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THE BRAZILIAN DIGITAL BATTLEFIELD: INVESTIGATING THE DYNAMICS OF POLITICAL INFORMATION CAMPAIGNS IN POST-BOLSONARO ERA

Giada Marino
University of Urbino

Bruna Almeida Paroni
University of Urbino

Fabio Giglietto
University of Urbino

The 2022 presidential elections in Brazil were marked by intense polarisation and the widespread dissemination of misinformation online, both during and after the campaign period (Bastos & Recuero, 2023). This polarisation reached its peak on January 8, 2023, with an attempted coup.

In light of this scenario, our study addresses a growing concern: the rise of destructive political polarisation (Esau et al., 2024). Destructive polarisation goes beyond ideological disagreement, posing a serious threat to democracy. It involves a breakdown of communication between individuals with opposing political views, not merely as a lack of interaction but as a dysfunctional form of communication driven by negative emotions and antagonism toward anyone outside one's political community.

Emotions are central to this form of political polarisation. Research highlights that anger and mistrust toward those outside one's ideological group often intensify group boundaries (Barnes, 2022; Recuero et al., 2020; Sandvoss, 2020). Social media platforms, particularly Facebook, play a crucial role in this dynamic.

Facebook's affordances—such as reactions, comments, and shares—enable researchers to measure these negative emotions (Anwar & Giglietto, 2024). Prior studies indicate that comments often reflect intentions to engage in discussion, which can sometimes escalate into incivility (Giglietto et al., 2019; McCosker, 2014).

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Meanwhile, 'angry' reactions frequently signal frustration or anger directed at opposing content (Anwar & Giglietto, 2024; Eberl et al., 2020; Muraoka et al., 2021).

Our ongoing research builds on these insights by analysing 'angry' and 'love' reactions alongside comments and shares to track polarised engagement. Angry reactions and comments may indicate negative sentiments toward the 'other,' whereas shares and 'love' reactions typically signify support and alignment with the content (Eberl et al., 2020).

To guide our analysis, we propose the following research questions:

RQ1. Does affective polarisation expressed through Facebook interactions remain stable before and after the elections in the pro-Bolsonaro political community?

RQ2. Are changes in interaction patterns affected by changes in content publication over time?

Method

As part of the European research project Vera.ai, researchers developed an innovative news alert system to identify links shared in a coordinated manner by actors known for spreading problematic information on Facebook (Giglietto et al., 2023). Analysis of these flagged links revealed repeated and regular dissemination of content related to Brazilian political pages and groups.

We created a graph of Facebook accounts that shared these links in a coordinated manner, filtered the top 10% of edges by weight, and used a modularity algorithm to identify communities. This process identified 58 coordinated Facebook pages and groups supporting Bolsonaro.

Over 12 million posts shared by this network between January 1, 2021, and December 31, 2023, were collected. Quantitative analysis measured interactions (comments, shares, love, and angry reactions) to map engagement trends. Time series analysis of love/angry and share/comment ratios was conducted to assess affective polarisation and its fluctuations in response to political events. Seven periods of instability, mostly in 2021 and 2023, were identified.

For qualitative analysis, we applied a grounded approach to the 100 highest-engagement posts from each instability period, analysing a total of 700 posts.

Preliminary Findings

We identified a network that includes 58 groups primarily aligned with pro-Bolsonaro positions.

Affective Polarization in Pro-Bolsonaro Facebook Communities

We focused on three years of content shared by accounts primarily supporting Bolsonaro. Analysing angry/love and comment/share ratios over time, we observed that

these metrics range between 1 and -1. Values close to 1 indicate dominance of love reactions and shares, while values near -1 reflect a predominance of angry reactions and comments.
In 2023, following the attempted coup, the shares/comments ratio and love/angry ratio shifted significantly, with comments and angry reactions gaining prominence compared to previous years (Fig. 2).
Volatility analysis identified periods of instability where these ratios diverged significantly from previous patterns. While the ratios were stable throughout 2022, seven instability periods were concentrated in 2021 and 2023.

