Henn (eds.), *Political Communication in the Online World: Theoretical Approaches and Research Designs*. New York, Routledge, pp. 59–72.
- GERRING, John. (2007), Case Study Research: Principles and Practices. Cambridge, Cambridge University Press, 2007.
- GIL DE ZÚÑIGA, Homero; DIEHL, Trevor. (2019), "News finds me perception and democracy: Effects on political knowledge, political interest, and voting". *New Media and Society*, v. 21, n. 6, pp. 1253–1271.
- GIL DE ZÚÑIGA, Homero; KOC MICHALSKA, Karolina; RÖMMELE, Andrea. (2020), "Populism in the era of Twitter: How social media contextualized new insights into an old phenomenon". *New Media and Society*, v. 22, n. 4, pp. 585–594.
- GIL DE ZÚÑIGA, Homero; WEEKS, Brian; ARDÈVOL-ABREU, Alberto. (2017), "Effects of the News-Finds-Me Perception in Communication: Social Media Use Implications for News Seeking and Learning About Politics". *Journal of Computer-Mediated Communication*, v. 22, n. 3, pp. 105–123.
- GOH, Debbie; LING, Richard; HUANG, Liuyu; LIEW, Doris. (2019), "News sharing as reciprocal exchanges in social cohesion maintenance". *Information Communication and Society*, v. 22, n. 8, pp. 1128–1144.
- GONZALEZ-BAILON, Sandra; KALTENBRUNNER, Andreas; BANCHS, Rafael E. (2010), "The structure of political discussion networks: A model for the analysis of online deliberation". *Journal of Information Technology*, v. 25, n. 2, pp. 230–243.
- HAIR JR., Joseph; ANDERSON, Rolph; BABIN, Barry. (2010), Multivariate Data Analysis. Essex, Pearson, 2010.
- HALPERN, Daniel; VALENZUELA, Sebastián; KATZ, James E. (2017), "We Face, I Tweet: How Different Social Media Influence Political Participation through Collective and Internal Efficacy". Journal of Computer-Mediated Communication, v. 22, n. 6, pp. 320–336.

- HAYTON, James C.; ALLEN, David G.; SCARPELLO, Vida. (2004), "Factor Retention Decisions in Exploratory Factor Analysis: A Tutorial on Parallel Analysis". Organizational Research Methods, v. 7, n. 2, pp. 191–205.
- HUNTER, Wendy; POWER, Timothy J. (2019), "Bolsonaro and Brazil's illiberal Backlash". *Journal of Democracy*, v. 30, n. 1, pp. 68–82.
- IKEDA, Ken'ichi; BOASE, Jeffrey. (2011), "Multiple discussion networks and their consequence for political participation". *Communication Research*, v. 38, n. 5, pp. 660–683.
- IZUMI, Mauricio Yoshida. (2019), "Ideologia, sofisticação política e voto no Brasil". *Opinião Pública*, v. 25, n. 1, pp. 29–62.
- JUNGHERR, Andreas. (2016), "Twitter use in election campaigns: A systematic literature review". *Journal of Information Technology and Politics*, v. 13, n. 1, pp. 72–91.
- KALTWASSER, Cristóbal Rovira; TAGGART, Paul; ESPEJO, Paulina Ochoa; OSTIGUY, Pierre. (eds.) (2017), *The Oxford Handbook of Populism*. Oxford, Oxford University Press, 2017.
- LICIO, Elaine Cristina; RENNÓ, Lucio; CASTRO, Henrique Carlos de. (2009), "Bolsa Família e Voto na Eleição Presidencial de 2006: em Busca do Elo Perdido". *Opinião Pública*, v. 15, n. 1, pp. 31–54.
- LOBERA, Josep; SAMPEDRO, Víctor. (2018), "New intermediations of the electoral information flows: Changes in the Digital Public Sphere in election campaigns in Spain (2008–15)". Social Science Information, v. 57, n. 4, pp. 553–572.
- MANCINI, Paolo. (2013), "Media Fragmentation, Party System, and Democracy". *International Journal of Press/Politics*, v. 18, n. 1, pp. 43–60.
- MARQUES, Francisco Paulo Jamil; SAMPAIO, Rafael Cardoso. (2011), "Internet e eleições 2010 no Brasil: rupturas e continuidades nos padrões mediáticos das campanhas políticas online". *Galáxia*, n. 22, pp. 208–221.
- MCGREGOR, Shannon C. (2018), "Personalization, social media, and voting: Effects of candidate self-personalization on vote intention". New Media and Society, v. 20, n. 3, pp. 1139–1160.
- MELLO, Patrícia Campos. (2019), "WhatsApp admite envio maciço ilegal de mensagens nas eleições de 2018". Folha de S. Paulo, São Paulo, pp. 8. Available at: < https://bit.ly/3AZB7Kl >. Accessed: 17 jul. 2020.
- MITCHELSTEIN, Eugenia; BOCZKOWSKI, Pablo J. (2017), "Juventud, estatus y conexiones. Explicación del consumo incidental de noticias en redes sociales". *Revista Mexicana de Opinión Pública*, n. 24, pp. 131.
- MURTA, Felipe; ITUASSU, Arthur; CAPONE, Letícia; LEO, Luiz. (2017), "Eleições e mídias sociais: Interação e participação no Facebook durante a campanha para a Câmara dos Deputados em 2014". *Compolítica*, v. 7, n. 1, pp. 47–72.
- NADEAU, Richard; BELANGER, Éric; LEWIS-BECK, Michael S.; TURGEON, Mathieu; GELINEAU, François. (eds.) (2017), *Latin American Elections: Choice and Change*. Ann Arbor, University of Michigan Press.
- NETO, Raimundo Augusto Fernandes; CUNHA, Jânio Pereira da. (2019), "The new barrier clause and the survival of minorities". *Revista de Investigacoes Constitucionais*, v. 6, n. 1, pp. 189–219.

