

Article

The Virality of TikTok and New Media in Disrupting and Overturning the Election Cancellation Paradigm in Romania

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Abstract

This study uses natural language processing (NLP) techniques to analyze the political discourse of the surprise presidential candidate, focusing on linguistic patterns, sentiment distribution, and recurring themes. This study addresses the problem of how TikTok virality and algorithmic amplification mechanisms can influence electoral outcomes in Romania, analyzing whether heuristic boosting strategies can distort traditional political paradigms. The text corpus included over 3915 words extracted from the candidate's speeches, with the most frequent terms being “sovereignty” (271 occurrences), “democracy” (164 occurrences), and “freedom” (80 occurrences). The analysis revealed that 57.8% of the content was neutral, 10% conveyed positive sentiment, and negative sentiment was absent. A word frequency analysis highlighted the candidate's strategic emphasis on concepts related to national identity and participatory democracy. Sentiment analysis revealed an intentional use of neutral language to maintain balance, with occasional positive terms maintaining confidence and optimism among voters.

Keywords: natural language processing (NLP); political discourse; word frequency analysis; sentiment analysis; big data analytics; heuristic algorithms



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1. Introduction

In a society that gravitates toward a progress-driven, pro-European attitude and democracy, we observe a new trend that has stirred waves of hatred and generated conflicts across the vast majority of European countries (Ostrowski, 2023). In 2024, considering the number of civil conflicts after Russia's offensive in Ukraine, we observe an extremely aggressive trend whereby propaganda manages to divide nations and generate panic. There are conflicts in Israel, Iran, Georgia, Albania, the Republic of Moldova, Transnistria, Kosovo, Syria, France, and America, but also in Germany and Romania.

The central topic of the year 2024 is the parliamentary and presidential elections, which have completely changed the political landscape of many countries, with a significant impact across Eastern and Central Europe (Fella, 2024). Analyzing voter behavior reveals a clear tendency toward electing leaders with more nationalist and sovereignist orientations, who appear more visible and appealing in the eyes of the electorate. This trend is particularly evident among citizens who have left their countries of origin to work abroad in higher-income nations. Their accumulated frustration toward the political system

that pushed them to emigrate often translates into protest movements and, ultimately, into electoral outcomes reflecting that discontent (Mahsud & Amin, 2020).

If we look at the history of the Romanian presidential elections, which is the subject around which the entire global press revolves, we see that in the 30 years since the fall of communism, the population has migrated massively, and this has led to national division. This aspect is supported by the latest statistics on the total number of Romanians who have left their country to go abroad, with an approximate number of 9,700,000, and of these, 5,600,000 are in the diaspora, with Romania being ranked 5th in the world in terms of the total number of emigrants. The report is compiled by the OECD (Organization for Economic Co-operation and Development), which compares two periods of Romanian migration, the first wave of emigration being in 2001–2002 (before the visa waiver) and the second wave between 2015 and 2016 (OECD, 2019). The statistics show that between the two periods, the number of Romanian emigrants increased by 2.3 million, from 1.1 million to 3.4 million. In 2015–2016, at least 17% of the total population born in Romania lived in OECD member countries. The same OECD survey also shows that almost a quarter of Romanians living in the country have expressed a desire to emigrate permanently if the opportunity to move to another country arose. In addition, half of the majority of young people aged 15–24 indicated that during the survey, they had expressed their intention to leave the country (OECD, 2019).

Therefore, given the extensive migration and growing dissatisfaction among the Romanian population, this study adopts a scientific approach to analyzing how the 2024 elections unfolded, particularly how they were conducted and subsequently annulled by the country's leadership still in office. If we look at the history of the Romanian presidential elections, which represents a central topic of interest for both national and international media, we notice that in the three decades following the fall of communism, the population has undergone a massive migratory process that has deeply influenced political participation. The history of Romanian elections is closely connected with migration trends: after each electoral cycle, the policies adopted by successive governments have directly impacted citizens' confidence in domestic institutions and their willingness to remain in the country.

Official census and OECD data indicate that emigration increased significantly after every major political transition, particularly when electoral promises were not followed by visible reforms. Consequently, a new "Romania abroad" has been formed, consisting of more than 5.6 million citizens living and working outside the country's borders.

This large diaspora now plays an essential role in shaping electoral outcomes, bringing into the national debate issues of identity, sovereignty, and belonging.

While prior studies analyzed the role of social media in elections, little research has addressed TikTok's algorithmic virality in the Romanian context. This research aims to provide information on the use of social media in terms of electoral forecasting, offering solutions that will support understanding of political behavior in the online environment of both voters and politicians. The first part of this study provides a retrospective of the presidential elections in Romania after the fall of the communist regime, and the next section considers the analysis of the specialized literature on the use of social media in the political election process. At the same time, the next section will provide details about the research methods that are used, as well as the data collection, with the results obtained reinforcing the aspect of the development of social media, which attracts significant interest from the public. Finally, the conclusions of the study are provided, along with future research directions. This gap motivates the application of NLP techniques to evaluate discourse strategies and algorithmic amplification.

The article aims to contextually analyze the 2024 electoral campaign, but at the same time to highlight, through extensive BigData analyses and advanced algorithms, how the current context was reached, that of the annulment of the presidential elections in Romania and the elimination of some candidates from the presidential lists for various assumptions. Therefore, Section 2 provides an analysis of existing materials and their transposition based on clustered data segmentations in which the profiles of the candidates, the types of voters, and how each won their target audience are exposed, as well as the methods used in obtaining the data. Section 3 is dedicated to the analysis of how the information was propagated through which one of the candidates who, according to exit polls 2 weeks before the first round, had a percentage of 6% of the votes, and after the completion of the vote counting, obtained over 22% of the total number of votes, through aggressive campaigns on social media. This section provides an extensive analysis and testing methods of social media algorithms, especially TikTok, the principles by which political materials can go viral, how they can influence the masses of people and what the voter pattern in 2024 is through the prism of social media. Section 4 focuses on a broad discussion of the results obtained and what social media can mean in a society after periods of mental instability generated by the pandemic, war, and a possible change in the pro-European course, a sensation maintained by media trusts greedy for ratings. Section 5 concludes the study and sets out clear directions regarding the identification of ways to filter information and how to prevent situations in which the online environment can influence the fate of a nation favorably or unfavorably.

History of the Romanian Presidential Elections: From the Fall of Communism to European Democracy

If we analyze the history of presidential elections in Romania, we observe that there have been eight elections held, and these have produced four presidents, each contributing to shaping a democratic transition and defining a contemporary political landscape (Dumitrascu et al., 2020). The history of presidential elections in Romania reflects a clear transition of the country from an authoritarian communist regime to a democratic system open to European values.

The fall of communism marked a dramatic and tragic transition for Romania, characterized by bloodshed and the execution of the former leadership. Romania was the only country in the Eastern bloc where regime change occurred through violence, culminating in the 1989 coup d'état that led to the overthrow and execution of Nicolae and Elena Ceaușescu, symbolically marking the end of a totalitarian era. The analysis begins with the year 1990, when the majority dreamed of a new beginning for a post-communist Romania. Following the fall of the Ceaușescu regime in 1989, Romania held its first post-communist presidential election on 20 May 1990, a crucial moment for the country's transition to democracy and, simultaneously, towards a much better life.

These elections had as main candidates Ion Iliescu (FSN), Radu Câmpeanu (PNL) and Ion Rațiu (PNȚCD), with an impressive 86.19% turnout, representing a total of 14,826,616 voters. This level of electoral mobilization underlined the election's crucial importance for the nation's future. Ion Iliescu, leader of the National Salvation Front, achieved a decisive victory with 85% of the vote, benefiting from the support of an electorate eager for stability after decades of authoritarian rule. As a result, Ion Iliescu remains the only president in post-communist Romania to win the elections in the first round (Mureșan, 2022). These elections marked the beginning of a new political era, being perceived by many as a symbol of continuity in a period of rapid transformation. At the governmental level, this stage was managed by Prime Ministers Petre Roman and Theodor Stolojan, whose efforts were essential in implementing economic and political reforms. At the same time, the date of 20 May 1990, nicknamed "Blind Sunday," remained in the

collective memory as a symbol of a vote deeply influenced by aspirations for change and the inertia of the traditions of the past regime.

The second presidential election in post-December Romania took place just two years after the first, following the regulations of the Electoral Law adopted in March 1990. This law provided a two-year term for both the country's president and the Parliament, with the period being determined by the functioning of the Constituent Assembly. In 1991, Romania adopted its first post-communist Constitution, which established the presidential term at four years and limited the occupation of this office to a maximum of two successive terms. Thus, in the 1992 elections, Ion Iliescu entered the electoral race again, representing the Democratic Front of National Salvation (FDSN), in an economic and political context characterized by structural reforms and internal instability. His main opponents included Emil Constantinescu, the candidate of the Romanian Democratic Convention (CDR), Gheorghe Funar (Romanian National Unity Party), Caius Traian Dragomir (independent), Ioan Mânzatu (Republican Party) and Mircea Druc (Ecologist Movement of Romania). The first round of the presidential elections took place on 27 September 1992, and the second round took place on 11 October. Although voter turnout decreased significantly compared to the 1990 election, 76.29% of voters (12,496,430 people) turned out in the first round, and in the second round, the participation rate was 73.23% (12,153,810 votes). Ion Iliescu was elected president, obtaining 61.43% of the votes in the competition with Emil Constantinescu. The 1992 elections were a key moment in the consolidation of the democratic process, but also an expression of the political and social polarization in Romanian society. Although economic reforms continued, the slow pace of change and political instability led to an increase in popular discontent, reflected in the lower voter turnout compared to the 1990 elections. Subsequently, Nicolae Văcăroiu was appointed Prime Minister, marking the beginning of a new stage in the country's governance (Coman & Gross, 1993). This election highlighted both the desire for continuity and stability of a part of the electorate, as well as the deepening of political and social divisions, processes that would intensify in the following years. The standard of living that Romania had at that time was extremely low, and the vast majority of citizens who had the opportunity to emigrate to other countries did so without looking back, especially since the regime was now much more permissive (Ciobanu, 1996). This entire period between 1990 and 1996 was extremely full of events and protests, strikes, and especially speculators, who enriched themselves based on the ignorance of citizens coming from a communist regime who now saw themselves in a full democracy (Popescu, 1997), but were without financial education, making them an ideal target for those who were already flirting with pyramid schemes like Caritas, FNI, etc.

Therefore, amid the dissatisfaction and lack of trust in the political class that governed after 1989, which was largely made up of people from the system and prominent personalities from the daily life of the communist regime, the first democratic change of power took place in Romania, but in a way that was as peaceful as possible.

In the first round of the presidential elections on November 3, a complex competition emerged between numerous candidates, including Ion Iliescu (PDSR), Emil Constantinescu (CDR), Petre Roman (USD), György Frunda (UDMR), Corneliu Vadim Tudor (PRM) and Gheorghe Funar (PUNR). They were joined by Nicolae Manolescu (National Liberal Alliance), Adrian Păunescu (PSM), and several independents, including Radu Câmpeanu, Constantin Mudava and Nicolae Militaru. This political diversity reflects the complexity of the electoral scene at that time. After the first round, the difference between the first two candidates was 511,152 votes, placing Emil Constantinescu, the representative of the Romanian Democratic Convention (CDR), in direct competition with Ion Iliescu, the candidate of the Party of Social Democracy of Romania (PDSR). The second round, held on 17 November, ended with the victory of Constantinescu, who obtained 54.41% of the

votes. This election reflected the electorate's firm commitment to consolidating democracy and implementing stringent economic reforms. Voter turnout was remarkable, reaching 75.9% in the second round, equivalent to 13,088,388 voters. This figure, almost identical to the participation rate in the first round (76.01%), underlines the population's deep interest in the democratic process. The consistent participation also demonstrated citizens' desire to support political change and modernization. The result of these elections sent a strong signal at the regional level, consolidating Romania's position as a state committed to democratization, despite numerous economic and political challenges. Constantinescu's election marked a turning point in national politics, underlining society's aspirations for more transparent and efficient governance. Subsequently, Romania entered a new political stage under the leadership of a government formed by Victor Ciorbea, Radu Vasile, and Mugur Isărescu, symbolizing a joint effort to meet the expectations of citizens in a crucial period of transition. After a new stage of attempts and extremely open policies regarding the transition to pro-European Romania, which was still plagued by the old characteristics of the system, a new turning point was reached, and the elections of 2000 (Bharti, 2022) led to a situation of democratic disillusionment.

