



ARE OUTLIERS OUTSIDERS? PROFILE OF STATE DEPUTIES WHO HAVE BEEN “HEAVY DIGITAL-MEDIA USERS” IN THE 2019-2023 LEGISLATURE

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Abstract: This study aims at analyzing the use of digital media by Brazilian state deputies in the 2019-2023 legislature. An attempt will be made at answering the following question: can representatives who intensively use digital media in each state of the Brazilian federation (outliers) also be considered “outsiders”, that is, representatives who are new to political activity? To evaluate such a phenomenon, we will focus on analyzing the use of the two public digital media most often used by Brazilian state deputies in the 2019-2020 period: Facebook and Instagram, analyzing whether that use is associated with certain characteristics of the deputies’ political careers. The results indicate that this phenomenon occurs on Instagram, but not on Facebook, that is, the most recent public social media are used more intensively by representatives who are “outsiders”.

Keywords: Parliamentary public communication; Political elites; Outsiders; Outliers; Political representation.

1 Introduction: outliers and outsiders as a research problem⁵

In recent years, there has been intense debate, from a variety of perspectives, on the use of digital media by members of parliament. This is justified, as the extensive use of digital media by representatives, both in electoral and non-electoral periods, and their systematic incorporation into representatives’ public communication strategies are evident to any careful observer of political elites. However, in the field of Internet and political studies, the use of digital media by political elites from subnational units has been little explored, with most of the articles published on the topic focusing on the national level. This process is unusual, considering the importance of such social networks for several political actors also on a subnational scale, where there is greater proximity of the elites with their audiences. Therefore, those elites are increasingly using these platforms as spaces for self-promotion, dissemination of narratives and interaction with their support bases (BARROS *et*

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al, 2015; ALMEIDA, H. *et al.*, 2017, 2020; BRAGA; CRUZ, 2017; REHBEIN-SATHLER; FERREIRA, 2020).

On the other hand, studies addressing representatives' political careers are increasingly frequent in the Brazilian political science literature, with a growing corpus of studies analyzing that topic (MIGUEL, 2003; CODATO, LORENCETTI; PRATA, 2020). Another topic that has been frequently revisited in that literature, given the context of conducting "critical elections" in several countries, which changes the correlation of forces among relevant political actors, is the topic of outsiders, that is, of new political leaders who were elected to certain political positions in the context of the emergence of new elites in several countries recently. As noted in the literature, this process is strongly associated with the emergence of "populist" political leaders, usually anchored on the intensive use of new digital media and with an "anti-system" discursive strategy (BARR, 2009; DONATELLO; LEVITA, 2017).

In this context, it is relevant to formulate the following questions: what is the relationship between digital media and the emergence of these new political leaders, qualified by several authors as "outsiders", in a broad sense of the term? Is there a relationship between parliamentary political career patterns and the high number of followers on online social media, regarding representatives considered "newcomers" who use digital media more intensively *vis-à-vis* the "established" ones? These are the general questions that guided this study's development. Our goal is to determine whether the phenomenon observed in some other contexts, namely the emergence of new leaders who have accumulated political capital through their work on digital media, occurs on a subnational scale in Brazil (PURBA; ASIRVATHAM; MURUGESAN, 2020).

Thus, the basic objective of this paper is to conduct an investigation into the use of digital technologies by Brazilian state deputies for 2019-2023, examining the number of followers on the public digital media most often used by representatives (Facebook, Instagram, Twitter, and Youtube, as well as websites and their presence on Wikipedia), and cross-referencing such data with information on their careers in parliament. To fulfill this goal, we surveyed the use of the main Internet tools by 1,065 Brazilian state deputies (1,059 originally elected, and six others appointed throughout the legislature) in the period between the years 2019 and 2020, and sought to relate these data to the information on career patterns contained on TSE's website and on the websites of the Brazilian state assemblies and the District Chamber of the Federal District (DF).

