

TALKING WITH AND ABOUT POLITICIANS ON TWITTER: AN ANALYSIS OF TWEETS CONTAINING @-MENTIONS OF CANDIDATES IN THE BRAZILIAN PRESIDENTIAL ELECTIONS¹

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Abstract

While Twitter has become an increasingly important platform for public opinion formation, little is known about its use in recent Latin American election campaigns. We therefore investigate the case of the presidential elections in Brazil in October 2014, in order to analyze communication structures in actual and para-social interactions with presidential candidates. In particular, while Twitter makes it easy for ordinary citizens to express their opinion online, it is maybe even more important that they can also address and communicate with persons who would otherwise not be reachable at all. Politicians are probably the most important group in this regard. Based on $N = 1,891,657$ tweets containing an @mention of a candidate in the Brazilian elections of 2014, we investigate which actual or para-social interactions with the candidates take place. Furthermore, because framing literature suggests that all actors involved in a discussion on social media will try to highlight specific aspects and interpretations of issues and events, we used techniques of co-word analysis to investigate the ways in which the main candidates were framed by the Twitter users. The results give insight into the deliberative potential of Twitter: they show

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how the candidates are presented to the social media community and thus how this presentation may be reflected in public opinion.

Keywords: Twitter - Brazil - public sphere - elections - framing

Resumen

Si bien Twitter se convirtió en una plataforma importante para la construcción de la opinión pública, poco se sabe sobre su uso en campañas electorales recientes en Latinoamérica. En este trabajo investigamos el caso de las elecciones presidenciales en Brasil en octubre de 2014 con el objetivo de analizar las estructuras de comunicación en interacciones reales y parasociales con los candidatos presidenciales. Particularmente, mientras Twitter facilita a los ciudadanos comunes expresar su propia opinión *on line*, es quizás todavía más importante el que puedan comunicarse con personas a las que no se podría acceder de otra manera. Los políticos son probablemente el grupo más importante en ese sentido. Basado en $N = 1.891.657$ tweets conteniendo un @mention de algún candidato a las elecciones brasileñas, investigamos qué interacciones reales o parasociales ocurren. Además, y teniendo en cuenta que la literatura sobre *framing* indica que todos los actores envueltos en una discusión en los medios sociales intentan destacar aspectos específicos e interpretaciones sobre temas y eventos, usamos técnicas de análisis de *co-words* para analizar las formas en que los principales candidatos de las elecciones brasileñas en 2014 son enmarcados por los usuarios de Twitter. Los resultados proveen el potencial deliberativo de Twitter: muestran cómo los candidatos son presentados en la comunidad de los medios sociales y cómo esa presentación puede reflejarse en la opinión pública.

Palabras clave: Twitter - Brasil - discurso público - elecciones - frames

Introduction

Public opinion formation no longer takes place only via mainstream media or real-life encounters. Social media like Twitter have become an important platform for citizens to inform themselves and to talk about political topics

(360i, 2014; Larsson and Moe, 2011). This has been recognized by political actors that increasingly include Twitter in their election campaigns. The advent of not only the Internet, but especially social media, has resulted in hopes for the beginning of a new era for forming public opinion: traditional gatekeeping roles vanish, citizens gain more power and more possibilities to express their opinions and attitudes, and large-scale deliberation could be made possible. In this article, we investigate the role of Twitter in opinion formation during the Brazilian election campaign in 2014 by studying the frames used in related tweets. As framing can be defined as the act to select "some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (Entman, 1993: 52), it provides a good framework for analyzing what users highlight when they use Twitter for political discussions.

Framing literature suggests that all actors involved in political discussions will try to highlight specific aspects and interpretations of issues and events (e.g., Hänggli and Kriesi, 2012). Given the fact that journalists use social media as well and often even report on "what is going on on social media", the frames that emerge on Twitter can subsequently not only have a direct effect on the attitudes of the participants in the online discussion, but also indirectly on public opinion in general.

We are interested in the ways in which the main candidates of the Brazilian presidential elections in 2014 were framed, how they interacted with citizens and vice versa. In total, eleven candidates took part in the elections, representing a multitude of political agendas and ideologies. Candidates Dilma Rousseff, who was seeking reelection, and Aécio Neves made it to the run-offs, which Rousseff won. This article aims at exploring to what extent Twitter is used by citizens to directly address political actors and how

these actors are framed. To do so, we conducted co-word-analyses on a dataset of $N = 1,891,657$ tweets containing an @mention of a candidate in the Brazilian elections.

