The *Winner-Loser Gap* in news consumption: What lost elections tell us about the demand for news

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Abstract

This article documents a digital winner-loser gap in news consumption when election results are reported to the public. We explain this gap as the result of news-seeking and news-avoidance behavior, with important amplification consequences in disseminating partisan narratives and polarizing content. We examine Brazilian voters' news consumption patterns before, during, and after the 2022 presidential runoff won by President Lula da Silva. We analyze 2.5 million digital trace events from 1,714 survey respondents' smartphones and computers when the election results were reported to the public. Using a robust interrupted time series design, we show increased consumption among winners compared to losers, with changes in the partisan shares of articles accessed, browsing speed, and reading time. We then analyze the sensitivity of the winner-loser gap to partisan, social, and attitudinal variables.

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Introduction: Sometimes, the information we want to read does not exist

This article documents a digital winner-loser gap in news consumption during elections. When an election is decided, news consumption patterns change depending on whether one's candidate won or lost. We describe differences between winners and losers in the number of articles accessed, browsing time, and reading time. Increased news consumption among winners is accompanied by more gregarious interactions and more frequent access to news redirected from messaging applications. The opposite is true for losers. The consequence of this news-seeking behavior by winners and news-avoidance behavior by losers is a digital environment that overrepresents information that aligns with the former and underrepresents the latter. On election night, digital history is written, accessed, and amplified by the victors.

Understanding the winner-loser gap in news consumption is both theoretically and substantively important. Higher levels of news consumption signal to journalists and editors how to frame current events, with expected increases in the supply of pro-winner news at the expense of the losers' narratives (Oleskog Tryggvason, 2021). Among voters, an increase in news consumption leads to higher rates of news sharing (Calvo et al., 2023), fostering a less diverse digital environment that overrepresents the digital footprint of the winners. As a result, news-seeking and news-avoidance behaviors contribute to temporal polarization, where users tune in when information is cognitively congruent and tune out when information is dissonant (Kim and Kim, 2021).

The winner-loser gap in news consumption results from the interaction between motivated reasoning and the availability of pro-attitudinal and counter-attitudinal news. (Kim and Kim, 2021, pg. 1664) refer to this phenomenon as temporal selective exposure, defined as "a temporal behavior in which citizens choose when to consume political information."

Motivated reasoning, the active and purposeful cognitive effort to reach conclusions that confirm our expectations, preferences, and prior beliefs (Kunda, 1990; Taber and Lodge, 2006), drives these temporal cycles of congruent news consumption. Such motivated reasoning encourages us to (1) search for news that supports our worldviews and (2) interpret existing information in cognitively congruent ways. However, the availability of news that confirms or refutes our expectations is not evenly distributed across parties. As noted by (Kunda, 1990, pp. 480), "People are more likely to arrive at conclusions they desire, but their ability to do so is constrained by their capacity to construct seemingly reasonable justifications for these conclusions." In this article, we leverage the exogenous shock of the Brazilian presidential election to study how cognitive dissonance reduces news consumption.

The affective response to cognitive dissonance is central to understanding the winner-loser gap in news consumption that we report in this article. In politics, as in sports, searching for news that explains our candidate's victory is a source of pleasure and excitement (Cialdini et al., 1976). In contrast, explaining away a defeat is often an angry and bitter endeavor. Since only one group of partisans can win an election, motivated reasoning will not ensure equal engagement with news that confirms beliefs (Hollander, 2014; Calvo et al., 2023). When "Reality has a well-known liberal bias," as Stephen Colbert humorously stated at the 2006 White House Correspondents' Dinner, the amount of news consistent with conservative readers' worldviews shrinks, leading to disengagement. Therefore, while election night is one of the most attention-grabbing and memorable events in democratic representation, it elicits varied attention from partisan winners and losers (Hollander, 2014; Calvo et al., 2023). The digital footprint of the winners will expand, while that of the losers will shrink.

Offline, losing elections has been shown to correlate with reduced perceptions of regime legitimacy (Moehler and Lindberg, 2009), decreased satisfaction with democracy (Ander-

son and for Political Research, 2005; Blais and Gélineau, 2007), and diminished trust in political institutions (Anderson and LoTempio, 2002). These offline effects on legitimacy, satisfaction, and trust are commonly referred to as the winner-loser gap in democratic representation. Studying digital trace data allows us to measure the immediate effects of winning or losing an election, which is crucial for understanding democratic disengagement.

Understanding changes in digital consumption behavior during elections is a key area of research in political communication and comparative politics. It helps us understand how positive or negative events affect digital engagement and shift the available supply of digital news that voters access. Winning or losing elections shifts the demand for information and affects voters' willingness to share news, making certain content more accessible to their networks of peers and fellow voters. Individuals may reduce their engagement during unfavorable moments to avoid cognitive dissonance, consuming less news when their preferred candidate is losing. However, little research has used observational news consumption data to analyze the effect of winning or losing an election on the demand for news (Calvo et al., 2023).

The structure of this article is as follows: In the first section, we discuss partisan differences in the search for cognitively congruent news. Following Kunda (1990), we explore why positive or negative outcomes alter the available pool of congruent news and how partisans consume news. In the second section, we describe our dataset, which includes the browsing history of 1,714 Brazilian survey respondents who accessed over 2.5 million pages and apps between October 26 and November 2, 2022, during the Brazilian presidential election. The data, collected with explicit consent and under IRB guidelines, allows us to measure how supporters of the winning and losing candidates accessed news before, during, and after the election. In the third section, we analyze the effects of partisan and attitudinal variables on news consumption. In the fourth section, we present qualitative

interviews with partisan Brazilian voters to provide further insight into their strategies for searching for information during the 2022 Brazilian presidential runoff election. We asked about their views on the trustworthiness of the news they consumed, their preferred analog and digital news sources, and their reactions to Lula's victory and Bolsonaro's defeat. In the fifth section, we conclude by discussing our findings and proposing possible future extensions using Google search data.