On 26 November 2000, Romania was the scene of a tense and deeply polarized electoral competition, which brought to the fore diverse personalities such as Ion Iliescu (PDSR), Corneliu Vadim Tudor (PRM), Theodor Stolojan (PNL), Mugur Isărescu (CDR), and other important names. The elections marked a critical point in Romanian democracy, against the backdrop of a low turnout of only 65.31%, reflecting a growing disillusionment among citizens. Although 11.5 million Romanians turned out to vote, the elections revealed major difficulties in the country's democratic path (Crowther, 2010). The main protagonists were Ion Iliescu, a veteran of Romanian politics, and Corneliu Vadim Tudor, a controversial leader of the Greater Romania Party, known for his extremist and populist speeches. In the decisive round on 10 December, 10.1 million voters voted, and Iliescu triumphed decisively, obtaining 66.83% of the votes. His victory represented not only a return to the leadership of the country but also the beginning of a new political era. His election consolidated the position of the Party of Social Democracy of Romania (PDSR) and brought to the fore the figure of Adrian Năstase, who was co-opted into the role of Prime Minister. This election was not without challenges, however. Growing dissatisfaction with the slow pace of post-communist economic reforms and the rise of radical rhetoric created an extremely fragile social and political context. However, the election result reaffirmed a collective commitment to democracy, even in a landscape dominated by economic and social uncertainties. The 2000 elections remain an emblematic moment in Romanian history, reflecting not only the struggle for power but also the challenges of the transition to a mature democracy. They underscore a crucial lesson: in moments of crisis, the democratic path can be maintained, despite extremist temptations or popular disillusionment.

The 2004 presidential elections were a first in Romania's recent history, being the first held following the 2003 revision of the Constitution, which extended the presidential term from 4 to 5 years. This legal context gave the competition an additional stake, placing it at a defining moment for the political and democratic direction of the country (Downs & Miller, 2006). Initially, Theodor Stolojan, designated as the candidate of the Justice and Truth Alliance (PNL-PD), seemed ready to enter the electoral battle. However, unexpectedly, just two months before the first round, he announced his withdrawal for health reasons, causing a dramatic change in strategy. In his place, Traian Băsescu, then mayor of Bucharest, took over the candidacy, marking the transition with the famous expression "Dear Stolo," an emotional moment that remains imprinted in the collective memory. The first round of the elections, held on 28 November 2004, reflected the political diversity of post-communist Romania, with candidates representing the main political parties, alliances, and indepen-

dent figures. Among the most important competitors were Adrian Năstase (PSD + PUR Alliance), Traian Băsescu (Justice and Truth Alliance), Corneliu Vadim Tudor (PRM), Béla Markó (UDMR), and other personalities such as George Becali and Petre Roman. The voter turnout, at 58.5%, indicated a moderate interest, but sufficient to validate the electoral process. The result sent Traian Băsescu and Adrian Năstase, the leader of the Social Democratic Party (PSD), two candidates with profoundly different visions of the country's political future, to the second round. On 12 December 2004, after a highly contested second round, Traian Băsescu won, with 51.23% of the vote, marking a turning point in Romanian politics (Comsa, 2015). Băsescu's victory symbolized the electorate's aspirations for change, the desire to overcome political stagnation, and adopt a firm direction towards European integration and the fight against corruption. However, these hopes were quickly tested by the reality of governance. The tense relationship between the president and Prime Minister Călin Popescu-Tăriceanu complicated the implementation of promised reforms, illustrating the difficulties of a democratic transition in an unstable political context. The 2004 presidential elections remain a landmark in Romania's contemporary history. They highlighted both the vulnerabilities of the political system and the capacity of society to navigate through moments of crisis, reaffirming democratic values and commitment to a European future (Stan, 2005). However, despite the air of change that was blowing over Romania, the collaboration of the country's leader and parliament with Prime Minister Călin Popescu-Tăriceanu complicated the situation, making it a tense one that blocked a large part of the promised reforms.

An extremely tense period has come at the country level, in which significant percentages of the population migrate to other countries to obtain a better life, and although reforms have taken place, the gains and the way things are going in Romania cause more division and, at the same time, an exponential increase in emigration. The 2009 presidential elections went down in history as one of the most disputed and tense electoral events in post-December Romania. Organized at the end of Traian Băsescu's first term, these elections brought to the fore a fierce competition, marked by personal attacks, controversial strategies, and an atmosphere dominated by the global economic crisis (Muntean et al., 2010). In addition, these were the first presidential elections held separately from the legislative ones and the first organized after Romania acceded to the European Union—a moment with enormous stakes for the future of the country. The electoral campaign was a true spectacle of intrigue. In an unexpected turn of events, Radu, Prince of Romania, announced his candidacy, only to withdraw later under the pressure of fierce competition. At the same time, one of the independent candidates, Nati Meir, shocked the political scene by being arrested on charges of forgery and false statements, an event that further detonated the already tense atmosphere. The first round of the elections, held on 22 November 2009, brought 9.9 million Romanians (54.37%) to the polls, who had to choose from no fewer than 12 candidates, including Traian Băsescu, leader of the Democratic-Liberal Party and the incumbent president; Mircea Geoană, a prominent figure in the Social Democratic Party; Crin Antonescu, leader of the National Liberal Party; and other big names such as Corneliu Vadim Tudor, George Becali, and Sorin Oprea. Each candidate contributed to a diverse and complex political scene, but the real battle was between Băsescu and Geoană, who advanced to the second round. The decisive day, nicknamed "Black Sunday", took place on 6 December 2009. With a voter turnout of 58.02%, the suspense reached its peak, and the final results were on a knife's edge. Traian Băsescu won a second term with only 50.33% of the vote, defeating Mircea Geoană, a result that triggered vehement accusations of electoral fraud from the PSD. The squabbles and controversies continued until the Constitutional Court intervened, validating the result after a dramatic recount of the annulled votes. These elections were not just about numbers or results but about a turning point in Romania's

political history. Băsescu's victory was seen by supporters as a triumph of the "popular will" and by critics as an example of deepening political division. His term was dominated by tumultuous governance under prime ministers Emil Boc, Mihai Răzvan Ungureanu, and Victor Ponta, and by the challenges of a fragile economy. The 2009 presidential election remains a symbol of the intensity of political struggle in Romania, a mix of drama, uncertainty, and high stakes that defined the country's course at a crucial moment in its democratic transition.

After this period in which Romania went from agony to ecstasy, crushed by wage cuts and recession, but also huge waves of departures among the population, in 2014, the opportunity arose to see a way out through the emergence of an independent, who came from the position of a family man and a teacher from Sibiu with German origins and, above all, he had been the mayor of Sibiu, an emblematic city of Romania, but also a true tourism landmark. It can be argued that the vision of the independent Klaus Iohannis was that of fighting for the rights of citizens and a strong sense of anti-corruption or the polarization of various countries, or bringing to light some unique landmarks. Once again, the diaspora played a crucial role in these elections through participation in the elections and through the massive vote they gave to the independent candidate, everything turning into a surprise of proportions.

The 2014 presidential elections were a defining moment for Romania, marked by fierce competition and a result that surprised the entire world. The two rounds of voting, held on 2 November and 16 November, were more than simple democratic exercises—they were an expression of the desire of Romanians to redefine their future. In the first round, the political scene was dominated by Victor Ponta, the incumbent Prime Minister, representing the Social Democratic Party, and Klaus Iohannis, the mayor of Sibiu, supported by the National Liberal Party (Giugăl, 2015). The two were joined by 12 other candidates, including notable figures such as Elena Udrea, Monica Macovei, Călin Popescu-Tăriceanu, Corneliu Vadim Tudor, and Hunor Kelemen. The turnout in this round was 53.17%, with over 9.7 million voters. Although Victor Ponta had a comfortable lead in the first round, with 40.44% of the vote, compared to 30.37% for Iohannis, the second round completely changed the dynamics. Voter mobilization, especially in the diaspora, played a crucial role. In the diaspora, Romanians stood in lines for over 10 h, and many were unable to vote due to poor organization. However, the massive support for Iohannis, who obtained an incredible 89.73% of the vote abroad, consolidated his final victory. On 16 November, over 11.7 million Romanians (64.10% of the electorate) participated in the vote. The final result was spectacular: Klaus Iohannis won with 54.43% (6.2 million votes), defeating Ponta, who obtained 45.56% (5.2 million votes). This victory was more than an electoral triumph—it was a strong statement against corruption, stagnation and a system perceived as outdated. Iohannis' campaign, centered on themes of transparency, modernization and European integration, resonated deeply with an electorate fed up with old political practices. His election was seen as a renewal of hope and desire for change in Romania, marking a clear transition towards pro-European leadership. During his 5-year term, Iohannis worked with several prime ministers, including Victor Ponta, Dacian Cioloș, Sorin Grindeanu, Mihai Tudose and Viorica Dăncilă. Despite political tensions and administrative challenges, his 2014 victory remains a symbol of the power of civic mobilization and commitment to a better future.

His first term in office was strewn with indecision and an overwhelming number of prime ministers, who had the role of stabilizing the situation in the country, especially through the president's statements in which he tried to emphasize that he would make Romania a country free of corruption and depoliticize public institutions. All these aspects were considerably fueled by scandals in which many political figures were put under criminal investigation or committed acts of bribery, influence peddling, etc. In a word,

the first term of President Klaus Iohannis was strewn with an extremely large number of internal conflicts, more precisely a deaf struggle between the president, parliament, and senate, but also other institutions, all of which did not generate anything useful or beneficial to the population, only media scandals, without a firm, reforming response (Alexandru et al., 2009).

The 2019 presidential elections marked a crucial moment for Romania, reflecting the electorate's desire to consolidate its democratic path and its commitment to the values of the European Union. Held in two rounds, on 10 and 24 November, these elections were characterized by fierce competition between emblematic figures of Romanian politics and a massive presence of themes related to corruption, justice, and political stability. In the first round, a diverse list of candidates animated the political scene (Gherghina & Tap, 2020). Among the most prominent were Klaus Iohannis, the incumbent president, supported by the National Liberal Party; Viorica Dăncilă, leader of the Social Democratic Party; Dan Barna, the main figure of the USR-PLUS Alliance; Mircea Diaconu, an independent candidate supported by electoral alliances; and Theodor Paleologu, representative of the Popular Movement Party. Alongside them, other candidates, such as Hunor Kelemen, Ramona Ioana Bruynseels, and Viorel Cataramă, completed a diverse competition that captured the attention of voters. In the first round, 9.3 million Romanians (51.19%) voted, setting up the final duel between Klaus Iohannis and Viorica Dăncilă. The second confrontation, held on 24 November, brought the decisive victory of Iohannis, who obtained an impressive score of 66.09%, consolidating his second mandate at the helm of the country. This result underlined the majority support for a pro-European and anti-corruption political course. Although the voter turnout was lower than in the 2014 elections (10 million voters, i.e., 54.86%), Iohannis' victory sent a strong message about the desire of Romanians to remain anchored in democratic values and in the European direction. The diaspora once again played a crucial role, contributing significantly to the outcome. During his five years in office, Klaus Iohannis was an active supporter of European integration and democratic principles. His campaign and subsequent period of government reflected a deep political polarization, but also a significant civic mobilization in support of transparency and institutional modernization. The four prime ministers who governed during this period—Ludovic Orban, Florin Cîțu, Nicolae Ciucă, and Marcel Ciolacu—navigated a turbulent political context under the influence of the directions set by the president. The 2019 elections remain a symbol of the fight for a modern Romania, connected to European values and committed to fighting corruption.

However, according to the latest information from both the national written press and television, when the retrospective was prepared regarding the achievements of the elected official, they were not concluded in an extremely favorable manner (Maniou, 2022). Romania was in a state of inertia, without any great achievements that could be found in the well-being of the population, and the vast majority of the time, internal conflicts at the level of parliament or, in general, at the level of the political class did not generate a change, only a reshuffle between the same politicians replaced every 4 years.

