



Selected Papers of #AoIR2025:  
The 26th Annual Conference of the  
Association of Internet Researchers  
Niterói, Brazil / 15 – 18 Oct 2025

## **SOCIAL MEDIA IN ELECTIONS: EVIDENCE FROM THE UNITED STATES, GERMANY, AND AUSTRALIA**

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Suggested Citation (APA): Bruns, A., Stromer-Galley, J., Karia, J., Münch, F.V., Kessling, P., Ohme, J., Wedel, L., Pfiffner, N., Friemel, T.N., Vilkins, S., FitzGerald, K.M., Choucair, T., Angus, D., Gardam, C., Chand, K., Vodden, L., Gröbner, K., Esau, K., Lubicz-Zaorski, C., Dehghan, E., & O'Connor-Farfan, K.S. (2025, October). *Social Media in Elections: Evidence from the United States, Germany, and Australia*. Panel presented at AoIR2025: The 26th Annual Conference of the Association of Internet Researchers. Sheffield, UK: AoIR. Retrieved from <http://spir.aoir.org>.

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## **Panel Overview**

The year 2024 was marked by an unprecedented confluence of elections around the world, with more than 50% of the world's population called upon to vote on the future of their governments; perhaps most important of these was the presidential election in the United States in November 2024, which saw Donald Trump returned to the Presidency – an outcome whose immense consequences are already being felt strongly around the world, mere months into the new administration's term.

In particular, Trump's victory and his immediate upending of the rule of law at home and world order abroad impacts directly on major subsequent elections elsewhere in the world, including in closely allied nations like Germany (whose federal election took place in February 2025) and Australia (where a federal election is scheduled for April or May 2025). The resurgence of Trumpism emboldened extreme right parties like Germany's

Alternative für Deutschland (AfD), which attracted over 20% of the popular vote in the 2025 election; and Trump's threats of import tariffs and wavering support for international alliances are emerging as a key topic in the 2025 Australian election campaign.

These developments are further exacerbated by substantial changes in online campaigning environments and strategies. Social media platform operators like Mark Zuckerberg and Elon Musk have closely aligned themselves with the Trump administration (or in Musk's case, joined it outright), in part to seek protection against European Union and other regulations that require action against disinformation, abuse, and hate speech, and enforce transparency and researcher data access; they have dismantled their content moderation and fact-checking teams; and (in Musk's case) are actively disseminating disinformation, hate speech, and extremist content. This has also opened the door for other political agitators and influence operators to push problematic materials, including conspiracy theories and AI-generated disinformation.

Finally, the changing platform landscape – marked by the gradual decline of Facebook, a steady exodus from X under Musk's leadership, the rapid rise of TikTok, and the emergence of federated Twitter alternatives like Mastodon and Bluesky – also necessitates substantial changes in electoral campaigning on the one hand, and in campaign research methods on the other. This panel brings together five papers from major research teams that trace these developments through the US, German, and Australian elections of 2024 and 2025. They provide new insights into the changing electoral campaigning environments of the present moment, and offer new approaches for how we can conduct such research under these changed circumstances.

Paper 1 addresses the 2024 US presidential election, and explores in particular how the digital advertising funded by Elon Musk engaged in targeted disinformation of key voter groups. Scraping data from the Meta Ad Library and Google Ad Transparency Center, it documents substantial efforts to pollute the information environment with such content.

Paper 2 shifts our attention to the 2025 German election. It explores the strategies of political campaigners for embracing TikTok, and especially the interlinkage between political talk show appearances and the talking points presented in campaign videos on TikTok – a platform which serves both to trial such talking points for use in talk shows, and to redistribute television clips of talk show appearances afterwards.

Paper 3 continues our focus on the role of TikTok in the German election, but shifts the emphasis to the experience of ordinary users. Drawing on more than 300 data donations from German TikTok users, it examines their exposure to political content on the platform, explores the role of TikTok's algorithms in pushing users towards specific videos, and investigates whether such algorithmic amplification is asymmetrical across parties.

Paper 4 extends a long tradition of research into the use of social media in Australian elections. Traditionally, Twitter and Facebook served as key campaigning spaces, but this has diversified considerably now, and the paper therefore presents an ambitious cross-platform data gathering and analysis agenda for the 2025 election. It also employs the novel practice mapping technique to examine campaigning patterns in the election.

Paper 5 concludes the panel. Building on concepts from semiotic theory, it combines topic modelling, named entity recognition, part-of-speech tagging, and dependency parsing methods to systematically identify the discursive and semionarrative structures of Facebook posts by and comments to the leading candidates in the 2022 and 2025 Australian elections, exploring differences between candidates and changes over time.

In combination, then, these five papers examine election campaigning on social media across three major national elections, drawing on innovative conceptual frameworks and methodological approaches and applying them to a wide range of platforms and practices. They offer critical new insights into the state of social media campaigning, and important impulses for future research agendas in a rapidly changing world.

Individual extended abstracts for these five papers are included in the following pages.

*Paper 1:*

## **INFORMATION POLLUTION IN THE U.S. 2024 PRESIDENTIAL ELECTION: ELON MUSK-FUNDED DIGITAL ADS DECEIVING THE AMERICAN PUBLIC**

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The U.S. presidential election in 2024 yet again raised and spent remarkable sums of money to persuade the public, with new actors further muddying the information environment. Candidates in the U.S. presidential election raised over \$1.8 billion (Open Secrets, 2024). Online political ad spending on Google and Meta reached new records, with an estimated \$1.35 billion spent between January 1, 2023 and Election Day, November 5, 2024 (Brennan Center, 2024). Political newcomer and the world's richest man, Elon Musk, also spent heavily in the election. Federal Election Commission reports analyzed by CNN (Wright, 2025) estimated that he spent more than \$290 million in his efforts to get Trump and other Republican candidates elected. Much of that money went to digital advertising that ran on Meta and Google platforms.

Researchers and journalists found that Musk's money funded several political action committees (PACs). These entities in the US function as "extended-party networks" – they are not part of the political party apparatus, but work alongside the parties to support or oppose candidates and push specific policy and cultural agendas aligned with the parties (Kolodny & Dwyre, 2018). PACs designated as "super" generally mean that they are legally not required to report who has given them money, although they are required to report expenditures to the Federal Election Commission. Musk launched his own PAC, America PAC, and he contributed heavily to a non-profit organization, Building America's Future, which in turn gave money to several super-PACs, including FC PAC, Progress 2028, and RBG PAC (ElectionGraph, 2024, 2024; Haberman & Schleifer, 2024; Schleifer & Haberman, 2024). The question is what was the messaging of these shady PACs in their digital ads, and who were they targeting?