1 Hypotheses: Motivated reasoning and disengagment

A robust literature shows that voters who support an election's winner report higher levels of overall trust, higher satisfaction with democracy, and higher perceived regime legitimacy (Anderson and LoTempio, 2002; Anderson and for Political Research, 2005). Concurrently, micro-level studies of voters' perceptions document more negative views of democracy among losers and political disengagement (Blais and Gélineau, 2007). Negative assessments are also more pronounced among individuals who mistakenly expected their preferred candidate to win the contest, known as "surprised voters"(Hollander, 2014; Lelkes, 2016). This well-documented winner-loser gap has been shown to increase Twitter engagement among winners and reduce engagement among losers on election day (Calvo et al., 2023; Rathje et al., 2021; Justwan et al., 2018). The decline in social media engagement by losers is part of a broader pattern of information retrenchment, with declines in the consumption of analogic and digital political content.

Differences between winners and losers in the active search of digital content are further compounded by differences in their incidental exposure to news. In a recent article, Karnowski et al. (2017) show that incidental exposure to news increases news access when the content aligns with the user's preferences. Kim and Kim (2021) provides a behavioral mechanism for the presence of cycles of engagement and disengagment, with declines in the diversity of available news and bubble like behavior that displays temporal

patterns. On election night, when most outlets report the victory of one of the candidates, incidental exposure to news more frequently aligns with the winners' preferences compared to losers. Therefore, news-seeking behavior among winners and news-avoidance among losers is further compound by differences in incidental news consumption that better aligns with the narratives of the winner.

Changing activity by winners and losers affects the size and structure of filter bubbles in digital news consumption (Pariser, 2011). However, this increase in interactions among winners does not need to be symmetric with declines among losers. As argued by (Guess et al., 2018, pg.6), "selective exposure tends to be asymmetric — studies find more evidence of a preference for pro-attitudinal information than avoidance of counter-attitudinal information (Garrett 2009b; Garrett and Stroud 2014; Knobloch-Westerwick and Meng 2009; Winter, Metzger, and Flanagin 2016)."

Further, as (Guess et al., 2018, pg.6) state: "Although the tendencies to prefer congenial information and to avoid uncongenial information are often treated as theoretically inseparable, there are several reasons why avoidance tendencies might be weaker (Garrett and Stroud 2014). While consonant information almost always offers psychological rewards, dissonant information is not always undesirable; some people find engaging with it to be gratifying or enjoy seeking out counter-attitudinal information when preparing to defend their views to others (Valentino et al. 2009). In some cases, a successful defense of one's views can even elicit pleasure (Westen et al. 2006)." This view is supported by the evidence we present in this article.

Therefore, ideological misalignment with the winner of the election results in disengagement among losers and lower incidental exposure to cognitively congruent news. Following this literature, we expect voters who support the election's winner to engage with news more frequently, both through an active search of related content and as the result of higher incidental consumption that disproportionally reports content they like:

H_1a: Winners will more actively access news when election results are reported to the public (news-seeking behavior).

H_1b: Losers will less actively access news when election results are reported to the public (news-avoidance behavior).

News-seeking behavior will increase the share of news accessed by winners (overall change in consumption) and reduce the time-to-news (individual-level news consumption). We will define time-to-news in the next section as the time elapsed between accessing a news article at t_1 and a previous news article at t_0, which is a time-series representation of the number of articles read by winners or losers conditional on time.[1]

We consider the difference between partisan and non-partisan winners for our second hypothesis. We expect partisans to be more sensitive to winning or losing an election. Therefore, winning partisans will seek news at higher rates than winning non-partisans. The same is true for losers, with partisans losers seeking news at higher rates than losing non-partisans. The increased engagement with news by partisans and ideologues has been widely documented in the literature(Robertson et al., 2023). In a recent article, Arugute et al. (2023) show that partisans consume more news and different news than non-partisans, thereby tightening the subjective perception of information bubbles. Therefore, our second hypothesis is:

H_2: Partisans will consume more news than non-partisans.

Schaffner and Roche (2016) have shown that cognitively dissonant news also increases partisans' reading time. In their 2016 article *Misinformation and motivated reasoning*, Schaffner and Roche exposed respondents to a current event news article reporting positive job gains during the Obama administration. Democrats believed the report and gave more favorable estimates of unemployment. More importantly, they read the content in less time than Republican respondents, who spent more time reading the disliked

[1]Survival models provide a simple alternative to count models, allowing for a measure of news incidence that preserves the individual-level information in the data.

article to find errors or inconsistencies. Cognitive dissonance resulted in a more thorough reading of the news article in search of missing data and missing arguments supporting the alternative outcome. Therefore, a decline in overall engagement is often acompanied by longer exposure times among losers to the articles they access.

Accordingly, we expect respondents supporting the losing candidate to access fewer news articles but spend more time on each. This results from accessing articles that rationalize the election result and provide cognitively congruent explanations of a disliked outcome. In contrast, we expect supporters of the winner to access more articles but spend less time on each of them. This shallow reading is how winners *bask in reflected glory* in the digital environment, as described for sports in Cialdini et al. (1976). Therefore, while we expect a faster time-to-news among Lula supporters (H_1) over a large set of cognitively congruent news (H_2), we also expect Bolsonaro voters to spend more time reading in greater detail a smaller subset of news (Schaffner and Roche, 2016).

H_3: Cognitive dissonance will increase the average reading time per article among the losers and decrease the average reading time per article among winners.

Finally, small-world social networks such as Instagram and Twitter (Jürgens et al., 2011) are characterized by shorter average distances between users, which "increase logarithmically with the number of vertices"[...]"The latter property gives the name small-world to these networks because it is possible to connect any two vertices in the network through just a few links"(Amaral et al., 2000, pp. 11149). As the election is adjudicated to the winner, the number of users (vertices) will increase rapidly among the election winners and slowly among the losers (Calvo et al., 2023). A winner's "rising tide" will amplify the preferred content of the winners to a larger extent than for losers, increasing the likelihood that winners will be incidentally exposed to news they prefer.(Karnowski et al., 2017) Therefore, after the election results are released to the public, we expect a positive effect of social media on news consumption, increasing among winners and declining

among losers:

H_4a: Winning the election will increase access to news from messaging apps and social media platforms.