- NEWMAN, Nic e colab. (2020). Reuters Institute Digital News Report 2020. Oxford: Available at: < https://bit.ly/3aTpdqO >.
- NICOLAU, Jairo. (2014), "Determinantes do voto no primeiro turno das eleições presidenciais brasileiras de 2010: Uma análise exploratória". *Opinião Pública*, v. 20, n. 3, pp. 311–325.
- NICOLAU, Jairo. (2020), O Brasil dobrou à direita: Uma radiografia da eleição de Bolsonaro em 2018. Rio de Janeiro, Zahar, 2020.
- NORRIS, Pippa; INGLEHART, Ronald. (2019), Cultural Backlash: Trump, Brexit, and Authoritarian Populism. Cambridge, Cambridge University Press.
- NUNES, Felipe; MELO, Carlos Ranulfo. (2017). "Impeachment, political crisis and democracy in Brazil". *Revista de Ciencia Política*, v. 37, n. 2, pp. 281–304.
- PEIXOTO, Vitor; RENNÓ, Lucio. (2011), "Mobilidade social ascendente e voto: As eleições presidenciais de 2010 no Brasil". *Opinião Pública*, v. 17, n. 2, pp. 304–332.
- PIAIA, Victor; ALVES, Marcelo. (2020), "Abrindo a caixa preta: Análise exploratória da rede bolsonarista no WhatsApp". *Intercom*, v. 43, n. 3, pp. 135–154.
- PRIOR, Markus. (2007), Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections. Cambridge, Cambridge University Press.
- RENNÓ, Lucio. (2020), "The Bolsonaro Voter: Issue Positions and Vote Choice in the 2018 Brazilian Presidential Elections". *Latin American Politics and Society*, v. 62, n. 4, pp. 1–23.
- RIBEIRO, Carlos Antonio Costa; ISRAEL, Vinicius Pinheiro. (2016), "Voto assimétrico, classes e mobilidade social no Brasil". *Tempo Social*, v. 28, n. 2, pp. 106–129.
- RIBEIRO, Ednaldo; CARREIRÃO, Yan; BORBA, Julian. (2016), "Sentimentos partidários e antipetismo: condicionantes e covariantes". *Opinião Pública*, v. 22, n. 3, pp. 603–637.
- ROSSINI, Patrícia; HEMSLEY, Jeff; TANUPABRUNGSUN, Sikana; ZHANG, Feifei; STROMER-GALLEY, Jennifer. (2018), "Social Media, Opinion Polls, and the Use of Persuasive Messages During the 2016 US Election Primaries". Social Media and Society, v. 4, n. 3, pp. 1–11.
- ROSSINI, Patrícia; STROMER-GALLEY, Jennifer; BAPTISTA, Erica Anita; OLIVEIRA, Vanessa Veiga de. (2021), "Dysfunctional information sharing on WhatsApp and Facebook: The role of political talk, cross-cutting exposure and social corrections". *New Media and Society*, v. 23, n 8, pp; 2430–2451.
- SAMUELS, David; ZUCCO, Cesar. (2018), Partisans, Antipartisans, and Nonpartisans: Voting Behavior in Brazil. Cambridge, Cambridge University Press.
- SANTOS, João Guilherme Bastos; FREITAS, Miguel; ALDÉ, Alessandra; SANTOS, Karina; CUNHA, Vanessa Cristine Cardozo. (2019), "WhatsApp, política mobile e desinformação: a hidra nas eleições presidenciais de 2018". Comunicação & Sociedade, v. 41, n. 2, pp. 307.
- SANTOS, Romer Mottinha; CIOCCARI, Deysi; MORAES, Thiago Perez Bernardes de. (2020), "O clã Bolsonaro e o Twitter: comunicação política e influência na rede social". *Mediapolis Revista de Comunicação, Jornalismo e Espaço Público*, n. 10, pp. 65–81.
- SARMENTO, Rayza; MASSUCHIN, Michele Goulart; MENDONÇA, Ricardo Fabrino. (2020), "Comunicação e política no Brasil: um panorama recente", in B. Bolognesi, B. da Silva, (eds.). Ciências Sociais hoje: Ciência Política. São Paulo: Zeppelini Publishers, pp. 296–333.

