

Party ideologies in 140 characters: Twitter use by Brazilian Congressmen

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With increasing use of the Internet, different social and economic groups are appropriating its resources in various ways. As such, politicians have adopted this new media for varying reasons. From an ideological classification of political parties represented in Brazilian Congress, this paper evaluates whether it is a variable that can distinguish federal congressmen's adoption and use of Twitter. A total of 512 profiles of congressmen who use Twitter to post content and connect with citizens and colleagues from Congress were analysed in December 2013. Twitter's programming platform was used to collect data on the use of profiles and connections between them and with other social network profiles. This data was related to the ideological classification of different parties. The results show that it is possible to distinguish Twitter groups of different ideologies represented in Congress because they adopted its use at various times, have different levels of popularity, follow congressional colleagues with varying patterns of interest and have diverging activity indicators in the digital environment.

Keywords: Internet; Twitter; political ideologies; Brazilian Congress.

Ideologias partidárias em 140 caracteres: uso do Twitter pelos parlamentares brasileiros

Com o crescente uso da internet, diferentes apropriações estão sendo feitas por diferentes grupos sociais e econômicos. Assim, também políticos têm adotado essas novas mídias por diferentes motivações e em diferentes formas. O objetivo deste trabalho é, a partir de uma classificação ideológica dos partidos políticos representados no Congresso brasileiro, avaliar se essa é uma variável que distingue a adoção e o uso do Twitter por parte dos parlamentares federais. Foram analisados os 512 perfis dos congressistas que em dezembro de 2013 utilizavam o Twitter para a postagem de conteúdo e para conexão com cidadãos e colegas de Congresso. Foi utilizada a plataforma de programação do Twitter para a coleta dos dados sobre o uso dos perfis e sobre as conexões entre eles e também com outros perfis da rede social. Esses dados foram relacionados com a classificação ideológica dos partidos dos parlamentares. Os resultados demonstram que é possível distinguir no Twitter os grupos das diferentes ideologias representadas no Congresso, porque adotaram seu uso em períodos distintos, têm diferentes taxas de popularidade, seguem colegas parlamentares com diferentes padrões de interesse e têm diferentes indicadores de atividade nesse meio digital.

Palavras-chave: internet; Twitter; ideologia partidária; Congresso Nacional.

Ideologías del partido en 140 caracteres: el uso de Twitter por los parlamentarios brasileños

Con el creciente uso de internet, las diferentes asignaciones se realizan por diferentes grupos sociales y económicos. Aún así, los políticos han adoptado estos nuevos medios por diferentes razones y en diferentes formas. El objetivo de este trabajo es, a partir de una clasificación ideológica de los partidos políticos representados en el Congreso de Brasil, evaluar si se trata de una variable que distingue a la adopción y el uso de Twitter por el Parlamento federal. 512 perfiles de los miembros del Congreso en diciembre de 2013 utilizaron Twitter para publicar contenido, y para conectar con los ciudadanos y se analizaron sus colegas del Congreso. Se utilizó la plataforma de programación de Twitter para la recogida de datos sobre el uso de perfiles y en las conexiones entre ellos y con otros perfiles de redes sociales. Estos datos fueron relacionados con la clasificación ideológica de los partidos parlamentarios. Los resultados demuestran que es posible distinguir grupos de Twitter de diferentes ideologías representadas en el Congreso, ya que aprobó su uso en diferentes momentos, tener diferentes cuotas de popularidad siguientes pares parlamentarios con diferentes patrones de interés y tienen diferentes indicadores de actividad en el entorno digital.

Palabras clave: internet; Twitter; ideología partidista; Congreso brasileño.

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1. INTRODUCTION

Society's increasing use of technology has modified how people, institutions and governments relate to each other with the creation of new ways to communicate and interact. This has led to different appropriations of ICT by a wide range of social and economic groups. In response to technological advances, it is to be expected that politics also makes use of this means and, thus, political groups have also modified the channels that they use to interact with citizens. The political utilisation of these new tools has been increasingly investigated, as connected voters can and should be attracting the attention of politicians seeking support for their projects and votes during electoral campaigns. The political parties, as an important institution of developed democracies (Mainwaring, 2001; Power and Zucco Jr., 2009; Moisés, 2011), and their political ideologies form the framework on which they can analyse the political impacts of civil society and Brazilian politics adopting new technologies.

The aim of this study is not to evaluate political behaviour *per se* but by observing the behavior of different political groups to analyse if political ideology is a variable that distinguishes the intensity and the way that politicians appropriate digital media. Although the classification of political parties on the left-right ideological spectrum is not a common consensus in Brazilian political theory (Mainwaring, 2001; Sorj, 2001; Bethell, 2002; Rebello, 2012), a comparison of political manifestations understood as being from different party ideologies could indicate paths for a better understanding of this dimension of Brazilian politics.