Digital media scholars have grown increasingly concerned about the online spread of misinformation—the accidental sharing of false and misleading information—and disinformation—the intentional spreading of information meant to deceive, what Jack (2017) calls "problematic information." The affordances of social media platforms make it easy for those who are less informed to share misinformation (Valenzuela et al., 2019). Political communication scholars, however, have long raised concerns about the use of disinformation in the context of political campaigns and its effects on low-informed voters. For example, Jamieson (1993) highlighted efforts by George H.W. Bush in the 1988 campaign of deceiving voters about opponent Michael Dukakis' policies while governor around a prisoner-work release program. The ads traded on a mix of false information,

dog whistles to White voters, and fear appeals. In short, there has long been concern about disinformation in campaigns.

Of concern is that the United States had a highly polluted information environment in the 2024 campaign. There exists a complex system that promotes problematic information that can lead voters astray. The heightened political polarization, unfettered campaign expenditures by wealthy individuals, the dark-money super-PACs working as extended-party networks alongside campaigns, the lack of regulations around political advertising on digital media, and the ability to microtarget ads online to small pockets of voters – these all contribute to the polluted information context.

We invoke “pollution” as the metaphor to capture the fraught information environment after coming across a screed written by Dr. Jakob Nielsen, a leader in human-centered design, who had written an opinion piece in 2003 to *Queue* magazine about the “pollution” that instant messaging would bring to workers (Nielsen, 2003). He argued that instant messaging would distract workers from their flow of concentration because instant messaging apps, unlike email, require immediate responses. More recently Wardle and Derakshan (2017) in a report to the Council of Europe advance the ideas of “information disorders” and “information pollution” in capturing the role of disinformation campaigns through digital media and their effects on democracies around the globe. Otherwise, the term is rarely used to capture the problematic information environment that currently exists in many countries around the globe, and was especially in evidence in the 2024 presidential election in the US. We contend that “pollution” is an accurate metaphor for capturing the harmful, pervasive, and sometimes seen and sometimes hidden ills in the information environment.

Although research and popular news has noted that Musk’s PACs engaged in duplicitous advertising practices, this study explores the nature of the messaging and the targets of the ads more deeply. Given the power of micro-targeting, it is possible for candidates to target small pockets of voters in strategically important communities for deceptive advertising. The net effect is that susceptible voters exposed to such information pollution may vote against their own interests.

The study analyzed data collected via the Meta Ad Library API of ads run by Musk-funded PACs during the U.S. presidential general election (September 1-November 5, 2024). The API provides targeting data, such as gender, age (in 5 categories), and state. We further developed a scraper to collect ads run by Musk-funded PACs that are displayed in the Google Ad Transparency Center. The scraper collected the number of ads that ran, the amounts spent, and the targeting data. Google provides more fine-grained geographic targeting data than Meta does, enabling greater insights on micro-targeting practices. We also examined the Meta “microtargeting” dataset, which provides additional insights on the ad buys of the organizations. Meta has built a large set of categories of interests—from sports, to hobbies, to pop culture, to politics—that advertisers can choose from to target their ads. We thus can glean additional insights on the Musk-funded PACs’ targeting strategy, including to what “interests” they thought would align their motives with potential voters.

Results suggest that Musk-funded PACS contributed substantially to information pollution around the presidential campaign, making false claims about Harris' policies. For example, ads from FC PAC ran a series of ads in late October, just two weeks before the election, around the Israel-Palestinian war in the Gaza strip. Some of the ads declared Harris sympathetic to Israel. Other ads declared Harris sympathetic to the Palestinians. The ads make virtually the same argument, just switching which group Harris allegedly supports. Equally noteworthy is who is targeted. In the ads that declare Harris is supporting Israel, they targeted Dearborn, Michigan, which is home to the largest Muslim population in the US. The ads portraying her as sympathetic to Palestinians ran in suburbs outside of Philadelphia, which is home to Jewish voters.

The ads further contribute to information pollution by failing to note who is behind the ads. In particular, RBGPAC intentionally misleads voters about Trump's alliance with the former Supreme Court Justice and women's advocate, Ruth Bader Ginsberg. The ads featured women explaining that Trump, like Ruth Bader Ginsberg, opposes a federal abortion ban. The ads overwhelmingly target women, especially younger women.

Just as concerns were raised by Jamieson (1993) in the 1988 election of Republican National Committee ads misleading the public about Michael Dukakis' policies on television, we see the rise of substantial efforts to pollute the digital information environment for the public by Political Action Committees funded by Elon Musk. Although there have long been concerns about manipulation of the public in political campaigns, the 2024 election demonstrated that those concerns are well-founded, especially in the fractured and unregulated digital media landscape around online political ads in the United States.

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<https://edoc.coe.int/en/media/7495-information-disorder-toward-an-interdisciplinary-framework-for-research-and-policy-making.html>

Paper 2:

## **TIK-TALK-TOK: MEASURING CONTENT DIFFUSION WITHIN AND BETWEEN POLITICAL TELEVISION TALK SHOWS AND PUBLIC SPEAKERS' TIKTOK CHANNELS DURING THE GERMAN FEDERAL ELECTION 2025**

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### **Background**

After the premature breakup of the German government coalition, the 2025 German federal election might have been one of the most closely observed German elections since the German reunification in 1990. This was especially the case as the in parts right-wing extremist (Bundesministerium des Innern und für Heimat, 2024, p. 113 ff.) and, in the context of the Russian invasion of Ukraine, Russia-friendly (Baumgärtner et al., 2024) party Alternative für Deutschland (Alternative for Germany, AfD) was predicted to achieve their strongest result yet and to become the runner-up faction in the German federal parliament (*Wahlumfragen zur Bundestagswahl 2025*, n.d.). This is also due to the AfD's ongoing campaigning and success on social media, especially by their front runner Alice Weidel on TikTok (Moser & Zehr, 2025). At the same time past election successes of the AfD on the state and European level led to a strong presence of AfD politicians in political talk shows on public television.