Twitter and election campaigns

Several scholars (e.g. Dahlberg, 2011; Freelon, 2010; Rasmussen, 2008) argue that the Internet in general, and Twitter and other social media in particular, have the potential to significantly change public discourse by diminishing power and spatial constraints and allowing a broad discourse in which as many citizens as possible may participate. In particular, deliberation (which is a key aspect of the Habermasian ideal of a public sphere) benefits from the replacement of few-to-many distribution of information by many-to-many communication structures. Scholars argue that Twitter offers a framework that is suitable for deliberation because of (1) the interaction made possible by retweeting and replying to others, (2) the possibility to contact other citizens, including strangers, independently from local conditions, (3) hashtags allowing to classify topics, and (4) the popularity of Twitter (see, amongst others, Bastian and Trilling, 2013; Larsson and Moe, 2011).

One aspect that makes Twitter especially interesting is its asymmetrical structure, which means that a user can follow someone without being followed back. Accordingly, politicians and other public figures sometimes have thousands or even millions of followers, but follow only a handful of users, mostly from their own inner circles in the offline world. Tweets are usually open to anyone and users can tweet at other users even when they are not connected on the social network. Scholars consider this model particularly auspicious for analyses of political uses, as it reproduces the ideal conditions envisioned by Habermas for the public sphere, in which users can debate and voice their opinions independently of their social position (Hong and Nadler, 2012; Trilling, 2015). Recently, though, Facebook, which

was mainly symmetrically structured (only users who were connected as “friends” could see each others’ updates), has allowed for this model as well, through Fanpages or the “follow” function, in which a user can receive the updates from a public figure’s profile even when they aren’t friends on the social network.

It would be premature, though, to infer from the mere existence of these structures that deliberation is a common practice on Twitter. In fact, there is some evidence that the deliberative potential of Twitter is often not realized. For instance, a case study of the Swedish elections suggests that Twitter users hardly engage in discussions (Larsson and Moe, 2011). Interactivity tools like retweets and hashtags were seldom used and, in contrast to Habermasian ideals of inclusion of peripheral actors, the nodes in discussion networks seemed to be the “old” elites. This is also the case with other social media like YouTube: Dylko et al. (2011) show that, while non-elites have entered the discourse, the old elites keep a dominant position. Murphy (2011) points out that access to Twitter is “a socially stratified practice”, as most low-income households worldwide have limited Internet access and—more importantly—low levels of digital literacy. He also describes age and racial divides, with marginalized populations restricting their access to the Internet to simpler tasks, such as email, and remaining excluded from many Web 2.0 tools. That might damage the quality of discussions online, as more diversity of viewpoints can also be fostered by a diversity of social backgrounds represented online (Yardi and Boyd, 2010). On the other hand, we argue that movements such as #BlackLivesMatter, which features prominently black leaders and, on Twitter, black users, might be breaking Twitter and other social network’s hegemonic dynamics, in which old elites are still at the center of the discourse.⁵

⁵ For more on #BlackLivesMatter in and outside of Twitter see: Garza (2014) and Kang (2015).

When users do engage in discussions, polarization is often the result. Defined as “the social process whereby a social or political group is divided into two opposing sub-groups having conflicting and contrasting positions, goals and viewpoints” (Guerra et al., 2013), polarization isn’t a new phenomenon online. Adamic and Glance (2005) had already described a very divided blogosphere at the time of the 2004 US elections, with liberals linking almost exclusively to liberals and conservatives linking almost exclusively to conservatives—the two camps barely talked to each other. More recently, scholars such as Yardi and Boyd (2010) as well as Conover et al. (2011) have focused on polarization on Twitter. Studying tweets from the US 2010 midterm elections, Conover et al. (2011) found that polarization manifests itself much more strongly in retweets. Users from opposing camps actually debate and interact through @mentions, and common hashtags expose users from both camps to content they would not have come across otherwise. However, they found that, qualitatively, the content of the messages was more extreme than it would be in face-to-face interactions. In Brazil, a recent analysis by Interagentes (2015) reveals extreme polarization between Twitter users engaged in the debate around Dilma Rousseff’s impeachment, with anti-government and pro-government users competing to see whose hashtags ranked higher on Twitter’s trending topics. Thus, factors such as polarization and the digital divide place social media far from Habermas’ ideal of a deliberative public sphere.

It also seems that Brazilians see Twitter often as a means of self-expression rather than as a tool for discourse: according to a study conducted by the marketing agency 360i (2014), most of their tweets consist on status updates (71%); Twitter conversations (i.e. replies to other users’ tweets) come in second with only 13%. This suggests that “Brazilian Twitter users are less likely to interact directly with other users, and have a high proportion of individually-focused status updates” (360i, 2014: 1). Still, these

findings have to be taken with a grain of salt, as the study does not focus on Twitter use in relation to political issues. It therefore remains an open question whether this tendency to self-expression prevails in the context of the 2014 presidential elections or whether discursive practices are playing a major role.

