



Regular Article

Applying Google trends to analyze electoral Outcomes: A 2024 cross-national perspective

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ABSTRACT

This study analyzes whether Google Trends data, when applied in a cross-country context, offers a consistent and meaningful indicator of electoral outcomes across different national elections. To do this, it examines how Google Trends data in national, single-round elections held in 2024 correspond to the relationship between search volumes for candidates or political parties in the week preceding elections and key electoral metrics such as vote share, winning status, and candidate ranking. The analysis demonstrates that online search behavior serves as a valuable proxy for gauging public interest and helps illustrate patterns of voter engagement. By employing adjusted Google Trends scores, which calculate each candidate's or party's proportion of the total search interest for all major contenders on a given day (so that the combined search shares for all included candidates or parties sum to 100 % of the total search volume for that day, hereafter "proportional representation"), these metrics reduce data noise and outliers. The study also demonstrates that these refined metrics exhibit stronger associations with electoral outcomes compared to the unadjusted search data. The main contribution of this study lies in its cross-country approach, offering a comparative perspective on how search interest may relate to voting behavior across diverse contexts. Moreover, the study discusses inherent limitations, including the inability of Google Trends to differentiate between positive and negative search intent and its sensitivity to demographic and regional variations in search behavior. By conducting a comprehensive cross-country analysis of multiple elections, this research contributes to the expanding literature on the application of digital data analytics in social and political research and underscores the descriptive utility of search data across different electoral contexts.

1. Introduction

In an era characterized by an abundance of digital trace data, scholars and practitioners have increasingly embraced novel sources of information to understand the social and political landscape (Kuchler & Stroebel, 2023; Jungherr & Theocharis, 2017). Tools such as Google Trends offer near-real-time insights into the collective search behavior of internet users by aggregating and normalizing query volumes. In political science, the use of Google Trends in election research is grounded in the premise that heightened online interest manifested through increased search activity may correlate with electoral support (Trevisan et al., 2018; Reilly et al., 2012). However, prior research has largely been limited to within-country or single-election case studies. By advancing a cross-country framework, this study seeks to clarify the broader significance of digital search data for comparative politics and election research.

The novelty of this study is its systematic cross-national application

of Google Trends data, using a uniform methodological framework to analyze 42 national, single-round elections from the 2024 cycle. Unlike previous studies limited to single-country or single-election contexts, this research offers a uniquely broad comparative perspective on the relationship between online search interest and electoral outcomes across diverse political systems. Specifically, the study aims to assess the utility of Google Trends as a tool for election research by examining whether search data collected in the week preceding these elections are associated with vote share, winning status, and candidate or party ranking.

Early efforts underscored the timeliness, accessibility, and broad representativeness of aggregated internet search data in fields such as public health and economics (Choi & Varian, 2012). However, using search queries for influenza surveillance (Ginsberg et al., 2009) is now often cited as a cautionary tale because subsequent findings showed that Google Flu Trends could overestimate influenza rates, revealing the pitfalls of uncritically relying on big data (Lazer et al., 2014). This

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caution also applies to election research: while correlations frequently emerge between search volume and electoral performance, they do not guarantee causation or consistently accurate outcomes. Nevertheless, the rise of digital trace data has precipitated a paradigm shift in political analysis by complementing traditional instruments such as polls and surveys with real-time evidence of public information-seeking behavior. Digital trace data is immediately available, cost-effective, and reflective of actual user behavior rather than mere self-reported opinions, making it especially valuable when studying sensitive political topics (Lenart, 2024; Jungherr & Theocharis, 2017). Research has shown that search data can serve as a proxy for public opinion and illuminate the effects of campaign events on political interest (Whyte, 2016). Moreover, in an increasingly interconnected digital landscape, the signals embedded within online search patterns may provide early indications of shifts in voter behavior and campaign dynamics.

The practical and theoretical significance of cross-country applications of Google Trends data in election research is thus twofold. First, they provide a means to systematically compare public interest across diverse political contexts, revealing both shared and unique patterns of voter engagement. Second, such comparative digital analyses can complement more established methods like opinion polling by offering additional, near-real-time evidence of public attention that can be especially valuable where survey infrastructure is limited, rapidly changing, or subject to self-reporting biases.

The transformative impact of digital technologies extends beyond search engines. Social media platforms have reshaped political participation and information dissemination by fostering broader engagement and enabling the rapid organization of movements (Ariestandy et al., 2024; Bennett et al., 2012). These platforms have contributed to a hybrid communicative environment, where the production, distribution, and consumption of political information are continuously evolving (Calderaro, 2018; Casero-Ripollés, 2018). In this context, fluctuations in search volume are not merely reflections of curiosity but may also indicate deeper changes in voter behavior and campaign trajectories (Nickerson & Rogers, 2014; Polykalas et al., 2013a, 2013b; Swearingen & Ripberger, 2014). For instance, multiple studies examined parliamentary, presidential elections, and referenda, finding varying degrees of accuracy in Google Trends-based predictions, while also showing that search volumes often correlate with vote shares and candidate popularity (Abdullah et al., 2024; Behnert et al., 2024; Kumar et al., 2024; Mavragani & Tsagarakis, 2016; Vergara-Perucich, 2022; Yoon et al., 2022). Nonetheless, these studies differ in the precise contexts, data windows, and model classes utilized.

This study's comparative design represents a significant advancement over previous single-country or single-election analyses, demonstrating the generalizability of Google Trends data as an indicator of electoral dynamics across diverse political systems. Importantly, the practical significance of the results lies in providing policymakers, election observers, and political analysts with a low-cost, real-time indicator of public attention that can supplement traditional polling and survey methods, especially in contexts where such resources are limited or unreliable. The findings show that digital trace data can be rapidly mobilized for comparative political analysis, enabling early detection of shifts in public interest, the evaluation of campaign strategies, and the anticipation of election dynamics across multiple countries. These strengths underscore the broader potential of digital analytics for both academic research and applied election monitoring.