H_4b: Losing the election will decrease access to news from messaging apps and social media platforms.

2 Measuring News Consumption Behavior

Our study integrates browsing history data and survey responses to provide a comprehensive insight into Brazilian voters' online behavior. Between October 26 and November 2, 2022, we collected over 2.5 million digital access entries from 1,714 distinct Brazilian individuals. This gives us a close look at their online actions in the crucial week leading up to the Brazilian general elections and the days that followed them.

Approximately 40,000 clicks were associated with news websites three days before and after the election. Our list of news websites was meticulously curated, encompassing 22 diverse outlets spanning various political inclinations. From our observations, we consider the top 1,000 most visited websites, selecting those that serve primarily as news portals. The refined list features prominent news platforms like *Uol*, *G1*, *Globo*, *Estadao*, and *Folha*. Additionally, it includes outlets that cater predominantly to specific segments of the political spectrum, such as *O Antagonista*, *Carta Capital*, *Brasil247*, and *Poder360* (Aruguete et al., 2023).

The browsing data was collected during the election week from a nationally representative panel of respondents selected by Netquest, with IRB approval and informed consent by the individuals who provided the data. The survey data from our behavioral panel was surveyed one month after the election data was collected, between December 5 and 15, 2022. While the panel included 2,426 individuals, browsing history data was only available for 1,714 respondents. The post-election survey collected key data on demographics,

political preferences, and social issues alignment. The variables are measured based on respondents' 5-point agreement with the statements for aligning social issues. The 5-point scale ranges from strongly agree to disagree strongly. One of the significant strengths of our methodology was the ability to link survey responses with the Clickstream records using the panel ID. This linkage allows us to correlate online behavior with political preferences and other personal attributes. A summarized view of the primary variables, such as political leanings and essential demographics like gender, age, and education, can be found in the accompanying Table 1.

Table 1 Balance Table of All Observations, Unique Users, and Survey Respondents

Variable	All Observations	Unique Users	Survey Respondents
Lula	43.4%	43.1%	42.6%
Bolsonaro	36.4%	37.7%	38.1%
Blank	18.6%	18.0%	17.9%
Right Wing	4.23	4.28	4.31
Female	45.1%	51.5%	49.6%
Education	6.69	6.74	6.74
Age	39.3	39.9	39.6
Income	5.26	5.25	5.25

Additionally, Table 1 shows that the survey and Clickstream samples are balanced across multiple variables. A good balance between the survey and browsing history data reinforces the internal validity of our study and its conclusions.

Figure 1 describes the news consumption patterns of voters between October 26 and November 2, 2022. The vertical axis represents the average frequency with which desktop and mobile news websites were accessed. Leading up to the election day on October 30, both Lula and Bolsonaro voters showed consistent engagement, as seen in the stable bar heights.

On election day, a notable surge in website visits is evident for all voters, indicating a heightened desire for real-time election updates. The shaded gray area, marking the election night from 5 p.m. to 11:59 p.m., is especially telling. Lula voters, representing

the winning side, displayed a more pronounced rise in news engagement, peaking just before the official announcement at 8:57 p.m. This suggests Lula supporters were more attentive to real-time developments as news of a likely win began to be reported.

The descriptive data reflects the overall trend of news consumption during this period, with growing news engagement as election day neared. While supporters of Bolsonaro and Lula remained attentive before and after the election, the significant uptick from Lula voters on election night underscores their amplified anticipation and interaction with digital news platforms upon learning of their victory.

Figure 1 Average desktop and mobile news websites accessed between October 26 and November 2, 2022. President Lula da Silva was elected on Sunday, October 30. Lula voters are in red, and Bolsonaro voters are in blue.

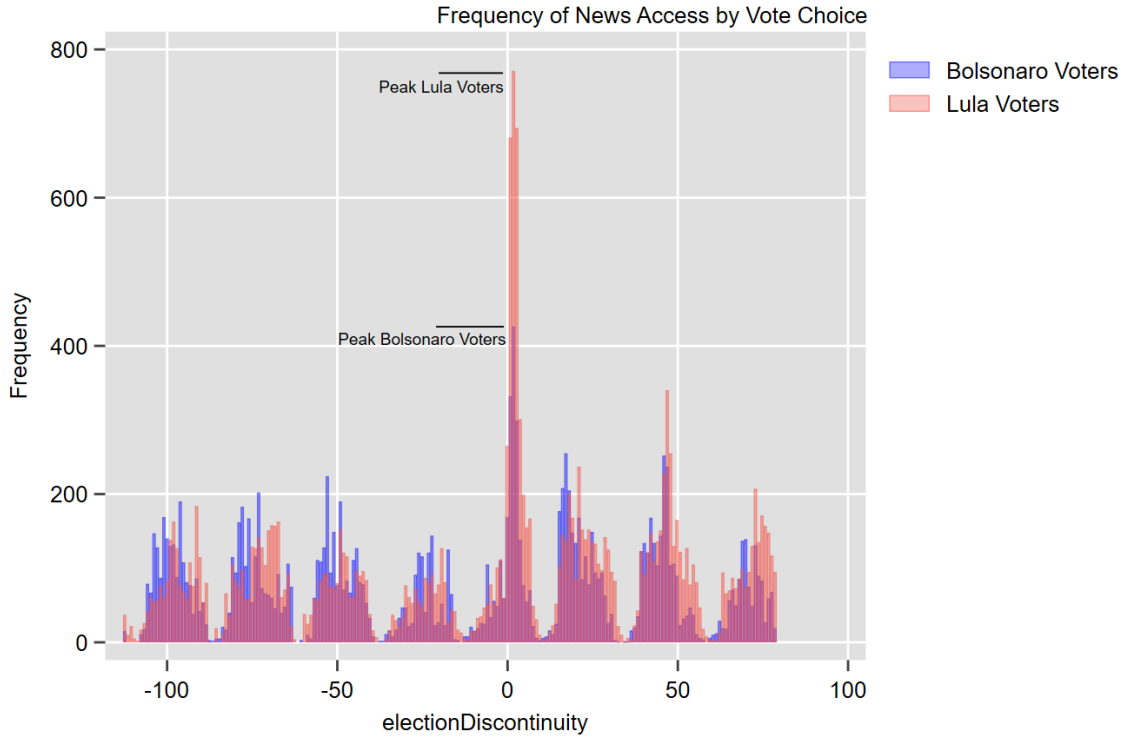


Figure 1 also visually examines news consumption patterns specifically on October 30, the election day. The vertical axis indicates the average frequency of desktop and mobile

news website visits.