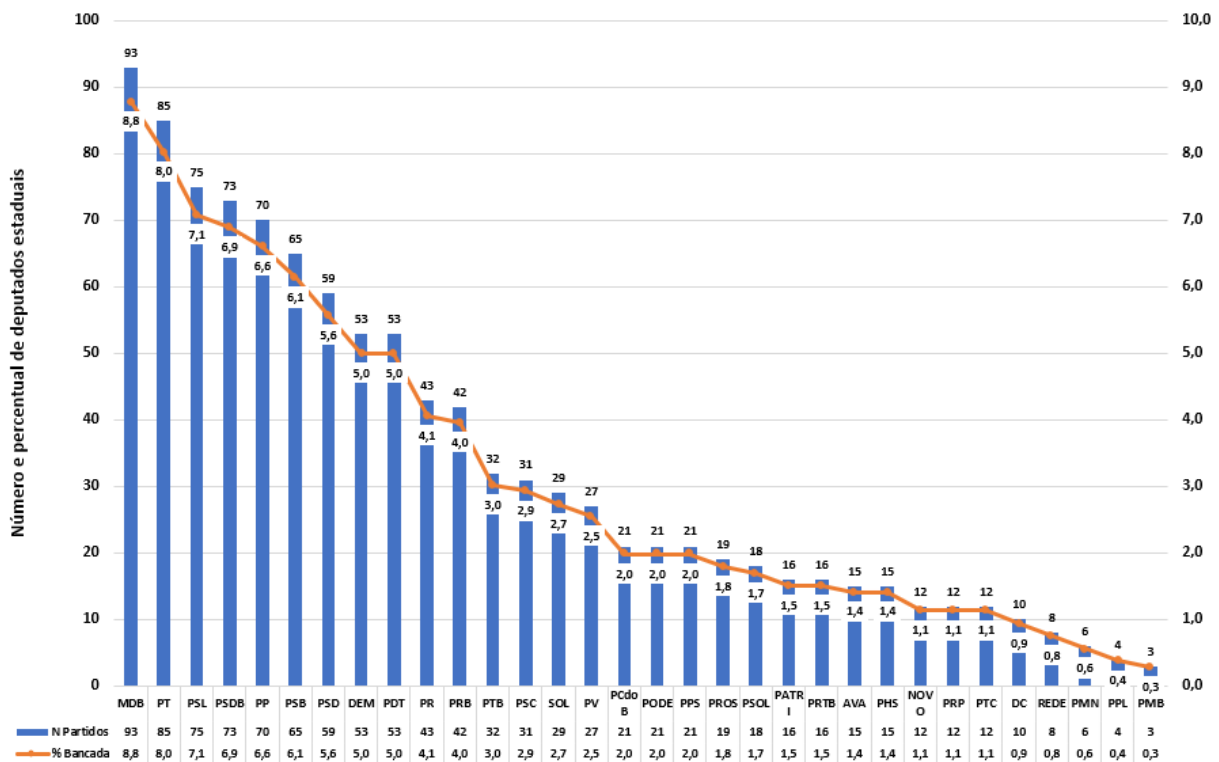
To address these issues, we will organize our presentation as follows: a) initially, we will provide some basic information on the use of the main Internet and digital media tools by 1,059 active representatives during the legislature, and we will further define the concepts of outliers and outsiders employed in this paper, as well as the importance of this debate for contemporary political science; b) next, we will analyze the data on outliers and outsiders in the research period, and seek to further address some research questions and present some basic propositions that structure the

present approach; c) finally, we will seek to draw general inferences from this article, and indicate problems to be addressed in more depth in other stages of this research.

2 The use of digital media by state deputies in 2019-2020 and the problem of outliers and outsiders

First, we must present our empirical research universe, consisting of 1,065 state deputies elected to the 2019-2023 legislature and in office during that period. As can be observed in the graph below, a total of 32 parties were represented in the state assemblies during the research period, with a rather fragmented partisan structure that complicates the use of parties individually considered as a unit of analysis, without the adoption of an aggregation criterion. From the graph, we can observe a very disperse party representation without any clearly dominant parties in the state assemblies.

Graph 01 – Partisan distribution of state deputies (2019)

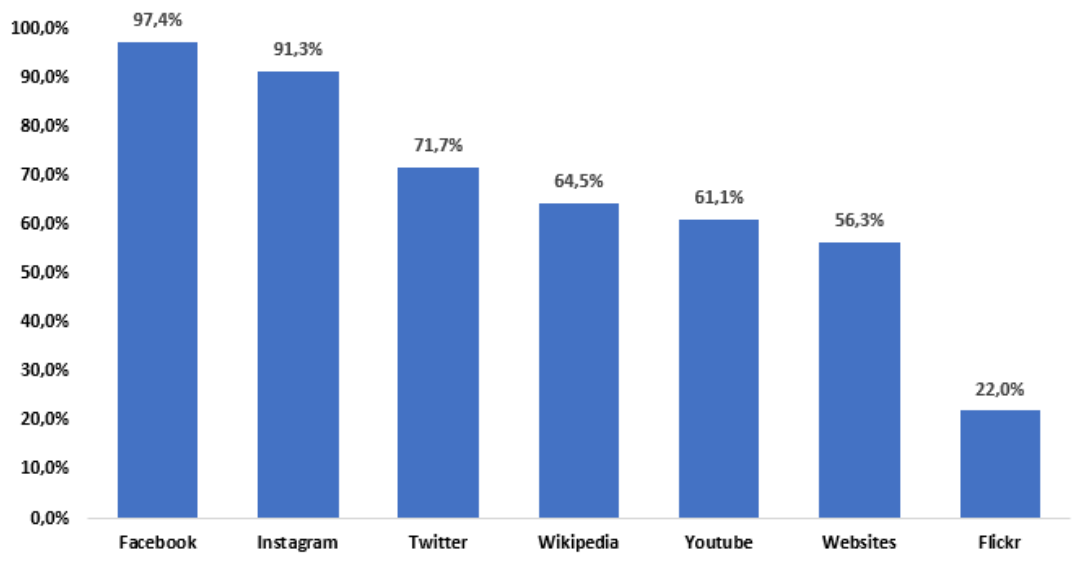


Source: Research Group Database, 2021.

The five main parties are, by caucus gradient, MDB (with 93 deputies or 8.8% of the total number of deputies), PT (85 = 8.0%), PSL (75), PSDB (73), PP (70), and so on. Thus, we observe that, despite the rise of parties associated with Bolsonaroism, such as PSL, the traditional party structure of center-right physiological parties remained strong in the legislative assemblies, with the maintenance or a lesser-than-expected decrease in the caucuses of more programmatic parties, such as PSDB, PT, and DEM, despite the deterioration suffered by these parties at the federal level.

Regarding the use of the main social media by deputies, this information is provided by the following graph:

Graph 02 — Use of the main digital media by state deputies (2020 - n = 1,059)



Source: Research Group Database, 2021.