2. Methodology

This study begins with the publicly available “List of elections in 2024” from Wikipedia¹ as its primary reference for identifying eligible cases (see Appendix A). First, only those elections are selected that take place at the national level and are decided in a single round, excluding instances where multiple chambers of parliament are elected simultaneously. This selection criterion helps avoid confusion, as public and media interest may be disproportionately focused on one chamber over the other, potentially skewing perceptions of electoral outcomes. Elections with a substantial share of independent candidates are also excluded because it is difficult to specify distinct search queries for non-partisan contenders. While party candidates can be reliably searched for using their party name, independent candidates often lack a standardized identifier, and when many such candidates are present, capturing their search interest consistently becomes challenging. A similar concern has been raised in digital trace research using other platforms. For instance, Tumasjan et al. (2010) used Twitter data to predict election outcomes, but their results were later criticized for excluding smaller parties, which led to a distorted picture of the true electoral landscape (Jungherr et al., 2012). This experience underscores the importance of carefully considering which contenders to include in digital data analyses, as omitting relevant parties can bias the findings. Furthermore, elections are omitted that unfold over an extended period – such as in India, where polling in 2024 spanned more than two months – because delineating a consistent observation window for Google Trends data in such contexts becomes problematic. In these cases, there is no clear distinction between the pre-election period and the actual election period, as voting may occur continuously throughout the entire timeframe.

The final list includes 42 elections in Algeria, Austria, Azerbaijan, Bangladesh, Belgium, Croatia, Dominican Republic, Georgia, Ghana (2),² Iceland (2), Indonesia (2), Ireland, Japan, Jordan, Mauritius, Mexico, Mozambique (2), Namibia (2), Pakistan (2), Panama, Romania, Russia, Rwanda (2), Senegal (2), South Africa, South Korea, Sri Lanka (2), Taiwan (2), Tunisia, USA, United Kingdom, Venezuela. The total number of observations (candidates + parties) is 158.

Once these criteria are applied, the election date for each qualifying case is gathered, and data collection is narrowed to the one-week period immediately preceding that date. This choice echoes previous work demonstrating that public interest, and thus search activity, often peaks in the final days of a campaign (Polykalas et al., 2013a, 2013b). Google Trends³ is used to retrieve daily relative search volumes for the major candidates or parties, focusing on the top five contenders as determined

¹ https://en.wikipedia.org/wiki/List_of_elections_in_2024. Election outcomes were obtained from the respective Wikipedia pages for each election. These pages include links to official sources, making the data verifiable, while also providing a consolidated, accessible repository of election information.

² (2) indicates that the country held two distinct 2024 elections that met the inclusion criteria.

³ The Google Trends score is constructed as a normalized index reflecting the popularity of a search term over time (Google News Initiative, 2025). The score ranges from 0 to 100, where 100 represents the peak popularity of the term during the selected time frame and location, while 0 indicates that the search volume is below the threshold required to register a measurable value. To calculate this score, Google first aggregates the total search volume for the term and adjusts it relative to the overall search activity in the same geographic region and time period. This normalization ensures comparability by controlling for variations in total search traffic. The data is then sampled and scaled to make trends comprehensible across different time frames and regions, providing insights into relative interest rather than absolute search counts.

by election data.⁴ In retrieving data, the language preference is set to the national language of the relevant country wherever possible; if such language support is incomplete, English is relied upon as an alternative. All Google Trends data were downloaded from the Google Trends website on January 17, 2025.

When comparing multiple keywords in Google Trends, the relative search index for each term is normalized such that the highest point of search interest across all selected keywords and the specified time frame is set to 100. All other data points are scaled relative to this peak value. This normalization allows for a comparative analysis of search interest over time among the selected terms, but it does not reflect absolute search volumes.

After the daily search volumes are collected, they are aggregated into two measures (see Table 1 for illustration).

- 1. Simple average (Measure 1): For each candidate or party, the originally returned daily Google Trends scores over the seven days before the election are summed and then divided by seven. This produces an arithmetic mean representing the candidate's or party's average search interest during the pre-election week.
- 2. Adjusted weighted average (Measure 2): For each candidate or party, the originally returned daily Google Trends scores are first adjusted so that, on each day, the scores for all included candidates or parties sum to 100 %. This adjustment is done by replacing any zero values with 1 (to include minimal-interest days), summing the scores for all contenders for that day, and then calculating each contender's share as a percentage of the daily total. These daily percentages are then averaged across the seven-day pre-election period, producing an adjusted weekly average that reflects each candidate's or party's proportional share of total search interest over the week, while reducing the impact of outliers.

Replacing zeros (which often indicate extremely low but non-zero interest) with 1 means all minimal-interest cases are treated equally, but it may distort the actual ratio of party A to party B on days when both are near zero. Consequently, some caution is warranted, as the 0 → 1 replacement can overestimate one party's share if in reality that party's "near-zero" interest is smaller than another's. Nonetheless, the benefit is that no candidate is entirely dropped due to a day of low interest, while the daily scores for all candidates sum to 100 %.

By normalizing in this way, Measure 2 proportionally represents each party's share of the day's searches rather than using originally

returned indices. This mitigates the impact of outliers or spikes, as a single high value on one day will be compared directly to other parties' same-day values, preventing any single candidate's unusual surge from disproportionately skewing the overall metric across the week.

Table 1 presents a simplified example illustrating the difference between the simple average and the adjusted weighted average.

Additionally, this approach guarantees that the aggregated proportions of all parties or candidates sum to 100 %, which is crucial for analyses that require proportional comparisons, such as those related to elections. By normalizing the originally returned Google Trends scores to percentages of the total score for each day, the adjusted weighted average offers a more inclusive and realistic method of aggregating search volumes. It is particularly effective in scenarios where zero-interest days would otherwise distort the data or lead to undefined calculations,⁵ ensuring a consistent and interpretable representation of public interest across time.