2. Materials and Methods

For text processing, we applied a set of standard NLP techniques, designed to ensure consistency and reduce noise in the corpus: tokenization, stop word removal, conversion to lowercase, lemmatization and, where relevant, stemming. Keyword extraction was performed using the TF-IDF (term frequency–inverse document frequency) method, which allows highlighting terms with high relevance in relation to the entire corpus. To identify thematic groupings in the candidate's speech, we used the k-means algorithm, with $k = 3$, which allowed the delimitation of three dominant clusters corresponding to

recurrent themes (sovereignty, democracy, participatory governance). Sentiment analysis was performed through a methodological combination: a lexicon-based model (VADER), previously validated for short political texts, and a BERT model pre-trained and adjusted on similar data, used for cross-validation of polarity scores. This dual approach increased the robustness of the results and reduced the risk of bias associated with using a single sentiment classification method.

In this context, the need to develop innovative tools for monitoring public opinion on current political issues, which complement and improve traditional polling methods, becomes obvious. Social media has opened new perspectives in terms of shaping public opinion by introducing elaborate opportunities for electoral forecasts. Thus, big data provided by social media have the possibility of providing a series of predictions regarding elections and political analyses. This emerging approach selects the most important data for social platforms during electoral campaigns, helping to complement traditional methods of polling public opinion (Schober, 2016). An extremely large amount of data can be collected and processed at the same time, using specific algorithms without involving large costs (Gulati & Williams, 2013).

Over time, it has been demonstrated that there is a deep connection between electoral results and data generated by social media. In Finland, over 60% of individuals have access to at least one social network, and most of them have access to Facebook. In this context, politicians have not hesitated to adopt social media in as many numbers as possible, so that, as early as 2011, over 80% of candidates had an active presence on the Facebook network (Ertiö et al., 2020).

Prior to applying NLP models, the textual corpus underwent a preprocessing stage, which included conversion to lowercase, tokenization, removal of stop words, punctuation and special characters, as well as lemmatization and stemming where appropriate. These steps ensured consistency and reduced noise in the dataset, allowing reliable keyword extraction, clustering and sentiment analysis.

In recent years, social media has played a very important role in political campaigns, so that, in addition to its use by politicians, it has come to be used as a tool, designed to involve citizens in political activities in the online environment. To stay informed and express their opinions, citizens choose to adopt social media to participate in political discussions, forming a space for both debate and mutual influence. Since 2006, social media has shown extraordinary potential in the campaign strategies of politicians, when Facebook was used in this direction, although, at that time, this aspect was treated with caution (Williams & Gulati, 2009). A very important moment of its use as a promising tool was the 2008 presidential campaign in the USA, resulting in the victory of Barack Obama. Since that moment, online platforms have been recognized as effective in a modern electoral campaign (Bimber, 2014). Existing research on social media and elections has predominantly focused on Facebook and Twitter. For instance, Smith et al. (2020) highlights the role of retweet cascades in shaping political discourse, while Chen and Pain (2019/2021) emphasizes Facebook's network effects on electoral mobilization. However, these studies assume that virality is driven by user networks. By contrast, TikTok relies heavily on algorithmic recommendation, which has received far less scholarly attention. Recent studies on TikTok (Johnson, 2022; Almeida et al., 2023) note its rapid growth but stop short of analyzing its political impact through NLP. This gap justifies the present study, which integrates sentiment and keyword analysis with heuristic models of virality to explore the Romanian electoral context. Both the 2024 and 2026 elections in the US, as well as Brexit, represent emblematic cases through which it has been demonstrated that the polls were biased (Taylor, 2024). The way social media has penetrated people's lives has completely transformed the way they communicate or make certain decisions. In recent

years, more and more political candidates have used social media as strategic tools in their electoral campaigns (Gulati & Williams, 2013). Social platforms can significantly influence the way people behave and shape their relationships, opinions, or even consumption habits (Asur & Huberman, 2010).

The use of online platforms determines the success of an electoral campaign, depending on several aspects, such as the political orientation of the party or the level of education and occupation of the candidates. However, it is considered that social media determines a one-way communication between candidates and the public, rather than a very well-defined two-way communication. Previous studies on the use of social media have highlighted the use of statistical models to create opinion polls. MacWilliams (2015) developed a model through which he integrated Facebook data into a statistical model to predict votes for the US Senate, using variables such as the estimated advantages offered by Facebook to candidates and partisan voting indices. Most research conducted to determine the effectiveness of online platforms has been conducted on Facebook and Twitter. In addition to the widespread use of Facebook, Asur and Huberman (2010) highlighted the fact that frequent use of Twitter generated the success of films at the box office even before they were released, and Smailović et al. (2013) have demonstrated that tweets can be used to forecast stock prices, as well as identify important economic events.

Important events in public life have aroused emotions over time in various societies, anchoring the public in discussions and contradictory opinions. In this context, Mo et al. investigated the use of Twitter data and linear regression models, which had an accuracy of 88% when they integrated variables derived from the platform (Mo et al., 2021). Given the degree of public involvement, sentiments and a series of social and political variables have been analyzed in recent years (Gaurav et al., 2013), so that, through Twitter, aspects that could reveal the degree of popularity of candidates have been analyzed, but on the other hand, some authors have criticized this. For example, Gayo-Avello et al. (2011) argue that these positive results could be influenced by a series of methodological limitations, such as the lack of a robust framework to validate the results, but also biases in the collected data.

The use of social media platforms in Romania has experienced significant dynamics, influenced by global trends, demographic characteristics, and users' digital behaviors. In 2024, YouTube, TikTok, and Facebook dominate the social media scene, while platforms such as Instagram, LinkedIn, Pinterest, Snapchat, and Twitter (renamed X) continue to have a dedicated audience, but with a more specific distribution. YouTube remains the platform with the largest number of users in Romania, which underlines the preference for long and diversified video content (Statista, 2024).

TikTok has had a meteoric rise, reaching almost 9 million users. With short and dynamic content, TikTok has attracted especially younger generations, but also users in the 25–34 age segment. Facebook continues to be one of the most popular platforms, although it has lost users in recent years. Although declining, Instagram maintains a loyal audience, focused on visual content and storytelling.

Its popularity is high among young people and content creators, but it is losing ground to TikTok in terms of engagement. The evolution of social media platforms in Romania highlights a transition towards platforms that prioritize short, dynamic, and easy-to-consume content, such as TikTok. Figure 1 shows the number of users of the main online platforms used in Romania.

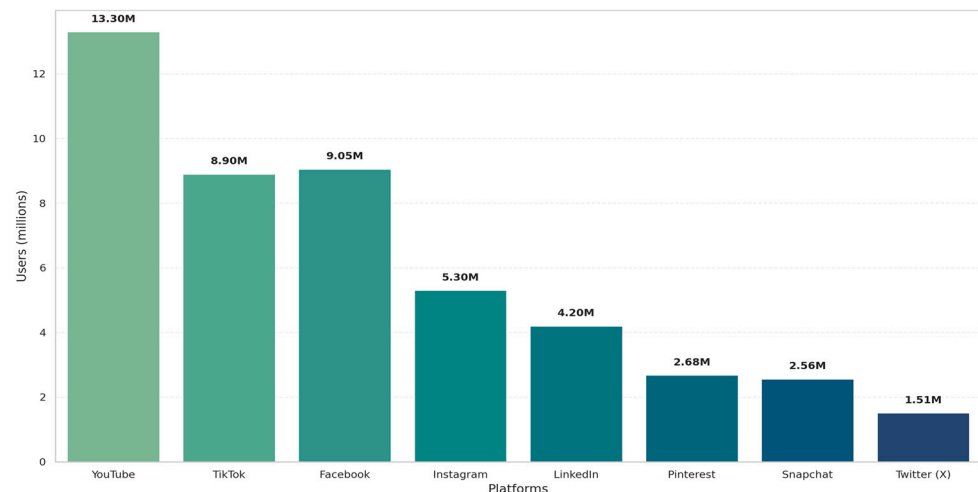


Figure 1. The main online platforms used in Romania.

Given the explosive growth of TikTok in Romania, this study examines the use of TikTok data to determine how the results of the 2024 Romanian presidential election, held on 24 November, were predicted. The data was collected both during the electoral campaign and after the election results were revealed, using a social listening strategy that determined the popularity of comments about the two candidates who went to the second round of the Romanian elections, the needs and desires of the population regarding the problems facing the country, and the discourse of the two candidates. It is important to clarify that the raw data were not collected directly by the authors. Instead, we relied on publicly available reports and secondary datasets (Datareportal, OECD, Statista, social listening summaries). Our contribution lies in interpreting these validated datasets through NLP, clustering and sentiment models, in order to highlight the mechanisms through which social media influenced electoral behavior. As of 2023, Romania, at a European level, had the highest percentage of TikTok users. 47% of the country's population had an account on this platform, placing it ahead of countries such as Italy or Germany (European Commission, 2023). The dynamism of the platform and its short videos (Chen Lin) attract more and more users, and compared to the Czech Republic or Germany, in Romania, these differences in user preferences can vary depending on behavior, demographics, and cultural or technological preferences. The availability of mobile devices and high-speed internet facilitates the intensive use of platforms such as TikTok in Romania, whose users are quick to adopt new technological products, out of a desire to be connected to international trends and actively participate in global digital culture. Figure 2 shows the percentage of TikTok users in European countries with the most users of the platform.

Thus, users of social platforms in Romania spend a significant amount of time on social media, thus highlighting the differences in user preferences and the functionalities that each platform offers. The TikTok platform ranks first in Romania in terms of time, with an average monthly time of 32.5 h (DataReportal, 2024). The presence of the younger generations and the ability to create viral content in a fast way have led to it maintaining a high average duration. On the other hand, YouTube ranks second, with 30 h spent monthly, reflecting users' preference for diversified video content. Although Facebook remains a relevant platform in Romania, the average time is significantly lower, at only 13 h (<https://datareportal.com/> accessed on 1 March 2025), and this aspect can be explained by the migration of young people to more interactive platforms, such as TikTok, but despite this, Facebook is still used for communication and access to news. Figure 3 shows the time spent by Romanian users on the most relevant social media.

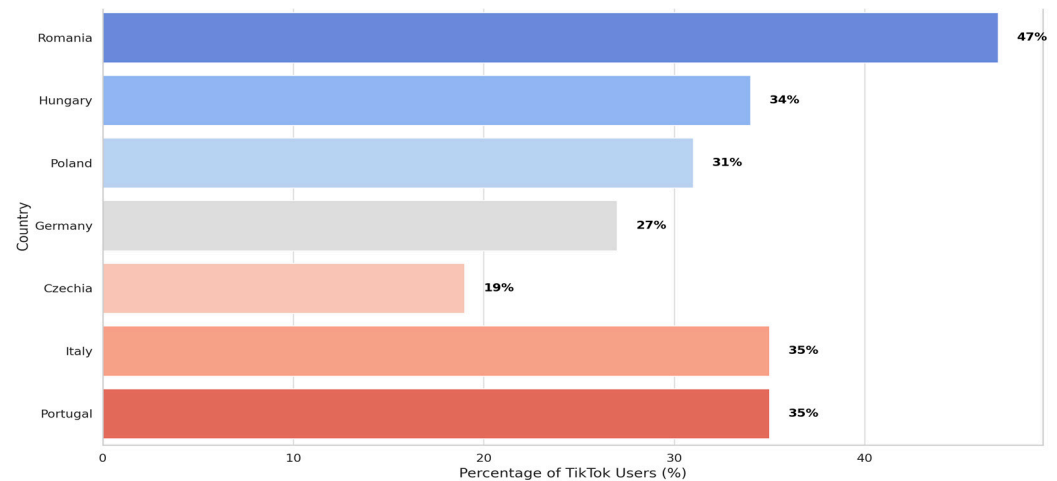


Figure 2. The proportion of TikTok users in European countries.