In general, there seems to be a stark contrast between the potential of new media for deliberation and the actual realization of this potential (Coleman and Blumler, 2009). Scholars have frequently criticized the low frequency of interaction in particular (e.g., Parmelee and Bichard, 2012). At the same time, it can be shown that interactivity is crucial for positive effects on Twitter to occur (Lee and Shin, 2012). Kruike-meier et al. (2014) consider interactivity, defined as two-way communication between citizens or between a citizen and a politician or a representative of the system in general, a key aspect to take into account when studying political uses online. Interactivity seems to stimulate citizens' political involvement (Kruike-meier et al., 2012) and even influence voting intentions (Lee and Shin, 2012). Merely watching an interaction between politicians and voters on Twitter may increase a user's feeling of interactivity and thus his or her interest for politics (Kruike-meier et al., 2014). In a thorough analysis of election results in the Netherlands, Jacobs and Spierings (2014) have shown that candidates' Twitter activity increases the votes they receive, even after controlling for a number of other factors, including but not limited to their appearance in mainstream media, their position on the list, and incumbency.

Research still lacks a thorough analysis of politicians' behavior when it comes to interactivity. We argue that candidates from smaller parties realize they are not in the center of the public sphere, unlike candidates from major parties or members of the government. As a result, they might be more inclined to interact with other users, using Twitter and other online tools more actively to mobilize potential

voters. Even from a purely pragmatic and economic point of view, it makes sense to assume that smaller parties have less money to spend in a campaign, and therefore intensify their engagement on social media, which is considerably cheaper than traditional ways of campaigning. Based on these considerations, we expect:

H1: Candidates from smaller parties interact more often with users on Twitter.

This engagement obviously only makes sense if candidates can reasonably expect that their interactive engagement translates at the very least into a positive image, but ultimately into votes. This indeed can be the case, as we have shown above. However, Twitter cannot be reduced to a pure persuasion tool. Especially in election campaigns, Twitter users explore the platform's advantages for several purposes. On the one hand, voters can use the interactive design for contacting politicians directly and thus forming their opinion about who they should vote for. On the other hand, politicians can benefit from the possibility described by Arceneaux and Schmitz Weiss (2010) to politically mobilize citizens via Twitter and to disseminate their political ideas and attitudes as one module of their election campaign. Especially when it comes to self-portrayals (which play a big role in the often personalized Brazilian campaigns, as we will show later), candidates have the chance to present themselves in a way that is associated with positive attributes like being down-to-earth, open-minded, or progressive.

This comes into effect especially in a communication environment in which—like in the case of Brazil—political actors and the government tend to be an important part of the media system while traditional media heavily influences the political system (on the intertwined role between the media and politics see, amongst others, Azevedo, 2006; Dinatale and Gallo, 2010; Miguel, 2007; Rincón, 2013; Werz, 2010).

In the electoral context, televised debates play a central role—also on Twitter. Larsson and Moe (2011) connect televised debates or traditional media coverage to spikes of activity on Twitter (see also Jungherr, 2015). For instance, Trilling (2015) describes commenting on so-called second screens as a common behavior among the audience of televised debates, in which they not only watch the debate on TV, but also discuss its various aspects (from the candidates' appearance to the quality of their arguments) online through their tablets or mobile phones. Trilling's results strongly suggest that a distinction between topics discussed on Twitter during televised presidential debates and in the periods between the debates is necessary. He found that meta-topics and meta-frames, in particular the appearance of a candidate and the performance of the interviewers, enjoyed a dominant position. In particular, these meta-frames consisted of references to a detail in the candidates' looks, a catchy phrase used by a candidate or a faux pas committed by them during the debate. An example was a necklace Angela Merkel wore in a debate, which looked like the German flag and was among the most tweeted topics, becoming a meme in itself. This is why we expect:

H2: During the televised presidential debates, there is a predominance of meta-frames, based on the setting of the programs.

As the media cycle moves away from a televised debate until the next one takes place, focusing on other campaign appointments and statements made by candidates, other themes are usually brought to the fore. Consequently, we also expect:

H3: During the periods between televised presidential debates, the percentage of tweets containing frames concerning substantial political topics rises.

Televised debates can have profound consequences to public opinion and are often perceived as turning points in

a campaign. This can happen due to direct effects on the viewers, but also indirectly because of the follow-up communication on social media that we described, or through coverage of the debate in traditional media. In the case of the Brazilian presidential elections, three candidates—Dilma Rousseff, Aécio Neves, and Marina Silva—had more or less realistic chances to be elected, while the other candidates were extremely unlikely to receive a considerable amount of votes. In line with this, the degree of popularity differed significantly. However, with the exception of candidates Zé Maria, Mauro Iasi and Rui Pimenta, all candidates were invited to at least one televised debate, gaining more media attention than their own campaign resources could ever buy. And they tended to use these spotlights as much as possible, through nearly theatrical performances or particularly critical questions to the frontrunners, for example. In short, seen as pivotal moments, televised debates may catapult them to fame, which may also be reflected on tweets to or about them. Somewhat related to H1, we argue that especially candidates with initially lower chances can benefit from television debates. They have little to lose, but their prominence will rise, which will be reflected in tweets about them:

H4: Candidates with lower chances to be elected that are invited to the televised presidential debates become more prominent on Twitter after the debates.