### **Research Goal and Questions**

While cross-platform diffusion research is well established for content crossing between online-platforms (e.g., Lukito (2019), although many other studies can be named) this is, to our knowledge, not the case for the contagion of topics, narratives and opinions between TV and social media (if we disregard the literature on second-screen usage patterns (Neate et al., 2017), which is driven rather by ordinary users than public speakers). Our observations, however, suggest that there are several practices by public speakers and entities, e.g., politicians, parties, journalists, or media channels, driving this diffusion. In one direction, for example, snippets from statements in talk shows are used as content for TikTok. In the other direction, TikTok might act as a test environment for politicians to decide which statements lead to the most positive or polarised reactions, in order to use them later on national TV.

The goal of this (due to the elections having taken place three days before the time of writing) work-in-progress study is to assess the prevalence and drivers of these forms of diffusion. Additionally, our data and methods allow us to infer core messages that have been memorized by politicians to be put forward if given the chance, marked by their almost verbatim recurrence across formats, different actors, and even parties.

Directly arising research questions touch the

- prevalence of different instances of content (i.e., quotes, narratives, and topics) per party,
- preferred topics and narratives of different parties,
- sentiment and toxicity of statements,
- as well as the volume and speed of diffusion

within and across the boundaries of the platform.

More involved questions that we will answer are

- in how far the content is taken out of context during a talk show and on TikTok, and
- whether there is a feedback loop between statements in talk shows and their success on TikTok.

## **Data and Methods**

The basis of our observations is the *Datenbank öffentlicher Sprecher* (Database of Public Speakers, DBöS, Schmidt et al., 2023). It provides a comprehensive and regularly updated overview of actors and their web presences who contribute to social publicity in Germany – in the sense of the public media as well as spokespersons who are in the public eye or the subject of public reporting. In particular, it contains a list of all current members of German parliaments on federal and state levels, and their TikTok accounts.

We used this base data to regularly collect all TikTok content posted by members of parliaments, their respective party organisations, selected media, and journalists from 17 December 2024 until (and beyond) election day on 23 January 2025 with the yt-dlp tool (*Yt-Dlp/Yt-Dlp*, 2020/2025). We also regularly retrieve(d) and update(d) metadata, such as views and likes, of the posts, to allow for an accurate picture of popularity of content over time. To make this data searchable and analysable with NLP methods we transcribed the video content using the Python package Whisper by OpenAI (*OpenAI/Whisper*, 2022/2025).

To assess and compare the content circulated on TV, we scraped the subtitles provided by German public broadcasters for their political talk shows from their respective streaming sites (Kessling, 2024/2024) and added information about the currently speaking person where necessary.

While the matching of content with this data seems straightforward, it is actually more involved, as even for exactly the same video, transcriptions will not match precisely, due to differences in transcription style and a lack of accuracy, as well as speakers talking over each other, or context provided by added commentary or background sounds on

TikTok. We solve this by implementing a retrieval task using the E5-multilingual-instruct (Wang et al., 2024) language model, i.e., we refine a prompt that instructs the model to retrieve parts of the content that match each other on different levels of detail. To validate this method we triangulate it with a simple word-ngram-based vectorisation similarity measure that retrieves matches based on the overlap of used words. While its results validate our retrieval task, it cannot find short quotes that are contextualised with TikTok commentary, which justifies our language-model based approach.

## Preliminary Results

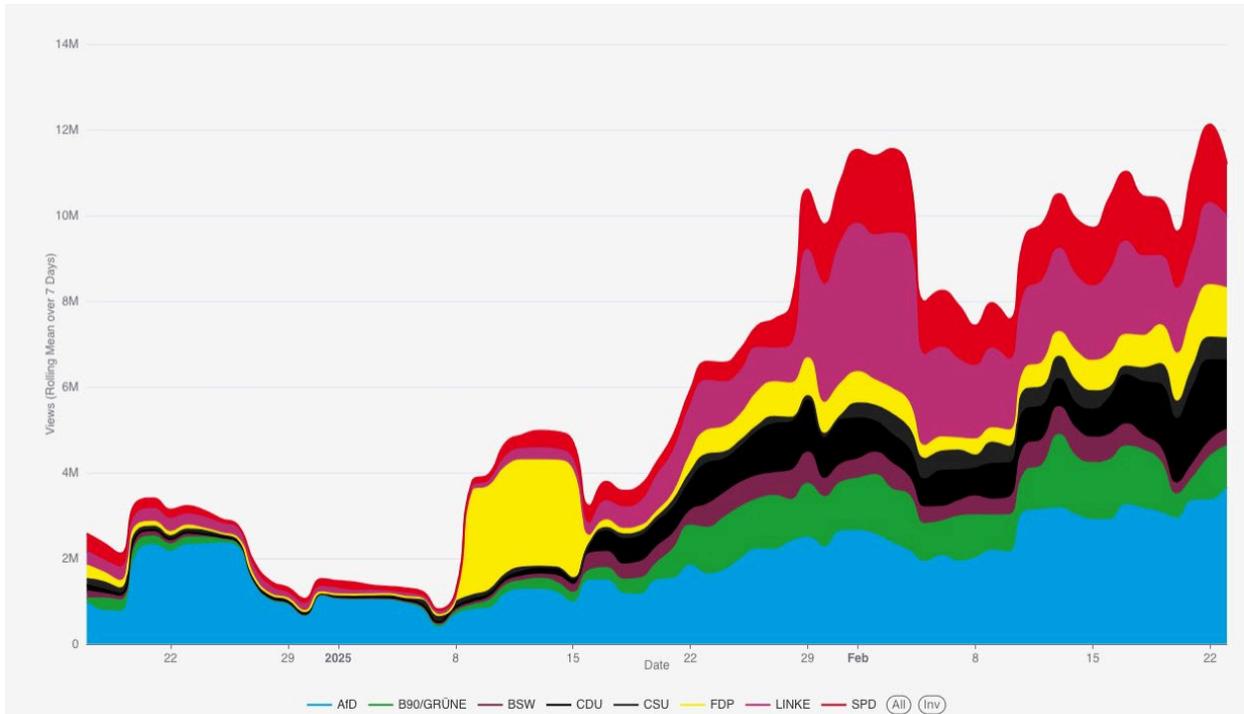
Just in the last month before the elections, we registered 184 million views of parliamentarians' content on TikTok (Figure 4). Given the population of Germany of approximately 80 million this number shows the important role of TikTok in these elections. Our data confirms that TikTok was a stronghold for the basically constantly campaigning AfD until the start of other parties' election campaigns in the beginning of 2025 (Figures 1, 2). After that, there is a remarkable uptake of TikTok as a communications channel by more established parties in the weeks before the election (Figures 1, 2). In particular, there is a striking parallel between the success of parties on TikTok in terms of views and likes in the weeks before the election, and their results with young voters (compare Figures 4 & 5). This holds especially true for the far-left party Die Linke (The Left, LINKE): It was expected to be voted out of parliament at the beginning of 2025 and made a surprise comeback by more than doubling its poll numbers since the beginning of 2025, from around 3% to 4% to almost 9% at the election. Its success on TikTok strongly correlates with its results in polls over time and at the election (compare Figures 1, 2 & 3).