The chart reveals distinct trends from the early hours to the late evening. Lula voters displayed an escalating engagement with news platforms as the day progressed. This surge peaked in the hours closely preceding and following the election result announcement, indicating their heightened interest and urgency to stay abreast with the unfolding events. Bolsonaro voters, although actively engaged throughout the day, did not exhibit as pronounced a spike as Lula voters during the crucial election night hours. The general moving average reiterates the consistent engagement of the respondents with news platforms. It also echoes the uptick in news consumption during the evening, accentuated by the winning side's heightened curiosity and elation.

The Statistical Model

To determine the effects of event adjudication on news consumption, we use an interrupted time series analysis, a variety of regression discontinuity designs (RDD), in which the running variable is time (Morgan and Winship, 2015). Our data is ideal for this approach because we have granular and high-frequency observations from the continued engagement of users with their digital devices. We have three variables of interest in our RDD models: the change in the probability of accessing news (news access), the change in the time spent reading each news (reading time), and the time elapsed between pairs of news (time-to-news).[2] The news frequency, the reading time, and the time-to-news are measured for 12 hours before and after the election results are communicated to the public.

Regression discontinuity models assume that effects are continuous at the cutoff. When dealing with time as a running variable, the continuity assumption requires that no omitted variable that systematically affects the outcome, *time-to-news*, also changes upon ad-

[2]The variable *time-to-news* is technically the (inverse) log of the seconds elapsed between two news articles accessed by a respondent, $ln(\frac{1}{\Delta_t})$.

judication of the election to a party or candidate. Given that we have the precise minute when adjudication was granted and consider data only six to 12 hours around the cutoff, it is reasonable to assume this assumption holds. The granularity of the data, together with the precise measurement of the event, makes the identification strategy highly plausible. The Supplemental Information File provides a set of tests to verify the continuity assumption, including placebo checks with the running variable and methods to estimate inconsistent patterns of anticipatory behavior among the users before the adjudication. Overall, the results ensure the internal validity of the RD design.

To estimate the models, we follow the recommended setting of using non-parametric local linear regression (LLR) to approximate the treatment effect at the cutoff point (Gelman and Imbens, 2018; Calonico et al., 2014). We employ a local polynomial with one degree to fit two separate regression functions above and below the cutoff Adjudication, with the treatment effect set as the difference in the limits of the cutoff. In other words, we model the intercepts from each direction. We employ triangular kernel weights and a data-driven search to select an optimal bandwidth for the estimation. We report the robust treatment effects and confidence intervals developed by Calonico et al. (2014) to address potential bias on the treatment effects due to approximation errors. We present various model specifications to ensure results are robust to different modeling choices.

3 Results

Regression Discontinuity of time-to-news

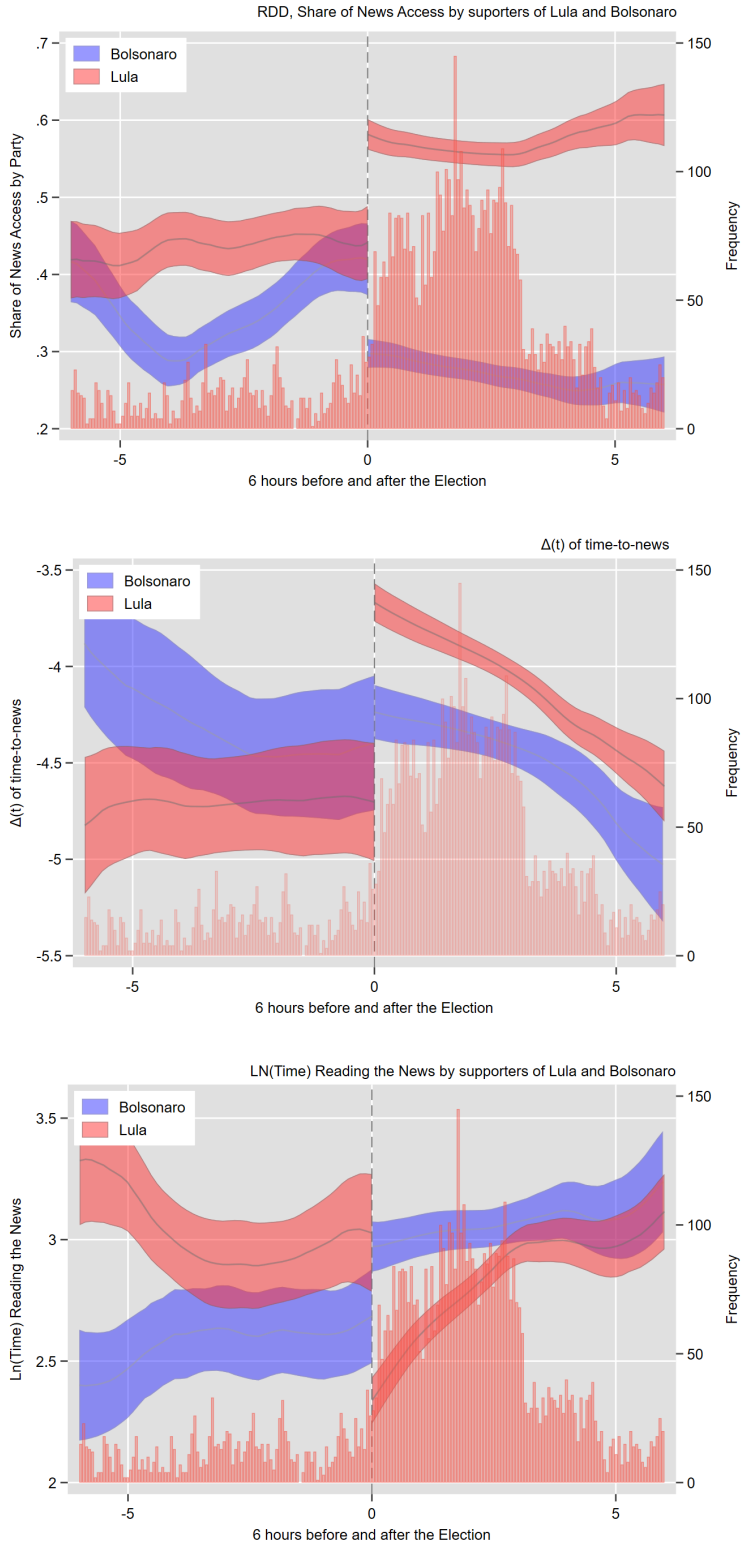
We first present results from the interrupted time series analyses on the sample of 39,360 news articles accessed by the 1,714 survey respondents, as described in Section two. Figure 2 and Table 2 present roust regression discontinuity estimates of news access, time-to-news, and reading time for Bolsonaro and Lula voters in the hours before and