Electoral results for each candidate or party are compiled from official sources, with three outcome variables central to the analysis. The first is vote share, measured as the percentage of valid ballots cast for each contender. The second is a binary measure capturing winning or losing status, coded as 1 if a party or candidate is identified as the winner and 0 for all others. To maintain consistency across diverse electoral systems where post-election coalitions or other factors may complicate who ultimately governs the winner is defined as the party or candidate with the highest official vote share, even if coalition-building eventually determines the governing entity in some countries. For instance, in the US this corresponds to the candidate who secures the most votes in a single-winner race, whereas in Austria or other parliamentary systems, the party with the largest vote share is still coded as winning for this binary measure, although practical governance may hinge on subsequent coalition agreements. The final variable is a ranking index assigning a value of 1 to the election winner, 2 to the runner-up, and so forth up to the fifth place. While some elections featured only two parties, others had more than five contenders. In cases with more than five, the analysis was restricted to the five candidates or parties with the largest vote share because Google Trends allows five terms in any comparison. For the search queries, either the party name (e.g., in a parliamentary election) or the candidate's name (e.g., in a presidential election) were used.

A generalized linear model (GLM) with robust standard errors⁶ was conducted to analyze the relationship between Google Trends scores and vote percentages, with the vote percentage regressed on the Google Trends score. Furthermore, an ordinal logistic model⁷ was performed to assess the relationship between the Google Trends score and the place in the election as well as a binary logistic regression for the relationship between the Google Trends score and the winning status.⁸

In conducting this analysis, several limitations must be underscored. First, variations in spelling, transliteration, or the presence of common

Table 1
Illustration of calculations.

	Party A	Party B
Day 1	60	80
Day 2	0	0
Day 3	0	100
Measure 1	$\frac{60 + 0 + 0}{3} = 20$	$\frac{80 + 0 + 100}{3} = 60$
Measure 2	$\frac{60}{60 + 80 + 1} + \frac{1}{1 + 1} + \frac{1}{1 + 100} = 31.3$	$\frac{80}{60 + 80 + 1} + \frac{1}{1 + 1} + \frac{100}{1 + 100} = 68.7$

⁴ Given that the election results are already known at the time of the analysis, this approach allows to determine, in retrospect, whether reliance on Google Trends data would predict the eventual outcome. For this reason, focusing on the top five candidates or parties should not introduce substantial bias, although it is recognized that smaller contenders can generate heightened public interest in certain contexts, and future studies could employ methods such as normalized comparisons to include more than five terms (Fowle, 2020).

⁵ Without adjustment, zero interest can distort the calculation of relative search shares (e.g., by disproportionately lowering a candidate's average or making proportional comparisons impossible if the total is zero) or may result in division by zero or undefined percentages when normalizing daily scores. By replacing zeros with a small nonzero value, all candidates remain included in the calculation, ensuring that each day's proportions can be properly computed and compared.

⁶ The simple OLS model's residuals violated both the normality and homoscedasticity assumptions. Using a generalized linear model (GLM) addresses violations of the normality assumption, while employing robust standard errors ensures valid inference even when the homoscedasticity assumption is violated.

⁷ Ordinal logistic regression for Place on adjusted Google Trends score fulfills the main assumptions: proportional odds holds (slopes are similar across thresholds), predicted probabilities are monotonic without crossing, and goodness-of-fit statistics indicate an adequate model.

⁸ Binary logistic regression for Win on adjusted Google Trends score fulfills all key model assumptions.

names can distort the apparent search volume associated with particular candidates, especially where names are not uniquely identifying. Second, Google’s prominence as a search engine is not uniform across all countries (StatCounter, 2025) or demographics (Letchford et al., 2016; Pandey et al., 2013), which introduces sample biases if those most likely to vote are not the same as those who primarily use Google. Third, increased search activity does not necessarily signal favorable sentiment; a scandal or controversy may drive a surge of curious inquiry rather than support. Fourth, the reliance on a single week of data might obscure longer-term shifts in public attention that occur earlier in the campaign cycle. Fifth, the restriction to five simultaneous terms can omit smaller-scale contenders who nonetheless draw meaningful shares of votes.

Finally, it is acknowledged that Google Trends data can vary across different download dates for identical query parameters (Hözl et al., 2025; Franzen, 2023; Eichenauer et al., 2022; Behnen et al., 2020; Mavragani & Ochoa, 2019). Although the study does not perform multiple downloads to average out such inconsistencies, future research could mitigate these reliability issues by retrieving the same data on several occasions and employing mean or median aggregations before further analysis. This approach would help address potential day-to-day fluctuations in the Google Trends index.

3. Results

First, correlation analysis between vote share, the originally returned Google Trends score, and the adjusted Google Trends score was conducted. The strength of these correlations revealed a stronger association between vote share, winning status, and electoral ranking and the adjusted compared to the original score (see Appendix B). Therefore, the adjusted score was selected for the analysis as the primary predictor for subsequent models.

The regression results (see Table 2) indicate that the adjusted Google Trends score is a strong predictor of the election outcome, with a coefficient of 0.767 and a highly significant p-value ($p < 0.001$). A one-unit increase in the adjusted Google Trends score corresponds to an expected 0.767-unit increase in the outcome.

The scatter plot (see Fig. 1) clearly demonstrates a strong positive relationship between candidates’ election outcomes (in %) and adjusted Google Trends scores. In other words, higher vote share is closely associated with higher search interest, suggesting that public attention on Google aligns closely with electoral success.

In addition, a regression is conducted to determine whether the relationship between the adjusted Google Trends score and vote share differs by region. In the initial model including region dummy variables, the coefficient for the Google Trends score is 0.750 ($p < 0.001$), indicating a strong and highly significant positive association with vote

share with none of the region dummies being significant (see Appendix C). In a model with interaction terms, each interaction coefficient tests whether the slope differs in a given region compared to the overall effect. The main effect (0.938, $p < 0.001$) continues to represent the overall association between the Trends score and vote share, since none of the interaction terms is significant. Thus, while there is a clear and robust positive effect of the adjusted Google Trends score on vote share overall, there is no statistically significant evidence that this relationship differs by region.

The binary logistic regression highlights the relationship between the adjusted Google Trends Score and the binary variable Win (see Table 3), which indicates whether a candidate or party won (1) or lost (0) in an election. It suggests that higher adjusted Google Trends scores are positively associated with the probability of winning. Specifically, the odds ratio indicates that each one-unit increase in the score is associated with a 7.3 % increase in the odds of winning, a relationship that is highly significant ($p < 0.001$).