Examples of the results of our language model-based retrieval task can be found in Table 1. The model successfully matches corresponding statements despite the talk show subtitles often deviating substantially, e.g., in the form of omissions. Arranging TikTok channels in a network based on semantic similarity as assessed by our language model, a network structure emerges to position parties according to their political leaning from left to right, with media channels appearing in the centre (Figure 6). This not only validates our methodical setup but also promises insightful results, once we investigate the diffusion of single topics and narratives within and between TikTok and talks shows.

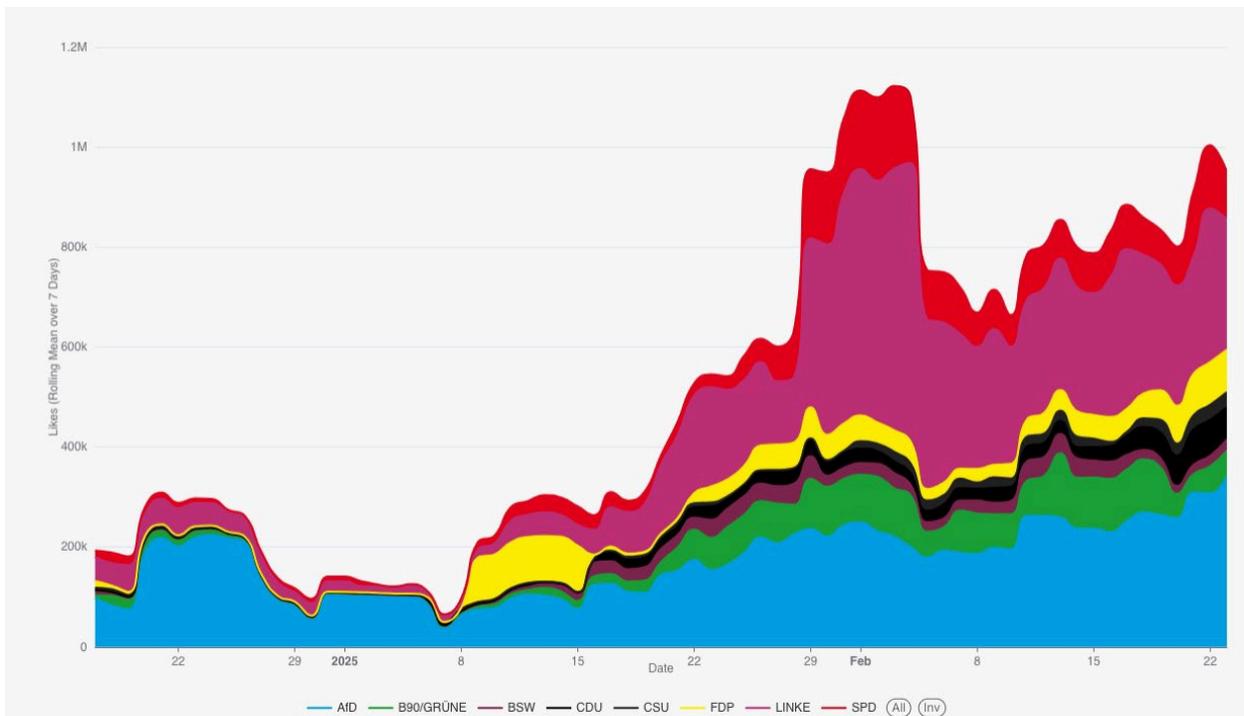
## Outlook

To assess the prevalence of certain topics and narratives, we will employ a hierarchical topic modeling method based on a language model and hierarchical network clustering described by Kessling et al. (2024). This method also makes use of a time parameter that allows applying a temporal scope to the found topics. Given these topics and their prevalence in different actors' statements, we will use Granger-causality tests to gauge how well the prevalence of a topic in one party's statements can predict its occurrence in another party. Sentiment and toxicity of statements will be measured with the Perspective API (*Perspective API*, n.d.) to conduct a regression analysis with views and likes as the dependent variables. Altogether, this will allow us to estimate the agenda-setting power of each party and whether successful content on TikTok might have influenced discussions on political talk shows.