We tested these hypotheses and thus contribute to the existing literature on the political uses of Twitter against the background of the Brazilian 2014 presidential elections.

Case study: Brazilian 2014 presidential elections

Despite prevailing social inequalities, more and more Brazilians are using the Internet. With over 107 million Internet users—more than 50% of the population—, Brazil ranks 5th in terms of countries with the highest increase in In-

ternet penetration over the period of one year and shows a growth of over 6 million new users during 2014 (Internet Live Stats, accessed 17 March 2015).

Those Brazilians who are online are amongst the most active Internet users in the world. They spend, on average, 29.7 hours online per month, which is above the worldwide average of 22.7 hours (ComScore, 2014). A lot of this time is spent on social networks, with an average of almost 13 hours per month in February 2014 (ComScore, 2014). In addition, 79% of Brazilian Internet users are on social networks (360i, 2014). Twitter is the third most popular social network in Brazil, only behind Facebook and LinkedIn (ComScore, 2014).

For the seventh time since the end of the military dictatorship (1961-1985), Brazilians were able to choose their president through direct vote. In total, eleven candidates took part in these elections, representing a multitude of political agendas and ideologies. The first round of voting took place on 5 October, 2014. As no candidate received more than 50% of the votes, candidates Dilma Rousseff, who was seeking reelection, and Aécio Neves made it to the run-offs. The second round of voting took place on 26 October and was won by Rousseff.

These elections were surrounded by a peculiar political context in Brazil. For the first time in decades, thousands of people all over the country took to the streets to protest against corruption, bad public services, police violence, polemic bills and the exorbitant government spending for the 2014 FIFA World Cup. The fact that president Dilma Rousseff acknowledged the protests' legitimacy and proposed initiatives to address the main demands was not enough to defuse tensions. The political climate in the country remained highly charged throughout 2013 and 2014, contributing to make the 2014 presidential elections the most polarized elections of Brazil's recent democratic history.

In addition to this broader political context, these presidential elections were also marked by the death of candi-

date Eduardo Campos in a plane crash about two months before the elections started. He was on his way to a campaign event when his private jet crashed in Santos in the state of São Paulo. Originally from a traditional political family from the Northeastern state of Pernambuco, Campos was considered a strong challenger to the two main candidates, Dilma Rousseff, from the Workers' Party, and Aécio Neves, from the Brazilian Social Democratic Party. Marina Silva, who was running as his vice presidential candidate, announced after his death she would run for president instead.

Dilma Rousseff was Luiz Inácio Lula da Silva's successor in the presidency, elected for the first time in 2010. She had previously held important positions in his government, as Minister of Energy and later Chief of Staff. She also fought against the military dictatorship as part of the urban guerrilla. The former senator of the state of Minas Gerais, Aécio Neves is the grandson of Tancredo Neves, one of the key politicians of Brazil's redemocratization. He had also been governor of the state of Minas Gerais. The third strong candidate, Marina Silva, has a background in the rubber tapper movement in the Brazilian Amazon region. She was also a member of Lula's administration, as Minister of Environment, but resigned in 2008 and left the Workers' Party to show her disagreement with the government's environmental policies. She had run for president in 2010 for the Green Party, receiving almost 20% of the votes cast. In 2014, Silva, who converted to the Pentecostal church *Assembleia de Deus* ten years earlier, ran for the Brazilian Socialist Party.

Apart from these three main contenders, eight other candidates from various parties took part in the elections. Two of them—Everaldo Pereira (Social Christian Party) and José Maria Eymael (Christian Social Democratic Party)—represented, besides Marina Silva, evangelical Christians, an emerging power not only in society but also in Brazilian politics. Eduardo Jorge was the Green Party's candidate.

Candidates Luciana Genro (Socialism and Freedom Party), Zé Maria (United Socialist Workers' Party), Mauro Iasi (Brazilian Communist Party) and Rui Costa Pimenta (Workers' Cause Party) represented the more leftist spectrum of society. Not aligned to any existing political force, the founder of the Brazilian Labour Renewal Party, Levy Fidelix, also took part in the elections.

All these different individuals, from mostly small parties, stand for a phenomenon that permeates Brazilian politics: personalization, characterized by a simplification of social and political contexts through a focus on the individual political actors, their trajectories and personal traits (Hoffmann and Raupp, 2006). Even though this trend can be recognized in the coverage of political issues worldwide, it is particularly strong in Brazil due to electoral campaigns heavily influenced by the US model, which emphasizes candidates' personality over their parties and the issues discussed (Garzia, 2011). Observing how this particular trait of Brazilian politics interacts with Brazilian online habits, such as live-tweeting TV debates (a trend that has stood out in Twitter audience studies in the country, see e.life, 2012), enhances our understanding of public opinion formation in Brazil, but potentially also in other countries.