To determine whether the relationship varies by region, a model including region dummy variables was first estimated. The odds ratio for the Google Trends score was 1.077 and highly significant ($p < 0.001$), indicating that each one-unit increase in the score is associated with a 7.7 % increase in the odds of winning. None of the region dummy variables were statistically significant, suggesting that baseline odds of winning do not differ meaningfully across regions.

Second, a model including interaction terms between the Google Trends score and region dummies was estimated to directly test whether the effect of the Google Trends score varies by region. In this model, the odds ratio associated with the Google Trends score reflects the overall effect across regions of 1.085 ($p = 0.001$), indicating an 8.5 % increase in the odds of winning per one-unit increase in the score. None of the interaction terms were statistically significant, indicating that the effect of the Google Trends score on the odds of winning does not differ significantly across regions.

The ordered logistic regression results provide an analysis of the relationship between the adjusted Google Trends Score and the dependent variable Place, which represents the ranking of a candidate or party in the election (see Table 4). Lower values of Place indicate better rankings (e.g., 1 for the winner, 2 for the runner-up, etc.). The adjusted Google Trends Score is significantly associated with the ordinal outcome ($p < 0.001$). The odds ratio of 0.927 indicates that for every one-point increase in the adjusted Google Trends Score, the odds of achieving a better electoral ranking (i.e., being the winner or runner-up) increase by approximately 7.3 %. This reflects a greater probability of being in lower numerical categories of the outcome variable, which corresponds to better electoral performance. The threshold or cutpoint estimates (−3.387, 0.535, 0.193, 0.081) define the boundaries between adjacent ordinal categories. Among these, the thresholds for transitioning from 1st to 2nd place and from 2nd to 3rd place are statistically significant, indicating more precise separation at these boundaries.

4. Discussion

This study’s findings provide initial evidence that the adjusted Google Trends score is a useful tool in understanding cross-country patterns across diverse national contexts. Regression models show that increases in the adjusted Google Trends score are positively associated with vote share and the likelihood of winning an election. Moreover, higher adjusted Google Trends scores are associated with better places in the elections. In other words, the higher the adjusted search interest, the better the candidate’s or party’s performance tends to be.

Methodologically, the cross-country focus is the main contribution of this paper. By examining 42 elections under a uniform approach, the study provides a broad view of how Google Trends may relate to pre-election public interest.

This approach is primarily a low-cost, near-real-time way to gauge public interest in diverse contexts. While it is a descriptive rather than a

Table 2
GLM regression results for the effect of the adjusted Google Trends score on percentage vote.

Variable	Coefficient	StdErr (robust)	t-stat	P> t
const	3.279	1.694	1.936	0.055
Adjusted Google Trends score	0.767	0.082	9.368	0.000
Number of observations		158	Prob (F-statistic)	0.000
R-squared		0.515	Log-likelihood	−653.639
Adjusted R-squared		0.511	AIC	1311.278
F-statistic		165.362	BIC	1317.403

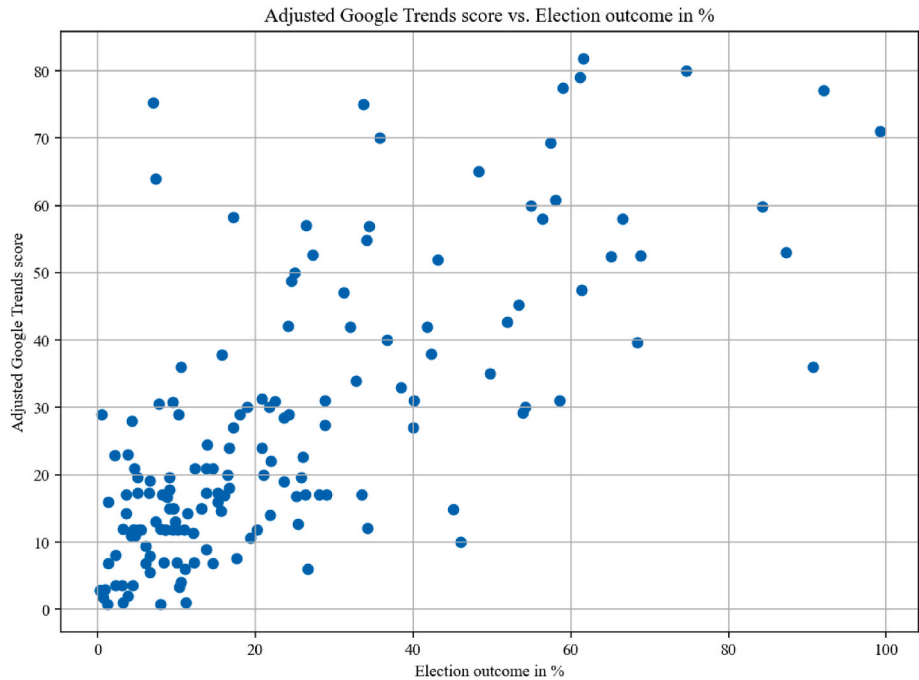


Fig. 1. Adjusted Google Trends score vs. Election outcome in %.

Table 3
Binary logistic regression results for the effect of the adjusted Google Trends score on winning.

Variable		Odds Ratio	P> z
const		0.041	0.000
Adjusted Google Trends score		1.073	0.000
Number of observations	158	Mcfadden's pseudo-R2	0.282
Log-likelihood	−65.730	Adjusted pseudo-R2	0.260
LR chi2	51.523	AIC	135.460
Prob (LR chi2)	0.000	BIC	141.585

Table 4
Ordered logistic regression results for the adjusted Google Trends score and electoral rankings.

Variable	Odds Ratio	Cutpoint	p
Adjusted Google Trends Score	0.927		0.000
Cutpoint: Transition from 1st to 2nd place		−3.387	0.000
Cutpoint: Transition from 2nd to 3rd place		0.535	0.000
Cutpoint: Transition from 3rd to 4th place		0.193	0.222
Cutpoint: Transition from 4th to 5th place		0.081	0.685
LR chi2	76.267	AIC	426.920
Pseudo R-squared (McFadden)	0.155	BIC	442.233
Number of observations	158	LLR p-value	0.000

predictive study, its descriptive lens can inform political campaigns, media outlets, or researchers who wish to monitor sudden fluctuations or comparative trends across countries.