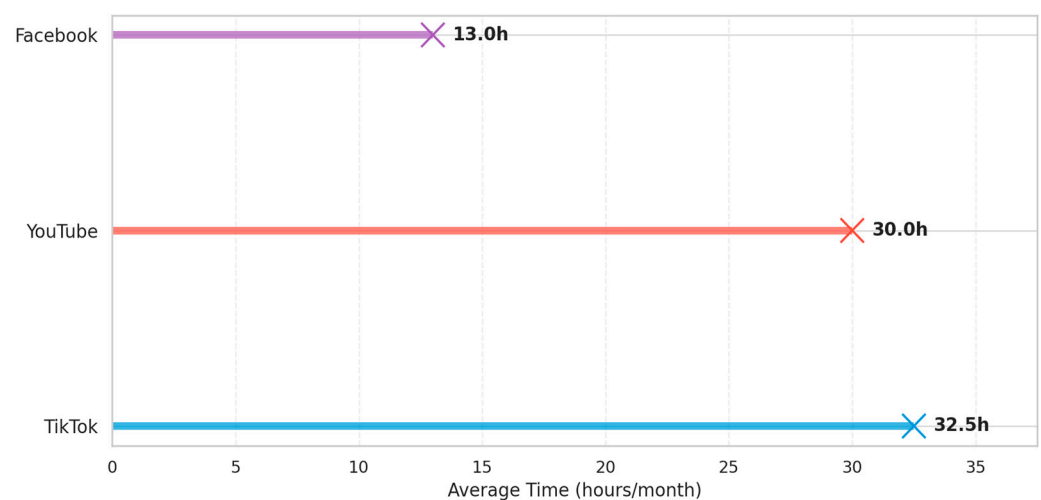


Figure 3. Time of use of the most popular social media by Romanian users.

This data highlights the rapid dynamics of Romanian social media user preferences, confirming the crucial role of TikTok and YouTube in today's digital landscape. If this trend continues, TikTok will become the absolute leader of social platforms in Romania, redefining the way users interact with online content.

3. Results

In Romania, the president is elected for five years, with the possibility of a maximum of two consecutive or non-consecutive terms, according to the Constitution. The 2024 Romanian presidential elections created a series of events in Romania's electoral history which included the annulment of the first round of voting by the Constitutional Court of Romania and the reorganization of the electoral process. The elections were held on 24 November 2024, and took place in two rounds. Presidential candidates filed their candidacies on 6 October, and the electoral campaign process began on 25 October. Given that Romania has over five million Romanians in the diaspora, they had the opportunity to vote early between 22 and 23 November for the first round, and also between 6 and 8 December for the second round. The second round was scheduled for 8 December, but there was a series of events that completely changed the course of the elections. The 2024 voting-paper included 14 candidates, representing both the major parties and independent movements. They are Elena Lasconi (USR), George Simion (AUR), Marcel Ciolacu (PSD), Nicolae Ciucă (PNL), Kelemen Hunor (UDMR), Mircea Geoană (independent candidate), Ana Birchall

(independent candidate), Alexandra-Beatrice Bertalan-Păcuraru (ADN), Sebastian Popescu (PNR), Ludovic Orban (Forța Dreptei), Călin Georgescu (independent candidate), Cristian Diaconescu (independent candidate), Cristian Terheș (PNCR) and Silviu Predoiu (PLAN) (Permanent Electoral Authority, 2024). Of these, Ludovic Orban announced his withdrawal from the electoral race on 18 November, at the debate organized by the Digi24 television station, announcing his support for Elena Lasconi. Figure 4 illustrates the exit poll results for each candidate between October and December 2024 (USR). The 2024 voting paper included 14 candidates, representing both the major parties and independent movements. They are Elena Lasconi (USR) and George Simion (AUR).

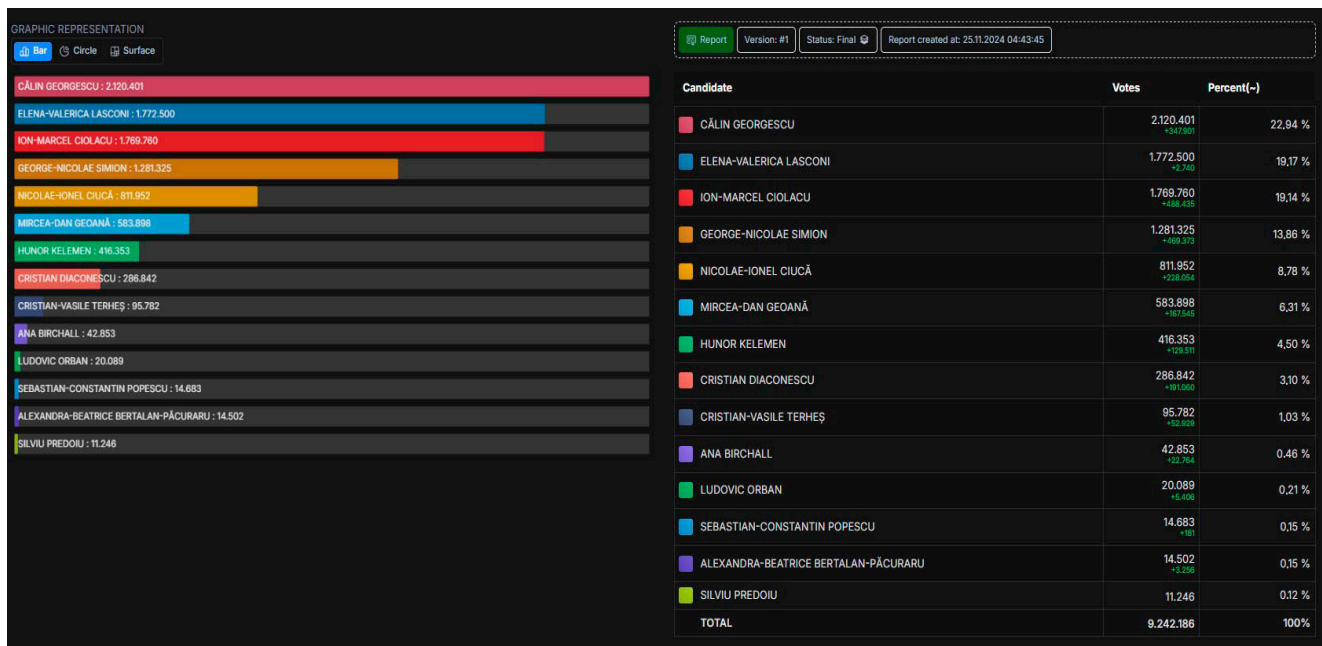


Figure 4. Opinion polls October–December 2024.

In this context, on 24 November 2024, Elena Lasconi, the USR candidate, and Călin Georgescu (independent), advanced to the second round, surprising observers by surpassing the traditional candidates. Marcel Ciolacu (PSD) and Nicolae Ciucă (PNL), leaders of the traditional parties, recorded disappointing results, marking a first in which the PSD did not have a candidate in the final. The voter turnout was 52.55%, higher than in the 2019 presidential elections, as can be seen in Figure 5, the meteoric rise of the independent candidate Călin Georgescu, given that the media's attention was focused on candidates with political notoriety and an image offered by the parties they represented or who expressed their support.

Independent candidate Călin Georgescu won the first round of the Romanian presidential election with a preliminary score of 22.95%, beating established political figures such as Marcel Ciolacu, Elena Lasconi, and Nicolae Ciucă. This unexpected result reflects a spectacular rise, largely supported by an intense campaign conducted on TikTok, a platform that has become a main vector of electoral mobilization in Romania. The surprise candidate was initially the target of accusations of sympathy for Russia, but he firmly denied the Russophile label, generating debate and confusion among his electorate. However, his digital communication strategy managed to capture the attention of a significant number of voters.

Election poll	Date	Sample	Geoană	Ciolacu	Simion	Ciucă	Lasconi	Kelemen	Georgescu	Diaconescu	Terheş	Birchall	Orban	Others
			Ind.	PSD	AUR	PNL	USR	UDMR	Ind.	Ind.	PNCR	Ind.	FD	
Alegerile	24 November 2024	9.465.085	6.32%	19.15%	13.86%	8.79%	19.18%	4.5%	22.94%	3.1%	1.04%	0.46%	0.22%	0.44%
COMQUEST	16–22 November 2024	1.042	N/A	24.4%	16.2%	17.6%	12.1%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AtlasIntel	20–22 November 2024	1.692	6.9%	23.7%	16.9%	14.3%	17.8%	2.9%	8.1%	6.2%	1.0%	0.7%	0.8%	0.7%
Verifield	20–21 November 2024	1.803	7.9%	24.5%	19%	8.6%	19%	3.4%	10.6%	5.1%	0.7%	0.6%	N/A	0.6%
AtlasIntel	15–20 November 2024	2.003	7%	24.3%	15.4%	12.1%	15.3%	5.9%	6.2%	3.3%	2.1%	4.2%	1.5%	0.9%
INSOMAR	14–20 November 2024	1.042	8.4%	24.4%	16.2%	15.6%	12.7%	3.6%	4.4%	3.8%	N/A	N/A	N/A	N/A
ARGUMENT	November 2024	1.100	10.9%	31.1%	16.8%	7.7%	17.2%	1.3%	7.3%	5.6%	0.7%	0.6%	0.8%	N/A
18 November 2024 Ludovic Orban withdraws from the presidential race and announces his support for Elena Lasconi.														
Verifield	8–14 November 2024	968	8.1%	26.3%	18.8%	7.3%	17.1%	4.7%	4.9%	6.8%	2.8%	1.1%	1.1%	1%
AtlasIntel	9–12 November 2024	3.035	9.1%	25.4%	14.2%	10.2%	14.2%	4.3%	7.4%	5.3%	3.4%	2.9%	0.7%	2.9%
INSCOP	7–12 November 2024	1.100	13.3%	25.3%	19.1%	9.1%	14.3%	4.1%	5.4%	4.6%	2.1%	0.8%	1.0%	0.9%
BCS	7–10 November 2024	1.157	7.6%	27.1%	11.9%	17.7%	14.3%	5.7%	4.9%	2.9%	0.5%	1.0%	N/A	N/A
CIRA	1–6 November 2024	1.150	9.0%	29.0%	17.0%	19.0%	16.0%	1.0%	1.0%	N/A	1.0%	N/A	N/A	N/A
Verifield	1–6 November 2024	1.064	13.2%	25.9%	21.2%	8.5%	15.7%	2.9%	4.6%	4.4%	0.3%	1.2%	1.1%	1.0%
CURS	30 October – 5 November 2024	1.067	9.0%	28.0%	17.0%	17.0%	12.0%	5.0%	N/A	5.0%	4.0%	N/A	2.0%	1.0%
Newsweek	24–28 October 2024	1.150	10.0%	23.4%	16.1%	17.1%	14.7%	4.6%	2.7%	7.2%	0.8%	0.9%	2.1%	0.4%
INSCOP	11–18 October 2024	1.106	18.1%	24.1%	20.2%	8.2%	15.0%	3.8%	N/A	5.1%	1.9%	0.9%	1.9%	0.4%
CURS	11–16 October 2024	1.006	15.0%	26.0%	17.0%	15.0%	14.0%	2.0%	N/A	5.0%	2.0%	2.0%	2.0%	0.4%
Verifield	7–9 October 2024	1.009	17.2%	23.4%	19.8%	6.2%	17.1%	3.8%	N/A	7.6%	3.1%	0.7%	0.7%	0.4%
6 October 2024 Diana Șoșoacă's candidacy for the presidency is rejected by the CCR.														

Figure 5. The surprise candidate's rapid rise in the polls. The colors in the table represent the way in which the increases and decreases in the polls are displayed during the presidential campaign and how they fluctuated. PSD, USR and AUR have the most fluctuations, even by 3–5% percentage points, and in the case of the independent candidate, according to the exit polls conducted.

The independent candidate's campaign focused almost entirely on TikTok, which allowed him to connect with a younger and more active online audience. TikTok, which has become the second most used social media platform in Central Europe, is playing an increasingly important role in Romania, with Romanians spending an average of 32 h and 30 min per month on TikTok, more than on any other social media platform. The success of the winner of the first round of elections has not been without controversy. Attributing a significant role to TikTok in mobilizing voters has sparked debates about the potential risks associated with digital influence. There have also been allegations of possible Russian involvement in his campaign, which has raised concerns about the manipulation of public opinion through social media. TikTok's rapid growth in Romania and its significant influence on electoral behavior indicate that the platform has become a key tool in mobilizing voters. In the context of the 2024 presidential elections, TikTok has demonstrated that it can change electoral dynamics, attracting the attention not only of local political actors but also of international institutions concerned with protecting the integrity of democratic processes.