Thus, the aim of this study is the political use of Internet social media by Brazilian politicians and the starting point for this analysis is the ideological classification of federal congressmen's political parties in the 54th mandate, according to Tarouco and Madeira's research (2012, 2013). By positioning congressmen on Twitter, the motivations of various politicians, parties or ideologies may be being guided by different perceptions of new political relations in the Internet age: if this means of communication is sufficiently relevant to project politicians' image in society (Tumasjan et al., 2010); whether Twitter users represent an important segment of society; if a political party's activity on a social network is seen by militants or sympathisers in online discussions (Costa, 2011; Barberá et al., 2014) or if the now growing adoption of this social media will experience a downturn in its use in the future. These questions are now starting to be appreciated by understanding politicians' behaviour in this means of communication and their perceptions of these possibilities. In other words, it is still a very recent phenomenon, making it difficult to predict its development. Yet, it is worthy of analysis due to its evident importance.

The problem investigated here includes the relations between the different political ideologies present in National Congress and voiced in the virtual environment. In other words: *do federal congressmen's varying party ideologies result in different forms and levels of Twitter use, both with level of activity and in their connections and interactions?* This problem stems from previous studies which evaluated party political ideologies and politicians' use of technology, to understand if Brazilian congressmen's pattern of behaviour in the virtual environment is related to their party's political ideology.

2. THEORETICAL REFERENCE

With the historical under-development of the Brazilian party system (Mainwaring, 2001; Bethell, 2002) and highly fragmented power between political parties in the Executive and Legislative powers since the start of the democratic period (Samuels, 1997), the ideological categorisation of Brazilian political parties has always been a controversial topic. Nevertheless, attempts have been made by some authors using indicators, such as congressmen's social and occupational composition and patrimonial scale (Rodrigues, 2002); voters' party identification (Veiga, 2011); political science specialists' opinions (Tarouco and Madeira, 2012); the content of parties' programme documents (Tarouco and Madeira, 2013); congressmen's perceptions of their ideological positions and the ideologies of other parties represented in National Congress (Power and Zucco Jr., 2009).

Thus, with the current party political groups being merely pragmatic in the dispute for power (Samuels, 1997) and only representing the group of politicians whose behaviour is more orientated by political pragmatism — for their own benefit — than by an ideology which guides their discourse and practice (Bethell, 2002), then these politicians' behaviour should not present significant differences, both in relation to their decisions in the legislative process and the way that they take hold of the means of communication, especially new digital media. What would differentiate the politicians and their alleged ideologies would not be the use pattern and recurrence of these technological resources. Therefore, the digital form provides the field for research and a wide variety of data on the topic, as discourses and digital connections are recorded, accessible and may reveal patterns of behaviour not previously available to investigators (Recuero, 2011). With the previous assumptions being correct, what could differentiate politicians' appropriation of communication resources on the Internet should not be their ideological positions, identified via their party affiliations. This is what this research aimed to investigate and test.

3. PARTY IDEOLOGIES

The situation of low institutionalisation and fragmentation of political parties in contemporary Brazil has affected not only the way that politicians make contact with citizens and form their electoral bases, but also leading to voters' apathy and low participation in political life (Mainwaring, 2001). For Mainwaring (2001:40-42), development of the party system is important for the democratisation process because parties dominate electoral policy, have access to state power, are the means to access positions and public policies, and serve as a reference so that electors identify the candidates in electoral campaigns. For the author, the consequences of the Brazilian party system's low institutionalisation are individualism in electoral campaigns, little party control on elected politicians, personalism in political relations and the parties' pragmatic behaviour (Samuels, 1997; Mainwaring, 2001; Bethell, 2002).

David Samuels (1997) also points out the deficiencies in the Brazilian party system and its relation with patronage, clientelism and weak participation in formulating public policies, with no clear characterisation of the parties in defending ideological standards for this author. The Brazilian electoral system is centred on the candidate, promoting individualism and political personalism, weakening parties, raising the financial cost of elections, discouraging the adoption of programme strategies

and the appearance of cohesive political parties (Samuels, 1997:507). According to Samuels (1997), individualistic and personalistic behaviour are reinforced in the Brazilian presidential regime and also in an under-developed party system, with parties that do not have deep historical roots or ideological coherence, highly undisciplined politicians and a large number of parties vying for power, as Bethell (2002:25) also indicates. Bernardo Sorj follows up this diagnosis of political parties, confirming that, in this framework, “[...] the constitution of a party system which follows traditional left/right lines should not be expected [...]” (Sorj, 2001:84). For Sorj, there is a new way of conducting politics, with the means of mass communication and political marketing taking central roles and an emphasis on politicians’ personal qualities, to the detriment of proposals or programmes (Sorj, 2001:85).

Maria D’Alva Kinzo understands that there is no tendency towards stabilising party preferences, especially in electoral periods, with an incentive structure for candidates which encourages personalised competition, leading parties to have less visibility than their politicians (Kinzo, 2005:67). The author highlights that “[...] jointly, Brazilian parties have had difficulty making their mark with the electorate” (Kinzo, 2005:66). Thus, the question of party visibility becomes central and turning to Twitter and other digital media artefacts — technologies which were not available when the author undertook her research — may modify this situation.