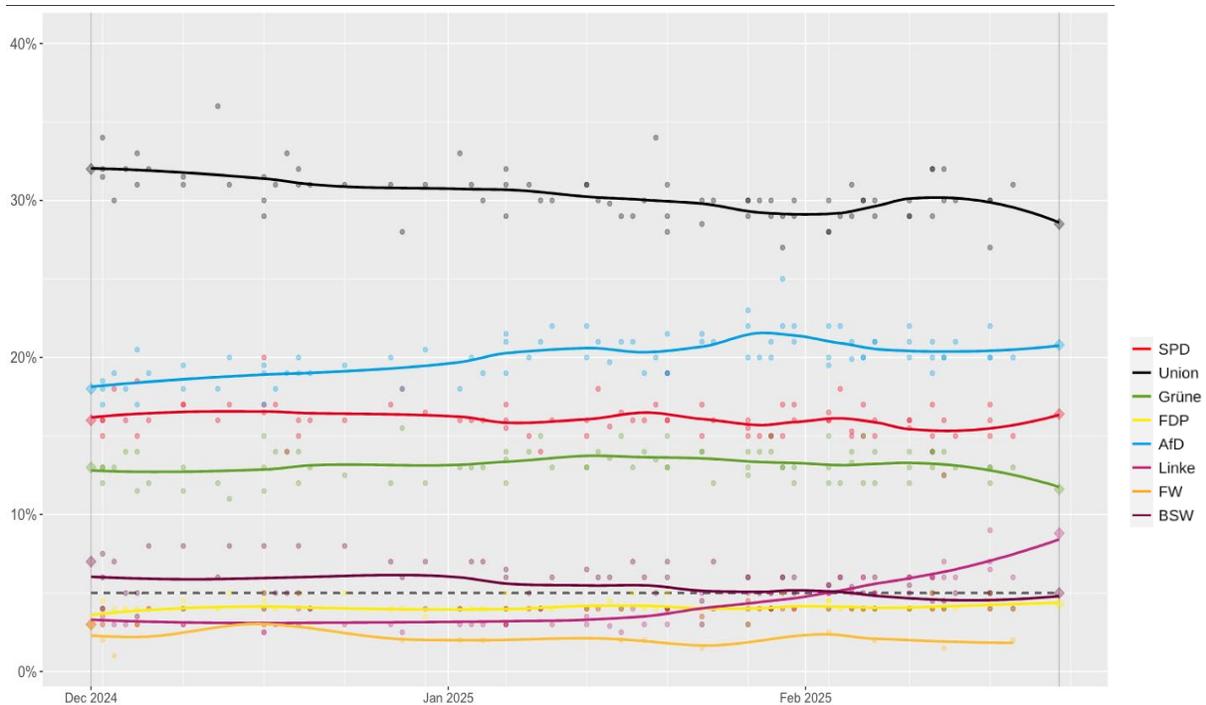
## Figures



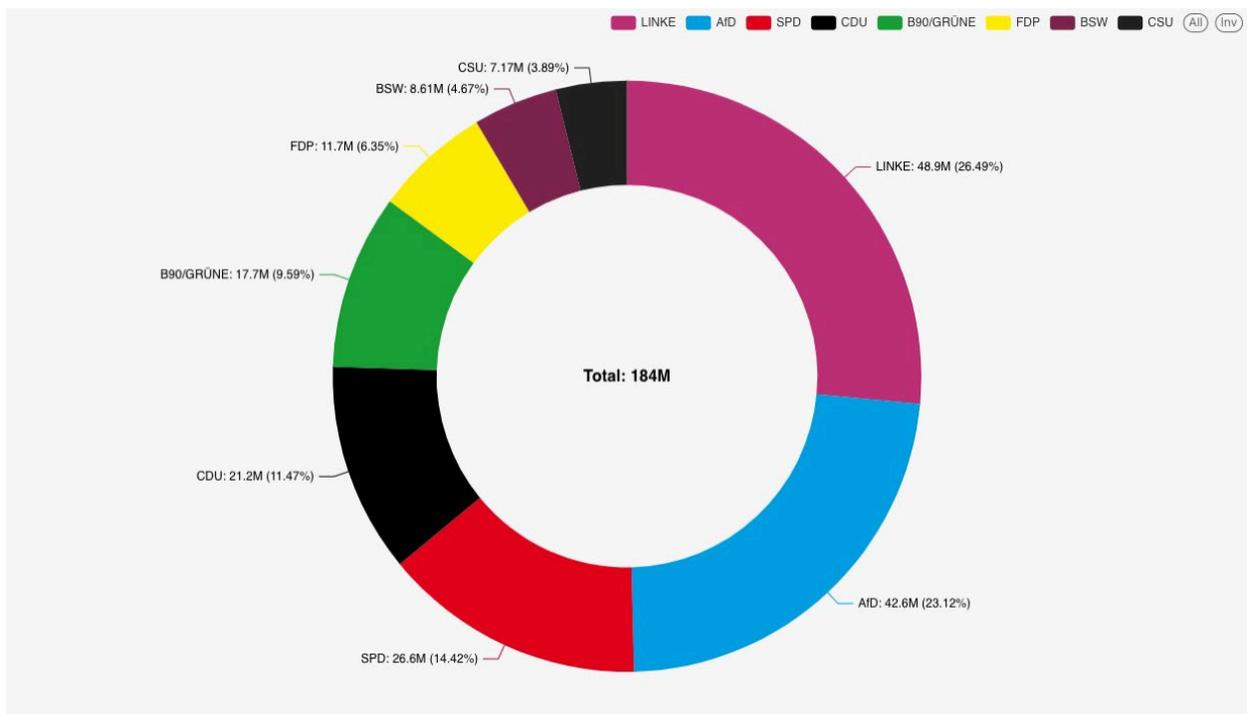
**Figure 1:** Rolling 7-day mean of number of views of content by TikTok channels by German parliamentarians; coloured by party; timeframe: 17.12.2024 to 23.01.2025 (election day)



**Figure 2:** Rolling 7-day mean of number of likes of content by TikTok channels by German parliamentarians; coloured by party; timeframe: 17.12.2024 to 23.01.2025 (election day)



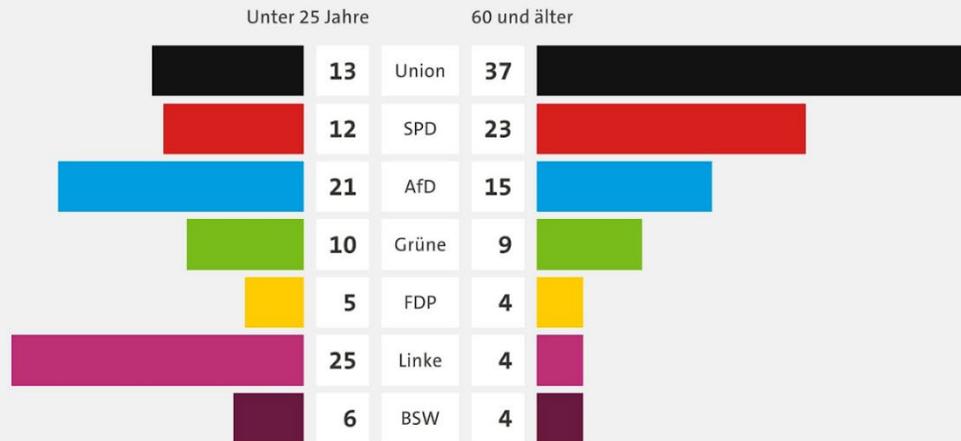
**Figure 3:** Election polls and final results (dots) over time with trendlines (CC-BY-SA, created with <https://gitlab.com/gbuvn1/opinion-polling-graph>)



**Figure 4:** Number and percentage of total views of TikTok posts in the last month before the election, coloured by party

## Bundestagswahl 2025

### Stimmanteile in Altersgruppen



Stand: 24.02.2025, 00:28 Uhr

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**Figure 5:** Preliminary election results (percent) of the German federal election by the youngest and oldest age groups; left: under 25, right: over 60 (Source: [https://www.tagesschau.de/wahl/archiv/2025-02-23-BT-DE/charts/umfrage-aktuellethemen/chart\\_1873793.shtml](https://www.tagesschau.de/wahl/archiv/2025-02-23-BT-DE/charts/umfrage-aktuellethemen/chart_1873793.shtml))



