Finding Hidden Swingers in the 2022 Italian Elections Twitter Discourse

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1 Introduction

The proliferation of online social media usage among politicians and the general public has significantly impacted the study of political discourse, opening new possibilities for investigating citizens' real-time opinions. On one hand, social media's impact on political preferences has been extensively studied, especially in the US, with platforms like Twitter and Facebook being used to evaluate political stances [3] and polarization [10]. On the other hand, the European context remains relatively unexplored, despite some notable research on social media's role in spreading populist messages, such as during the 2018 Andalusian elections [9]. Still, the predictive power of social media in forecasting election results [6] strongly depends on data availability and its representativeness of the general online public.

The volume of the Italian online political discourse on social media has recently increased, but the coverage level does not compare with other Countries such as the US. Nonetheless, researchers focused on studying polarization and homophily [5] or the role of populism in online engagement [2]. In this research landscape, the analysis of political preference shifts through social media remains to be explored. We aim to bridge this gap by examining the Twitter discourse during the 2022 Italian general elections, with a specific emphasis on political "swingers". In particular, our findings indicate a stable political discourse in Italy, yet they also uncover a growing presence of political swingers willing to shift their support to significantly different factions.

2 Data and Methodology

We performed our analyses by leveraging the first publicly available dataset of Italian-language political conversations during the 2022 Italian general elections [8]. The dataset spans a period of four months, from July to October 2022, covering the most significant events of the Italian political landscape during that period, and maps the social media handles of political representatives to their corresponding main political parties. These include left-wing parties, such as *Alleanza Verdi Sinistra* (AVS), *Partito Democratico* (PD), centrist parties, like *Movimento 5s* (M5s), *Azione - Italia Viva* (Az-Iv) and *Noi Moderati* (NM), and right-wing parties, such as *Forza Italia* (FI), *Fratelli d'Italia* (FdI), and *Lega* (L). In our work, we split the dataset into three chunks, representing

Table 1. Main structural traits of the retweeting communities.

| Period	Nodes	Edges	#Comms	Modularity	Coverage	Conductance
Pre-campaign	34 863	72 716	9	0.65	0.76	0.07
Campaign	46 388	92 920	15	0.68	0.86	0.04
Post-election	66 500	91 749	17	0.63	0.90	0.03

(i) the period before the election campaign (01 July - 25 August 2022); *(ii)* the official election campaign period (26 August - 24 September 2022); and *(iii)* the election days and subsequent period (25 September - 31 October 2022). We inferred the corresponding directed-weighted *retweet* network from each chunk, where edge weights represent the count of retweets from source to target nodes. In such a framework, we used retweets as a proxy for political endorsement and common interest [4,7]. Then, to narrow down our focus on political swingers and reduce noise, we pruned the obtained networks by keeping edges involving at least one political representative. Although this choice might represent a constrain to our study, it allowed us to achieve a good level of precision while accounting for political affiliation. To understand the emergence of political swingers (i.e., users who change their supporting party), we analyzed the retweet networks at both mesoscopic and microscopic levels. At the mesoscopic level, we identified political clusters within networks via the weighted Louvain method [1], manually aligning clusters over time to study potential migration processes among community members. At the microscopic level, we labeled each user with their most retweeted party and repeated a similar workflow by directly analyzing political shifts.