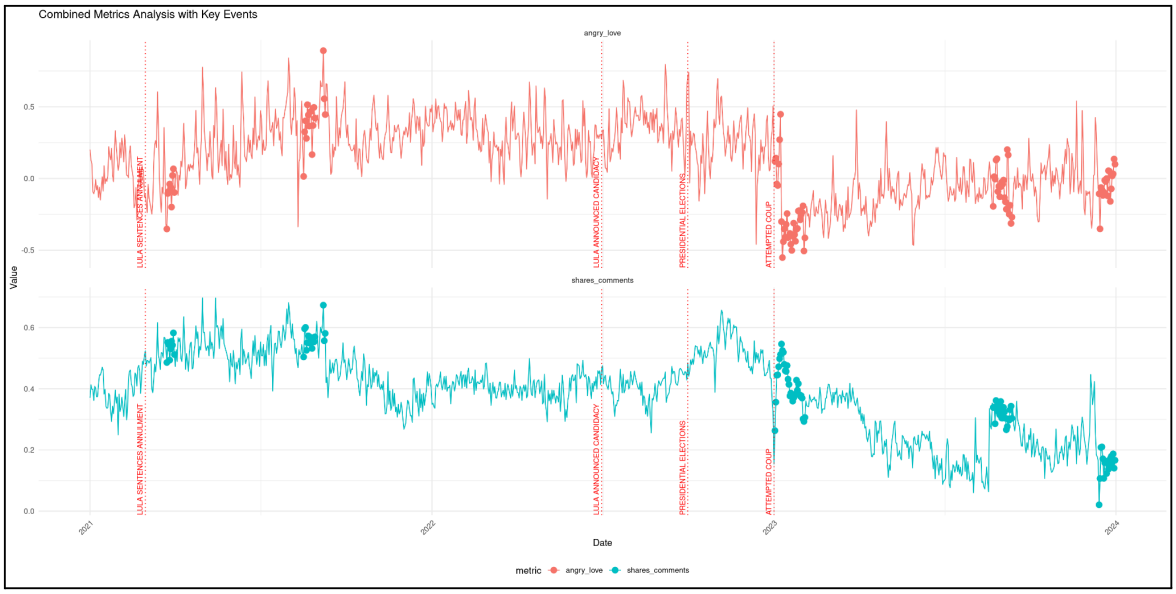


Figure 2 – Time series analysis of angry/love and comment/share ratios.

Impact of Content Changes on Interaction Patterns

We analysed 700 high-engagement posts from the seven instability periods. Using a grounded approach, we annotated the posts and grouped categories into themes, including events, political stances (pro/anti-Bolsonaro or Lula), tone (e.g., celebrative, mockery, engagement bait), targets (politicians, media), and content types (news, UGC, Facebook Live).