Similar TikTok and Talkshow pairs

Talkshow	TikTok	Similarity
<p>Linnemann@2025-01-30 21:15:00:</p> <p>Wir stimmen nicht gemeinsam mit der AfD, mir ist egal, was die machen. Ich stimme für meine Überzeugung, dafür bin ich gewählt worden als freier Abgeordneter. Wenn ich im Bundestag sitze und sage aus der Angst vor der eigenen Courage, oder aus Angst, dass jemand zustimmen könnte nicht meine Überzeugung, dann ist das kein demokratisches Parlament mehr. Deswegen stehen wir als CDU zu unserer Überzeugung. Wir sind der Überzeugung, wenn wir dieses Problem Migration nicht mal im Ansatz lösen, wird es irgendwann keine Mittelmeer des Parlaments geben. Ich würde sogar noch einen Satz dazu sagen, 2029 werden wir dann gegebenenfalls eine Regierung haben, von den Rändern bestimmt, die so stark ist, dass sie alleine regieren kann. Das will ich nicht und deshalb folge ich meiner Überzeugung.</p>	<p>insidecdcu@2025-01-31 08:46:35:</p> <p>gemeinsam mit AfD. Mir ist völlig egal, was die machen. Die Haltung von uns zu denen ist klar. Ich stimme für meine Überzeugung. Dafür bin ich gewählt worden als freier Abgeordneter. Wenn ich jetzt im Bundestag sitze und sage aus Angst vor der eigenen Courage oder aus Angst, dass irgendjemand zustimmen könnte, sage ich nicht meine Überzeugung, dann ist das kein Parlament mehr, kein demokratisches Parlament. Deswegen stehen wir als CDU zu unserer Überzeugung. Wir sind der festen Überzeugung, wenn wir dieses Problem Migration nicht mal im Ansatz lösen, wird es irgendwann keine Mitte mehr dieses Parlaments geben. Ich würde sogar noch einen Satz dazu sagen. 2029 werden wir dann gegebenenfalls eine Regierung haben, von den Rändern bestimmt, die so stark ist, dass sie alleine regieren kann.</p>	97.70
<p>Miersch@2025-02-03 20:00:00:</p> <p>Ich glaube, dass man nicht die AfD bekämpft, indem man ähnlich populistisch weiter agiert. Das Problem ist differenziert und es gibt nicht die schnelle Lösungen. Wir haben in den letzten Jahren die unterschiedlichsten Dingen gemacht. Wir haben auch die Behörden gestärkt. Aber wir werden uns auch an europäisches Recht und an die Verfassung halten. Wenn Sie den Antrag benennen, dort haben Sie gesagt, dass der Familiennachzug, da geht es um Frauen und Kinder, die zur Stabilisierung hier beitragen. Die wir auch kontingentiert haben. 1.000 im Monate. Die wollen Sie jetzt unbegrenzt aussetzen. Das sagen Ihnen viele Leute, das ist verfassungsrechtlich nicht zulässig. Was ich sagen will, Sie werfen alle in einen Topf. Darum ist die Angst bei Migranten massiv. Die Spaltung geht heute weiter. Wenn Herr Merz die Hunderttausende von Demonstranten heute beschimpft, weil sie angeblich das Thema verfehlen. Dann kann ich Ihnen nur sagen, das gefährdet die demokratische Mitte und das macht die AfD stark, wenn war da nicht eine gemeinsame Linie haben.</p>	<p>matthias.miersch@2025-02-04 16:00:00:</p> <p>Ich glaube, dass man nicht die AfD bekämpft, indem man ähnlich populistisch weiter agiert, sondern dass man sagt, dieses Problem ist durchaus differenziert und es gibt nicht die schnellen Lösungen. Wir haben in den letzten Jahren durchaus die unterschiedlichsten Dinge gemacht. Die Asylzahlen sind runtergegangen. Wir haben auch die Behörden gestärkt an vielen Stellen. Aber wir werden uns auch an europäisches Recht und an die Verfassung halten. Und wenn Sie den Antrag von Freitag benennen, dort haben Sie zum Beispiel gesagt, dass der Familiennachzug, da geht es vor allen Dingen um Frauen und Kinder, die teilweise zur Stabilisierung genau hier beitragen. Die wir auch kontingentiert haben, wo die Voraussetzungen sind, dass Wohnraum vorliegt, beispielsweise, 1000 im Monat, die wollen Sie jetzt unbegrenzt aussetzen. Nicht wie wir es mal hatten, zwei Jahre, sondern unbegrenzt. Und da sagen Ihnen viele Leute, es ist schlichtweg verfassungsrechtlich nicht zulässig. Darüber kann man auch streiten. Aber das, was ich hier sagen will, und das ist das Gefährliche der letzten Woche. Sie werfen alle in einen Topf. Und deswegen ist wirklich die Angst bei Migrantinnen und Migranten, die hier gut integriert sind, massiv. Und die Spaltung, Herr Frey, das will ich Ihnen sagen, geht heute weiter. Wenn Herr Merz die Hunderttausenden von Demonstranten heute beschimpft, weil sie angeblich das Thema verfehlen, dann kann ich Ihnen nur sagen, das gefährdet die demokratische Mitte und das macht die AfD stark, wenn wir da nicht eine gemeinsame Linie haben.</p>	96.97
<p>FM@2025-01-29 23:10:00:</p> <p>Wir sollten vereinbaren mit Ihnen den Sozialdemokraten und Ihnen den grünen, dass wir nur die Entscheidungen auf die Tagesordnung des Plenums setzen, über die wir uns zuvor mit Ihnen von der SPD und den Grünen in der Sache geeinigt haben. Sodass weder bei der Bestimmung der Tagesordnung, noch bei den Abstimmungen hier im Haus in der Sache auch nur ein einziges Mal eine zufällige oder tatsächlich herbeigeführte Mehrheit mit denen da zustande kommt. Denn das hätten diesen Damen und Herren von Rechtsaußen doch gerne, dass sie plötzlich die Mehrheiten besorgen.</p>	<p>dr.christos.pantazis@2025-01-29 16:29:25:</p> <p>Wir sollten mit Ihnen, den Sozialdemokraten und Ihnen, den Grünen, vereinbaren, dass wir nur die Entscheidungen auf die Tagesordnung des Plenums setzen, über die wir uns zuvor mit Ihnen von der SPD und den Grünen in der Sache geeinigt haben, sodass weder bei der Bestimmung der Tagesordnung noch bei den Abstimmungen hier im Haus in der Sache auch nur ein einziges Mal eine zufällige oder tatsächlich herbeigeführte Mehrheit mit denen zustande kommt. Diese Verabredung möchte ich Ihnen ausdrücklich vorschlagen, meine Damen und Herren, denn das hätten diese Damen und Herren von rechts außen doch gern.</p>	96.82