Despite the promising results, several limitations must be acknowledged. The adjusted Google Trends score does not differentiate positive and negative search intent, the cap of five search terms excludes smaller parties, and search behavior may vary across demographics. Future work might collect repeated Google Trends data at multiple points over the entire campaign cycle (rather than focusing on a single week), enabling a more comprehensive view of how public interest evolves and potentially fluctuates over time.

Additionally, the study’s reliance on a one-week observation window – albeit a period where voter interest is presumed to peak – may not fully

capture the evolution of public attention throughout an entire campaign cycle. Furthermore, the approach here does not capture contextual factors that influence search behavior, such as media influences or external events. Combining Google Trends data with the content analysis of social media discussions or social media metrics could yield a more nuanced understanding of voter behavior in the digital age.

Overall, the demonstrated utility of the adjusted Google Trends score has implications for how political campaigns and policymakers understand and respond to public interest. Campaigns might leverage real-time fluctuations in search interest to gauge the public’s reaction to debates, controversies, and policy announcements. This could complement traditional forms of political analysis. Digital trace data, when carefully normalized and contextualized, can offer a more immediate snapshot of public attention. By bridging the gap between digital and traditional methods, researchers might construct a more dynamic view of voter behavior, capitalizing on both near-real-time digital metrics and the deeper demographic insights offered by polling data.

5. Conclusion

By examining adjusted search metrics in 42 national elections, this study underscores that Google Trends data can serve as a valuable descriptive tool for comparing electoral outcomes across countries. This multi-country design constitutes the primary contribution of the study. The results suggest that Google Trends can offer timely signals of public attention and a complementary perspective in multi-country electoral analysis. Future work might include out-of-sample tests, more extended time windows, and direct comparisons with polling data to refine the understanding of digital interest as an electoral indicator.

Data availability statement

All data supporting the findings of this study are publicly available.

Ethical statement

I, Dmitry Erokhin, confirm that the research presented in the manuscript titled “Applying Google Trends to Analyze Electoral Outcomes:

A 2024 Cross-National Perspective” adheres to the highest ethical standards in academic research.

- 1. Ethical approval: This study did not involve human participants, animals, or clinical trials, and therefore, no formal ethical approval was required. The research is based on publicly available data from Google Trends and official electoral records.
- 2. Data integrity and transparency: The data used in this study were obtained from publicly accessible sources and were not manipulated or altered to misrepresent findings. The methodology section clearly describes the data collection and analysis processes to ensure reproducibility and transparency.
- 3. Informed consent: Since the study relies exclusively on aggregated, non-identifiable digital trace data, informed consent was not applicable.
- 4. Conflict of interest: The author declares no conflict of interest related to the research, authorship, or publication of this manuscript.
- 5. Funding and sponsorship: This research was conducted without external funding or sponsorship that could have influenced the study’s design, analysis, or conclusions.
- 6. Plagiarism and originality: The manuscript is the author’s original work, has not been published elsewhere, and is not under consideration by any other journal. Proper citations and acknowledgments have been provided for all referenced works.

7. Responsible research conduct: All aspects of this research comply with ethical guidelines for the responsible use of digital data in social science research, including respecting user privacy and avoiding the misrepresentation of findings.

By submitting this manuscript, I affirm that the research complies with ethical standards and contributes to responsible academic inquiry in the field of social sciences.

Sincerely,
Dmitry Erokhin, PhD

Declaration of AI use

No artificial intelligence tools were used in the conduct of this research.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. List of the 2024 analyzed elections

Election	Date of the election	Search window	Parties/candidates	Results source
Algerian presidential election	7 September	31.08.-06.09.	يوسف أوشيش, عبد المجيد تبون (Abdelmadjid Tebboune), عبد العالي حساني شريف (Abdelaali Hassani Cherif)	Algérie Presse Service. (2024). <i>La Cour constitutionnelle proclame: M. Abdelmadjid Tebboune président de la République</i> . APS. https://www.aps.dz/algerie/176075-la-cour-constitutionnelle-pro-clame-m-abdelmadjid-tebboune-president-de-la-republique
Austrian legislative election	29 September	22.09–28.09.	FPÖ, ÖVP, SPÖ, NEOS, Grüne	Bundesministerium für Inneres. (n.d.). <i>Österreich – Nationalratswahl 2024</i> [National Council election 2024]. https://www.bundeswahlen.gv.at/2024/nr/
Azerbaijani presidential election	7 February	31.01.-06.02.	İlham Əliyev (Ilham Aliyev), Zəhid Oruc (Zahid Oruj)	Report. (2024, February 7). <i>MSK səsvərmənin ilkin nəticələrini elan etdi: İlham Əliyev səs toplayıb</i> [CEC announced preliminary voting results: İlham Aliyev received votes]. <i>Report.az</i> . https://report.az/daxili-siyaset/msk-sesvermenin-ilkin-neticelerini-elan-et-di-ilham-eliyev-ses-toplayib/
Bangladeshi general election	7 January	31.12.-07.01.	Awami League, Jatiya Party, Bangladesh Kalyan Party, Jatiya Samajtantrik Dal	<i>The Daily Star</i> . (2024). <i>AL wins 222 seats, independents 62; turnout 41.8 % — CEC</i> [Awami League wins 222 seats, independents secure 62; turnout stands at 41.8 % — Chief Election Commission]. <i>The Daily Star</i> . https://www.thedailystar.net/election-2024/news/news/al-wins-222-seats-independents-62-turnout-418pc-cec-3514276
Belgian federal election	9 June	02.06.-08.06.	NVA, Vlaams Belang, MR, PVDA, PS	Federal Public Service Interior. (n.d.). <i>Élections législatives fédérales 2024: Chambre des représentants – Royaume</i> [Federal legislative elections 2024: Chamber of Representatives – Kingdom]. https://resultatselection.belgium.be/fr/election-resultats/chambre-des-representants/2024/royaume/251712
Croatian parliamentary election	17 April	10.04–16.04	HDZ, Rijeke pravde, DP, Možemo!, Most-Suverenisti	Državno izborno povjerenstvo Republike Hrvatske. (2024). <i>Konačni rezultati izbora zastupnika u Hrvatski sabor</i> [Final results of the elections for representatives to the Croatian Parliament] (Document No. 012-01/24-01/91). https://www.izbori.hr/si/UserDocsImages/2024/Izbori_za_zastupnike_u_Hrvatski_sabor/Rezultati/Sabor%202024.%20Konačni%20rezultati%20izbora.pdf
Dominican Republic general election (presidential election)	19 May	12.05.-18.05.	Luis Abinader, Leonel Fernández, Abel Martínez	Junta Central Electoral. (2024). <i>Resultados finales de las elecciones generales 2024</i> [Final results of the 2024 general elections] (Entry ID 52047) [PDF]. https://elecciones2024.jce.gob.do/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=52047&Command=Core_Download&Method=attachmen&language=en-US&PortalId=0&TabId=37
Georgian parliamentary election	26 October	19.10.-25.10.	GD, Cfc, U-NM, SG, FG	ცენტრალური საარჩევნო კომისია. (n.d.). <i>2024 წლის არჩევნები</i> [Elections 2024]. https://cesko.ge/ge/archevnebi/2024
Ghanaian general election,	7 December	30.11.-06.12.	John Mahama, Mahamudu Bawumia	Electoral Commission Ghana. (n.d.). <i>2024 general election results</i> [Elections data]. https://ec.gov.gh/2024-election-results/