The main digital media used by the representatives are Facebook and Instagram, for their low cost and ease of access, thus reproducing a pattern also observed in the Brazilian majoritarian elections (BRAGA; CARLOMAGNO, 2018). Also, as in the case of municipal elections, a small percentage of politicians maintain active websites or use twitter on a regular basis, which does not imply that such media are not relevant for politicians to organize their public communication. We observed that Youtube is already used by approximately 58% of Brazilian state representatives, who have specific channels on that platform, or user profiles. Breaking down the data by region, we can observe a great homogeneity in the use of some digital tools by deputies (such as Facebook, Instagram and Twitter, widely disseminated), while others show greater inequality, such as websites, Youtube and, to a lesser extent, Twitter, as can be seen in the table below.

Table 01 – Use of digital media by region (n = 1,059)

	Region											
	Mid-western		Northeaster		Norther		Southeaster		Souther		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Facebook	11	98.2	325	95.3%	17	95.7	268	98.9%	14	98.7	1,02	97.4
	1	%			7	%			7	%	8	%
Instagra	10	93.8	312	91.5%	15	85.9	247	91.1%	14	94.0	964	91.3
m	6	%			9	%			0	%		%
Twitter	86	76.1	217	63.6%	11	61.6	200	73.8%	12	83.2	741	71.7
		%			4	%			4	%		%
Websites	75	66.4	190	55.7%	27	14.6	243	89.7%	14	96.0	678	64.5
		%				%			3	%		%
Youtube	73	64.6	141	41.3%	95	51.4	185	68.3%	11	79.9	613	61.1
		%				%			9	%		%
Total	11	100	341	100	18	100	271	100	14	100	1,05	100.0
	3				5				9		9	

Source: Research Group Database, 2021.

However, despite this wide diffusion of digital media among Brazilian politicians, this does not imply that the problem of the “digital divide” is fully solved, since inequalities in the use of digital tools remain, both among parties and among different subgroups of representatives, as we will see later, as well as qualitatively different uses of the most collaborative Internet tools by different segments or fractions of representatives.

Having presented these general descriptive data on digital media use by region, we can address our central problems: a) first, identifying who the “outliers” or heavy users of digital media are in the different states of the Brazilian federation; b) second, delving into the analysis of the socio-political characteristics of such outliers, checking whether they are “outsiders” in politics, accumulating political capital predominantly through digital media, or whether they are established politicians, who already had an accumulated political capital before the current legislature. That said, it remains to define these concepts more precisely.

As regards outliers, this is a statistical and quite objective concept. According to Moretin & Bussab, after obtaining an interquartile distribution of a data set and characterizing its upper and lower limits, “The observations that are above the upper limit or below the lower limit will be referred to as outer points and represented by asterisks [in a boxplot]. These are observations that stand out from the others and may be what we call outliers, or atypical values” (MORETIN; BUSSAB, 2010, p. 65). These outliers or atypical values can be obtained by applying the formula $Q3 + (1.5 \times L)$, where Q3 represents the third quartile, and there is a certain statistical consensus in using the value of 1.5 to identify the extreme cases of the distribution, and L is equal to the subtraction of the upper limit by the lower limit, which makes it possible to identify those values that are far out of the distribution norm (CERVI, 2017). For this study’s purpose, we will only analyze the upper outliers, leaving aside the values considered to be lower outliers, since they do not represent any precise

political significance for this study. In our analysis we will define the outliers of the two media most frequently used by state deputies, Facebook and Instagram. We consider the outliers to be an initial measure to determine which representatives are heavy users of digital media.

As to the concept of outsiders, its history was somewhat more complex, until its recent widespread use in political science. When analyzing relations between the concepts of populism, anti-establishment politicians, and outsiders, Barr (2009) defines outsiders as politicians who ascend in association with new parties that tend to become competitive. Looking at the characteristics of the Latin American institutional arrangement and the rise of representatives that are “newcomers”, Corrales (2008) defines outsiders as candidates who run for office without previous experience in politics. Carreras (2016) states that, although the concept of an “outsider” in politics seems simple, the literature in the field has not converged to a unified definition of the topic. Thus, in the literature, it is possible to map two general lines for defining political actors as outsiders: i) outsiders as actors with no prior experience in politics or with limited experience; ii) outsiders as actors out of the political establishment and not belonging to competitive parties (MARENCO; SERNA, 2007; CORRALES, 2008; CARRERAS, 2016).

In this article, we have adopted a simpler definition for outsiders: all deputies who served their first elective term in the current legislature. Thus, we did not consider out-of-office deputies who had already held a previous elective office to be outsiders, even though they were not running for re-election in the 2018 elections. However, as we have not yet completed the survey of all candidates who can be considered outsiders based on this stricter definition, nor have we concluded the deeper analysis of the career patterns and political capital accumulation of these representative categories, we will adopt the data available on TSE’s website on representatives who ran for re-election as a proxy to define outsiders, including all politicians who did not run for re-election in the October 2018 election as such⁶.