Two days before the second round of the presidential elections, the Constitutional Court of Romania took an unprecedented decision to annul the results of the first round of the presidential elections due to suspicions of foreign interference and electoral manipulation. This decision was influenced by documents declassified by the incumbent President, Klaus Iohannis, on 4 December, which confirmed the involvement of a foreign state actor. Accusations of disinformation and cyber manipulation were raised, including in the meetings of the Supreme Council for National Defense. The decision to annul the first round highlighted the vulnerabilities of the electoral process and generated a major political crisis: the leaders of the PSD and PNL suffered significant image losses, with Marcel Ciolacu and Nicolae Ciucă resigning from their positions as leaders of the PSD and PNL, respectively.

During the 2024 election campaign, TikTok became a central tool for mobilizing and promoting political messages. A notable example was the emergence of a trend on the

platform, titled #equilibriumverticality, which was heavily promoted by micro-influencers. Notably, this campaign did not explicitly mention the name of a candidate but was initially associated with the strategy of an independent presidential candidate. Micro-influencers were the focus of this campaign, using hashtags such as #presidential2024 and #equilibriumverticality to generate discussions and visibility on the platform. Their messages were generalized and focused on themes such as “our Romania”, “live adequately”, “old people”, “change” and “the possibility of evolving”. The main goal of the campaign was to create a positive perception of general values, without explicitly mentioning the name of a candidate. The campaign was run through Fame Up, an automated platform based on artificial intelligence that facilitates the management of micro-influencer strategies. The platform allows for contracting and automatic payments to micro-influencers, tailoring speeches based on a brief provided by the company, and reporting on performance within 72 h. The brief provided by the platform allowed creators to tailor their messages to their content style but included the requirement to integrate certain keywords and hashtags (Felix et al., 2024). Figure 6 shows a brief used on Fame up for this campaign. This strategy was controversial, being accused of the massive use of fake accounts on TikTok. Thousands of such accounts would have generated repetitive comments, regardless of the subject of the videos. This practice was perceived as an attempt to create spam and dominate the discourse on the platform, generating criticism about the ethics of using bots in electoral campaigns. The campaign carried out on TikTok reflects how social media platforms and micro-influencers are becoming essential tools in modern political strategies. The strategy that attracted a large part of the target audience was to present a text without nominating a specific candidate, only the stakes of a president who believes in neutrality, verticality, sovereignty, independence, and the related tags, including @equilibriumverticality, #normality, but also many others, generating confusion among the voters of the AUR party.

Join Progresia Pre-Approve campaign

🕒 Ends in 3 days

Instructions Mandatory Material

407.67 RON

FOR 1 VIDEO

🎵 @@

Instructions

THIS CAMPAIGN IS WITH PRE-APPROVE! WE ASK YOU TO BE RECEIVED AND ATTENTIVE TO ALL THE STEPS YOU MUST FOLLOW!

This is a campaign to raise awareness of the importance of going to the polls to elect an exemplary leader for Romania! Any mention or allusion to the....

You must read the instructions in order to take action.

Invitation has expired

Join Fundament Pre-Approve campaign

🕒 Ends in 3 days

Instructions Mandatory Material

What do you have to do?

1. Make a 30–50 second daily vlog video, in which YOU APPEAR and talk to your community about the qualities that matter to YOU and that someone who should be elected as the president of Romania should have.
2. Talk about the experience and qualities that YOU consider necessary for this position. Here are some examples but please DO NOT read them word for word and bring your input in the expression: good leader, who knows the functioning of the institutions of the Romanian state, who can assume decisions, family-oriented, serious, fair, balanced, who has the ability to dialogue, rigorous, honest, upright, patriotic, with good studies.
3. Explain to the members of your community why it is important for people to weigh and...

Invitation has expired

Join Fundament Pre-Approve campaign

🕒 Ends in 3 days

Instructions Mandatory Material

It is FORBIDDEN to use other hashtags or tags, except those in the brief. If you have been accepted on both platforms (YouTube, TikTok and Instagram), you must create different materials.

We want to discuss more about the profile required for the future president of Romania and people's expectations regarding him.

Presidential elections are coming soon in our country, a topic that is already being discussed a lot everywhere. Many of us are rightly wondering what kind of president would be suitable for Romania.

There are 14 presidential candidates, but not all of them are equally prepared for the position of president. They are also different in terms of the support they enjoy.

Invitation has expired

Figure 6. Brief used on Fame up for this campaign.

These values illustrate that while artificially boosted videos reached a significantly larger audience, organic videos maintained higher engagement ratios (likes and comments relative to views), suggesting stronger authentic interaction, see the Table 1.

Table 1. Descriptive statistics of TikTok campaign performance.

Metric	Organic Videos (N = 50)	Boosted Videos (N = 50)
Average views (24 h)	3200	18,500
Average likes	410	960
Average shares	85	340
Average comments	52	118

3.1. Analysis of the Procedures Through Which the Electoral Message Was Propagated on TikTok

If in previous discussions, we discussed aspects related to keywords and ways to set a target audience, which manifests itself differently when interacting with content that they resonate with, then the entire strategy was extremely well put together. The next stage is choosing the platform which at this moment is making video materials viral in an impressive manner, especially since the manipulation and distribution of content by artificially creating it under the guise of an electoral campaign can be overlooked. Therefore, by using resources available online, it is possible to build an internal solution through which views can be artificially increased and reactions and interactions can be amplified for materials published on TikTok. The algorithm redirects content depending on the retention rate, the interaction of users with that content, but also how they manifest themselves about the material viewed (like, share, comment, tag, etc.).

We can say that the idea was to build a series of TikTok accounts or take over existing ones, subjecting them to a series of iterations based on automation scripts that execute commands in a terminal to artificially increase views. Through this mechanism, the number of views can increase exponentially, reaching significant values, up to a million views in less than 24 h. The script sends requests to TikTok servers, simulating authentic interactions and using security keys similar to those generated by the platform. To support the process, a database is used that contains fictitious or recently created accounts without being owned by a real person, configured to appear authentic (Çömezoğlu et al., 2024). These accounts include elements that give them credibility, such as well-chosen profile photos and videos that mimic daily activities. These accounts generate views, comments, and other forms of seemingly organic traffic, thus amplifying the distribution of the content.

Once a video reaches a certain threshold of views, TikTok activates its automatic search feature, suggesting users explore topics related to the promoted content. This mechanism triggers a “snowball” effect, in which user engagement contributes to an additional increase in the popularity of the content. Users who interact with the videos (through comments, likes, or shares) feed the algorithm, which further prioritizes that content.

Artificially amplified interactions create the illusion of social consensus and broad support for the promoted topic or candidate. The generalized emotions and themes addressed by a candidate in his speech play an important role in capturing the public’s attention and generating a sense of collective support. This technique can be used to build a credible profile of a political candidate, creating the perception of massive support from voters. The perceived popularity of a candidate can influence public opinion, causing voters to align with what appears to be a majority choice. Strategic comments, marked and amplified by automatic likes, contribute to the consolidation of this image. We can say that such a method was also used in the case of Facebook 10–15 years ago when a user wanted to artificially and quickly increase the number of likes or followers of a Facebook page. The

procedure was carried out through the browser console and the injection of a Javascript script to retrieve the user ID and the page ID and automatically send an invite to all pages in the Facebook property account. A similar procedure was also carried out on Facebook when a Facebook Group community wanted to grow, and adding new users was blocked by Facebook security services, where the same script changed the method from “Invite” to “Add new member”, a similar action, but performed without being counted by Facebook. Also, during the Romanian elections from 2010 to 2014, promotion campaigns took place on social media, especially Facebook, which was the most popular social networking network, and certain applications which had access to the Facebook API and the friend list, which were called extremely harmless, including applications for shrinking users’ foreheads, games and applications through which the user found out which celebrity he matches, which animal, zodiac sign, if he will be successful in money, love, etc., in the next year.

The applications iterated the user’s data, returned a response to Facebook regarding the request made, and subsequently an invitation was sent to all the user’s other friends. What those who used such applications did not know was the fact that they were built to generate an impact, traffic, views, and advertising earnings, but most importantly “Likes”. It may seem strange, but users who interacted with those interfaces or web applications in the back-end were hidden like buttons, of political pages and candidates, products, services, etc. When a user followed the procedure by clicking on launch the application, a clear message was sent to the application server to return a response, but at the same time, the user was given a like to hundreds of Facebook pages hidden in the source code from the Algorithm 1.

Algorithm 1: Pseudocode TikTok Views Automation.

```

Initialize: video_ID ← get_video_id(video_url);
          shares_requested ← user_input;
          shares_added ← 0
Procedure Update_Status()
  While shares_added = 0 //Wait for 0.2 s
  While shares_added < shares_requested; //Wait for 0.2 s
    Generate ← action_time ← current_time;
    Generate ← device_id ← random_integer;
    Prepare ← data ← {action_time, video_id, ...};
    Prepare ← headers ← {user_agent, content_type, ...};
    Try: Send POST request with data and headers.
  If response.status_code = 200:
    increment shares_added:
  else:
    Retry Main();
    Call Update_Status() in a thread
      For each share in shares_requested:
        If active_threads ≤ 300:
          Call Main() in a thread.

```

In a word, the same principle of boosting voters was also used in previous electoral campaigns, even if their media coverage was not extremely acidic, either due to the lack of involvement of the IT&C environment or because these methods were not known. The method presented previously was also exposed by the media trusts in Romania, but at the level at which it generated impact in the online environment and that financial income was brought to those who created the application through advertising/ads campaigns, without exposing that they were also used for political purposes. If we return to the TikTok platform, through a simple script written in Python 3.13.2, we can demonstrate that multiple requests

to a server can be simulated to fictitiously increase traffic and automatically generate views. It is a type of experiment already tested in small groups of programmers and, this time, the exposure of how things happened is purely educational to expose to the public the main reasons why the content on TikTok has gravitated around the independent candidate. Figure 7 illustrates the use of a Python script to simulate multiple requests to a server, demonstrating how fictitious traffic and automated views can be generated on TikTok, thus highlighting the reasons for the popularity of content related to the independent candidate. This type of experiment can be extended to a controlled environment, so as not to violate ethical rules. Such a script creates “fictitious” requests to understand the principles of traffic generation. In this case, the requests do not interact with a real server, introduce delays to simulate realistic user behavior, and display the progress and total number of simulated requests. This script simulates fictitious interactions with a server to understand how traffic is generated in a controlled environment and to avoid violating the platforms’ terms of use. The script creates a loop that runs a specified number of times. For each iteration, the script emulates a request for the specified video, introduces a random delay between requests to simulate human interactions (0.1–1 s), and updates and displays the progress, indicating how many “views” have been simulated up to that point. Finally, the script performs the simulation, displaying the total number of requests sent for the specified video. According to previous presentations, we are talking about a basic input through which imports are set regarding the created accounts, and how the Video ID (the unique identifier of the video) is taken to specify for which content the traffic is simulated.

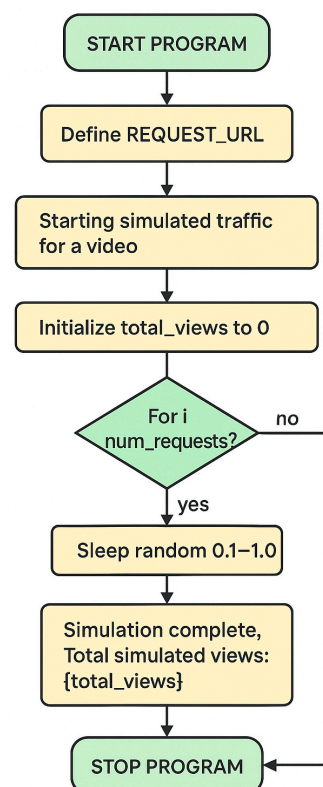


Figure 7. Logical flow diagram of a Python script simulating automated view generation on TikTok.