- SETZLER, Mark. (2020), "Did Brazilians Vote for Jair Bolsonaro Because They Share his Most Controversial Views?". *Brazilian Political Science Review*, v. 15, n. 1, pp. 1–16.
- SINGER, André. (2000), Esquerda e direita no eleitorado brasileiro: a identificação ideológica nas disputas presidenciais de 1989 e 1994. São Paulo, EDUSP.
- STIER, Sebastian; BLEIER, Arnim; LIETZ, Haiko; STROHMAIER, Markus. (2018a), "Election Campaigning on Social Media: Politicians, Audiences, and the Mediation of Political Communication on Facebook and Twitter". Political Communication, v. 35, no 1, pp. 50–74.
- STIER, Sebastian; BLEIER, Arnim; LIETZ, Haiko; STROHMAIER, Markus. (2018b), "Election Campaigning on Social Media: Politicians, Audiences, and the Mediation of Political Communication on Facebook and Twitter". *Political Behavior*, v. 35, n. 1, pp. 50–74.
- STROMER-GALLEY, Jennifer. (2014), Presidential Campaigning in the Internet Age. Oxford, Oxford University Press, 2014.
- TAMAKI, Eduardo Ryo; FUKS, Mario. (2020), "Populism in Brazil's 2018 general elections: An analysis of bolsonaro's campaign speeches". *Lua Nova*, n. 109, pp. 103–127.
- TELLES, Helcimara; MUNDIM, Pedro Santos. (2015), "Movilidad cognitiva y religión: Paradojas del voto a Marina Silva en las elecciones presidenciales brasileñas de 2010". *Revista de Ciencia Política*, v. 35, n. 3, pp. 509–536.
- VALENZUELA, Sebastián; BACHMANN, Ingrid; AGUILAR, Marcela. (2019), "Socialized for News Media Use: How Family Communication, Information-Processing Needs, and Gratifications Determine Adolescents' Exposure to News". Communication Research, v. 46, n. 8, pp. 1095–1118.
- VALENZUELA, Sebastián; BACHMANN, Ingrid; BARGSTED, Matías. (2019), "The Personal Is the Political? What Do WhatsApp Users Share and How It Matters for News Knowledge, Polarization and Participation in Chile". Digital Journalism, v. 0, n. 0, pp. 1–21.
- VALENZUELA, Sebastián; CORREA, Teresa; GIL DE ZÚÑIGA, Homero. (2018), "Ties, Likes, and Tweets: Using Strong and Weak Ties to Explain Differences in Protest Participation Across Facebook and Twitter Use". *Political Communication*, v. 35, n. 1, pp. 117–134.
- VISCARDI, Janaisa Martins. (2020), "Fake News, Verdade e Mentira Sob a Ótica de Jair Bolsonaro no Twitter". *Trabalhos em Linguística Aplicada*, v. 59, n. 2, pp. 1134–1157.
- WEIMANN, Gabriel; BROSIUS, Hans-Bernd (2016). "A New Agenda for Agenda-Setting Research in the Digital Era", in G. Vowe and P. Henn. (eds.). *Political Communication in the Online World: Theoretical Approaches and Research Designs*. New York, Routledge, pp. 26–44.
- WEYLAND, Kurt. (2001), "Clarifying a contested concept: Populism in the study of Latin American politics". Comparative Politics, v. 34, n. 1, pp. 1–22.
- WOOD, Thomas; OLIVER, Eric. (2012), "Toward a More Reliable Implementation of Ideology in Measures of Public Opinion". *Public Opinion Quarterly*, v. 76, n. 4, pp. 636–662.