A good and more qualitative illustration of what we understand by outsider, and that also helps us understand the importance given by this category of actors to digital media, can be found in the presentation that some of the representatives make of themselves in their profiles on the legislative assembly websites, which are usually designed by their advisors. As an example, let us look at the presentation in the parliamentary profile of congressman André Fernandes (PSL/CE), which constitutes the archetype of the outlier-outsider, as we define it in this article:

In 2016, [the deputy] began expressing his opinions on culture, religion, and politics, mainly on the Internet, motivating hundreds of people, including those from other states, with outreach to the entire Brazilian audience that agreed with the thoughts and/or opinions issued by the then pre-candidate.

“Always defending Family values, good morals, the police, good citizens and self-defense; fighting for tax reduction, against gender ideology, abortion,

⁶ For checking purposes, we performed a correlation test on a sample of 90 deputies defined as outliers by the first criterion and those defined according to TSE criteria, obtaining a Cramer’s V of 0.704.

drugs, political correctness and value inversions, André received an invitation from President Jair Messias Bolsonaro to be a candidate for state deputy in the state of Ceará. Even though he had no money, no “local political patronage”, and no one in his family with a history in politics, André Fernandes ran for office using only the Internet and ideas, motivated by the population that was tired of the “same old things” in the political scene. He managed to run a clean and transparent campaign alongside the then presidential candidate Jair Messias Bolsonaro, garnering votes in all of the state’s municipalities and totaling 109,742 votes, thus becoming the most voted state deputy in Ceará and the youngest in Brazil (2018) with the cheapest campaign in Ceará, proving that it is possible to do honest, dignified and honorable politics. Dreaming of a better country and always fighting, without measuring efforts, in favor of the population, André voluntarily received from the people the nickname Bolsonaro’s number 01 in the state of Ceará, which he is proud of. State Deputy André Fernandes has more than 3.5 million followers on his social media (Facebook, Instagram, Twitter, Youtube), and his posts echo throughout the country” (CEARÁ, 2021, n.p.).

Thus, some archetypical characteristics of “outsiders” can be observed in the writing of this profile, such as: a) being in the first term of office and not being a candidate for re-election; b) a conservative political agenda focused on family values and preservation of traditional customs; c) being from “emerging” professions in political activity, such as policemen, the military, priests, and communication professionals; d) association of one’s image with President Jair Bolsonaro’s candidacy; e) intense use of the campaign on digital media; f) not belonging to the large traditional political associations or, at least, not having a solid political career within such associations. Therefore, much of the subsequent analysis will be dedicated to determining whether such characteristics are also present in other Brazilian state deputies and with what intensity.

Other deputies also present themselves in a similar fashion to André Fernandes’, emphasizing the importance of digital media in organizing their electoral campaigns. Let us take the case of Representative Kelps Lima (Solidarity-RN):

“In 2016, running for his first majoritarian election, Kelps placed second in the race for mayor of Natal, with 47,576 votes, going down in history as the first candidate to record 100% of his electoral videos using his cell phone. He also innovated by running a campaign without a sound car, without using paper, and recording his electoral TV program by using only his cell phone. Although he ran the cheapest and most innovative campaign, he outperformed traditional political groups in the state capital” (RIO GRANDE DO NORTE, 2020, n.p.).

Thus, in their profiles, the representatives themselves emphasize the relationship between being “outsiders” in politics and the intense use of social media in their campaigns and political activities, although, of course, they do not present any statistically or sociologically rigorous definition of either concept. These statements allow us to better define some research questions and basic propositions that structure our approach:

QP01: Who are the outliers on the media most often used by state deputies in the legislature, namely Facebook and Instagram? Or, in other words: how many deputies are “outsiders” or “heavy users” of digital media in the 27 Brazilian legislative assemblies?

We will attempt to answer that question by constructing boxplots of digital media users from the 27 state assemblies that represent our object of study.

QP2? What are these outliers' career and trajectory profiles? Are they newcomers in politics or do they have a consolidated political career and political capital already accumulated in traditional and established representative institutions? Which parties do they come from and what is their age range? Did the fact of being outliers or intensive users of digital media have an impact on their vote in the 2018 election?

From these more general research questions and the archetypal cases selected above, the following hypotheses can be formulated:

H1: Deputies who are “outliers” and social-media users have a recent political career, are more often members of new right-wing parties, did not run for re-election and are from a younger age group, having more recently entered the political career.

H2: Deputies who are “outliers” had more votes in the last elections due to the role played by digital media in the last election campaign, thus consolidating trends from previous campaigns, whereby Internet tools play an increasing role as a proxy for political and electoral capital accumulation (BRAGA; CARLOMAGNO, 2018).

H3: Deputies who are “outliers” on digital media are also outsiders in political activity, belonging to new left- and right-wing parties, and not running for re-election.

Thus, in technical language, we have a “treatment group”, consisting of deputies who are outliers and intensive digital media users, and a “control group” (that is, deputies who are above the 1.5 interval), from which we can test our hypotheses and determine whether there are statistically significant differences between the two groups, or, more substantively, the more general proposition that the Internet has been an effective factor in political capital accumulation for certain subgroups of deputies during the election campaign and throughout the current legislature. Moreover, this contrast between two groups will allow us to map some career characteristics of deputies who use digital media more intensively.

That said, we can move on to the more systematic analysis of the data collected during our research.