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Election	Date of the election	Search window	Parties/candidates	Results source
(presidential election)				
Ghanaian general election, (parliamentary election)	7 December	30.11.-06.12.	NDC, NPP	Media General/3News. (n.d.). <i>2024 Ghana parliamentary election results</i> [Election results]. https://elections.3news.com/results/2024/parliamentary
Icelandic parliamentary election	30 November	23.11.-29.11.	Samfylkingin, Sjálfstæðisflokkurinn, Viðreisn, Flokkur fólksins, Miðflokkurinn	Morgunblaðið. (n.d.). <i>Kosningar</i> [Elections]. https://www.mbl.is/frettir/kosningar/
Icelandic presidential election	1 June	25.05.-31.05.	Halla Tómasdóttir, Katrín Jakobsdóttir, Halla Hrund Logadóttir, Jón Gnarr, Baldur Þórhallsson	Landskjörstjórn Íslands. (n.d.). <i>Kjör forseta Íslands lýst</i> [Presidential election in Iceland announced]. https://island.is/s/landskjorstjorn/frett/kjoeri-forseta-islands-lyst
Indonesian general election (presidential election)	14 February	07.02.-13.02.	Prabowo Subianto, Anies Baswedan, Ganjar Pranowo	Komisi Pemilihan Umum. (2024). <i>Keputusan Komisi Pemilihan Umum Nomor 1043 Tahun 2024 tentang tingkat partisipasi pemilih yang menggunakan hak pilihnya pada hari pemungutan suara dalam Pemilu Presiden dan Wakil Presiden, DPR, dan DPD Tahun 2024</i> [Decision of the General Elections Commission No. 1043 of 2024 regarding voter participation rates in the 2024 presidential, DPR, and DPD elections] (Decision No. 1043/2024) [PDF]. https://jdih.kpu.go.id/data/data_kepkpu/2024kpt1043.pdf
Indonesian general election (legislative election)	14 February	07.02.-13.02.	PDIP, Golkar, Gerindra, PKB, NasDem	Komisi Pemilihan Umum. (2024). <i>Keputusan Komisi Pemilihan Umum Nomor 1050 Tahun 2024 tentang perubahan atas Keputusan Komisi Pemilihan Umum Nomor 360 Tahun 2024 tentang penetapan hasil Pemilihan Umum Presiden & Wakil Presiden, anggota DPR, DPD, DPRD Provinsi, dan DPRD Kabupaten/Kota secara nasional dalam Pemilihan Umum Tahun 2024</i> [General Elections Commission Decision No. 1050 of 2024 concerning amendments to Decision No. 360 of 2024 regarding the determination of the results of the 2024 general election for President & Vice President, DPR, DPD, provincial DPD, and regional DPRD]. (Decision No. 1050/2024) [PDF]. https://jdih.kpu.go.id/data/data_kepkpu/2024kpt1050_L2.pdf
Irish general election	29 November	22.11.-28.11.	Fianna Fail, Sinn Féin, Fine Gael, Social Democrats, Labour	RTÉ News. (n.d.). <i>General Election 2024 live results – National summary</i> [National election results]. https://www.rte.ie/news/election-24/results/#/national
Japanese general election	27 October	20.10.-26.10.	自由民主党 (LDP), 立憲民主党 (CDP), 日本維新の会 (Ishin), 国民民主党 (DPP), 公明党 (Komeito)	総務省. (n.d.). 令和6年(2024年)第26回参議院議員通常選挙 都道府県別 投票率等の状況 [House of Councillors ordinary election 2024: Voter turnout by prefecture] [PDF]. https://www.soumu.go.jp/main_content/000975594.pdf
Jordanian general election	10 September	03.09.-09.09.	حزب العمل الإسلامي (Islamic Action Front), حزب الميثاق الوطني (National Islamic Party), حزب إرادة (Eradah Party), تيار الاتحاد الوطني (National Union Movement)	Roya News. (2024). <i>أعضاء مجلس النواب العشرين للعام – النتائج النهائية للانتخابات النيابية 2024</i> [Members of the Twentieth House of Representatives –] 2024 Final results of the 2024 parliamentary elections] [PDF]. https://backend.royanews.tv/storage/images/inner/20240915/FileDownload.pdf
Mauritian general election	10 November	03.11.-09.11.	PT, MSM	Office of the Electoral Commissioner. (n.d.). <i>Detailed results by constituency: National Assembly elections held on November 10, 2024</i> [Election results]. https://electoral.govmu.org/oec/?page_id=1641#232-detailed-results-by-constituency-1731659439
Mexican general election (presidential election)	2 June	26.05.-01.06.	Claudia Sheinbaum, Xóchitl Gálvez, Jorge Méndez	Instituto Nacional Electoral. (n.d.). <i>Cóputos 2024: Presidencia – Nacional – Candidatura</i> [2024 vote counts: Presidency – National – by candidacy]. https://computos2024.ine.mx/presidencia/nacional/candidatura
Mozambican general election (presidential election)	9 October	02.10.-08.10.	Daniel Chapo, Venâncio Mondlane, Ossufo Momade	Conselho Constitucional da República de Moçambique. (2024). <i>Acórdão n.º 50/CC/2024 – Proclamação dos resultados das eleições gerais de 2024</i> [Decision No. 50/CC/2024 – Proclamation of the 2024 general election results] [PDF]. https://web.archive.org/web/20250111205214/https://www.portaldogoverno.gov.mz/por/content/download/16067/131888/version/1/file/Acordao%2B50%2B2024%2BProclama%C3%A7%C3%A3o.pdf
Mozambican general election (parliamentary election)	9 October	02.10.-08.10.	Frelimo, Podemos, Renamo, MDM	CNE & STAE Moçambique. (2024, October 30). <i>Edital do apuramento geral da eleição dos deputados da Assembleia da República</i> . Facebook. https://www.facebook.com/CNE.STAE.Moambique/posts/pfbid0Bs843MvTNeuvuTKyVFFyuoKjKngTkDTnM23KawNsXq3JStZYumkcUWpkFgx8dQfdl
Namibian general election (presidential election)	27 November	20.11.-26.11.	Netumbo Nandi-Ndaitwah, Panduleni Itula, McHenry Venaani	Electoral Commission of Namibia. (n.d.). <i>Presidential ballot – 2024 election results</i> [Election results webpage]. https://www.elections.na/PresidentialBallot.aspx
Namibian general election (parliamentary election)	27 November	20.11.-26.11.	SWAPO, IPC, AR, PDM, LPM	Electoral Commission of Namibia. (n.d.). <i>National Assembly election results</i> [Election results webpage]. https://www.elections.na/NationalAssembly.aspx
Pakistani general election	8 February	01.02.-07.02.	اکستان مسلم، پاکستان پیپلز پارٹی (PPP)، تحریک لبیک پاکستان (TLP)، لیگ (N)	Election Commission of Pakistan. (n.d.). <i>National Assembly – General Elections 2024</i> [Election results webpage]. https://www.elections.gov.pk/national-assembly