APPENDIX

Table A
Descriptive Statistics

Var	Mean	SD	Range	Proportion
Vote 1° Round	-	-	0 to 1	Bolsonaro - 33,4%
Vote 2° Round	-	-	0 to 1	Bolsonaro - 40,8%
Sex	-	-	0 to 1	Female - 52,5%
Age	41,6	15,7	16 to 92	-
				Low - 23,2%
Education	-	-	1 to 3	Average - 54,1%
				High - 22,7%
				Others - 17,8%
Religion	-	-	1 to 3	Catholic - 50,4%
				Evangelical - 31,8%
Bolsa Família Beneficiary	-	-	1 to 2	Yes - 31,4%
				Same - 73,7%
Social Mobility				Risen - 17,2%
				Fallen - 9,1%
			'	Non-Ideological - 21,3%
Idaalaar			1 to 4	Left - 14,8%
Ideology	-		1104	Center - 20,6%
				Right - 43,4%
Country's Economy Evaluation	0.27	0.29	0 to 1	-
Government Performance Evaluation	0.18	0.26	0 to 1	-
Antipetismo	0.63	0.39	0 to 1	
Anti-Pluralism Discourse	0.49	0.28	0 to 1	-
Anti-Political Discourse	0.79	0.28	0 to1	-
Media Use - Newspapers	-	-	0 to 1	Yes - 8,9%
Media Use - TV	-	-	0 to 1	Yes - 41,3%
Media Use - Radio	-	-	0 to 1	Yes - 4,4%
Media Use - WhatsApp	-	-	0 to 1	Yes - 14,2%
Media Use - Facebook	-	-	0 to 1	Yes - 35,7%
Media Use - YouTube	-		0 to 1	Yes - 8,5%

Source: Brazilian Electoral Study, 2018.