Data collection

Between 22 September 2014 and 27 October 2014, we collected $N = 1,891,658$ tweets mentioning at least one of the Twitter user names of candidates. To this end, we queried the Twitter Streaming API with the DMI-TCAT software (Borra and Rieder, 2014), using the Twitter user names of the candidates as search terms. We also retrieved all tweets sent by the candidates themselves in the same period ($N = 5,964$) by querying the Twitter REST API with a self-written Python script. We preprocessed the data by converting all tweets to lowercase and removing stopwords, URLs, and Twitter usernames. The dataset was split based on the

timestamps of the tweets, in order to be able to distinguish between the periods during the debates and between the debates.

Analysis

To test H1, we determined whether a tweet (a) did not mention any other user, (b) was a retweet or (c) mentioned another user, but was no retweet. We then calculated the sum of each type per user. As we collected *all* tweets (i.e., we have *census data*) rather than a sample, a statistical test of significance is neither necessary nor appropriate.

To test H2 and H3, we operationalized frames as patterns of word co-occurrences, using the Python scripts provided by Trilling (2015). We conceptualized each word as a node and each co-occurrence of words as an edge. The size of each node was determined by the word frequency, the weight of each edge by the number of co-occurrences. The software Gephi was used for visualization.

To test H4, we counted how often each candidate was named in a tweet—either by their real names or their Twitter user name. Specifically, we used the following terms: aecio, neves, @aacioneves; dilma, dilmao, dilmão, dilminha, @dilmabr; marina, silva, @silva_marina; everaldo, pereira, @everaldo_20; josé, jose, eymael, @eymaeloficial; eduardo, jorge, dudu, @eduardojorge43; luciana, genro, lulu, @lucianagenro; zé, ze, ze maria, josé maria, jose maria, @zemaria_pstu; mauro, iasi, @mauroiasi; rui, costa, pimenta, @ruicpimenta29; levy, fidelix, levyfidelix. These were variations of the candidates' names—such as their diminutive forms as in the case of dilminha—, used by voters to refer to them.

Results

H1 predicted that candidates from smaller parties interact more often with users on Twitter than candidates of bigger parties. Our data confirm this hypothesis. When com-

paring the amount of @-mentions and retweets from the top three candidates Dilma Rousseff, Aécio Neves and Marina Silva with those of candidates from smaller parties who also took part in the debates, we can see that the latter are much more interactive than the former. Figure 1 shows that the three main candidates preferred broadcasting their own messages to their followers, as the predominance of singletons (own original tweets) over retweets or @-mentions shows. Nevertheless, Marina Silva seems considerably more interactive than the other two frontrunners, which has been the case since her previous candidacy, in the presidential elections of 2010.

Figure 1: @-mentions, retweets and singletons by the top three presidential candidates

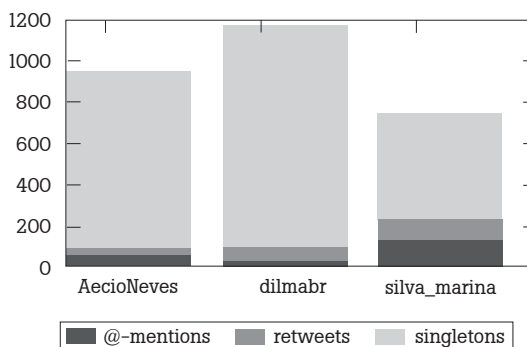
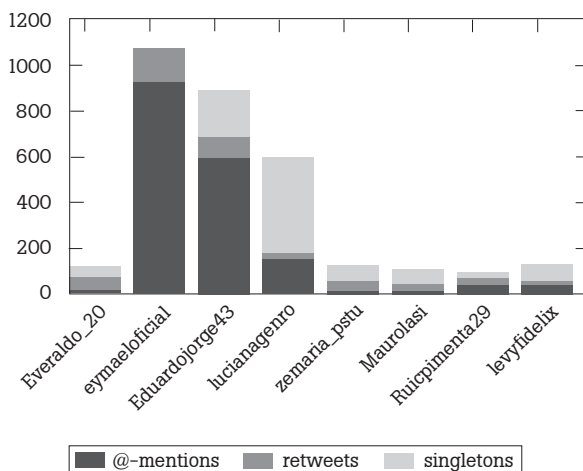


Figure 2—which represents the candidates of smaller parties—shows a very different distribution of tweets among singletons, retweets and @-mentions. In some candidates' cases, for example José Eymael (@eymaeloficial) and Eduardo Jorge (@eduardojorge43), @-mentions make up the largest portion of their tweets.