**Table 1:** Example results of the retrieval task to extract similar statements from talk shows and TikTok

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Paper 3:

## UNRAVELING TIKTOK'S ROLE IN THE 2025 FEDERAL GERMAN ELECTIONS WITH THE HELP OF DATA DONATIONS

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### Introduction

Germany's general election on 23 February 2025 was preceded by a campaign that was heavily influenced by digital platforms. With Meta dropping its hate speech and disinformation reduction policies, X owner Elon Musk publicly endorsing the far-right Alternative for Germany (AfD) party, and a lingering fear of foreign interference as recently seen in the Romanian presidential election (European Commission, 2024), there was a strong expectation that digital platforms and big tech could play a decisive role in the outcome of the election.

TikTok, the Chinese-owned social media video platform that is particularly popular among 14-29 year olds (e.g. Hendrickx, 2024), was also in the spotlight due to the widespread belief that the AfD had been particularly successful in spreading and influencing content, and that TikTok would therefore empower the political fringes through algorithmic amplification, as shown for other countries (e.g. Sweden, see Widholm et al, 2024; the U.S., Ibrahim et al., 2025). Indeed, preliminary analysis of scraped data from official party accounts shows that the far-right AfD posted the most videos during the recent German election campaign. At the same time, the far-left Die Linke received the most views and likes per video. In news coverage, these figures have often been used to explain the parties' success, not least because the far left surprisingly made a comeback, and the far right won more than 20 percent of the vote.

Theoretically, however, a distinction between *transmission* and *selection* of content is necessary (Capella et al., 2015). The transmission of news on a social network shows overall message spread. The selection of content shows the exposure of people to messages, either because they appear in their feed where they view it (first-level selective exposure) or because they engage with it (second-level selective exposure, see Ohme & Mothes, 2021). Based on the transmission of content, often macro-level effects are assumed, such as that a popular far right on TikTok shapes voting outcomes (e.g.

Deckler, 2024). However, focusing only on the *transmission* side has several shortcomings. First, media effects research has shown that, especially in social media, highly individual user trajectories are responsible for individual outcomes (e.g. Verbeij, 2022), such as vote decisions. Second, it often ignores the actual content of social media posts and, in the case of TikTok, video content (e.g. Wedel et al., 2024). Yet content is crucial to informing voters and influencing their vote (Chouaki, 2024). Third, voters' engagement with the posts can be very different from mere exposure, especially since engagement measures often count a few seconds of watching a video, which is not enough to convey a larger amount of information.

Overall, research on the effects of social media lacks individual user trajectories to explain voting outcomes, as media effects will differ for individuals (see Valkenburg & Peters, 2013). Therefore, following Capella et al. (2015), we argue that we need to focus on users' selection of information on social media, i.e. the content they are exposed to. While there can be no selection without transmission, transmission is not sufficient to explain exposure and its outcomes. Previous research has struggled to understand exposure to campaign content on social media and especially vertical video platforms. Therefore, we first ask

RQ1a: *What kind of party content were users exposed to during the election campaign?*  
RQ1b: *What kind of political content were users exposed to during the election campaign?*

Capella et al. (2015) describe the likelihood of exposure as a function of the likelihood of transmission (content being posted and shared) and the likelihood of selection (individual user decisions). However, on digital platforms, algorithmic decisions largely determine the transmission of information (Guess et al., 2023). While previous research has shown that algorithmic decisions play a large role in the transmission of emotional and controversial content, less is known about the extent to which algorithmic decisions shape users' exposure to political content over the course of an election campaign. The question of user agency vs. algorithmic curation in news diets has been discussed before, but remains open due to the lack of individual user data. To address this research gap, we ask

RQ2: *To what extent do users' campaign news diets change over the course of the campaign, and to what extent is this explained by user engagement with content vs. external, algorithmic decisions?*

## **Methodology**

This study takes an innovative and unique approach to collecting the data needed to answer these research questions through a citizen science project. We collect data donations from German TikTok users just before and after the election on 23 February 2025. Here, users are asked to download the data that TikTok holds about them and donate it to researchers by uploading it to a data donation collection tool (Ohme et al., 2024; Pfiffner et al., 2024). The project was conducted in collaboration with public and private German news media. Participants were recruited through joint calls for participation via the social media accounts of news media (with several 100,000 followers) and academic institutions on various platforms, and by reaching out to all youth

organisations of political parties. This allowed us to recruit a diverse sample of TikTok users. As an incentive, participants received a personal report of their political TikTok history, showing how often parties and political hashtags appeared in their data donation.

Data collection took place between 17 February and 10 March 2025. At the time of writing, we had collected  $n=302$  data donations.

## Measures and Analysis

To address RQ1, we will classify the content of the videos from the data donation packages. To classify the watched videos about their political content and party affiliation, we rely on the Data Base for Public Speakers (DCPS; <https://osf.io/sk6t5/>), which contains a list of TikTok accounts from politicians and their party affiliation. Secondly, we sampled all videos during the election campaign that included a political keyword from any account. The underlying keyword list was generated based on snowball sampling and video descriptions. Those two sampling strategies – actor- and keyword-based – allow us to identify political videos from official and unofficial sources.

To measure party and political content, we assign each video with three labels: (1) party affiliation depending on the posting account, (2) each video that uses a political keyword in the description is labeled as political – no matter the creator, (3) a general actor type label based on the DBPS (i.e. party account, news outlet, journalist, or none). Those three labels allow us to explore the presence of political videos from political parties, news media, and ordinary users.

To measure participants' exposure to videos, we include first-level exposure (watch time) and second-level exposure (likes, shares, comments). Additionally, we control whether a user follows the content creator. All this information is available through the collected DDPs. Splitting users' watch histories into sessions we can then measure if the engagement with e.g., Green Party videos leads systematically to more such videos being suggested in the future. This helps us to unravel algorithmic influence over time in longitudinal trace data. Applying such analysis to the various video label combinations and user clusters (age, voting behavior, education, region) allows us a fine-grained understanding of (1) which users are exposed to certain content from specific actors, (2) how content exposure changed over the course of the election campaigns, and (3) whether there is asymmetric algorithmic amplification.