after the reporting of the election results. As shown in the first two columns of Table 2, the share of news accessed by Lula voters increases .17, from around 42% of all news to 59%, compared to a decline in the share of news accessed by Bolsonaro voters, which declined from a share of 40% to approximately 30% of news. The relative share of news accessed by independents declined from around 18% to 11%, as reported in the SIF file. In all, Lula supporters increase the frequency of news access much faster than all other survey respondents, confirming H_2.

Columns 5 and 6 of Table 2 also show a faster time-to-news $ln(\frac{1}{\Delta_t})$ describing a faster news surfing behavior. We coded time-to-news as the inverse of the time elapsed between a respondent accessed news articles, $ln(\frac{1}{\Delta_t})$. Therefore, a positive number describes that a respondent was quicker to access a second news article (inverse of the duration time). We can see that when the election results were reported to the public, Lula voters accessed news articles 3.4 times faster ($exp(1.227) = 3.4$ times faster). In contrast, Bolsonaro voters did not alter their news access behavior. Therefore, there is clear support for a faster time to news as stated in H_1.

Finally, Columns 3 and 4 of Table 2 show that Lula voters spent less time reading each news article while Bolsonaro voters spent more time in each article. Therefore, while Lula voters move quickly from article to article and quickly scan their content, Bolsonaro voters access fewer articles and spend more time on each of them. This type of behavior is consistent with cognitive congruence on the part of Lula voters and dissonance among Bolsonaro voters as described by (Schaffner and Roche, 2016), as expected by H_3. Figure 2 provides a visual representation of the findings in Table 2, with a narrower window of 6 hours before and after the reporting of election results. The upper plot provides support for H_2, showing the large and significant increase in the share of news accessed by Lula supporters compared to Bolsonaro supporters. The middle plot supports H_3, with a longer reading time per article for Bolsonaro voters and shorter reading times for Lula

Figure 2 Robust Regression Discontinuity by vote choice, reading time, and Time-to-News. Brazilian Presidential Elections, 2023



(a) Share of News, $H1$; (b) Time-to-News, $H1$; (c) Reading Time, $H4$

Table 2 Robust Regression Discontinuity by vote choice, reading time, and Time-to-News. Brazilian Presidential Elections, 2023.

VARIABLES	(1) News Access (Bolsonaro)	(2) News Access (Lula)	(3) Reading time (Bolsonaro)	(4) Reading Time (Lula)	(5) $1/\Delta_t$ (Bolsonaro)	(6) $1/\Delta_t$ (Lula)
Conventional	-0.102**	0.170***	0.108	-1.080***	0.0535	1.384***
	(0.0425)	(0.0432)	(0.187)	(0.217)	(0.338)	(0.304)
Bias-corrected	-0.0900**	0.184***	0.0358	-1.153***	-0.0246	1.314***
	(0.0425)	(0.0432)	(0.187)	(0.217)	(0.338)	(0.304)
Robust	-0.0900*	0.184***	0.0358	-1.153***	-0.0246	1.314***
	(0.0498)	(0.0497)	(0.219)	(0.245)	(0.380)	(0.354)
Observations	7,315	7,315	2,139	3,937	2,108	3,899

Note: Robust Regression discontinuity design (Calonico et al., 2014) comparing news access, reading time (Duration), and time-to-news $ln(\frac{1}{\Delta_t})$ before and after the election (12 hours). Results show an increase in news searches, a faster time to news access, and faster reading times among Lula supporters. In contrast, there is a relative decline in news consumption and no changes in reading time or surfing time among Bolsonaro voters. Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

supporters. Finally, the lower plot supports H_1, which shows a faster time to news among Lula voters than Bolsonaro voters. Together, these three plots describe the expected change in behavior, with fast browsing and shallow reading times for a larger number of Lula voters reading news. In contrast, a smaller group of Bolsonaro voters has slower access to news and longer reading times. The confirmation of these three hypotheses is consistent with motivated reasoning aligned with cognitively congruent election results for Lula voters and dissonant for Bolsonaro voters.

An alternative to the count model: News Consumption using a Cox PH Model, Δ_t

In the previous section, we provided support for H_1, H_2, and H_3, describing changes in online behavior when the election results were publicly reported. We showed that Lula supporters accessed more news, spent less time on each news, and moved quickly to the next news. In contrast, Bolsonaro supporters accessed less news, spent more time on each news, and moved slower between news. We now focus on the larger context of

news consumption during the four days before and after the election. We describe users' overall behavior (all interactions) and how they arrived at the news they consume, with particular attention to social media redirects (H_4).

All models in this next section estimate Cox proportional hazard survival models with a dependent variable describing access time-to-digital event (browsing speed or Δ_t). We measure the number of seconds elapsed between each pair of digital trace events, with shorter times indicating more frequent access to the different types of digital events. Given that Cox Proportional Hazard models return hazard rate coefficients, with positive estimates indicating faster time to access, coefficients have the same direction as those reported in the RDD tables.[3] Coefficients in Tables 4 through 7 describe the change in the hazard rate, with positive values indicating faster access time and negative values indicating slower access times.