H2 predicted that during the televised presidential debates, there is a predominance of meta-frames, based on the setting of the programs. Our data partly supports the second hypothesis. Various examples show how Twitter users

directly refer to the happenings on TV and how the structure of discussions differ from the periods between the televised debates. In the case of the latter, a clear impact of the debate on the discussion after the event cannot be found, as direct connections to the debates cannot be clearly identified, whereas single candidates are somehow associated with concrete political issues, as it will be described more in detail in the following. Nevertheless, during the televised debates, some issues, such as the social welfare program *Bolsa Família*, appear again and again, and candidates' names are often linked to somehow more general terms concerning elections and politics, for example *segundo turno* (second ballot), *mudança* (change) or *governo* (government). Taking a closer look at single televised debates, meta-frames based on the setting of the programs can be exemplified, a selection will be presented in the following.

Figure 2: @-mentions, retweets and singletons by presidential candidates from smaller parties



In this respect, the analysis of the first televised debate shows that candidates' names often mark the center of one frame. Analyzing, for example, the tweets relating to candi-

date Levy Fidelix during the first debate (Figures 3 and 4), a clear predominance of tweets with reference to the ongoing debate can be identified. Besides the prominent word *hoje* (today), other direct relations can be found. Thus, a homophobic comment made by Fidelix during the debate was heavily discussed on Twitter, including potential effects and Fidelix' controversial participation in general, represented for example in the occurrence of the words *unfollow*, *caricato* (grotesque) or *concorda* (agree).

Figure 3: Assessing keywords associated with candidate Levy Fidelix during the televised debate on Rede Record on September 28, 2014

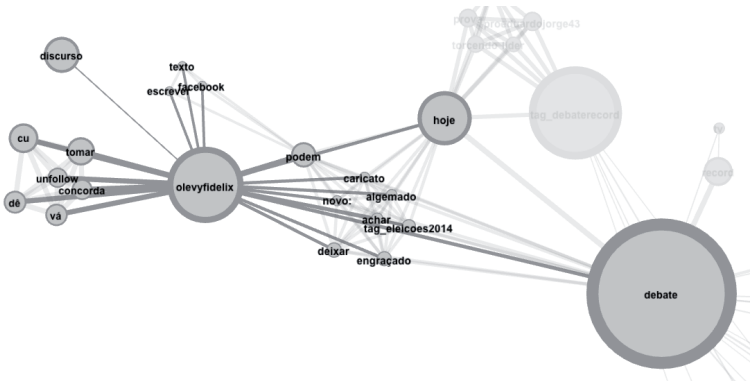
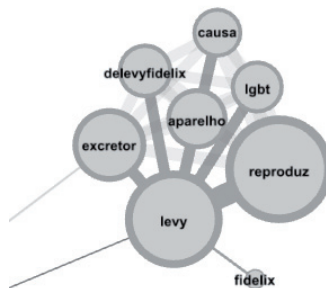
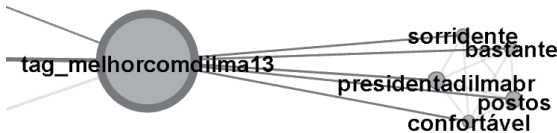


Figure 4: Keywords associated with candidate Levy Fidelix during the debate on Rede Record on September 28, 2014, addressing specifically a homophobic comment he made during the debate



The analysis of the third debate (Figure 5) shed light on another phenomenon: the discussion of the candidates' performance on a detailed level, including facial expressions and gestures. Thus, the hashtag #melhorcomdilma13 (better with Dilma 13) is linked to terms that are often used to describe a persons' behavior or traits, like *sorridente* (smiling), *confortável* (comfortable), and *bastante* (rather/quite).⁶

Figure 5: Visualization of the keywords associated with candidate Dilma Rousseff's performance during the televised debate on October 14, 2014⁷