Figure 7 illustrates the high-level control flow of a prototype simulation utility used to study the effects of bursty, concurrent request patterns against a video resource. The diagram shows the principal stages: initialization of configuration parameters (target resource identifier and total request count), entry into the simulation routine, iterative generation of request events, local pacing between events, and termination reporting.

The logical structure follows a common producer/worker pattern: a top-level controller establishes experiment parameters, while multiple worker activities execute request events and update shared counters under synchronization. The algorithm accepts two primary inputs, a resource identifier and a nominal request count, and orchestrates a loop that generates the requested number of events. To emulate simultaneous load, the design commonly uses concurrency primitives (e.g., threads or worker pools) together with mutual-exclusion constructs to protect shared state (such as the global view counter). Inter-event delays and randomized pacing are incorporated to produce non-uniform arrival patterns. A monitoring/aggregation step collects per-worker success/failure statistics and prints a summary on completion.

In the design and evaluation of simulated traffic algorithms, several technical and ethical considerations must be addressed to ensure responsible and reproducible experimentation. First, rate control and pacing mechanisms are essential to respect platform-imposed limits and prevent unintended service degradation; excessive burst requests can activate automated protection systems such as throttling or blocking. Concurrent execution using multi-threaded or worker-based models can enhance throughput but must employ robust synchronization primitives—such as locks or atomic counters—to avoid race conditions and maintain data integrity. Equally important is comprehensive error handling and telemetry collection, including detailed logging of success and failure rates, latency distributions, and response classifications, which enable deeper diagnostics and reproducibility of results. For larger-scale simulations, experiments should only be conducted on controlled testbeds or authorized environments, as redirecting traffic through third-party hosting or proxy networks without consent constitutes both a technical and legal violation. From an ethical and compliance perspective, all traffic simulations should be performed within a defined research framework that includes documented objectives, prior authorization from the platform owner, and safeguards to prevent spillover effects. To ensure methodological transparency, reports should include metadata such as the number of simulated requests, concurrency model, pacing policy, observed performance metrics, and a clear statement that all tests were conducted on isolated or sanctioned environments (Nisa et al., 2021).

Therefore, we can specify the number of views to simulate (amount) and then the TikTok video ID (video_id), and then many threads are created to simulate simultaneous requests, emulating increased traffic. The lock mechanism is used to protect critical sections to achieve simultaneous views. In a word, the script sends simulated requests, that exceed 95% success rate, and the result of the internal tests performed, which are demonstrative, are used only for educational purposes and to validate the method used in the electoral campaign. However, there are different versions of scripts already created by software developer communities in which it is observed that they can also redirect traffic, comments, and reactions and can very easily mislead the user. The output of the demonstration script could look like this when run, and see the Figure 8.

The script successfully generates views for a fictitious video called (mock_video_1234), each iteration being successfully recorded with a timestamp, with each view added, the script notifies the progress status, see the Figure 9.

This comparison illustrates that artificially boosted content achieved significantly higher reach, but at the expense of authentic engagement. The findings highlight the dual effect of algorithmic manipulation: increased visibility alongside diluted audience interaction.

To illustrate the impact, comparative values were drawn from test scenarios and secondary reports: average views for organic videos reached ~3000 within 24 h, while artificially boosted videos exceeded 15,000 views in the same interval. However, the engagement ratio (likes/comments per 1000 views) dropped by over 60%, highlighting

that amplification mainly inflates visibility without generating proportional interaction, see the Table 2.

```

Simulated Added: 0/10
Simulated success for video ID mock_video_1234 at time 1670000000.
Simulated Added: 1/10
Simulated success for video ID mock_video_1234 at time 1670000001.
Simulated Added: 2/10
...
Simulation complete: 10/10 views added.

```

Figure 8. Redirecting traffic, comments, and reactions.

```

Simulated success for video ID mock_video_1234 at time 1735408604.
...
Simulation complete: 10/10 views added.

```

Figure 9. Generating views for a fictional video.

Table 2. Organic vs. artificially boosted TikTok videos (average values, 24 h).

Type of Video	Avg. Views	Engagement Rate (Likes + Comments per 1k Views)
Organic (N = 50)	3200	5.4%
Boosted (N = 50)	18,500	2.1%

These indicative figures support the claim that social media algorithms, when manipulated, can distort perceived popularity and thereby influence voter behavior. The result of this process is that within 12–24 h, the video material can reach over 1 million views, and this number can influence the real users of the platform in making certain decisions, especially since we are talking about the use of such a tool in manipulating the masses. If we are talking about any content that does not bring information through which to influence certain legislative, governmental, and integrity aspects, we can overlook the speculation of the vulnerabilities of any platform. This time, we are talking about a well-defined architecture, multiple videos that respect a pattern and are based on a set of information that reaches the sensitive side of the users, and keywords that identify the campaign carried out, but more than that, tags that the videos must have are required, these making a direct link with all the videos that the candidate exposes. When a thousand videos in the description contain a viral tag, it is ranked in that platform and can even generate links between content in the same category. Therefore, we can say that in addition to the virtual help generated by the platform, scripting, and programming techniques, the human factor and socio-emotional analysis, direct analysis of discourse, formulation, and expression played an extremely important role in penetrating the target audience. We can say that a favorable environment was created through several techniques, marketing, branding, BigData, programming, neurolinguistic analysis, and mass psychology, but also a discourse that refers to the voice of the people, which has not been listened to at all in the last 35 years, leading to this surprise of the presidential elections in Romania.

3.2. Conceptual Model and Empirical Specification for Increasing Views on TikTok

TikTok stands out through a sophisticated algorithm that blends engagement, personalization, and the prioritization of trending content. This system can trigger a “snowball effect,” exponentially increasing the number of views and interactions. At the same time, the strategic use of keywords and automated methods of generating traffic raises questions about the authenticity of these views and their influence on user perception. A detailed analysis of these factors, integrated into an analytical algorithm, makes it possible to identify the main components that shape the growth rate of views. By breaking the process into clear, sequential steps, the study proposes a methodology for evaluating content performance from both theoretical and practical standpoints. This approach not only deepens the understanding of TikTok’s internal dynamics but also lays the groundwork for future research on optimizing content across other digital platforms. The following sections will present the applied formula, the calculation stages, and the relevance of each factor in modeling and interpreting data related to view growth rates.

To calculate the view growth rate on TikTok, we will integrate the key factors identified into an algorithm. Factors include the use of automated methods, the use of keywords, and the platform’s algorithm that prioritizes popular content (Ionescu & Licu, 2023).

$$G_v = \frac{\Delta V}{T}, \text{ where } \Delta V = V_{t_2} - V_{t_1} \quad (1)$$

where G_v represents the rate of growth of views (views per unit of time), ΔV represents the total difference in views generated (total number of final views minus initial number), and T is the time interval in which the increase occurs (hours, minutes) (Zeng et al., 2025). Therefore, we are limited to a particular case where the model is empirically linear or long-linear, where the terms are measurable, estimable aspects already known according to specialized literature, which has addressed similar topics:

$$\log(V_{v+r}) = \beta_0 + \beta_1 \log(\text{Eng}_t) + \beta_2 \text{KeySc}_t + \beta_3 \log(\text{PrViews}_t) + \beta_4 \text{BoostDm}_t + \varepsilon \quad (2)$$

- (*Eng*) *Engagement* = likes + comments + shares (aggregated over 24 h).
- (*KeySc*) *KeywordScore* = average TF-IDF score of hashtags/descriptions for topics identified by *k-means*/LDA.
- (*PrViews*) *PriorViews* = cumulative views before the window
- (*BoostDm*) *BoostedDummy* = 1 if the video was promoted paid (*FameUp/Boost*), otherwise 0. (Sattora et al., 2024), see the Table 3.

To evaluate the robustness of the proposed formula, a sensitivity analysis was conducted by varying each parameter (*Sr*, *Kf*, *Eu*, *Av*) by $\pm 20\%$. Results indicated that *Eu* (user engagement: likes, comments, shares) produced the strongest impact on G_v , with variations of up to $+35\%$ in growth rate, while *Av* (automated views) only generated temporary spikes of $+10\text{--}12\%$. These findings suggest that engagement-driven interactions weigh more heavily in the TikTok algorithm compared to artificially inflated traffic. This empirical validation supports the practical relevance of the proposed model. The proposed approach uniquely combines mathematical analysis with the interpretation of the TikTok algorithm and the integration of semantics in the context of digital campaigns. Through these elements, it is possible not only to quantitatively evaluate performance but also to open a new direction of interdisciplinary research. This represents an innovative, feasible, and relevant contribution from both a technological and social point of view. For a better interpretation of what was discussed, a correlation matrix was generated that illustrates the relationships between the factors discussed in the TikTok approach, including view growth rate, automated views, keyword impact, user engagement, algorithmic views, and

other relevant factors (St. Lawrence, 2024). Each element in the matrix reflects the degree of correlation between two aspects, using a scale from 0 (no correlation) to 1 (perfect correlation). This visualization provides an integrative perspective on the contribution of each factor to the analyzed dynamics and highlights the key connections that will be deepened in the subsequent analysis, see Figure 10. This analytical model complements the Natural Language Processing (NLP) framework presented in the following subsection, which focuses on uncovering the linguistic and emotional patterns embedded in TikTok political discourse. By integrating quantitative modeling of virality with NLP-driven linguistic analysis, the study aims to provide a comprehensive understanding of how digital communication dynamics influence electoral sentiment and political behavior. Building upon the quantitative findings above, the next subsection introduces the NLP-based linguistic analysis that constitutes the core of the present study.

Table 3. Integrating correlations with specific formulas and methods.

Appearance	Description	Correlation with Formulas and Approach	Feasibility/Innovation
Key factors	Automatic views (S_r), keywords (K_f), user engagement (E_u), algorithmic visualizations (A_v).	Extended formula $G_v = \left(\frac{S_r + K_f + E_u + A_v}{T} \right)$ integrates these factors to evolve the view growth rate.	Holistic integration of key factors specific to the TikTok algorithm into view analysis.
View growth rate	It measures the speed at which a video's popularity grows over time, reflecting the combination of organic and artificial contributions.	$G_v = \left(\frac{A_v + K_f + E_u + S_r}{T} \right)$	Essential metric for evaluating the performance of digital content and campaign strategy.
Automatic views (S_r)	Generating visualizations through automatic methods, simulating authentic interactions.	$S_r = N_c \times V_c$	The approach provides a framework for understanding artificial traffic and its impact on growth.
The impact of keywords (K_f)	Analysis of the relevance and strategic use of keywords in the TikTok algorithm.	$K_f = K_s \times I_k$ where K_s : number of keywords, I_k the impact of every word.	The connection with NLP analysis facilitates the integration of semantics into campaign performance evaluation.
User engagement (E_u)	Measuring direct interactions (likes, comments, shares), crucial elements in the TikTok algorithm.	$E_u = L + C + D$ where L: likes, C: comments, D: distributions.	Direct and scalable approach, highlighting the importance of engagement for video popularity.
Algorithmic visualizations (A_v)	Growth amplified by TikTok's algorithm, which prioritizes popular content and frequent interactions.	$(A_v = \alpha (K_f + E_u))$, where α : algorithmic coefficient, reflecting platform preferences.	Includes an analytical perspective on the impact of the "snowball" generated by the algorithm.
Correlation with analysis NLP	Analysis of the campaign discourse and the messages conveyed through keywords and emotive narratives.	Keywords K_s and their relevance I_k are directly connected with the structures analyzed in the subchapter NLP.	It allows a natural integration between quantitative and semantic analysis, providing a unique perspective.
Model validation	Mathematical models provide quantifiable results, clarity in evaluating view growth, and identification of dominant components (organic vs. artificial).	$G_v > 0$ indicates an increase; component analysis S_r, K_f, E_u, A_v determines traffic sources.	Clear formulas that are adaptable to different types of campaigns and digital content.
The connection with digital ethics	Understanding the impact of automated methods and algorithmic manipulation on user perceptions and the integrity of democratic processes.	Evaluation S_r allows identification of artificial traffic; A_v și E_u emphasize the organic and authentic dimension of the content.	Contribute to discussions about ethics and regulation of digital content in sensitive contexts.