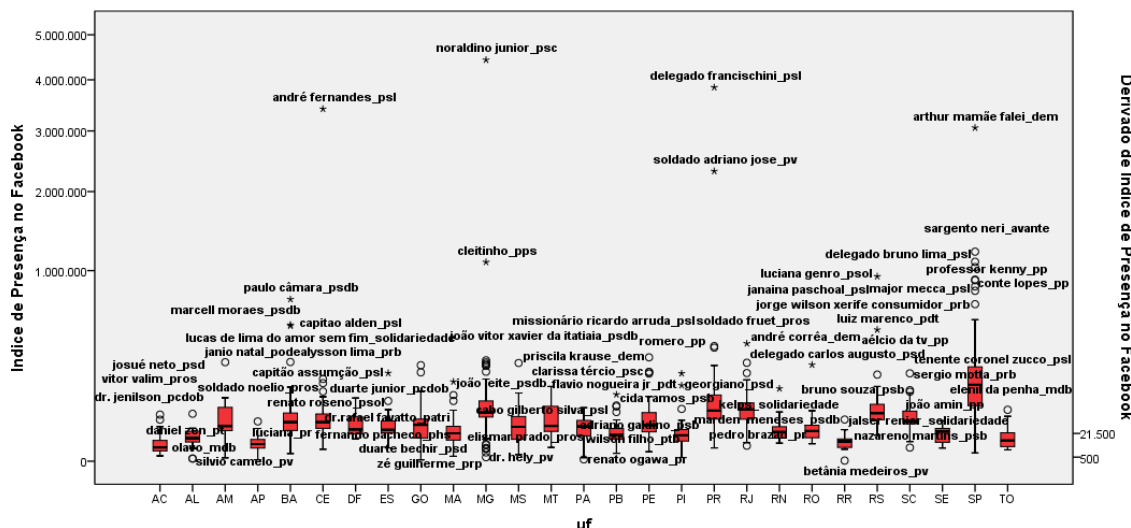
3 Analysis of results: the universe of Brazilian outliers and their political career patterns and social profiles

For ease of explanation, we will initially examine the users of Facebook, the digital medium most frequently used by state deputies, followed by Instagram, a more recent tool that has somewhat different characteristics.

3.1 Outliers’ Facebook profile

To define the universe of Facebook outliers, we have created a Facebook presence index formed by the sum of the likes and followers of deputies’ profiles. We did so because sometimes there is a small difference between likes and followers, so the sum is a measure that eliminates these lags, composing an aggregated presence index on this social medium. The Facebook outliers can be visualized on the following Boxplot:

Graph 03 – Boxplot of state deputies (Facebook presence)



Source: Designed by the authors, 2021.

This graph illustrates the distribution of outliers per state, which was obtained from the interquartile ranges for each state and the Federal District. It can be seen that the deputy with the highest Facebook presence index is Deputy Noraldino Júnior, from PSC-MG, followed by Deputy Francisco Francischini (PSL-PR), André Fernandes (PSC-CE), and Artur Mamãe Falei (DEM-SP), all of them with more than three million followers and likes on Facebook. By applying these criteria, we obtained a universe of 91 deputies, regionally distributed as follows:

Table 02 – Outliers’ regional distribution (Facebook)

		Region					Total
		Mid-western	Northeastern	Northern	Southeastern	Southern	
Non-outlier	N	107	310	172	245	134	968
	%	11.1%	32.0%	17.8%	25.3%	13.8%	100.0%
	R	1.3	-0.4	0.8	-0.7	-0.7	
Outlier	N	6	31	13	26	15	91
	%	6.6%	34.1%	14.3%	28.6%	16.5%	100.0%
	R	-1.3	0.4	-0.8	0.7	0.7	
Total	N	113	341	185	271	149	1,059
	%	10.7%	32.2%	17.5%	25.6%	14.1%	100.0%

Source: Research Group Database, 2021.

We found that the distribution of Facebook outliers is symmetric by region. Although it is slightly concentrated in the southern and southeastern regions, these differences are not statistically significant, that is, the adjusted standardized residuals are between -1.9 and +1.9. As this is a purely statistical measure, this homogeneity among the different regions was expected. However, this is not the case with other variables related to the deputies' social and partisan profiles. To investigate this phenomenon, and given the excess number of political parties in Brazil, we will aggregate the parties into the following categories:

1. *New left-wing*: PSOL, Rede. These are parties that emerged as splits or dissidents from established and institutionalized leftist organizations, especially from PT.
2. *Traditional left-wing*: PCdoB, PT, PDT, PSB, PV. Parties already established in the Brazilian parliament since the re-democratization and active throughout several legislatures.
3. *Traditional physiological center*: MDB; Cidadania; Solidariedade; PHS: PRB; PR; PSD; PRP; PTC; DC; PMN; PRB; PR; Republicanos. Associations that have supported successive governments with different programmatic profiles throughout the Brazilian political process or that have changed their names due to electoral failures and without a precise programmatic identity.
4. *Traditional center-right*: PSDB; PP; DEM; PTB. Parties with a more defined programmatic profile and that have been active throughout several legislatures.
5. *New right-wing*: NOVO, PSL; PODE; PROS; PATRI; AVANTE; PODEMOS. These are associations that have recently originated from splits from established center-right associations or have served as support for personalist candidacies at the federal and state levels.

This classification was based on data provided by the most recent studies on the ideological classification of political parties (TAROUCO, 2015), and by the ideological GPS of *Folha de São Paulo* (GPS IDEOLOGICAL, 2020). In general, we define as “new left-wing” the parties that emerged after PT’s rise to government as a consequence of its splits, and “new right-wing”, the associations originating from the crisis of the old conservative parties after the Car Wash Operation and the rise of Bolsonarism (CRUZ, KEYSEL; CODAS, 2015; ROEDER; BRAGA, 2017). By aggregating the data, we can obtain the following table:

Table 03 – Outliers’ distribution by party clusters.