In response to these analyses, Figueiredo and Limongi’s (2007) important article puts forward that criticisms of the Brazilian political system invariably stems from the idea that Brazilian political parties are weak and politicians’ individual interests govern its advocates. The authors’ argument contradicts the idea that federal congressmen have individualistic behaviour, as they present high party infidelity in the current centralised decision-making structure of the legislative process, party leaders’ roles and the legal instruments available to the federal Executive Power.

For Martins (2011:8), two different realities co-exist in Brazil, being “[...] impossible to understand traditional Brazil, modern Brazil and now the position of post-modern Brazil [...]” without considering the tense combination that these realities produce and suppress social and political development. Specifying the differences between left and right in Brazil, Martins observes that “[...] frequently the label ‘of left’ is applied to someone who, in practice, is ‘from the right’; and the label ‘from the right’ is applied to someone who, in practice, is ‘from the left’ [...]” (Martins, 2011:15).

Bringing this discussion to the current period, Nogueira (2013:113) observes that as the State has taken on a leading role in recent governments, the party which conducts this has also lost its original ideological colour. Considering an analysis of the June 2013 movements, the author observes that they expressed “[...] a new politicality, regardless of parties and organisations and full of ‘nihilistic’ pre-political tendencies” (Nogueira, 2013:24). For Nogueira (2013:25), when attaining power, all parties, from the left or right, adapt to the system and start to benefit from it, revealing that the parties can no longer be distinguished.

Figueiredo and Limongi (2007) also confirm that it is possible to distinguish politicians’ behaviour in National Congress during electoral periods and legislative practice, as “[...] it could still be true that electoral legislation produces incentives so that congressmen seek to build personal bases of electoral support” and the constitutional powers of the Executive Power and centralised structure of the federal Legislative Power neutralise the congressmen’s individualistic behaviour (Figueiredo and Limongi, 2007:9). The much vaunted freedom that digital media provides is also applied to the lives of the

congressmen who seem to stray from their parties, to a certain extent, at election times. It is a truly Hobbesian period of competition for voters. Figueiredo and Limongi (2007:17) also evaluated that the political parties are strong inside the legislative power and this centralisation leads to increased party cohesion and greater ideological approximation between parties, confirmed by the principle of ideological contiguity, where participation in a coalition government plays an important role.

Power and Zucco Jr. analysed the perceptions of congressmen from five federal mandates between 1990 and 2005 with respect to their ideological positions and those which they attributed to other political parties. Understanding ideological differentiation as necessary for a quality political representation (Power and Zucco Jr., 2009:218), the authors concluded that there were few changes in the parties' ideological ranking during the period analysed (Power and Zucco Jr., 2009:228), with the parties in government tending to move to the right of the ideological spectrum and to the left when in the opposition (Power and Zucco Jr., 2009:230). Since the 1980s, there has also been tendency for politicians wanting to position or show themselves to be more to the left of the ideological scale, a phenomenon which has been called the "shamefaced right" (Power and Zucco Jr., 2009:234).

Despite this discussion on the lack or otherwise of parties' ideological identification and using Brazilian Electoral Study (Eseb) data from between 2002 and 2010, Luciana Veiga (2011) analysed the variation in voters' party identification rate and pinpointed changes in the electorate's profile with regards to their level of education, region and ideology, indicating voters' different strata where party identification changes occurred. While party identification is related to the stability of electoral results, Veiga (2011) observed that there was volatility in a percentage of the electorate ideologically identified with a party between 2002 and 2010.

In a further study which also used the same Eseb surveys, Maurício Rebello (2012) evaluated voters' perceptions of the ideologies from the ruling and opposing parties and their ideological self-classification. The author relates the rise of the Worker's Party (PT) into government, through a coalition with parties from different ideological nuances, with a change in the electorate's perception both of the left and right, to such an extent that any differences in the ideological classifications of the main parties drew nearer, in a "[...] clear centripetal movement of the Brazilian party system, according to voters" (Rebello, 2012:310). In relation to voters' ideological self-classification, Rebello (2012) confirms that they "[...] on average, qualified as belonging to the right but not far from the centre" (Rebello, 2012:314) for the 2010 elections, while Power and Zucco Jr. (2009) indicate that politicians sought proximity with the left.

Although there does not appear to be an identification of party ideologies by a considerable part of the Brazilian electorate (Mainwaring, 2001; Veiga, 2011) and it making increasingly less distinction between parties declared to be from the left or right (Rebello, 2012), some studies sought to identify declared or implied ideologies in Brazilian parties' discourse and practice, whether through categorising their programme documents and politicians' behaviour or the opinions of voters, politicians or specialists. With this in mind, Tarouco and Madeira (2012) performed research with political science specialists on the ideological position of Brazilian political parties in existence at the time. The authors compared the results obtained from other classifications resulting from studies with different methodologies, such as analysing parties' programme documents

or politicians' opinions. For the authors, the strong correlation found between the results from different studies on party political ideologies in Brazil indicates that "[...] judgement by specialists [...] continues to be seen by some authors as a more appropriate way of estimating these positions" (Tarouco and Madeira, 2012:5).