Measuring the time-to-digital event for all the data allows us to measure deviations in speed for relevant news consumption products, such as news. Each respondent has a click rate from an event in time 0 to an event in time 1. An election shock alters this click rate, with increases in speed for desirable products, such as news for the winners. The instantaneous change in speed can also be modeled as a function of gateway digital trace events, such as messenger applications. Therefore, we can observe if respondents are faster or slower in accessing news when the users' previous digital event reads their WhatsApp, Telegram, Facebook apps, or any other type of social interaction that may redirect traffic to the news.

Table 3 provides insights into individuals' news engagement[4] patterns based on previous online interactions, emphasizing social media platforms and search engines like *Google*. These online platforms were selected from the most frequented websites and applications

[3]The hazard rate of time-to-news in seconds Δ_t in Cox Proportional Hazard models has the same direction as $ln(\frac{1}{\Delta_t})$ in the linear RDD specification.

[4]From now on, when reporting the change in the hazard rate of the covariates using exponentiated the coefficients in each table

identified in the digital trace data. Notably, despite its global popularity, *TikTok* had a limited presence in our dataset, especially when considering the subsequent navigation to news websites from it. In contrast, *Kwai*, a short-video platform targeting an older demographic than *TikTok*, showed a significant presence in our data.

Considering all 2.5 million events during the week, participants transitioning from social media took longer to access news compared to those with different previous online activities. Given the heightened news engagement observed during this period, this trend suggests that users were directly and actively accessing news websites rather than being redirected through shared links or online searches. Users who migrated from Google, probably searching for news using that platform, were also notably faster.

Our analysis reveals that *Instagram*, *Twitter*, and *Telegram*, platforms where users can curate their interactions and the information they consume, significantly delay the transition to news consumption. *Instagram* interactions slow down news access by about 62% (i.e. $t_{base} * exp(-.965) = 1 - 0.38$), *Twitter* slows down access by approximately 36%, and *Telegram* by 54%. This suggests that users remain on these platforms for considerably longer than average before reaching news sources.

We now focus our attention on these behaviors that are correlated to vote choice. Table 4 explores how individual stances on social issues, combined with their voting preference, relate to news engagement. When analyzing behaviors by candidate support, we find distinct patterns in how Lula and Bolsonaro voters accessed news on election night. Lula voters showed a significant increase in speed (15.5%), indicating a heightened engagement driven by the favorable election outcome. On the other hand, Bolsonaro voters not only accessed general digital content slightly faster (1.8%) but experienced a considerable slowdown in news access (16.1%). This divergence suggests that Bolsonaro voters were more hesitant or selective in engaging with news on election night due to discontent with the election results.

Table 3 Cox Proportional-Hazards Model: Seconds to News by Previous Interaction Online

	All Interactions	**News**
Election Night	-0.010^{**}	0.264^{***}
	(0.004)	(0.020)
Online TV	0.097^{***}	-0.010
	(0.007)	(0.027)
Previous Interaction Online		
Whatsapp	-0.511^{***}	-0.801^{***}
	(0.002)	(0.033)
Instagram	-0.514^{***}	-0.891^{***}
	(0.003)	(0.063)
Facebook	-0.246^{***}	-0.786^{***}
	(0.003)	(0.037)
Twitter	-0.250^{***}	-0.561^{***}
	(0.006)	(0.066)
Google	0.095^{***}	-0.947^{***}
	(0.003)	(0.026)
Youtube	-0.214^{***}	-0.473^{***}
	(0.003)	(0.030)
Telegram	-0.398^{***}	-1.068^{***}
	(0.010)	(0.289)
Kwai	-0.915^{***}	-1.223^{***}
	(0.009)	(0.169)
Political Preferences		
Bolsonaro	0.015^{***}	0.029
	(0.002)	(0.023)
Election Night * Bolsonaro	0.030^{***}	-0.244^{***}
	(0.007)	(0.037)
Blank	-0.034^{***}	0.013
	(0.002)	(0.019)
Ideology	0.105^{***}	-0.045^{***}
	(0.002)	(0.014)
Ideology^2	-0.015^{***}	0.008^{***}
	(0.0002)	(0.002)
Anti-PT	0.059^{***}	0.050^{***}
	(0.002)	(0.019)
Personal Characteristics		
Age	0.00005	-0.004^{***}
	(0.0001)	(0.0005)
Gender(F)	-0.072^{***}	0.032^{***}
	(0.001)	(0.012)
Education	-0.008^{***}	0.011^{***}
	(0.0003)	(0.003)
Income	0.004^{***}	0.025^{***}
	(0.0003)	(0.003)
Additional Information		
N	2282275	34253
R-squared	0.053	0.101
Max. R-squared	1.000	1.000
Log Likelihood	-31070246.000	-321592.300
Wald Test (df = 20)	113649.900^{***}	3084.650^{***}
LR Test (df = 20)	123105.500^{***}	3629.049^{***}
Score (Logrank) Test (df = 20)	116102.600^{***}	3236.455^{***}

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

For Lula voters, significant increases in news access speeds were observed for those favoring unisex bathrooms (2.1%), same-sex marriage (11.2%), and public health policies (2.3%). These results demonstrate that Lula voters engage more quickly with news that reflects their progressive views on LGBTQ+ rights and healthcare, aligning with their broader political and social preferences.

In contrast, Bolsonaro voters show a complex pattern in their news access speeds. Those who support progressive issues such as same-sex marriage (4.7%) and abortion (8.6%) access news faster, indicating that Bolsonaro voters with more progressive views are quicker to access information. However, those less favorable to democratic principles exhibit a significant slowdown in accessing news (12.7%). This slowdown indicates a reluctance or hesitance to engage with news sources, suggesting a selective engagement.

Table 5 elucidates the role of prior online interactions in shaping news engagement in light of a voter's preferred candidate. Post-election, with Lula's triumph and Bolsonaro's defeat, the observed trends contradict our initial hypotheses H_3a and H_3b.