Clusters		Facebook Outliers		Total
		Non-outlier	Outlier	
New left-wing	N	22	4	26
	%	84.6%	15.4%	100.0%
	R	-1.3	1.3	
Traditional left-wing	N	234	17	251
	%	93.2%	6.8%	100.0%
	R	1.2	-1.2	
Center	N	337	21	358
	%	94.1%	5.9%	100.0%
	R	2.3	-2.3	
Traditional center-right	N	242	24	266
	%	91.0%	9.0%	100.0%
	R	-0.3	0.3	
New right-wing	N	133	25	158
	%	84.2%	15.8%	100.0%
	R	-3.5	3.5	
Total	N	968	91	1,059
		91.4%	8.6%	100.0%

Source: Research Group Database, 2021.

From the data, we can observe that the percentage of outliers is higher in new right-wing and new left-wing parties, although the percentages are statistically significant only for such parties. On the other hand, parties of the traditional physiological center show significantly lower percentages of non-outliers. This indicates that there is a subgroup of deputies with still low levels of use of digital communication tools and who present other modalities of political capital accumulation besides those originating from digital media. We also observe the case of some atypical deputies, such as, for instance, Artur Mamãe Falei, from São Paulo, who is extremely active on several digital media, especially Youtube, but was elected by a traditional center-right party, that is, DEM. This shows that, in addition to the aggregate quantitative analysis of the deputies as a whole, more in-depth case studies are needed to analyze each of the cases that deviate from the expected median patterns.

In addition to the outliers’ partisan profiles and normal cases, we can contrast the two groups with respect to mean age and mean number of votes received in elections to ascertain whether heavy Facebook users are younger and more electorally competitive. To do this, we will perform a t-test of means between the two groups:

Table 04 – Mean age and votes X Facebook presence

Facebook presence		Age	Votes
Non-outlier	Mean	48.44	43,075
	N	968	963
	Standard Deviation	12.18	72,832
Outlier	Mean	44.13	64,863
	N	91	91
	Standard Deviation	10.06	72,540
Total	Mean	48.07	44,956
	N	1,059	1,054
	Standard Deviation	12.07	73,029

p age = 0.001; mean age difference = 4.31; p votes = 0.007; mean vote difference = 21,78

Source: Research Group Database, 2021.

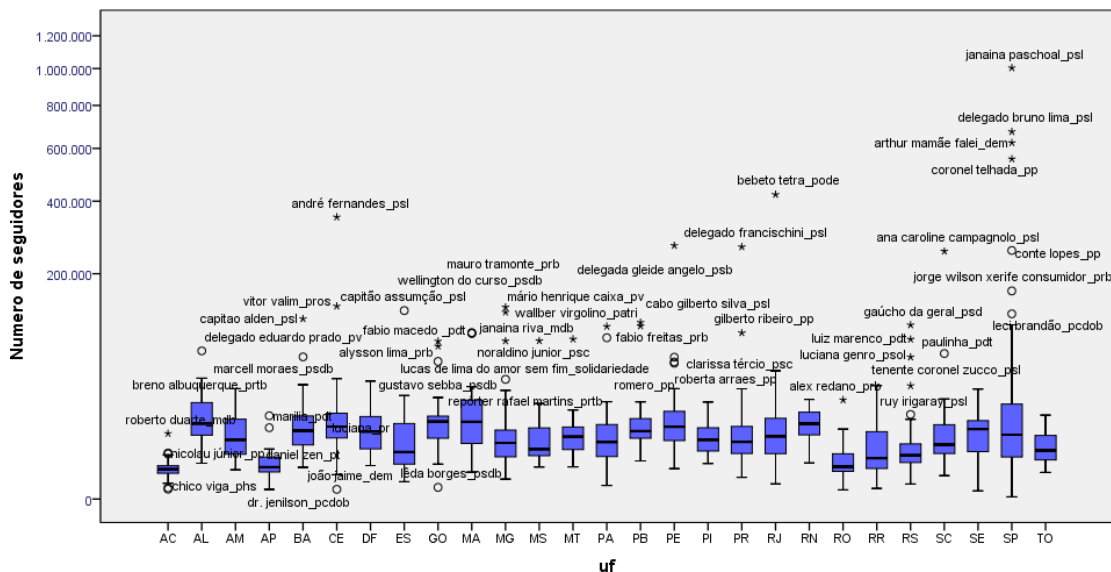
The t-test of means for independent samples above shows us that the outliers' mean age is lower and their mean votes are significantly higher than those of non-outliers, showing that this group's characteristics are different from each other. Indeed, outliers are younger than ordinary deputies, in addition to having been significantly more voted in the October 2018 election, which shows that the use of digital media may have been a relevant means of accumulating political capital in the last election.

To sum up, we found that, in the specific case of Facebook, there are significant differences between the subgroups of outliers and non-outliers: they are significantly concentrated in new right-wing parties, are significantly younger, and had significantly more votes than non-outliers, although they are regionally homogeneous. We will now analyze if the same occurs with Instagram, the second most used medium by deputies.