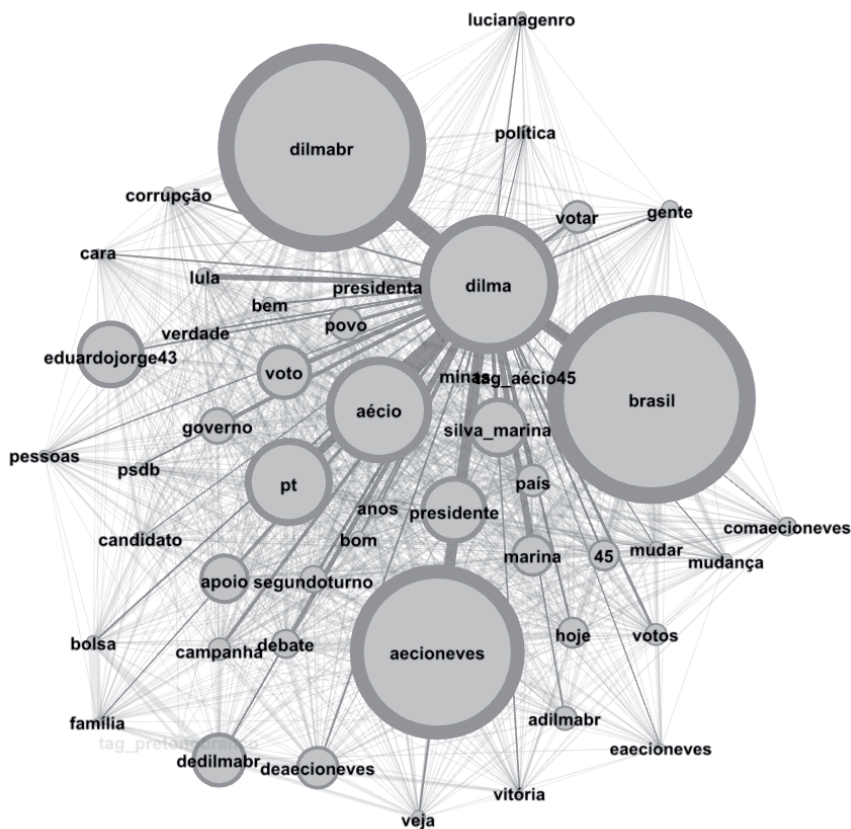


H3 predicted that during the periods between televised presidential debates, the percentage of tweets containing frames concerning substantial political topics rises. Our data only partially supports this hypothesis. While meta-frames referring to the debate do not appear as often after it's been aired, figure 6 reveals that it is candidates' names in loose connection to each other—and sometimes to their parties—that predominate amongst the most-tweeted keywords. Issues such as corruption and social welfare (represented by terms like *bolsa família*, the government's social welfare program for low-income families) only appear in the margins of the network.

⁶ The occurrence of those words does not necessarily indicate a positive meaning, it also embraces cases where those terms are combined with the word "não" (not) for example. This reversal of the meaning does not have any impact on the interpretation made above, as the expressions still remain descriptions of people's manner.

⁷ This was the first debate after the first round of voting and was broadcast by Rede Bandeirantes.

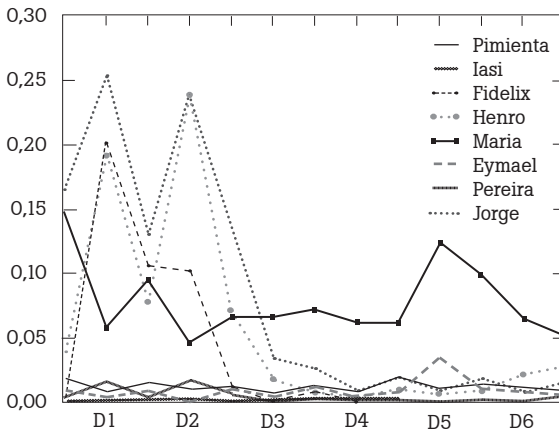
Figure 6: Visualization of most-tweeted keywords during the periods between televised debates



The network around a specific individual candidate, for instance Dilma Rousseff (see Figure 6), reveals a clearer connection between her name and particular issues, for example corruption, the government and also her link to her predecessor, Luis Inácio Lula da Silva, but the strongest connections are still to her party (represented by the abbreviation PT in the network) and other candidates.

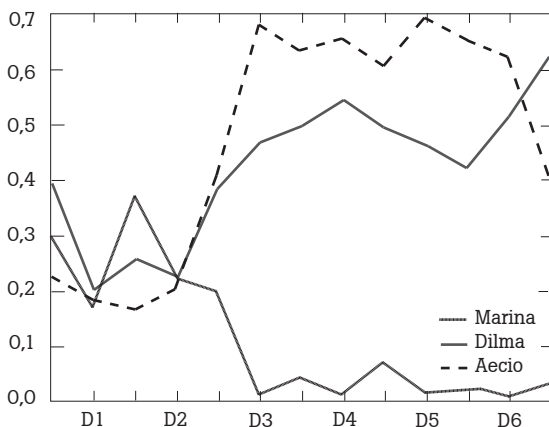
H4 predicted that candidates with lower chances to be elected that are invited to the televised presidential debates become more prominent on Twitter after the debates. This hypothesis is clearly rejected. In contrast, even those candidates who perform really well do not profit from this temporary visibility on the long run. Figures 7 and 8 show the tweets mentioning one of the candidates. At the time of the first two debates (D1 and D2), all candidates were still in the race. Dilma and Aécio made it to the run-offs, and therefore were the only remaining participants in the televised debates from the third one on. Referring to the candidates with lower chances to be elected from the beginning on, it becomes clear that three of them—Levy Fidelix, Luciana Genro, and Eduardo Jorge—especially in the first debate are mentioned apparently more often than their competitors. But directly after the debates, the graph sharply falls off, indicating a decline in popularity in the twittersphere. Thus, the popularity they gained during the debates does not help them in the long run, which means that it cannot be assumed that this phenomenon would have a significant impact on their popularity on the election day.