In a more recent study, Tarouco and Madeira (2013) assessed Brazilian party ideology once again, this time analysing the content of their programme texts. Using a two-dimension scale, from the "left-right" and "conservative-liberal" axes, and evaluating the nature of every mention — positive or negative — of various topics, the authors measured each party's ideology, more to the left or right and more conservative or liberal, according to the quantity of mentions related to the topics or ideas from the left or right. Again, comparing the results to other studies, the authors conclude that despite the tendency to reduce distances between Brazilian parties' ideological positions, Brazilian parties' weak relation with society and party fragmentation which promotes or facilitates the occurrence of catch-all parties, "[...] the majority of prevailing classifications are valid and may continue to be used in studies which still look for the effects of party ideology on other variables today" (Tarouco and Madeira, 2013:109).

4. POLITICAL USE OF TWITTER

New social media or Internet Social Networks (RSI) (Recuero, 2011) appeared in 2000, altering the way that people, politicians and institutions communicated in this means of communication. As society increased its use of these communication and interaction tools, its use by politicians and political institutions, particularly in Brazil (Diniz and Ribeiro, 2012) also appears to have risen. As social media (Kwak et al., 2010), Twitter evolved from its proposal as a microblogging service (Tumasjan et al., 2010), connecting people and institutions in a simple way and providing the possibility of forming *ad hoc* communities to discuss a wide range of topics. Its political use gained major recognition following the election of the American president Barak Obama (Gomes et al., 2009), in political campaigns in other countries around the world, including the European parliament (Vergeer, Hermans and Sams, 2011) and Internet social networks in Brazil were of political relevance with Marina Silva's 2010 presidential campaign and its voting phenomenon, promoted considerably by actions in the virtual environment (Costa, 2011; Reis, 2011; Pereira, 2013).

The use of Twitter by American congressmen was initially investigated by Golbeck, Grimes and Rogers (2010) who analysed more than 6 thousand messages, concluding that Twitter was mainly used to post informative messages about congressmen's activities. Hemphill, Otterbacher and Shapiro (2013) also identified that American congressmen particularly used Twitter to publicise their political positions and divulge information but rarely to mobilise voters or acknowledge the work of other congressmen.

Despite the low costs of adopting new technologies, by taking this approach and not being successful, a politician runs the risk of having his image associated to a failure in popularity or seeing the scant support that his ideas have in society revealed (Chi and Yang, 2011:1). However, the signs of success obtained by the early adopters may encourage other politicians to adopt these new tools. On evaluating if the successful use by the first users in American Congress is influencing the decision to adopt Twitter on other congressmen, Chi and Yang (2011) observed that politicians tend to adopt the

fastest way of using the tool, following the signs of success obtained by other politicians. The authors also confirm that Republican Party politicians were more active on Twitter and Democrats tended to adopt the tool at a later stage. However, generally speaking, politicians felt pressured to compete for attention against their ideological rivals when they noted the success that they had obtained when using this network (Chi and Yang, 2011:23).

Setting off from the assumption that social network users establish connections and interact more frequently with people with the same political and ideological position, Pablo Barberá (2013) estimated the ideological position of politicians and citizens using Twitter in the United States and five European countries. On evaluating the decisions of connections between users and their ideological preferences, the author concluded that the estimation method using Internet social network information shows “[...] the unexplored potential of Twitter data to generate ideological estimates which may prove to be useful to investigate political behaviour” (Barberá, 2013:13).

Barberá and partners (2014) compared messages posted by American congressmen and a sample of Twitter users, to evaluate the way that parliament interacted with society, if politicians responded to and followed their followers’ discussions or if it were voters who responded to and followed congressmen’s discussion agendas. The authors conclude that “[...] the members of Congress are surprisingly responsive to their voters in their public messages” or, that is, when citizens posted a large number of messages on a subject, politicians followed the discussion, also posting on the topic, but the opposite did not take place (Barberá et al., 2014:2). According to the authors, this responsiveness is more frequent among politicians and users with the same political ideology and both Republican Party politicians and voters aligned to this party are more active Twitter users.

In Brazil, Marques, Aquino and Miola (2014) investigated the reasons which led Brazilian congressmen to use microblogging as part of their political communication strategies. According to the authors, one needs to understand not only the population’s level of access to new technologies or public administrators’ readiness to adopt them to explain these reasons but the politicians’ strategic dimensions to maintain their public image should also be considered (Marques, Aquino and Miola, 2014:2). In order to indicate the ideology of the political parties represented in the Chamber of Deputies, the authors used Tarouco and Madeira’s (2012) classification and then related the indicator of each congressman’s ideology with variables of Twitter use, such as frequency of messages posted and number of users following the congressmen’s profiles, among others. In contrast to that observed by Barberá and partners (2014) on right-wing politicians in the US, the authors concluded that Brazilian left-wing politicians have more followers and use Twitter more, as new and/or younger congressmen utilise this platform more intensely. Politicians elected with more votes and also those who have held a Twitter account for longer have more followers than average for the accounts analysed (Barberá et al., 2014:7).