3.2 Outliers' Instagram profile

We can now define the universe of outliers on Instagram. Unlike what we did on Facebook, however, we have only computed the number of deputies' followers on that platform, which are the data made available on this social medium regarding politicians' online presence. The Instagram outliers can be visualized on the following Boxplot:

Graph 04 – Boxplot of Instagram followers of Brazilian state deputies (2019-2020)



Source: Research Group Database, 2021.

This graph illustrates outliers by state, obtained from the interquartile distribution for each state in the federation. It can be observed that the deputy with the highest relative presence on Instagram is Janaina Paschoal (PSL-SP), followed by Deputy Bruno Lima (PSL-SP), Artur Mamãe Falei (DEM-SP), and Colonel Talhada (PP-SP). All of them were elected by the state of São Paulo, where we find a higher concentration of outliers, unlike Facebook, and this being the only state with a standardized residual greater than 1.9 (adjusted R = 2.3). From the application of these criteria, we obtain a universe of 82 state deputies, distributed regionally.

Table 05 – Outliers’ regional distribution (Instagram)

		Region					Total
		Mid-western	Northeastern	Northern	Southeastern	Southern	
Non-outliers	N	106	321	169	246	135	977
	%	10.8%	32.9%	17.3%	25.2%	13.8%	100.0%
	R	0.7	1.6	-0.5	-1.1	-0.8	
Outliers	N	7	20	16	25	14	82
	%	8.5%	24.4%	19.5%	30.5%	17.1%	100.0%
	R	-0.7	-1.6	0.5	1.1	0.8	
Total	N	113	341	185	271	149	1,059
	%	10.7%	32.2%	17.5%	25.6%	14.1%	100.0%

Source: Research Group Database, 2021.

As in the case of Facebook, no significant differences are observed among the different regions in the country, once again showing that there is already a certain homogenization in the diffusion of the most often used digital media throughout the national territory. Regarding the partisan subgroups, however, a slightly different situation can be observed:

Table 06 – Outliers' distribution by party clusters

		Instagram Outliers		Total
		Non-outlier	Outlier	
New left-wing	N	22	4	26
	%	84.6%	15.4%	100.0%
	R	-1.5	1.5	
Traditional left-wing	N	238	13	251
	%	94.8%	5.2%	100.0%
	R	1.7	-1.7	
Center	N	331	27	358
	%	92.5%	7.5%	100.0%
	R	0.2	-0.2	
Traditional center-right	N	250	16	266
	%	94.0%	6.0%	100.0%
	R	1.2	-1.2	
New right-wing	N	136	22	158
	%	86.1%	13.9%	100.0%
	R	-3.2	3.2	
Total	N	977	82	1,059
	%	92.3%	7.7%	100.0%

Pearson's chi-square $p = 0.008$; Value = 13.651

Source: Research Group Database, 2021.

From the data in the table above, a similar pattern to that observed in Facebook can be identified, with new right-wing parties showing a significantly higher percentage of deputies as outliers compared to the other party currents. However, inversely to Facebook, the established physiological center representatives do not show significantly negative standardized residual regarding outliers, indicating a similar distribution among outliers in this party category.

Table 07 – Mean age and votes X Instagram presence

Instagram presence		Age	Votes
Non-outlier	Mean	48.62	40,456.64
	N	977	972
	Standard Deviation	12.09	26,418.70
Outlier	Mean	41.51	98,289.84
	N	82	82
	Standard Deviation	9.71	240,505.66
Total	Mean	48.07	44,956.00
	N	1,059	1,054
	Standard Deviation	12,07	73,029.12

$p_{age} = 0.000$; mean difference = 7.11; $p_{votes} = 0.000$; mean difference = 57,833.20

Source: Research Group Database, 2021.

As in the case of Facebook, on Instagram, significant mean differences are observed between the two groups, thus confirming our previous hypothesis. However, it can be seen that the mean differences between outliers and non-outliers in the case of Instagram are higher, indicating that, in the case of a digital medium of more recent use, the deputies were better voted and are younger than in the case of Facebook, which may be an indication of different profiles of use of the two digital media, that is, one of older and “established” use and the other of more recent use by a subgroup of deputies that are more connected to digital innovations.

3.3 Outliers and outsiders

To investigate the third hypothesis of whether outliers can be considered outsiders or not, we shall use the data on politicians’ candidacies for re-election available on TSE’s databases as a proxy for the latter’s characterization. In a first approach, we will define the state deputies who did not run for re-election, that is, who had not held a state deputy’s office in the previous legislature, as outsiders, and as insiders (or established insiders), those who ran for state deputy in the last elections and were office holders in the previous four years. The distribution among state deputies running and not running for re-election in the October 2018 election by party clusters can be visualized in the following table:

Table 08 – Candidates for re-election by party clusters (October 2018).

		Candidates for re-election		Total
		No	Yes	
New left-wing	N	20	6	26
	%	76.9	23.1	100.0
	R	3.1	-3.1	
Traditional left-wing	N	97	154	251
	%	38.6	61.4	100.0
	R	-3.1	3.1	
Center	N	153	205	358
	%	42.7	57.3	100.0
	R	-2.0	2.0	
Traditional center-right	N	100	166	266
	%	37.6	62.4	100.0
	R	-3.6	3.6	
New right-wing	N	129	29	158
	%	81.6	18.4	100.0
	R	9.4	-9.4	
Total	N	499	560	1,059
		47.1	52.9	100.0

Source: Research Group Database, 2021.