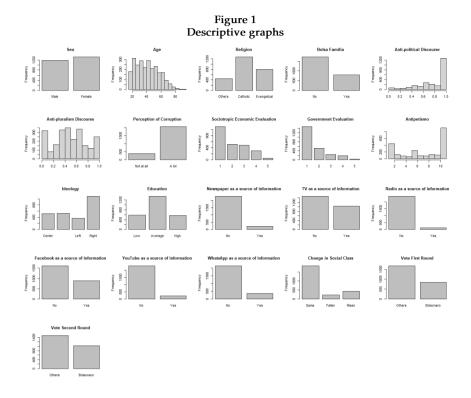


Table B Factor Analysis Results

Variables	Factor 1	Factor 2
Commitment in politics means to bargain with principles	0.39	0.12
Most politicians don't care about people	0.74	- 0.05
Most politicians are reliable	0.40	- 0.33
Politicians are Brazil's main problem	0.63	0.17
Having a strong leader in government is good, even if he doesn't follow the rules	0.01	0.51
The people, not the politicians, should make the most important decisions	0.35	0.19
Most politicians are concerned only with the rich and powerful	0.69	- 0.03
The will of the majority should prevail, even if it harms minorities	- 0.01	0.52
When the Supreme Court interferes with the government, the President or Congress can ignore the Court	- 0.03	0.34

Table B Factor Analysis Results (cont.)

Variables	Factor 1	Factor 2
Minorities should adapt to Brazilian customs and traditions	0.13	0.47
Cronbach's alpha	0.60	0.45
KMO	0.	72
Bartlett's sphericity test	K ² =588.46	; p < 0.001
Variance explained (2 factors)	29.	6%

Source: Brazilian Electoral Study, 2018

Note: The Kaiser criterion was used to define the number of factors to be extracted and oblique rotation was applied.

Table C Models

	1º Round		2º Round	
Predictors	Imputed	Raw	Imputed	Raw
	Odds Ratios	Odds Ratios	Odds Ratios	Odds Ratios
(Intercept)	0.03 ***	0.04 ***	0.04 ***	0.04 ***
(Intercept)	(0.01)	(0.01)	(0.01)	(0.01)
Cov [Formalo]	0.77 *	0.76 *	0.89	0.91
Sex [Female]	(0.08)	(0.08)	(0.09)	(0.10)
Ago	1.00	1.00	1.01	1.00
Age	(0.00)	(0.00)	(0.00)	(0.00)
Delinion [Catholia]	1.32	1.29	1.34 *	1.34
Religion [Catholic]	(0.19)	(0.20)	(0.19)	(0.20)
Delinion [Francoline]	1.83 ***	1.89 ***	1.73 ***	1.68 **
Religion [Evangelical]	(0.28)	(0.31)	(0.25)	(0.27)
Bolsa Família Beneficiary	0.81	0.75 *	0.71 **	0.70 **
[Yes]	(0.10)	(0.10)	(0.08)	(0.09)
Anti-Pluralism	0.73 0.67 0.75 0.65 *	0.65 *		
Anti-Pluralism	(0.15)	(0.15)	(0.15)	(0.14)
Anti-Political	1.72 **	1.99 ***	1.94 ***	2.17 ***
AHU-T OHUCAI	(0.31)	(0.40)	(0.35)	(0.43)
Country's Economy	1.09	1.24	1.29	1.55 *
Evaluation	(0.20)	(0.25)	(0.23)	(0.30)

Table C Models (cont.)

	1º Round		2° Round	
Predictors	Imputed Raw		Imputed Raw	
	Odds Ratios	Odds Ratios	Odds Ratios	Odds Ratios
Government Performance	1.27	1.24	1.42	1.41
Evaluation	(0.25)	(0.28)	(0.28)	(0.31)
Antinationa	16.13 ***	17.28 ***	14.75 ***	17.67 ***
Antipetismo	(2.66)	(3.13)	(2.22)	(2.98)
Idealogy [Non Idealogical]	0.89	0.86	0.77	0.70 *
Ideology [Non Ideological]	(0.14)	(0.15)	(0.11)	(0.12)
Idealogy [Left]	0.68	0.64 *	0.61 *	0.61 *
Ideology [Left]	(0.14)	(0.14)	(0.12)	(0.13)
Idealogy [Dight]	1.76 ***	1.87 ***	1.73 ***	1.90 ***
Ideology [Right]	(0.25)	(0.28)	(0.24)	(0.28)
Education [Accessed]	0.98	0.91	0.99	0.95
Education [Average]	(0.14)	(0.15)	(0.14)	(0.15)
Education [Linh]	0.59 *	0.62	0.68	0.69
Education [High]	(0.13)	(0.15)	(0.14)	(0.16)
Media Use - Newspapers	1.19	1.16	1.26	1.09
Media Ose - Newspapers	(0.21)	(0.23)	(0.23)	(0.21)
Media Use - TV	0.89	0.86	1.01	0.88
iviedia Use - 1 v	(0.10)	(0.10)	(0.11)	(0.10)
Media Use - Radio	1.13	1.05	1.42	1.13
viedia USE - Kadio	(0.27)	(0.27)	(0.33)	(0.29)
Media Use - Facebook	1.62 ***	1.67 ***	1.70 ***	1.70 ***
	(0.20)	(0.22)	(0.21)	(0.22)
Media Use - YouTube	1.39	1.44	1.91 ***	1.85 **
	(0.27)	(0.29)	(0.36)	(0.38)
Madia Uca Whate Ann	1.97 ***	2.00 ***	1.96 ***	1.99 ***
Media Use - WhatsApp	(0.30)	(0.33)	(0.30)	(0.33)
Class Mobilization [Fallen]	1.21	1.16	1.17	1.05
Ciass Modifization [Fallen]	(0.21)	(0.21)	(0.20)	(0.19)