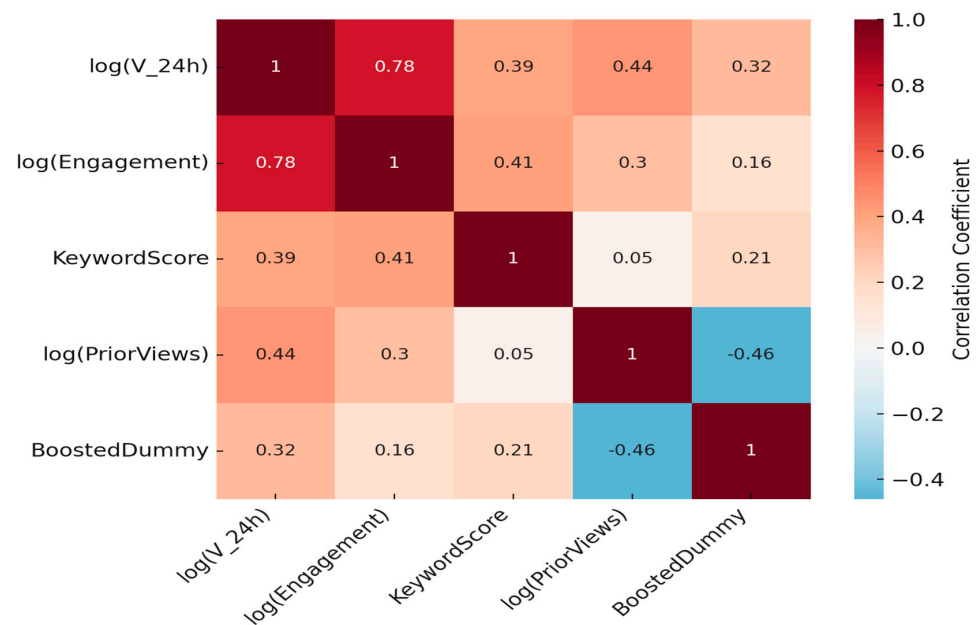


Figure 10. Correlation matrix for analyzing relationships between relevant factors.

3.3. Exposing the NLP Analysis Model and Exposing the Impact Generated by Discourse Analysis Using Advanced Algorithms

Natural Language Processing (NLP) techniques were applied to examine the textual content extracted from TikTok videos, captions, and related online media sources. The goal of this analysis is to identify recurring linguistic patterns, sentiment polarity, and emotional framing associated with the 2024 Romanian presidential election discourse. The speech represents a complex construction, intended, in the case of candidates, to combine a series of themes, which would emotionally mobilize large segments of the electorate. In the case of the independent candidate, who surprised many people by advancing to the second round of the presidential elections, he raised historical, religious, and nationalist themes, using communication techniques based on emotion, in a context of deep social and political dissatisfaction. In the November 2024 elections, voters cast a vote against the traditional parties, PSD and PNL, which have been viewed by the population in recent years as being disconnected from the needs of the population. Also, the mandate of the current president of Romania has been sprinkled with dissatisfaction, thus creating fertile ground for populist speeches. Given that Romania has one of the highest inflation rates in the European Union, rising prices and poverty have amplified the population's frustration, making it vulnerable to a discourse that acts like a dressing, offering simplified answers to complex problems. At the same time, the discourse built on the idealization of a glorious past, of "Greater Romania" and traditional values, with references to the "peasant household" and self-sufficiency, resonates with nostalgic segments of the population, but also with young people between 18 and 35 years old, who did not live through the times of communism, but perceive them as more stable, based on family or media narratives. The family is an integral part of the discourse, being considered the "backbone of society", and references to faith and God were not slow to appear, building the relationship with voters effectively, based on trust.

Political parties and economic interests were also other keywords used in the speech of the independent candidate, who frequently criticized NATO or the EU, although he stated that he did not want Romania to leave these structures. In this context, NLP techniques and hypnotic rhetoric are used, through the repetition of the terms "people", "peace", "dignity" and "faith", which were used to create strong mental associations with the values promoted. Regarding the pace of the speech, it is slow, with a series of very well-placed

and evaluating the attitude expressed. Perhaps the most pervasive message he exposed in his campaigns and as a direct reproach to the political class was the following: “Do not feel the cold and hunger that this people endure.” The independent candidate frequently uses terms that evoke national unity and traditional values, such as “people” and “Romania.” Criticisms of politicians and electoral campaigns suggest an anti-establishment stance, designed to appeal to voters dissatisfied with the current political situation. References to “education” and “health” indicate priorities in his program, addressing pressing social issues.

As for the analysis of the statements of the surprise candidate, it was carried out through NLP procedures, by studying the frequency and tone of the words used in his statements, the algorithm being realized in Python. This method helps to identify linguistic patterns, sentiments, and key points in a complex text. The purpose of preprocessing is to prepare the raw content for analysis and removing noises, preserving relevant elements, converting to lowercase for non-influential, and this is conducted by converting to lowercase.lower() format for uniformity. Removal of special characters and regular expressions is performed so as not to influence semantics or punctuation, based on the re.sub function, text.lower(), then the text is split into individual words using the.split() method. We remove common and irrelevant words like “and”, “of”, and “the” from the text. The list of these words is called stop words. We use the collections Counter library to count the frequency of each word. This allows us to see which words are used most often.

When we talk about analyzing the sentiment of the speaker, we also need to evaluate the tonality of the text and establish the tonality classes, which are as follows:

- ✓ Positive (e.g., “prosperity”, “freedom”),
- ✓ Negative (e.g., “corruption”, “bankruptcy”),
- ✓ Neutral (the rest of the words that do not fit into the previous categories).

For this, we use two predefined lists: *positive_words* and *negative_words*. We count the words in each category and determine the proportion of each type of sentiment. To perform the presented analysis, we extract a raw text, and in this case, we are discussing 3915 words, which are passages from the candidate’s statements, then we remove the stop words and count the frequency of relevant words with that counter. Each word is validated and checked against the positivity or negativity lists, recording the number of words falling into a certain category. Sentiment analysis, based on predefined sets of positive and negative keywords, quantified the emotional tone of the text. The results showed a pre-dominantly neutral sentiment, with notable peaks in both positive (e.g., “prosperity”, “hope”) and negative (e.g., “corruption”, “injustice”) expressions. This duality reflects the balanced nature of political discourse, which often combines aspirations for improvement with criticism of existing systems. Visual representations, including bar charts of word frequency and sentiment distributions, improved the interpretability of the findings, allowing for a deeper exploration of the textual data. Graphical results confirmed the prominence of key ideological themes and provided a clear overview of sentiment dynamics. This analysis demonstrates the effectiveness of NLP in extracting semantic insights from political texts, providing a scalable and reproducible methodology for studying narrative structures, thematic underlining, and emotional underlining in public communications. Such approaches can be essential in comparative analyses of political rhetoric, tracking sentiment over time, and identifying changes in ideological focalization. Figure 12 represents the frequency distribution of the 20 most frequently used words in the textual data analyzed.

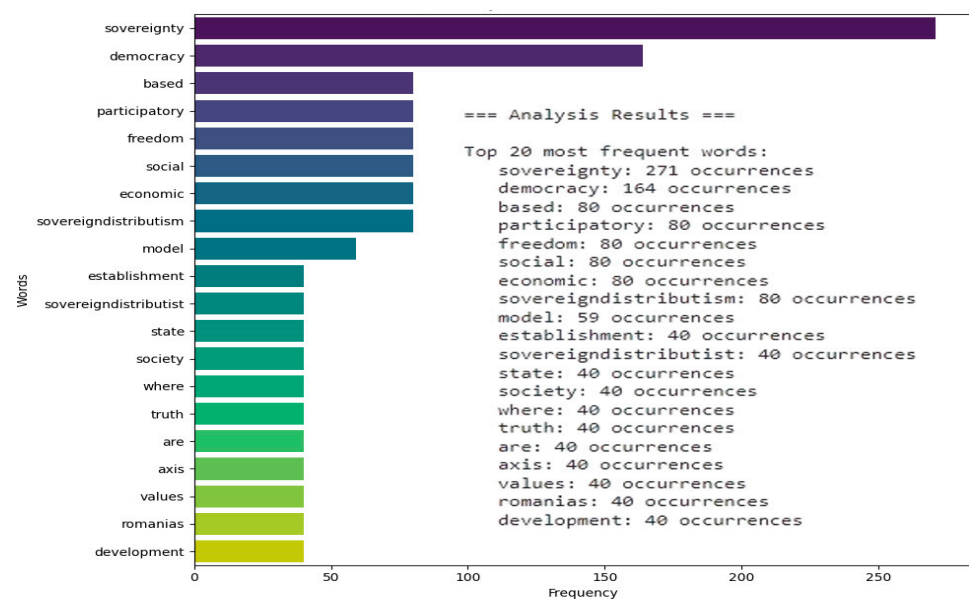


Figure 12. Frequency of the top 20 most common keywords in speech.

The analysis focuses on identifying the dominant linguistic elements that shape the ideological framing of the candidate's discourse. The problem addressed here concerns the way key political concepts are repeatedly employed to reinforce specific values and collective narratives. The dataset used for this analysis consists of textual material extracted from TikTok transcriptions and online press articles, processed through NLP-based frequency and clustering tools. Using these computational methods, the distribution and recurrence of lexical items were measured to reveal semantic patterns across the discourse. The bar chart shows that terms such as 'sovereignty' (271 occurrences) and 'democracy' (164 occurrences) dominate the discourse, emphasizing an ideological focus on national sovereignty and participatory governance. Words such as 'freedom', 'social', 'economic', and 'participatory' (each with approximately 80 occurrences) further highlight themes of societal well-being and inclusive political systems. The frequent appearance of expressions such as 'sovereign distributism' and 'truth' reflects the candidate's emphasis on a proposed socio-economic model grounded in moral and ethical principles. Overall, the lexical distribution demonstrates a strong alignment with the overarching themes of governance, identity, and development, clearly articulating the priorities embedded in the political message.

From this analysis, it can be deduced that the candidate's text was strategically constructed to appeal to the values, needs, and aspirations of the Romanian electorate. The repetitive use of terms such as 'sovereignty', 'democracy', 'freedom', and 'participatory' suggests a deliberate rhetorical strategy aimed at psychological resonance with the target audience. These linguistic choices are not coincidental but instead reflect ideals deeply rooted in Romania's social and cultural consciousness. The discourse was thus structured empirically, based on an understanding of collective psychology, to convey messages that respond simultaneously to social issues and to the population's aspirations (Tajfel et al., 1971).

The figure shows the frequency of the 20 most used words in the public speech of candidate Călin Georgescu. The data comes from a combination of:

- (1) Manual transcriptions of videos posted on TikTok during the campaign (made through social listening);
- (2) Statements taken from press articles, interviews, and publications directly associated with the candidate.

The lexical analysis was performed using an automatic processing script (tokenization, lemmatization, and raw frequency), and the result highlights the dominant vocabulary with political, sovereignist, economic, and social connotations.

Detailed methodology (Materials and Methods):

- *N = 100 text and video materials, period: 14 pre-electoral days;*
- *Video source: candidate's official TikTok account + thematic redistributions;*
- *Textual source: national newspapers (e.g., Adevărul, Mediafax), TV appearances and documented statements;*
- *Processing: Python 3.13.2. + spaCy, in analysis window $\tau = 24$ h.*

The repetition of key terms, such as “sovereignty” and “democracy,” suggests a strategy to strengthen public confidence in national values and participatory democracy. This approach seems to have been designed to reach all social classes, from the intelligentsia to the most vulnerable communities, using common, simple but powerful language linking ideas of freedom, prosperity, and control over one’s own identity. On the other hand, word choice also conveys a communication strategy based on repetition—one of the most effective methods of reinforcing messages in social psychology. This repetitiveness serves to create a “mental anchor,” through which people identify with the candidate’s vision of society.