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Election	Date of the election	Search window	Parties/candidates	Results source
Pakistani presidential election	9 March	02.03.-08.03.	جمیعت علماء (PTI) پاکستان تحریک انصاف (PML(N)) ن لیگ اسلام (ف) (JUI(F)) محمود خان اچکزى (Asif Ali Zardari), آصف علی زرداری (Mahmood Khan Achakzai)	Dunya News. (n.d.). <i>2024 presidential election results – Pakistan</i> [Election results webpage]. https://elections.dunyanews.tv/election2024/president-election.php
Panamanian general election (presidential election)	5 May	28.04.-04.05.	José Raúl Mulino, Ricardo Lombana, Martín Torrijos, Rómulo Roux, Zulay Rodríguez	Tribunal Electoral de Panamá – Sección de Resultados. (n.d.). <i>Resultados: Presidente – Panamá (Elecciones 5 de mayo de 2024)</i> [Election results webpage]. https://resultados.te.gob.pa/resultados/100/presidente/1
Romanian parliamentary election	1 December	24.11.-30.11.	PSD, AUR, PNL, USR, SOS	Autoritatea Electorală Permanentă. (n.d.). <i>Rezultatele alegerilor parlamentare 1 decembrie 2024 – România</i> [Parliamentary election results; December 1, 2024 – Romania] [Election results webpage]. https://prezenta.roap.ro/parlamentare01122024/pv/romania/results/
Russian presidential election	15–17 March	08.03.-14.03.	Влади́мир Пу́тин (Vladimir Putin), Никола́й Хари́тоно́в (Nikolay Kharitonov), Влади́слав Дава́нкоф (Vladislav Davankov), Леони́д Слѹ́кий (Leonid Slutsky)	Всероссийская избирательная комиссия. (n.d.). <i>Результаты выборов</i> [Election results] [Election results webpage]. http://www.vybory.izbirkom.ru/region/region/izbirkom?action=show&root=1&tyd=100100339410034&vrn=100100339410030&region=0&global=1&sub_region=0&prver=0&pronet=0&vibid=100100339410034&type=226
Rwandan general election (presidential election)	15 July	08.07.-14.07.	Paul Kagame, Frank Habineza	National Electoral Commission of Rwanda. (n.d.). <i>Final results of presidential and legislative elections</i> [Election results webpage]. https://web.archive.org/web/20240727120602/https://nec.gov.rw/amatora/en/final-results-of-presidentialand-legislative-elections/
Rwandan general election (chamber of deputies election)	15 July	08.07.-14.07.	RPF, PL, PSD, PDI, IRDKI	National Electoral Commission of Rwanda. (n.d.). <i>Final results of presidential and legislative elections</i> [Election results webpage]. https://web.archive.org/web/20240727120602/https://nec.gov.rw/amatora/en/final-results-of-presidentialand-legislative-elections/
Senegalese parliamentary election	17 November	10.11.-16.11.		Vie Publique Sénégal. (n.d.). <i>Élections législatives – Résultats</i> [Legislative elections – Results]. https://www.vie-publique.sn/elections/legislatives/resultats/
Senegalese presidential election	24 March	17.03.-23.03.	Bassirou Diomaye Faye, Amadou Ba	Xalimasn. (2024). Conseil constitutionnel: Bassirou Diomaye Faye proclamé officiellement président de la République du Sénégal [Constitutional Council: Bassirou Diomaye Faye officially proclaimed President of the Republic of Senegal]. <i>Xalimasn</i> . https://www.xalimasn.com/conseil-constitutionnel-bassirou-diomaye-faye-proclame-officiellement-president-de-la-republique-du-senegal-document/
South African general election	29 May	22.05.-28.05.	ANC, DA, MK, EFF, IFP	Electoral Commission of South Africa. (n.d.). <i>National and Provincial Elections 2024 results dashboard</i> [Election results webpage]. https://results.elections.org.za/dashboards/npe/
South Korean legislative election	10 April	03.04.-09.04.	개혁신당 (Reform Party), 더불어민주당연합 (Democratic Alliance of Korea), 국민의힘 (People Power Party), 자유통합당 (Liberal Unification Party), 조국혁신당 (Rebuilding Korea Party)	National Election Commission of the Republic of Korea. (n.d.). <i>National Election Commission of the Republic of Korea</i> [Official government website]. https://info.nec.go.kr/
Sri Lankan parliamentary election	14 November	07.11.-13.11	இலங்கைத் தமிழரசுக் கட்சி (Federal Party), ජාතික ජන බලවේගය (National People's Party), සමගි ජන බලවේගය (United People's Power), නව ප්රජාතන්ත්‍රවාදී පෙරමුණ (New Democratic Front), ශ්‍රී ලංකා පොදුජන පෙරමුණ (Sri Lanka People's Front)	Election Commission of Sri Lanka. (n.d.). <i>Live Sri Lanka Presidential Election Results 2024</i> [Election results webpage]. https://results.elections.gov.lk/pre2024/
Sri Lankan presidential election	21 September	14.09.-20.09.	අනුර කුමාර දිසානායක (Anura Kumara Disanayake), සජිත් ප්රමේද්‍ය (Sajith Premadasa), රනිල් වික්‍රමසිංහ (Ranil Wickremesinghe)	Election Commission of Sri Lanka. (n.d.). <i>Live Sri Lanka presidential election results 2024</i> [Election results webpage]. https://results.elections.gov.lk/pre2024/
Taiwanese legislative election	13 January	06.01.-12.01.	民主進歩黨 (Democratic Progressive Party), 中國國民黨 (Kuomintang), 台灣民眾黨 (Taiwan People's Party)	Central Election Commission. (n.d.). <i>2024 Presidential and Vice Presidential Election</i> [Election results webpage]. https://vote2024.cec.gov.tw/en/indexP.html
Taiwanese presidential election	13 January	06.01.-12.01.	侯友宜 (Hou Yu-ih), 賴清德 (Lai Ching-te), 柯文哲 (Ko Wen-je)	Central Election Commission. (n.d.). <i>2024 Presidential and Vice Presidential Election</i> [Election results webpage]. https://vote2024.cec.gov.tw/en/indexP.html
Tunisian presidential election	6 October	29.09.-05.10.	قيس سعيد (Kais Saied), العياشي زمال (Ayachi Zammel)	Le Monde. (2024). <i>Tunisian President Kais Saied wins second term in landslide victory</i> . <i>Le Monde</i> . https://www.lemonde.fr/en/le-monde-africa/article/2024/10/07/tunisian-president-kais-saied-wins-second-term-in-landslide-victory_6728532_124.html
United Kingdom general election	4 July	27.06.-03.07.	Labour, Conservative, Liberal Democrats	Cracknell, R., Baker, C., & Pollock, L. (2024). <i>General election 2024 results</i> (House of Commons Library Research Briefing No. CBP-10009). House of Commons Library. https://commonslibrary.parliament.uk/research-briefings/cbp-10009/
United States elections (presidential election)	5 November	29.10.-04.11.	Donald Trump, Kamala Harris	Federal Election Commission. (2024). <i>Official 2024 Presidential General Election results</i> [PDF]. https://www.fec.gov/resources/cms-content/documents/2024presgeresults.pdf