Table C Models (cont.)

	1° Round		2° Round	
Predictors	Imputed	Raw	Imputed	Raw
	Odds Ratios	Odds Ratios	Odds Ratios	Odds Ratios
Class Mobilization [Dison]	1.22	1.07	1.21	1.13
Class Mobilization [Risen]	(0.17)	(0.16)	(0.16)	(0.17)
Ideology [Right] * Education	1.98 **	1.56	2.25 **	1.80 *
[High]	(0.50)	(0.42)	(0.57)	(0.48)
Ideology [High] * Education	0.74	0.55	0.61	0.56
[Left]	(0.33)	(0.27)	(0.25)	(0.24)
Observations	2506	2110	2506	2110
R ² Tjur	0.251	0.267	0.281	0.301

* p<0.05 ** p<0.01 *** p<0.001

Source: Brazilian Electoral Study, 2018.

Model Diagnostics tests:

Model diagnostics tests were conducted on a sample of 70% of respondents. This data was modeled using the same equations of Model 1 and Model 2. With these results, we classified the remaining respondents (30%). The sensitivity, sensibility and total misclassification error tests refer to this latter classification. Since this process ran on a random sample of original data, the results may slightly differ within additional simulations.

Table D
Sensitivity, Specificity and Misclassifications Error for Model 1.

	Predicted		
	Not voting for Bolsonaro	Voting for Bolsonaro	
Not voting for Bolsonaro	421 (55.7%)	122 (16.2%)	
Voting for Bolsonaro	70 (9.3%)	142 (18.8%)	
Sensitivity	53.8%		
Specificity	85.7%		
Misclassification Error	25.4%		

Source: Brazilian Electoral Study, 2018.

Table E Sensitivity, Specificity and Misclassifications Error for Model 2.

	Predicted		
	Not voting for Bolsonaro	Voting for Bolsonaro	
Not voting for Bolsonaro	351 (46.5%)	110 (14.5%)	
Voting for Bolsonaro	86 (11.4%)	208 (27.5%)	
Sensitivity	65.4%		
Specificity	80.3%		
Misclassification Error	25.9%		

Source: Brazilian Electoral Study, 2018.

RESUMO

Redes Sociais e Aplicativos de Troca de Mensagens Instantâneas na Eleição de Jair Bolsonaro como Presidente do Brasil em 2018

Estudos que utilizaram dados de survey para analisar as razões da eleição de Jair Bolsonaro como presidente do Brasil em 2018 destacaram fatores como ideologia conservadora, antipetismo (ressentimento contra o Partido dos Trabalhadores Brasileiros) e populismo. Em todos eles, as variáveis midiáticas são tratadas de maneira superficial, como se seu papel na política e nas eleições fosse simplesmente "entregar a mensagem" aos eleitores. Contestamos essa visão de que a mídia desempenhou um papel secundário nas decisões dos eleitores, ao enfatizar os efeitos das redes sociais e dos aplicativos de troca de mensagens instantâneas. Com base nos dados do Estudo Eleitoral Brasileiro, mostramos que o uso do Facebook, WhatsApp e YouTube como fontes de informação política quase dobrou as chances de voto em Bolsonaro. Isso os coloca em um nível de importância semelhante ao de outras variáveis, como o discurso anti-pluralista, valores religiosos e ideologia de direita.