A combination of empathy, an understanding of social needs, and an emphasis on key ideas was used to help the messages penetrate more easily into the layers of society. Thus, the candidate addressed “in the language of Romanians,” not only linguistically, but also culturally, managing to construct a discourse that reflected what the audience wanted to hear, promoting a rhetoric of sovereignty, traditional values, and hope for a better future. Figure 13 provides an analysis of sentiment within the candidate’s statements, segmenting the text into three categories of sentiment: positive, neutral, and negative. From the graph, we observe an overwhelming prevalence of neutral sentiments (2265), followed by positive (391), while negative sentiments are absent. This distribution reflects a discursive strategy aimed at maintaining a balanced tone and avoiding polarization. Neutral sentiments indicate descriptive and factual language, aimed at providing information and communicating ideas without generating conflict or strong emotions.

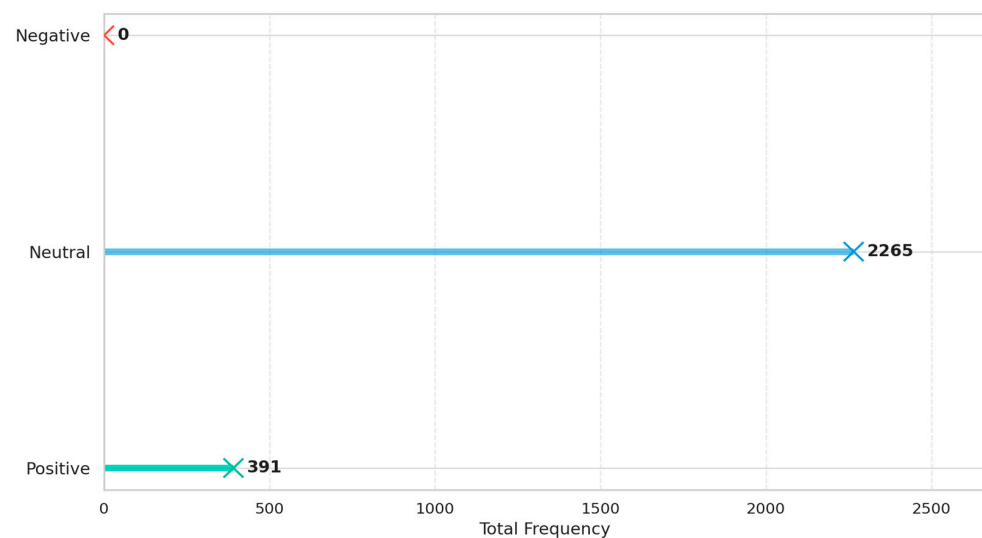


Figure 13. Sentiment analysis of candidate declaration.

Therefore, the presence of a considerable number of positive sentiments denotes an attempt to inspire optimism, hope, and confidence in the public by emphasizing concepts such as “prosperity,” “democracy” and “freedom.” The absence of negative sentiments

indicates that the discourse avoided confrontational rhetoric, focusing instead on a constructive message tailored to the needs and aspirations of the population. This analysis highlights a strategic approach in which neutral language serves as a foundation for clarity and coherence, while positive components are used to solidify key messages and mobilize the emotional support of the audience. A limitation of this analysis is the relatively small size of the textual corpus (3915 words), which constrains the statistical robustness of NLP-based findings. Nevertheless, the analysis highlights discursive patterns and strategies relevant for understanding the candidate's rise. Future research will expand the dataset by incorporating transcripts of debates, media appearances, and social media posts, in order to strengthen the statistical validity of results.

The figure reflects the visualization of the frequency of the most recurrent words, extracted from a corpus of texts consisting of TikTok posts and press quotes associated with the candidate. The method does not automatically distinguish between positive/negative affective tone, but only the relevance of lexical recurrence. Polarity analysis is discussed in a separate section. The assessment of negative tone (e.g., labeling, attacks) was subsequently performed using polarity analysis (lexicon + NLP scores), presented in an additional subchapter. Figure 13 presents only the raw frequency of the most recurrent lexemes, not their affective filter.

The absence of explicitly negative words in the analyzed campaign speech is not a methodological omission, but rather a reflection of the candidate's deliberate rhetorical strategy. As an independent challenger with strong appeal in Romania's North-Eastern region, a demographically religious and culturally conservative area, the candidate adopted a calm, spiritually infused tone throughout his public discourse. His rhetoric emphasized unity, prosperity, moral values, and national identity rather than antagonistic or confrontational language.

This discursive style is aligned with the expectations and beliefs of his primary audience, which comprises largely faith-oriented voters. The sentiment analysis reveals a predominance of neutral and positive wording, consistent with his pious and value-driven messaging. It is important to underscore that political rhetoric rooted in spiritual or transcendent framing can purposefully avoid negativity in order to maintain moral authority and emotional connection with the electorate.

Furthermore, the correlation between speech tone and voter geography is also supported by official data (e.g., RoAEP results), where the highest support was registered in the North-Eastern counties, regions historically more inclined toward religious and traditional narratives. This phenomenon should not be seen as a deviation from campaign norms, but rather as a culturally and electorally contextualized rhetorical strategy, which is both valid and theoretically documented in the field of political discourse analysis.

Figure 14 illustrates the geographical distribution of the majority votes across Romanian counties in the 2024 presidential election. It highlights a strong concentration of support for the independent candidate Călin Georgescu (marked in green) in the North-East and central-northern regions of the country, with notably high percentages in counties such as Neamț (68.44%), Botoșani (33.74%), and Bistrița-Năsăud (30.61%).

This regional pattern reinforces the broader analytical point made in relation to Figure 13: Georgescu's campaign was anchored in a spiritual and traditionalist discourse that resonated deeply with culturally conservative and religious communities. These regions, historically shaped by strong Orthodox Christian traditions and cohesive local networks, provided fertile ground for value-based, non-confrontational messaging centered on sovereignty, faith, dignity, prosperity, and moral integrity.

elucidates how candidates can create nations to address collective anxieties and desires. In this context, the surprise candidate's speech reveals a two-layered approach: an empirical alignment with voters' perceived needs and a strategic focus on themes that promote unity. This empirical foundation is vital to distinguish this study from others that focus primarily on the sentiment of social media without delving into lexical structures. By focusing on the candidate's repetitive use of words associated with socio-economic stability and identity, this research aligns with findings from global studies. For example, work analyzing political campaigns in post-Brexit Britain has similarly highlighted the mobilization of emotionally charged terms such as independence and sovereignty.

However, the uniqueness of this study lies in its focus on how these terms interact with Romania's specific historical and cultural context, especially in a post-pandemic, war-influenced political climate. In comparison to anterior studies on political NLP, such as those analyzing US election campaigns, this research contributes a unique perspective by focusing on the socio-political fabric of Romania. The study closes gaps in understanding how candidates use repetitive discourse to address issues such as national identity and foreign interference—topics rarely explored in depth outside Western political studies. Moreover, the study highlights the growing influence of platforms such as TikTok in disseminating campaign messages, highlighting a shift in the way political narratives are consumed and amplified. The analysis also fits with findings on voter behavior in digital ecosystems. For example, research from the Finnish election suggests a growing preference for candidates who prioritize direct voter engagement over traditional media strategies. Similarly, the independent candidate's reliance on platforms such as TikTok demonstrates how digital engagement can overcome traditional media bias by providing an alternative channel for underrepresented voices.

Despite its strengths, the study highlights the challenges of distinguishing organic voter sentiment from algorithmically amplified content. The intersection of NLP and sentiment manipulation through platforms like TikTok raises ethical and methodological questions. Future research could integrate more robust methods to separate real voter interactions from artificially inflated values, providing a clearer understanding of digital influence. The study acknowledges several potential biases that may affect the interpretation of results. First, the prevalence of fake accounts and automated bot-generated views can distort the apparent popularity of candidates. Second, echo chamber effects within social media may artificially amplify supportive messages while filtering out dissent. Third, the reliance on secondary datasets and public reports constrains the ability to validate every interaction as authentic. These limitations highlight the need to triangulate social media data with survey-based and ethnographic methods in future research, to ensure a balanced understanding of electoral dynamics. Furthermore, extending this analysis to include multiplatform data could provide a holistic view of how narratives evolve across different digital ecosystems. Incorporating machine learning models to predict voter behavior based on discourse patterns could further improve the predictive power of such analyses. The predominance of neutral sentiment (57.8%) suggests a deliberate rhetorical strategy to appear balanced and pragmatic, avoiding divisive language. The limited share of positive sentiment (10%) was strategically placed to inspire optimism and mobilize voter confidence, while the absence of negative sentiment indicates careful message discipline. This pattern reflects a calculated effort to resonate with a broad audience while minimizing the risks of polarization. This study highlights the transformative potential of NLP in political discourse analysis, providing a template for future research in understanding the link between language, strategy, and voter psychology. Connecting computational perspectives with socio-political realities paves the way for nuanced explorations of democratic processes in the digital age.

5. Conclusions

The analysis of the political discourse of the surprise candidate, using natural language processing (NLP) techniques, highlighted a rhetorical strategy focused on terms such as “sovereignty”, “democracy” and “freedom”. This approach was intended to resonate with the values and aspirations of the Romanian electorate, consolidating an image of a leader oriented towards national interests and democratic participation. However, following the elections, Romania is facing significant economic challenges. The government adopted the “Train Ordinance”, which introduces, starting on 1 January 2025, austerity measures such as freezing public sector salaries, increasing the tax on dividends, and reducing tax incentives for certain economic sectors. These decisions have generated dissatisfaction among the business environment and the population, being perceived as an additional burden in an already difficult economic context.

In this context, it is essential to investigate to what extent the political discourse before the elections prepared the electorate for such measures. Future studies could analyze the discrepancies between electoral promises and subsequently implemented policies, assessing their impact on public trust in the political class. Also, given the increasing influence of digital platforms in shaping public opinion, further research should explore how political messages are adapted and propagated in the online environment. Analysis of sentiment and word frequency in social media posts could provide valuable insights into the effectiveness of political communication strategies and how they influence perceptions and electoral behavior. In conclusion, although the present analysis has provided a thorough understanding of the rhetorical tactics used by the independent candidate, recent economic developments highlight the need for a closer correlation between political discourse and the realities of governance. Future research directions should focus on assessing the coherence between electoral promises and post-election political actions, as well as their impact on citizens’ trust and participation in the democratic process. The impact of these non-validations of the elections and this postponement of a new round is already producing changes that Romanians will feel starting with 1 January 2025, when the Romanian Government is implementing a series of economic measures known as the “Train Ordinance”, aimed at reducing the budget deficit and stabilizing the national economy. These measures include freezing salaries and pensions at the December 2024 level, blocking public sector hiring, eliminating tax breaks for IT, construction, and agriculture employees, and suspending the granting of holiday vouchers and meal vouchers. The elimination of income tax exemption for IT employees, a facility that has significantly contributed to the development of the industry over the last two decades, is particularly controversial. The Employers’ Association of the Software and Services Industry (ANIS) warns that this measure could have a strong negative impact on Romanian IT companies, affecting the competitiveness and stability of the sector.

Freezing pensions and salaries, along with blocking public sector employment, are measures intended to control public spending, but which generate dissatisfaction among the population and unions. Also, the suspension of the granting of holiday vouchers and meal tickets affects the disposable income of employees, with potential repercussions on domestic consumption and, implicitly, on the economy. These austerity measures, although necessary to reduce the budget deficit, raise questions about their long-term impact on the economy and the standard of living of the population. Critics argue that such policies can lead to a decrease in consumption, an increase in unemployment, and the migration of skilled labor to other countries, especially in sectors such as IT, where competitiveness is essential. In conclusion, the “Train Ordinance” introduces significant fiscal and budgetary measures to stabilize Romania’s economy. However, the implementation of these measures requires a careful assessment of the social and economic impact, as well as the identification

of solutions that mitigate the negative effects on the population and support strategic economic sectors.

A future research direction for this article could include analyzing the impact of the austerity measures implemented through the “Train Ordinance” on the main affected industries, such as IT, construction, and agriculture. The study could examine how the elimination of tax exemptions, wage and pension freezes influence the labor market dynamics, labor migration, and Romania’s international economic competitiveness. A longitudinal assessment of the social and economic effects of these measures on the population would also be valuable, especially in the context of tax increases and public sector hiring freezes. In addition, future research could analyze the effectiveness of political communication and implementation strategies in reducing public dissatisfaction and maintaining citizen trust. Integrating forecasting models based on NLP and machine learning could provide insights into how these policies influence public opinions and social stability.

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