Twitter created a place for quick, fleeting and topical demonstrations on the Internet, where many people may speak to many others, with more freedom and constantly, similar to Speaker’s Corner in Hyde Park, London, for quick discourses but expressed here in a modern way of conducting politics (Pinho, 2011:105). However, this alleged new way of political manifestation may only be reproducing

old practices and structures of Brazilian politics, marked by patrimonialism, clientelism and patronage (Samuels, 1997; Mainwaring, 2001; Pinho, 2008, 2011). It is old politics with a new technological guise. As an important institution of developed democracies (Mainwaring, 2001; Moisés, 2011), the political parties and their ideologies also make up the background on which the political impacts of civil society and Brazilian politics adopting new technologies and the different ways of appropriating new ICT, such as Twitter should be analysed.

5. METHODOLOGY

The data obtained in this study was extracted from the Twitter database using the Application Programming Interface¹ (API) on 20th December, 2013. The following information on the profile and use of the congressmen's account was collected: date created; total number of followers when collecting the data; total number of profiles that the congressman's account followed; total number of messages posted up until that time; date the last message was posted and a list of the identification numbers for the accounts which followed the congressmen's profiles. The updated list of deputies' names was obtained from the Chamber of Deputies website² and the list of senators' names was acquired from the Federal Senate site.³ Other personal data on the congressmen and their terms was also collected from these sites and other National Congress institutional sites. The file with the data collected and analysed in this study is available for consultation.⁴

This research used Tarouco and Madeira's (2012, 2013) ideological classification of parties. Comparing the 21 parties with representation in Congress in the 54th mandate with the list of parties that the authors classified, it is observed that some parties researched at that time did not have representatives in Congress in 2013, while three parties had not yet been formed: Solidarity (SDD), the Republican Party of Social Order (Pros) and the Social Democrat Party (PSD). Removing the parties not represented in Congress in 2013 from the list of that study and adding the three formed after 2012,⁵ table 1 lists the political ideologies of the 21 political parties which were represented in National Congress on 20th December, 2013. The minimum and maximum classification columns show the extreme values attributed by specialists to each party and the third column shows the general average of the evaluations. The average points attributed by the specialists to each party were divided into: *Extreme-Left* ($1,0 \leq EE \leq 1,5$), *Left* ($1,5 < E \leq 2,05$), *Centre-Left* ($2,5 < CE \leq 3,5$), *Centre* ($3,5 < C < 4,5$), *Centre-Right* ($4,5 \leq CD < 5,5$), *Right* ($5,5 \leq D < 6,5$) and *Extreme-Right* ($6,5 \leq ED \leq 7,0$).

¹ API is a programming interface for apps, a resource supplied by the Twitter platform to develop programs and websites, which allows automated data collection from the platform, such as personal details from user accounts, their connections with other users, the number and frequency of messages posted, etc.

² Available at: <www.camara.gov.br>. Last access on: 20th Dec. 2013.

³ Available at: <www.senado.gov.br>. Last access on: 20th Dec. 2013.

⁴ The file with the data collected and analysed in this study is available online: <http://bit.ly/Ideologias>.

⁵ The ideological classification framework for Table 1 was completed considering the congressmen's original parties for each of the three parties created after 2012, according to the calculation methodology used by Silva and contributors (2014), which considered the previous average party affiliations for each member of congress in a new party. The list of congressmen and calculation of the new parties' ideologies can be consulted in the file <Calculo_Ideologia.xls>, which form the database for this study.

TABLE 1 POLITICAL PARTIES BY POLITICAL IDEOLOGY

Party	Ideological Classification			Ideology
	Minimum	Maximum	Average	
Psol	1.0	4.0	1.4	EL
PCdoB	1.0	7.0	2.3	L
PT	1.0	5.0	2.9	CL
PSB	1.0	5.0	3.0	CL
PDT	2.0	6.0	3.3	CL
PV	2.0	5.0	3.5	CL
PPS	2.0	6.0	4.0	C
PMDB	3.0	6.0	4.2	C
PMN	3.0	7.0	4.4	C
SDD	—	—	4.4	C
PSDB	3.0	6.0	4.6	CR
Pros	—	—	4.7	CR
PTdoB	1.0	7.0	4.7	CR
PTB	2.0	7.0	5.0	CR
PRB	3.0	7.0	5.1	CR
PSD	—	—	5.1	CR
PSC	3.0	7.0	5.2	CR
PR	3.0	7.0	5.4	CR
PRP	4.0	7.0	5.4	CR
PP	4.0	7.0	6.0	R
DEM	5.0	7.0	6.2	R

Source: Adapted from Tarouco and Madeira (2012:8).

6. RESULTS

One of the main indicators of the success of Twitter user accounts is the number of followers of their profiles, that is, the virtual public interested in their posts. In the congressmen's case, a large number of followers may represent popular support, a means to propagate their ideas and important political capital. On the other hand, the level of activity for the congressmen's accounts represents the politician's interest in marking and maintaining a presence in the virtual environment. Table 2 details the status of activities of Twitter accounts for each ideological bench, the total and average number of followers, with the total politicians column being the number of congressmen for each ideology. In order to decrease the dispersion of data, avoid distortion of average values and capture congressmen's

normal behaviour, the outliers⁶ were excluded from this table — the 10 most followed congressmen’s accounts and the 10 least followed in the data.