On election night, Lula and Bolsonaro voters exhibited a slight increase in general digital interactions (1.1% faster for Lula and 1.2% faster for Bolsonaro), reflecting a small uptick in digital engagement due to the election. However, their engagement with news content diverged. Lula voters accessed news 6.7% faster, while Bolsonaro voters accessed news 15.7% slower.

For Lula voters, interactions with social media platforms like *WhatsApp* and *Instagram* led to significantly slower access to news, decreasing by 39.6% and 60.8%, respectively. *Facebook* and *Twitter* also showed considerable slowdowns in news access, by 36.9% and 35.4% respectively. However, users directed to news from *Google* increased news access speed by 53.0%

Similarly, Bolsonaro voters experienced slowdowns in news access following interactions with key social media platforms, with *Instagram* and *Twitter* showing the most

Table 4 Cox Proportional-Hazards Model: Seconds to News with Social Issues Alignment by Vote

	All Interactions		News	
	Lula	**Bolsonaro**	**Lula**	**Bolsonaro**
Election Night	0.001	0.018***	0.418***	0.046
	(0.005)	(0.006)	(0.026)	(0.034)
Whatsapp (Previous Interaction)	−0.408***	−0.409***	−0.471***	−0.622***
	(0.003)	(0.004)	(0.049)	(0.072)
Ideology	0.050***	0.280***	0.148***	−0.660***
	(0.003)	(0.007)	(0.034)	(0.100)
Ideology^2	−0.008***	−0.036***	−0.025***	0.068***
	(0.0004)	(0.001)	(0.005)	(0.009)
Social Issues Alignment				
Favors Unisex Bathroom	−0.007***	−0.047***	0.031***	0.062***
	(0.001)	(0.001)	(0.009)	(0.016)
Favors Same-sex marriage	0.008***	0.064***	0.095***	0.154***
	(0.002)	(0.001)	(0.026)	(0.014)
Favors Same-sex adoption	−0.008***	−0.043***	−0.082***	−0.183***
	(0.002)	(0.001)	(0.019)	(0.015)
Favors church tax exemption	−0.007***	−0.001	0.005	−0.075***
	(0.001)	(0.001)	(0.009)	(0.011)
Not favor of public health	0.014***	0.010***	−0.050***	0.026***
	(0.001)	(0.001)	(0.009)	(0.008)
Distrusts Facebook	0.034***	−0.051***	0.006	0.041
	(0.002)	(0.002)	(0.018)	(0.025)
Distrusts Whatsapp	−0.012***	−0.028***	−0.079***	−0.129***
	(0.001)	(0.002)	(0.014)	(0.023)
Favors democracy	0.054***	−0.012***	0.082***	−0.132***
	(0.001)	(0.001)	(0.018)	(0.011)
Favors state reducing economic inequality	0.052***	0.064***	0.009	−0.132***
	(0.002)	(0.001)	(0.020)	(0.014)
Brazil favors criminals	−0.027***	0.039***	−0.005	0.030**
	(0.001)	(0.001)	(0.009)	(0.012)
Favors abortion	0.007***	0.012***	0.032***	0.143***
	(0.001)	(0.001)	(0.010)	(0.011)
No racism in Brazil	0.003***	−0.037***	0.055***	0.035***
	(0.001)	(0.001)	(0.011)	(0.012)
Favors state reducing racial inequality	−0.079***	−0.024***	−0.047***	0.044***
	(0.002)	(0.001)	(0.018)	(0.014)

Table 4 (cont.) Cox Proportional-Hazards Model: Seconds to News with Social Issues Alignment by Vote

	All Week		Election Night	
	Lula	**Bolsonaro**	**Lula**	**Bolsonaro**
Personal Characteristics				
Age	-0.001^{***}	0.010^{***}	-0.003^{***}	-0.002
	(0.0001)	(0.0001)	(0.001)	(0.001)
Gender(F)	-0.093^{***}	0.040^{***}	-0.190^{***}	0.093^{***}
	(0.002)	(0.003)	(0.023)	(0.030)
Education	-0.002^{***}	-0.019^{***}	0.031^{***}	-0.030^{***}
	(0.001)	(0.001)	(0.007)	(0.008)
Income	0.018^{***}	-0.030^{***}	0.004	0.006
	(0.001)	(0.001)	(0.007)	(0.008)
Additional Information				
N	798465	627536	10651	9892
R-squared	0.034	0.070	0.065	0.162
Max. R-squared	1.000	1.000	1.000	1.000
Log Likelihood	−10039280.000	−7726875.000	−87766.790	−80237.720
Wald Test (df = 21)	25703.910^{***}	44440.540^{***}	725.280^{***}	1693.170^{***}
LR Test (df = 21)	27517.760^{***}	45846.910^{***}	717.690^{***}	1754.144^{***}
Score (Logrank) Test (df = 21)	25960.890^{***}	44742.010^{***}	732.642^{***}	1756.831^{***}

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

pronounced effects, reducing news access speed by 61.9% and 52.6%, respectively. The impact was more severe compared to Lula voters. Unlike Lula voters, the positive effect of *Google* on news access for Bolsonaro voters was less pronounced, increasing speed by only 20.8%.

Our research has revealed a relationship between news consumption, ideological predispositions, and electoral results. Our findings did not support our social media hypotheses. Surprisingly, both groups were slower to access news on social media. However, Bolsonaro's supporters, the losers, stayed longer on social media before moving to the news, suggesting that they preferred to consume information in environments where they could control what they received and interact with partisans. On the other hand, Lula's supporters, the winners, proactively sought information online. This direct engagement with primary news sources strengthens the heightened engagement sparked by the electoral outcomes. Our research suggests that victorious voters consume news more often and quickly after elections, while defeated voters tend to retract.

One limitation of our examination is that television is a primary source of updates for many individuals during election night. While our Clickstream data doesn't directly indicate television viewership, it does provide insights into engagement with online TV news broadcasts. Our analysis revealed a spike in online TV news consumption on election night, notably among those who supported Lula. However, engagement with online news sources was slower on election night. Still, despite the proliferation of online platforms, traditional television remains an important source for election results.