a b c

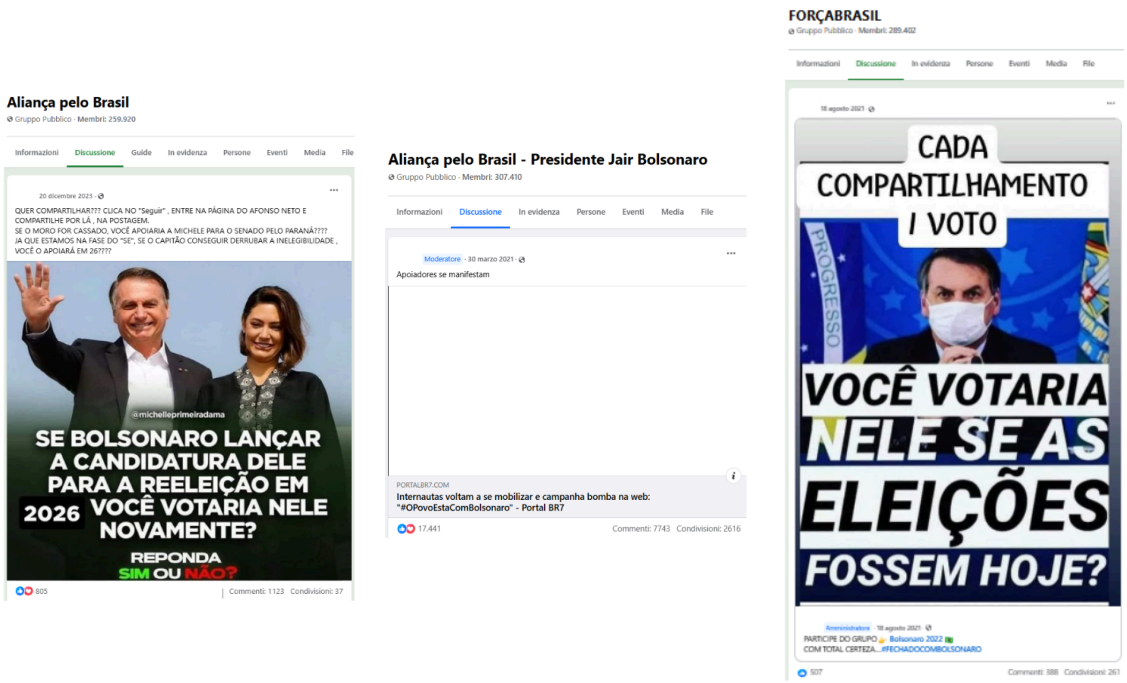


Figure 3 – Examples of pro-Bolsonaro engagement-baiting posts.

In Figure 3, a post from the *Aliança pelo Brasil* group showcases hyperpartisan engagement-baiting content. The post features the Bolsonaro couple with text inviting followers to engage through hypothetical scenarios, such as, "If Bolsonaro runs for re-election in 2026, would you vote for him again? Answer yes or no." This pattern of interaction is consistent with posts from hyperpartisan media outlets like *portalbr7.com*.

a b

Figure 4 – Mocking posts by pro-Lula users in pro-Bolsonaro groups.

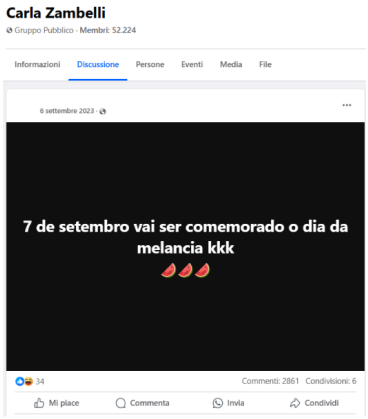
In 2023, we observed mocking content targeting Bolsonaro, his family, and allies, shared by presumed Lula supporters within pro-Bolsonaro groups. For instance, one post (Figure 4) features an AI-generated image of cows around a table labelled "Cattle Party," mocking Bolsonaro supporters.

a b

Figure 5 – Examples of celebratory posts for Bolsonaro and Lula.

Celebratory posts about both Bolsonaro and Lula appear within pro-Bolsonaro groups. For instance, the Bolsonaro 2026 group continued to support the former president even after his 2022 electoral defeat. Lula-related celebratory posts, on the other hand, tend to generate high engagement and discussions.

a



b

Figure 6 – Political event-focused posts and their narratives.

Other clusters of posts focus on specific political events, such as Brazil's Independence Day (September 7) and the January 8 attempted coup. Posts also targeted Brazilian institutions like the Supreme Federal Court and Judge Alexandre de Moraes, as well as mainstream media, particularly Rede Globo. In Figure 6a, a post uses a watermelon emoji to symbolise military personnel perceived as covertly supporting leftist ideologies. Figure 6b features a pro-Lula gesture to suggest that the January 8 destruction was orchestrated by Lula's supporters rather than Bolsonaro's.

Future research

Future work will build on this qualitative analysis by developing LLM-assisted annotation (Marino & Giglietto, 2024) to examine whether different content categories influence interaction patterns.

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