TABLE 2 STATUS OF CONGRESSMEN’S TWITTER ACCOUNTS BY PARTY IDEOLOGY (WITHOUT OUTLIERS)

Party Ideology	Account Activity			Total Number of Followers	Average Number of Followers	Total Number of Politicians	
	Active	Inactive	No Account				
Extreme-Left	No.	3	0	0	78,046	26,015**	3
	(%)	100.0%	0.0%	0.0%	2.99%	(8,479)	0.5%
Left	No.	14	1	1	185,982	12,399*	16
	(%)	87.5%	6.3%	6.3%	7.12%	(5,219)	2.8%
Centre-Left	No.	121	25	13	827,562	5,668	159
	(%)	76.1%	15.7%	8.2%	31.67%	(732)	27.7%
Centre	No.	74	27	27	569,147	5,635	128
	(%)	57.8%	21.1%	21.1%	21.78%	(934)	22.3%
Centre-Right	No.	116	52	30	699,827	4,166	198
	(%)	58.6%	26.3%	15.2%	26.78%	(541)	34.5%
Right	No.	41	18	11	252,765	4,284	70
	(%)	58.6%	25.7%	15.7%	9.67%	(865)	12.2%
Total	No.	369	123	82	2,613,329	5,312	574
	(%)	64.3%	21.4%	14.3%	100.00%	(404)	100.00%

Source: Elaborated by the authors. Data collected on 20th December, 2013.

The values in brackets refer to the average standard error.

The Bonferroni correction method was applied to the confidence interval adjustments.

* p < 0.05; ** p < 0.01

While the percentage of active accounts is higher for politicians more to the left of the ideological spectrum, the average number of followers for each ideological group decreases for the ideological groups from the left to those from the right and the left and extreme-left have averages which are significantly different from the data. The higher number of politicians connected to centre-right parties does not result in a higher total of followers of this political ideology and the highest percentage of politicians with an inactive account or are absent on Twitter are from centre, centre-right and right-wing ideologies.

⁶ The data on the number of followers was transformed (Log), which resulted in a normal distribution, with an average of 3,346 and standard-deviation of 0.71996. The outliers were two standard deviations above or below this average.

Table 3 lists the different indicators of Twitter use by ideological groups. The average time for opening a Twitter account, for example, demonstrates that, on average, technological adhesion initially took place to the left of the ideological spectrum, with politicians from the left being the first to use Twitter, followed by politicians from the extreme-left — approximately four months later on average. Also, on average, congressmen from the right adopted Twitter use approximately eight months after politicians from the left.

TABLE 3 ACTIVITY CONNECTIONS OF CONGRESSMEN'S ACCOUNTS ON TWITTER BY PARTY IDEOLOGY

Party Ideology	Average Account Time (in years)	Daily Posting Average	Average No. of Congressmen Followed	Average No. of Parliamentary Followers	Total No. of Accounts
Extreme-Left	3.945 (0.07)	15.71** (6.65)	22.0 (3.5)	74.3** (10.9)	4
Left	4.263 (0.15)	5.31 (1.28)	42.0 (6.5)	58.9** (10.2)	15
Centre-Left	3.932 (0.07)	3.88 (0.39)	36.5 (3.1)	38.5* (2.8)	150
Centre	3.826 (0.09)	4.08 (0.65)	37.8 (5.81)	31.9 (3.0)	104
Centre-Right	3.793 (0.06)	2.62 (0.40)	25.9 (3.0)	23.0 (1.6)	176
Right	3.600 (0.14)	2.28 (0.45)	26.6 (3.8)	24.9 (3.4)	63
General Average	3.832	3.43	31.97	31.0	512

Source: Elaborated by the authors. Data collected on 20th December, 2013.

The values in brackets refer to the average standard error.

The Bonferroni correction method was applied to the confidence interval adjustments.

* $p < 0.05$; ** $p < 0.01$

The political ideology more to the left is more active on Twitter, follows more frequently and is followed more by their parliamentary colleagues. The small group of four extreme-left congressmen is followed by parliamentary colleagues much more than the general average, follows their congress colleagues much less than the Congress average and posts significantly more messages than politicians from other ideologies. The opposite occurs with centre and right-wing ideologies which, on average, follow more congress accounts than are followed by them. Or, in other words, there are more links of interest from right-wing politicians in the content posted by left-wing politicians than the other way around.

Results presented in Table 3 shows a strong relation between the daily posting averages for each ideological line is observed and attention obtained by the Congressmen's Twitter profiles, measured by the average number of parliamentary followers with other ideologies. In other words, the more to the

left of the ideological spectrum, the more content the congressman posts on Twitter and he receives more attention from his colleagues with other political ideologies. As has also been observed here, this also attracts greater attention from the external public and this relation corroborates the analyses on congressmen's accounts taken individually: the higher the level of activity on a congressmen's profile on Twitter, the greater number of followers he is able to obtain (Marques, Aquino and Miola, 2014; Amaral et al., 2014). Comparing data from tables 2 and 3, it is observed that the relation between the number of followers and time the account has been open also duplicates the relation found in the general analyses of congressmen's accounts: the longer the platform has been used, the higher the number of followers for a congressmen's profile (Amaral et al., 2014:8).