Figure 7: Tweets mentioning presidential candidates from smaller parties in the course of the six televised debates



According to opinion polls, Marina Silva was supposed to make it to the run-offs besides Dilma and Aécio. In contrast to the three examples mentioned before, the number of mentions of Dilma and Aécio does not seem to be dependent on the televised debates. The data shows that there seems to be nearly no influence. For example, in the case of Marina, the peak of mentions is exactly in between the first and the second debate, while Aécio hits rock bottom at the same time.

Figure 8: Tweets mentioning the top three presidential candidates in the course of the six televised debates



Conclusion and Discussion

This article set out to explore to which extent the deliberative potential of social media is realized on Twitter in the context of the Brazilian presidential elections in 2014. Our analysis of the interaction between presidential candidates and potential voters provided evidence for a phenomenon firmly embedded in the Brazilian political and electoral system: personalization. Since a strong focus on the candidate's person instead of, for example, his party affiliation,

promises a more successful election campaign (Hoffmann and Raupp, 2006; Garzia, 2011), the use of social media for directly contacting the public becomes a part of the candidates' campaigning repertoire. Our data show that this is only true for candidates from smaller parties with lower chances to be elected. The three favorites, Dilma Rousseff, Aécio Neves, and Marina Silva, hardly mentioned Twitter users, whereas José Eymael, Eduardo Jorge, and, to a lesser extent, also Luciana Genro, were very active on Twitter in general and tried to establish a connection to other users by addressing them frequently.

Eduardo Jorge even rose to prominence in mainstream media due to his spontaneous and sometimes hilariously honest replies to his followers on Twitter,⁸ as several media reports show (Araújo, accessed 10 September 2015; Serra, accessed 10 September 2015). Unlike Marina Silva, whose social media strategy had been carefully planned and carried out by a team as a part of her campaign (Costa, 2011), Eduardo Jorge seemed to be personally responsible for his Twitter account and it is hard to tell whether any professional strategy was behind that or whether the candidate simply enjoyed interacting with his followers.

Nevertheless, out of the three candidates with higher chances to be elected, Marina Silva still has a special position in terms of interactivity. Some scholars have even drawn parallels between her campaign and US president Barack Obama's at the 2008 presidential campaign, as both placed considerable emphasis on online tools and social media, in part also to compensate for a disadvantage in terms of conventional resources, such as advertisement space on TV (Sousa, 2010; Costa, 2011).

Based on the assumption that the public sphere on Twitter represents an important space for candidates, because it has the potential to influence one's opinion and thus also

⁸ For instance, to a user who said she thought he was gorgeous, he replied: "You're crazy, honey" (Serra, accessed 10 September 2015).

voting decisions, the framing of candidates in the twitter-sphere becomes more and more relevant. We can say that the discussions in the twittersphere, also between debates, revolved much more around candidates as individuals than around broader issues, which confirms the trend of personalization in electoral campaigns in Brazil. This is also reflected in a phenomenon that was found in a study about televised debates in Germany (Trilling, 2015): the discussion about candidates shifted towards a detailed observation of their performance, including discussions around their facial expressions and gestures. To get an even deeper insight into the way the politicians were framed, we suggest that further research could complement our rather quantitative approach, with a more intensive qualitative approach, for example through discourse analysis of an emblematic dataset, in order to contextualize even better some of these trends and their place in Brazilian politics.

Furthermore, our data showed that the conversations taking place online tend to interact with events taking place offline, such as televised debates, increasing their repercussion and deepening discussions around issues and people that gained prominence in mainstream media. However, as our analysis of interactions between candidates and users on Twitter shows, the twittersphere is not as horizontal as some scholars expected: it is true that anyone can write to a candidate by mentioning their Twitter handle, but very few users will actually get a response. In addition to that, access to the Internet and to social media is not equally guaranteed for all population groups, turning the twittersphere into a representation of only some sectors in society, namely those with enough time and resources to engage in political discussions online. This reduces the chances for Twitter to meet Habermas' ideal of a deliberative public sphere.

This study contributes to the scholarship on the public sphere and on the use of media by analyzing the way new and traditional media relate to each other around current

events. In addition, our case study shows how concepts such as interactivity and personalization play out in a concrete electoral setting. We hope to have provided a better understanding of one of Brazil's most polarizing elections to date, by looking into the issues the country was debating on at the time and the way candidates were perceived by voters.

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