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Election	Date of the election	Search window	Parties/candidates	Results source
Venezuelan presidential election	28 July	21.07.-27.07.	Nicolás Maduro, Edmundo González, Luis Eduardo Martínez, Antonio Ecarri, Benjamín Rausseo	Alianza Bolivariana para los Pueblos de Nuestra América – Tratado de Comercio de los Pueblos (ALBA-TCP). (2024). <i>CNE announced Nicolás Maduro Moros' victory with 51.20 %</i> [News release]. ALBA-TCP. https://www.albatcp.org/en/2024/07/29/cne-announced-nicolas-maduro-moros-victory-with-51-20/

Appendix B. Correlation analysis

Test type	Variable 1	Variable 2	Coefficient	Value	p
Correlation	Google Trends score	Adjusted Google Trends score	Pearson r	0.679	0.000
Correlation	Google Trends score	Election	Pearson r	0.473	0.000
Correlation	Adjusted Google Trends score	Election	Pearson r	0.717	0.000
T-test	Google Trends score	Win	t-statistic	5.811	0.000
T-test	Adjusted Google Trends score	Win	t-statistic	8.696	0.000
ANOVA	Google Trends Score	Place	F-statistic	10.694	0.000
ANOVA	Adjusted Google Trends score	Place	F-statistic	25.817	0.000

Appendix C. GLM regression controlling for region

Variable	Coefficient	StdErr (robust)	t-stat	P> t
Regression with region dummies				
const	6.012	3.012	1.996	0.048
Adjusted Google Trends score	0.750	0.082	9.120	0.000
Region_America	0.116	3.690	0.032	0.975
Region_Asia	−3.161	3.722	−0.849	0.397
Region_Europe	−4.556	3.350	−1.360	0.176
Number of observations		158	AIC	1314.639
R-squared		0.523	BIC	1329.952
Adjusted R-squared		0.510	F-statistic	41.873
Regression with interaction terms				
const	0.180	3.462	0.052	0.959
Adjusted Google Trends score	0.938	0.160	5.851	0.000
Region_America	6.801	4.553	1.494	0.137
Region_Asia	5.336	5.253	1.016	0.311
Region_Europe	4.133	5.247	0.788	0.432
Region_America_x Google	−0.218	0.175	−1.250	0.213
Region_Asia_x Google	−0.286	0.233	−1.225	0.222
Region_Europe_x Google	−0.322	0.289	−1.114	0.267
Number of observations		158	AIC	1315.644
R-squared		0.537	BIC	1340.145
Adjusted R-squared		0.516	F-statistic	24.900

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