The exception to these analyses is the group called "celebrity" congressmen (Amaral et al., 2014) who are those followed by more than 61,082 other Twitter users. There are "celebrity" congressmen in all of the varying political ideologies, which may indicate that the reason why these profiles are unusually followed is more related to the politician's personality than his activity or party political and ideological connections.

Analysing the activity of congressmen's Twitter accounts after the electoral period and its relation with party ideologies, from the data in table 4, it is observed that only 3.1% of accounts were abandoned following the 2010 elections, while 78% of these continued to be active in December 2013. Generally speaking, the vast majority of congressmen continued to have active Twitter accounts, constituting adherence to communication technologies. However, abandonment of accounts in the period immediately after the elections occurs more frequently in centre-right and right-wing ideologies and the percentage of active accounts is increasing in more left-wing ideologies, and the percentage of inactive accounts or electoral abandonment from the right to the left of the ideological spectrum is decreasing.

TABLE 4 STATUS OF CONGRESSMEN'S ACCOUNTS FOLLOWING THE 2010 ELECTIONS BY PARTY IDEOLOGY

Party Ideology	Activity on Congressmen's Accounts			Total No of Accountsc
	Electoral Abandonment ^a	Inactivity after the Elections ^b	Active Account	
Extreme-Left	No. 0 (%) 0.0%	0 0.0%	4 100.0%	4 1.0%
Left	No. 0 (%) 0.0%	1 7.1%	13 92.9%	14 3.4%
Centre-Left	No. 2 (%) 1.6%	18 14.0%	109 84.5%	129 31.2%
Centre	No. 6 (%) 7.2%	15 18.1%	62 74.7%	83 20.0%
Centre-Right	No. 4 (%) 2.9%	34 24.6%	100 72.5%	138 33.3%

Continue

Party Ideology	Activity on Congressmen's Accounts			Total No of Accountsc	
		Electoral Abandonment ^a	Inactivity after the Elections ^b		Active Account
Right	No.	1	10	35	46
	(%)	2.2%	21.7%	76.1%	11.1%
Total	No.	13	78	323	414
	(%)	3.1%	18.8%	78.0%	100.0%

Source: Elaborated by the authors. Data collected on 20th December, 2013.

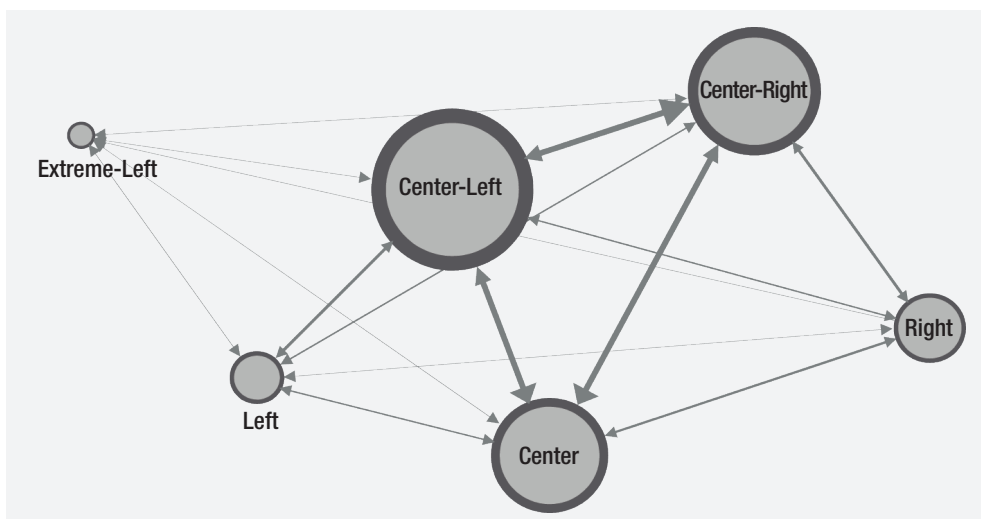
^a Accounts created before the 2010 electoral period, with the date of the last post between five days before and 30 days after 3rd October, 2010 or, that is, immediately abandoned after the political campaign.

^b Accounts created before the 2010 electoral period, with the date of the last post after 2nd November, 2010 or, that is, abandoned some time after the elections.

^c 98 accounts did not fit into any of the three categories in the table because they were abandoned before or created after the elections had ended or because there had been no status update since their creation until the data collection date.