From the data above, it can be observed that there are significant differences between the percentages of outsiders among the different party clusters. Thus, the new left-wing and new right-wing parties have a significantly higher percentage of deputies who were not running for re-election, or outsiders, according to our terminology. The traditional left-wing, center, and traditional center-right parties, on the other hand, have a significantly higher number of “established” deputies, that is, those who had held a deputy’s office in the period immediately prior to the October 2018 election.

It remains to be determined whether or not the fact that the candidate is running for re-election or not has any effect on the use of the digital media most frequently utilized by state representatives.

With regards to Facebook, the data are as follows:

Table 09 – Facebook outliers X Deputies who are outsiders

		Candidates for re-election		Total
		N	S	
Non-outlier	N	454	514	968
	%	46.9	53.1	100,0
	R	-0.5	0.5	
Outlier	N	45	46	91
	%	49.5	50.5	100.0
	R	0.5	-0.5	
Total	N	499	560	1,059
		47.1	52.9	100.0

Source: Research Group Database, 2021.

From the data above, it can be observed that there is no significant association between the state deputies’ outsiders X outliers situations, to the extent that being an outlier on Facebook is not associated with being a “newcomer” or “established” in politics. This means that there was an expressive contingent of “established” deputies who already accumulated political and social capital on Facebook during their term of office, and that such accumulation was equivalent to that obtained by the “outsiders” during the elections, which is evidence of the existence of “permanent campaigning” on digital media also by established deputies, thus showing the intuitions of previous studies that the presence on the most used digital media has become an important asset of politicians in the exercise of their terms of office, as they also use it during the elections (BRAGA et. al., 2017).

We can observe below that the situation is rather distinct with respect to Instagram, a social media of more recent use among deputies and politicians in general, and which only began to spread in the 2016 elections (BRAGA; CARLOMAGNO, 2018).

Table 10 – Instagram Outliers X Deputies who are outsiders (2019-2020)

		Candidates for re-election		Total
		N	S	
Non-outliers	N	448	529	977
	R	45.9	54.1	100.0
Outliers	N	51	31	82
	R	62.2	37.8	100.0
Total	N	499	560	1,059
		47.1	52.9	100.0

Source: Research Group Database, 2021.

The chi-square test ($p = 0.004$) shows that, in the case of Instagram, there is a relationship between the deputy’s being an outlier and being an outsider, that is, those most present on this social medium are, in fact, those who have more recently entered politics. This indicates that the media of more recent use may be those most often used by the deputies who are “outsiders”, younger and connected to new media, with a more modern language. This may be the case with WhatsApp as well. However, as it is not a public medium where the data about the information that circulates in the networks is widely accessible, this is a hypothesis of difficult confirmation or refutation. Thus, we can say that our third hypothesis was partially confirmed.

4. Conclusions

We can summarize the findings in this study and indicate some questions for further study. Firstly, we found that the use of digital media is widespread among state deputies from different regions in the country, and that they have become a daily management tool for legislative terms, also at the subnational level, as already mentioned in other studies, with Facebook and Instagram being the most used media (MARQUES; AQUINO; MIOLA, 2015; PEREIRA; SANTOS; ALMEIDA, 2020). We also initially found how, in the very deputies’ profiles, written by their advisors, the fact of being outsiders appears associated with the fact of being outliers, so this is a problem that deserves to be empirically investigated further. Indeed, these deputies themselves associate the fact of being outsiders in politics with the heavy use of social media as tools for communication and political mobilization.

From the indications contained in those deputies’ statements, we formulated our research questions by defining, in a first approach, the deputies who are outliers on Facebook and Instagram, the digital social media most used by representatives, as heavy digital media users. This procedure enabled us to define an initial empirical universe of 91 users on Facebook and 82 deputies on Instagram, which served as “treatment groups” in our analysis. Based on this preliminary evidence,

we formulated our research questions and our three working hypotheses.

Next, we sought to test our first two hypotheses by showing that, in fact, the deputies who are Facebook and Instagram outliers have different characteristics from those who are not outliers, being predominantly from the “new right-wing” parties, of a younger generation and having significantly higher mean votes, with these phenomena manifesting themselves more intensely in the case of Instagram *vis-à-vis* Facebook.

Finally, we sought to test our third hypothesis by showing that, in the case of Instagram, deputies who are outliers do, in fact, tend to be “first timers” in their political careers, while that is not the case with Facebook, which is an older digital medium.

Overall, our data, even if at a high level of aggregation, indicate a wide range of possibilities for digital media use by representatives, and allow for the formulation of a number of further research questions. For instance, what are the consequences, for the analysis, of incorporating other categories to define deputies who are heavy users of digital media beyond the statistical concept of outliers? Is it possible to sophisticate the concept of outsiders, using other more refined criteria to study deputies’ political careers? How do the latter evaluate the use of digital media in their profiles? What discursive strategies are used by subgroups of politicians and users on their digital media? Is the pervasive presence of digital technologies throughout the deputies’ terms of office enough to characterize a situation of a “permanent campaign”? With what intensity? What is the content of the messages conveyed by deputies on their digital media? What are the composite effects of all these phenomena on the establishment of relations of representation between deputies and their social base? How do the deputies themselves evaluate this phenomenon? Is it already possible to observe signs of “saturation” of the use of digital media by deputies in their public communication, or is this a phenomenon still on the rise? These are a number of questions to be addressed in further studies within the scope of our collective investigations.

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