Table 5 Cox Proportional-Hazards Model: Seconds to News by Previous Interaction Online and Vote

	All Interactions		News	
	Lula	**Bolsonaro**	**Lula**	**Bolsonaro**
Election Night	0.011^{**}	0.012^{**}	0.311^{***}	0.029
	(0.004)	(0.005)	(0.022)	(0.030)
Online TV	0.140^{***}	0.033^{**}	0.031	-0.079^{*}
	(0.010)	(0.014)	(0.040)	(0.047)
Ideology	0.074^{***}	0.271^{***}	-0.032^{*}	-0.002
	(0.002)	(0.006)	(0.019)	(0.073)
Ideology^2	-0.011^{***}	-0.032^{***}	0.006^{**}	0.007
	(0.0003)	(0.001)	(0.003)	(0.007)
Previous Interaction Online				
Whatsapp	-0.525^{***}	-0.475^{***}	-0.684^{***}	-0.892^{***}
	(0.003)	(0.003)	(0.041)	(0.056)
Instagram	-0.591^{***}	-0.377^{***}	-0.778^{***}	-1.003^{***}
	(0.004)	(0.005)	(0.074)	(0.125)
Facebook	-0.462^{***}	-0.027^{***}	-0.713^{***}	-0.805^{***}
	(0.005)	(0.004)	(0.052)	(0.064)
Twitter	-0.357^{***}	-0.299^{***}	-0.501^{***}	-0.751^{***}
	(0.007)	(0.015)	(0.071)	(0.209)
Google	0.111^{***}	0.074^{***}	-0.890^{***}	-0.999^{***}
	(0.005)	(0.006)	(0.040)	(0.041)
Youtube	-0.340^{***}	-0.130^{***}	-0.494^{***}	-0.377^{***}
	(0.005)	(0.004)	(0.046)	(0.050)
Telegram	-0.351^{***}	-0.463^{***}	-0.968^{**}	-1.104^{***}
	(0.013)	(0.017)	(0.447)	(0.409)
Kwai	-0.954^{***}	-0.844^{***}	-1.068^{***}	-1.362^{***}
	(0.013)	(0.014)	(0.219)	(0.268)
Personal Characteristics				
Age	-0.003^{***}	0.005^{***}	-0.001	-0.008^{***}
	(0.0001)	(0.0001)	(0.001)	(0.001)
Gender(F)	-0.096^{***}	-0.004^{*}	-0.122^{***}	0.147^{***}
	(0.002)	(0.002)	(0.019)	(0.019)
Education	-0.006^{***}	-0.008^{***}	0.037^{***}	-0.014^{***}
	(0.001)	(0.001)	(0.005)	(0.005)
Income	0.021^{***}	-0.018^{***}	0.001	0.020^{***}
	(0.0005)	(0.001)	(0.004)	(0.005)
Additional Information				
N	1087660	899838	16350	13557
R-squared	0.065	0.052	0.098	0.112
Max. R-squared	1.000	1.000	1.000	1.000
Log Likelihood	−13993546.000	−11413091.000	−141440.600	−114632.200
Wald Test (df = 16)	68722.880^{***}	44215.070^{***}	1483.300^{***}	1343.950^{***}
LR Test (df = 16)	73549.200^{***}	47661.210^{***}	1685.197^{***}	1613.484^{***}
Score (Logrank) Test (df = 16)	70334.860^{***}	44926.190^{***}	1543.105^{***}	1419.013^{***}

$^{***}p < .01$; $^{**}p < .05$; $^{*}p < .1$

4 Discussion

"The peak of searches for *Lula* in the world was recorded at 7:56 pm on Sunday (30), close to the time he was declared president-elect by the Superior Electoral Court (TSE)."[5] This surge in attention, however, should vary with the partisan identity of the respondents, attention to politics, and other attitudinal and contextual variables. This article describes how the demand for news changes on election day and its connection to motivated reasoning, a type of winner-loser gap that has received less attention from political behavior scholars.

While voters of all parties engage in motivated reasoning, our findings underscore that exogenous positive shocks, such as winning an election, increase news consumption. Building on previous research, our hypotheses predicted that election winners would be more active in searching for news. Our findings support this, showing Lula voters as more engaged on Election Night. Bolsonaro supporters, especially those with opposing views on democracy, reduced news engagement after the election.

The relationship between more progressive and conservative attitudes and news engagement partly aligns with our theoretical expectations. Respondents with more progressive views on important social issues, such as marriage equality and abortion, engaged with news more swiftly on election night. Yet, Bolsonaro supporters who held progressive views on LGBTQ+ policies and abortion were also faster to seek information.

Lula and Bolsonaro voters were slower in accessing news from social media platforms. Moreover, Bolsonaro supporters were more wary of leaving these platforms than Lula voters. The heightened speed of Lula voters who sought information on *Google* indicates that this group was inclined to search for information online directly. This direct approach

[5]"O pico de pesquisas por Lula no mundo foi registrado às 19h56 do domingo (30), perto do horário no qual ele foi declarado eleito pelo Tribunal Superior Eleitoral (TSE)." Source: https://g1.globo.com/tecnologia/noticia/2022/10/31/lula-e-a-personalidade-mais-buscada-do-mundo-no-google-nas-ultimas-24h.ghtml

to primary news sources, as opposed to shared links or search outcomes, underscores the increased engagement driven by the election's result.

Our research on news consumption behaviors during the 2022 Brazilian election revealed that opposing partisans demonstrate different levels of attention toward news. We found that losers tended to retract their attention from online news as the official election results came in, while winners remained attentive throughout the election night. Furthermore, our study revealed that social media and policy alignment played a significant role in determining the speed of user news access. As digital information platforms expand, future research should explore how these news sources and analog ones coexist, as revealed by our interviewees. Our findings suggest that future investigations could expand our understanding of the changing news sources and their impact on democratic engagement.

Data Availability Statement

The data of this study will be made available on the Dataverse.org platform at [insert link when available]. These data include anonymized browsing histories of the 1,714 Brazilian survey respondents, collected with explicit consent and in compliance with IRB guidelines to ensure confidentiality and participant anonymity.

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