Palavras-chave: redes sociais; aplicativos de troca de mensagens instantâneas; eleições presidenciais brasileiras; populismo; efeitos da mídia

ABSTRACT

Social Networks and Mobile Instant Messaging Services in the Election of Jair Bolsonaro as President of Brazil in 2018

Studies that have used survey data to analyze the reasons behind the Jair Bolsonaro's presidential victory in 2018 have highlighted factors such as conservative ideology, *antipetismo* (resentment against the Brazilian Workers' Party) and populism. In all of them, media variables are treated superficially, as if their role in politics and elections was simply to "deliver a message" to voters. We contest this view that the media played a secondary role in voters' decisions, emphasizing instead the effects of social networks and mobile instant messaging services. Based on data from the Brazilian Electoral Study, a post-electoral survey, we show that the use of Facebook, WhatsApp and YouTube as sources of political information almost doubled the odds of one voting for Bolsonaro. This places them at a level of importance similar to that of other variables, such as anti-pluralist discourse, religious values and right-wing ideology.

Keywords: social networks; mobile instant messaging services; Brazilian presidential elections; populism; media effects

RÉSUMÉ

Réseaux Sociaux et Applications de Messagerie Instantanée lors de l'Élection de Jair Bolsonaro a la Présidence du Brésil en 2018

Des études qui ont utilisé des données de *survey* pour analyser les raisons de l'élection de Jair Bolsonaro à la présidence du Brésil en 2018 ont mis en évidence des facteurs tels que l'idéologie conservatrice, l'antipetismo (le ressentiment contre le *Partido dos Trabalhadores*) et le populisme. Dans chacun d'eux, les variables médiatiques sont traitées superficiellement, comme si leur rôle dans la politique et les élections consistait simplement à faire "passer le message" aux électeurs. Nous contestons ce point de vue selon lequel les médias ont joué un rôle secondaire dans les décisions des électeurs en mettant l'accent sur les effets des médias sociaux et des applications de messagerie instantanée. Sur la base des données de l'*Estudo Eleitoral Brasileiro*, nous montrons que l'utilisation de Facebook, WhatsApp et YouTube comme sources d'informations politiques a presque doublé les chances de voter pour Bolsonaro. Cela les place au même niveau d'importance que d'autres variables, telles que le discours anti-pluraliste, les valeurs religieuses et l'idéologie de droite.

Mots-clés: réseaux sociaux; applications de messagerie instantanée; élections présidentielles brésiliennes; populisme; effets médiatiques

RESUMEN

Redes Sociales y Aplicaciones de Mensajería Instantánea en la Elección de Jair Bolsonaro como Presidente de Brasil en 2018

Los estudios que utilizaron datos de encuestas para analizar los motivos de la elección de Jair Bolsonaro como presidente de Brasil en 2018 destacaron factores como la ideología conservadora, el antipetismo (resentimiento contra el Partido de los Trabajadores de Brasil) y el populismo. En todos ellos, las variables mediáticas son tratadas superficialmente, como si su papel en la política y las elecciones fuera simplemente "entregar el mensaje" a los votantes. Cuestionamos esta opinión de que los medios jugaron un papel secundario en las decisiones de los votantes al enfatizar los efectos de las redes sociales y las aplicaciones de mensajería instantánea. Con base en datos del Estudio Electoral Brasileño, mostramos que el uso de Facebook, WhatsApp y YouTube como fuentes de información política casi duplicó las posibilidades de votar por Bolsonaro. Esto los coloca en un nivel de importancia similar a otras variables, como el discurso antipluralista, los valores religiosos y la ideología de derecha.

Palabras clave: redes sociales; aplicaciones de mensajería instantánea; elecciones presidenciales brasileñas; populismo; efectos de los medios