Figure 1 groups the congressmen's profiles by party ideology, representing the connections of interest between the politicians' Twitter accounts. The higher the total of parliamentary followers of an ideological profile, the higher representation of his node on the graph and the higher number of links between two ideologies, the thicker the line connecting them. The extreme-left, although presenting high incoming connection averages and having a reduced number of congressmen, is on the outer area of the graph. The centre-left profiles present the highest number of incoming connections and interact more with centre-right and centre profiles. The current government's party is in this network node, which is in the centre of the graph and receives incoming connections or awareness links from all of the other ideologies. Or, that is, the federal Executive Power's party ideology is at the centre of the Twitter connections and is followed the most by other ideologies, closely followed by the centre-right and centre and, seemingly, it may be inferred that Congress converges to the centre, with ramifications to the left and right.

FIGURE 1 RELATIONSHIP BETWEEN PARTY IDEOLOGIES BY INCOMING CONNECTION



Source: Elaborated by the authors. Data collected on 20th December, 2013.

Table 5 provides information on the number of links between parliamentary profiles from different ideologies on Twitter and lists the quantitative values of the connection lines in figure 1. The highest number of awareness connections sets off from the centre-right to the centre-left and the total disinterest is due to the extreme-left in relation to the right which, in exchange, presents 25 awareness connections in its content.

TABLE 5 CONNECTIONS BETWEEN DIFFERENT IDEOLOGIES ON TWITTER

Ideology Followed	Ideology Follower						Total No. of Followers
	EL	L	CL	C	CR	R	
Extreme-Left	—	20	129	77	76	25	327
Left	10	—	323	186	182	73	774
Centre-Left	53	235	—	1,075	1,172	402	2,937
Centre	13	117	774	—	884	325	2,113
Centre-Right	10	93	799	1,019	—	474	2,395
Right	0	42	332	400	504	—	1,278
Total No. of Accounts Followed	86	507	2,357	2,757	2,818	1,299	9,824

Source: Elaborated by the authors. Data collected on 20th December, 2013.

The cell values correspond to the number of times in which congressmen from the table column ideology follow their colleagues from the table line ideology.

The greater the distance between the ideologies followed and the follower, the less their politicians’ profiles connect or, that is, for all of the ideologies analysed, the 512 parliamentary Twitter profiles establish awareness connections according to the ideological classification standard used here. This is particularly interesting, considering that the parties do not establish guidelines for their congressmen for virtual environment activities.

7. CONCLUSIONS

Federal congressmen’s Twitter use demonstrates that politicians from a more left-wing political ideology obtain better results in virtual popularity, both from the external public (Amaral et al., 2014) and their parliamentary colleagues. Adhesion to this communication tool took place firstly between congressmen from the left and extreme-left who used it on average much more than politicians from centre-right and right-wing ideologies. These results differ from that of American congressmen’s behaviour, as the politicians from the Republican party adopted Twitter earlier and use it more frequently (Chi and Yang, 2011; Barberá et al., 2014), but corroborate Marques, Aquino and Miola’s (2014) analysis on the Brazilian parliament.

The left, extreme-left and centre-left ideologies have a differentiated performance on Twitter, with these politicians being those who have been making use of this communication tool for longer, are the most followed both inside and out of Congress, share more information on the network and establish more links with other user profiles. The parliamentary accounts from the left and extreme-left wing ideology did not present any post-electoral abandonment or, in other words, its politicians remained active on Twitter, even after the elections, in contrast to the behaviour of centre-right and right wing congressmen. These conclusions suggest behaviour in the digital environment in the same direction as Scott Mainwaring's (2011) assertion that politicians from left-wing parties tend to be more ideological and less pragmatic.

In the group of politicians unusually followed on Twitter, a particular ideology does not predominate: there are five "celebrity" left-wing congressmen, six right-wing and one in the centre. Half of the awareness links to Congress on Twitter are directed towards these congressmen. These "celebrity" politicians' ideological position appears to matter less for the majority of those interested in parliamentary profiles or differentiate politicians in the virtual environment less, converging to the centre, corroborating the conclusions of Rebello's (2012) study. In other words, "celebrities" will attract attention whether they are left or right-wing.

The contrast between "celebrity" congressmen and the 205 that do not have an account or have an abandoned Twitter account also expresses the reality already described by Martins (2011), the existence of two Congresses: one which is post-modern and connected to society, while the other is traditional and remains indifferent to using new technologies. However, the intermediary group to these two, in a greater number, corroborate Sorj's assertion that there is a new way of conducting politics, with new means of communication and interaction taking space and increasing personalism in political practice (Sorj, 2001), as if this would resist any modernising boost to the political context.

Analyses of congressmen's Twitter use indicate a distinction between the different ideological groups, while confirming the importance of some politicians' personalities, attracting more attention than many of the benches represented in Congress (Amaral et al., 2014). Although the quality of the information which has been posted by congressmen, parties and ideologies has not yet been evaluated, the relevance of the information posted by the parliamentary profiles and their probable influence on the 3 million accounts which followed deputies and senators on Twitter in 2013, from the analyses presented here, it is concluded that this social media has grown in political importance, according to Brazilian congressmen, and that the online environment reflects the political and ideological framework offline, with major progressive parties and ideologies leading the movement to adhere to new social media resources. The screen topic is still new and we need to wait for new rounds of studies (elections) to reach more assertive affirmations but it seems that can be concluded that Twitter has been established as a means of communication between congressmen and voters.

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