3 Results

The inferred retweet networks turned out to be highly clustered, as indicated by their growing number of communities over time, the consistently robust modularity and coverage metrics, and the negligible conductance values (cf. Table 1). Further investigations on communities' composition revealed their highly homogeneous nature, i.e., they were mainly composed of members pertaining to a single political party or coherent coalitions (cf. Fig. 1). By exploring migration matrices between communities in the three temporal chunks of reference (cf. Fig. 2), we spotted limited evidence of political swingers, as most of the users either remained in their communities or moved toward
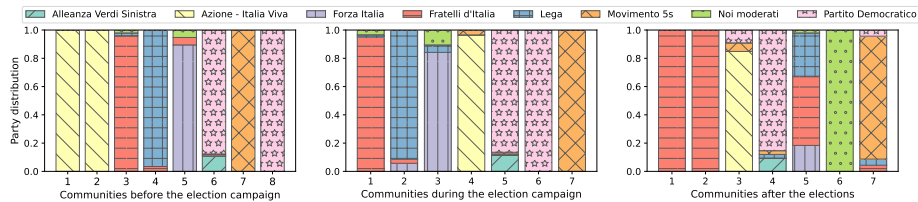
Fig. 1. Party composition of the retweeting communities (with size ≥ 10). Party labels are assigned proportionally to the political representatives in each community.
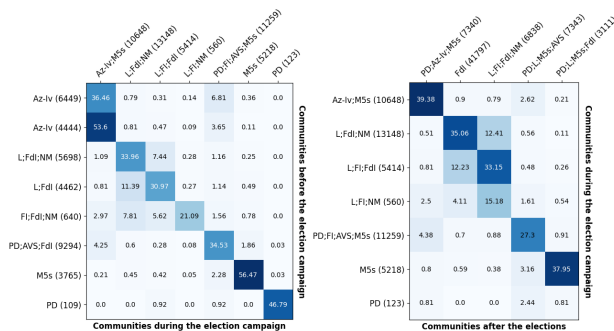
Fig. 2. Migration matrices among communities (with size ≥ 10 reported in brackets).

different communities aligned with their existing political affiliation, exception made for those from Az-Iv.

Nonetheless, we found out that most of the swingers remained hidden until the focus was narrowed to a microscopic level: out of the 46.9% of users active both before and during the election campaign, 19.2% changed their most retweeted party. Similar results were observed after the campaign when 42.8% of users active in the previous chunk stayed active and changed their most retweeted party in 16.1% of the cases. Looking at changes in the users' most retweeted party not only provided further validation of previously observed phenomena, such as migrations within the same political groups (e.g., 820 users transitioning during the campaign and 1322 post-campaign between FdI and L, or 444 users switching during the campaign and 387 afterward between AVS and PD), but also uncovered migrations between parties belonging to divergent groups, albeit sharing similar ideologies on specific topics (e.g., 583 users migrating from Az-Iv to PD during the campaign, 195 users from Az-Iv to FdI post-campaign, and 108 users from AVS to M5s during the campaign). Interestingly, we also spotted unexpected phenomena involving a minority of swingers pertaining to orthogonal parties across different time frames. This included transitions between the left-wing PD and the right-wing FdI parties, with 94 users making such migrations after the election campaign. The difference in their retweet networks during and after the election campaign depicts an inherently different endorsement structure (cf. Fig. 3).

The experimental code is available at github.com/ariannap13/hidden-swingers.

4 Conclusion

This study concentrated on Twitter discourse during the 2022 Italian General Elections, revealing a predominantly stable political landscape, with a minority of users exhibiting significant shifts in political preferences. Future research will delve deeper into the motivations behind these shifts, considering factors such as personality traits, language
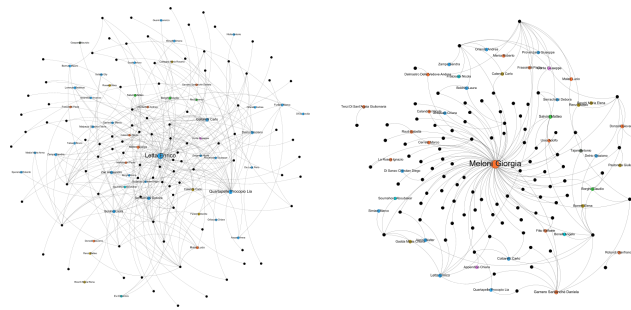
Fig. 3. Retweet networks of users migrating from PD to FdI after the election campaign.

use, and socio-economic influences. Additionally, we aim to integrate this study into the broader field of political science to achieve a more robust validation of our findings.

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