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*Paper 4:*

## **RESEARCHING CROSS-PLATFORM CAMPAIGNING IN THE 2025 AUSTRALIAN FEDERAL ELECTION**

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### **Introduction**

In 2025, online campaigning for national elections—including the Australian federal election—takes place in a rapidly evolving digital environment. The online platform landscape was broadly stable for the past few federal elections (Bruns et al., 2021; Decker

et al. 2024): journalists, politicians, activists, and other dedicated news followers tracked the campaign especially on Twitter, where hashtags like #ausvotes and #auspol were reliable gathering points. Public outreach to voters and occasional discussion amongst citizens took place especially on Facebook; and, more recently, video-centric platforms like TikTok required parties to come up with more visually engaging campaign content (Grantham, 2024).

For context, in addition to their ‘organic’ posting, parties, politicians, and lobby groups spent A\$12.5m on advertising across these platforms in the last federal election in 2022 (Arya, 2022), sometimes mixing authorised campaign messaging with covert attack ads and disinformation (Angus et al., 2024a). The latter are usually spread by front groups that are loosely associated with official campaigns, and exploit Australia’s lack of ‘truth in political advertising’ laws (Hewson, 2025) and the lax enforcement of advertising standards by digital platforms themselves.

The 2025 environment is substantially different from this recent past: old platforms are declining, and new social media spaces are emerging. Market leader Facebook has continued its long, slow decline as its userbase ages and younger Australians opt for more interesting platforms. Twitter was acquired by Elon Musk and renamed to X, and under Musk’s leadership has turned into a cesspool of hate speech, disinformation, and fascist agitation (Hickey et al., 2025). A substantial proportion of its Australian and international userbase—including political leaders, journalists, media outlets, and academics—has moved to new platforms such as Mastodon and Bluesky (Burgess, 2024).

This epochal change in the digital platforms landscape has substantial consequences both for how politicians and parties approach online campaigning, and for the independent scrutiny of such campaigning by critical researchers, campaign watchdogs, and the Australian Electoral Commission. In some cases, access to data is restricted in Australia compared to other jurisdictions: for example, the TikTok Research Tools are available only in the U.S. and Europe (TikTok, 2025). With the exception of Bluesky, which provides full and free access to public posting activity, digital platforms have made researchers’ pathways to accessing data slow, expensive, inoperable, or simply impossible.

### **Tracking Electoral Campaigning in a Changed Environment**

This paper confronts the challenges of researching electoral campaigning within this changed and fragmented social media environment by using the 2025 Australian federal election (to be held in April or May, at the discretion of the Prime Minister) as its case study. As past studies have shown, Australian federal elections provide a useful test case for tracking the evolution of social media campaigning, as the Australian legislative period is unusually short (nominally, three years); this has enabled longitudinal research efforts (e.g. Bruns et al., 2021). The last federal election was in May 2022, prior to major changes at Twitter and Facebook, and therefore provides a useful comparative baseline.

Accounting for the considerably more complex and unsettled social media environment within which the 2025 election takes place, we combine well-established data gathering

frameworks used in past campaign studies with novel and exploratory mixed-methods approaches that expand data gathering and analysis in appropriate ways to newer platforms. Table 1 outlines our data collection approach, tools, and scope:

Digital Space	Collection Approach / Tool	Collection Scope
Facebook and Instagram	API access: Meta Content Library	Public pages and profiles of candidates, parties, and campaign groups: <ul style="list-style-type: none"> <li>• Posts and comments</li> <li>• Activity and engagement metrics</li> </ul> Keyword searches: <ul style="list-style-type: none"> <li>• Commentary and discussion on Australian public pages and groups</li> </ul>
TikTok	Data scraping: Zeeschuurmer (Peeters 2022), PykTok (Freelon, 2022)	Profiles of candidates, parties and campaign groups <ul style="list-style-type: none"> <li>• Video uploads and engagement metrics</li> </ul> Keyword searches
Reddit	API access: Local copy of PushShift / ArcticShift Live Reddit data (via API) Keyword Search	Election-related content in subreddits with a clear Australian focus: <ul style="list-style-type: none"> <li>• Posts and comments</li> </ul>
YouTube	API access: YouTube API  Data Scraping Youte, TubeR	Videos posted by candidate and party channels, and videos shared in content gathered from other social media platforms: <ul style="list-style-type: none"> <li>• Video content</li> <li>• Transcripts</li> <li>• Engagement metrics</li> <li>• User comments</li> </ul>
Advertising Data	Data donations: Mobile Observation of Advertising Toolkit (MOAT) (Angus et al. 2024b)	Data from a balanced sample of Australian voters in key electorates: <ul style="list-style-type: none"> <li>• Mobile advertising encountered by participating users on Facebook, Instagram, and TikTok</li> </ul>
News Content	API access / scraping: Curated dataset of news content from a broad range of mainstream and fringe Australian news outlets	Keyword searches: <ul style="list-style-type: none"> <li>• News articles addressing the election campaign, crossreferenced with news articles shared in the social media data</li> </ul>

We explicitly exclude from our analysis data from X, as it is now overrun by bots, trolls, and fascists (Hickey et al., 2025) and can no longer meaningfully contribute to campaign analysis. We also exclude non-public platforms or platform components, including activity amongst non-public Facebook profiles as well as platforms such as WhatsApp. While the observation of activities there would be desirable, there are presently no workable approaches for doing so ethically and at scale.

## Data Analysis

Initial analysis of these datasets is per platform, drawing especially on the innovative practice mapping approach (Bruns et al., 2024) which identifies groups of accounts that exhibit similar patterns in their posting practices even if platform datasets do not provide distinct interaction data. This enables the detection both of clearly coordinated activities (e.g. candidates from the same party posting similar messages at the same time) and of looser alliances amongst actors with similar views and activities; further, such groupings also point to antagonisms that may indicate polarisation among groups.

Following the platform-specific analyses, we combine the discrete patterns observed on each platform to examine alignments and divergences of activities across platforms. This pays attention both to content that is explicitly shared from one platform to another (e.g. posts, news URLs, images, videos), and to broader messaging and engagement strategies that align between platforms. Doing so enables us to explore both specifically how candidates and parties prioritise some platforms as their primary posting sites over others, where material is instead simply cross-posted or reused, and how general public debate about the election evolves in similar or different directions on particular social media platforms.

The key contributions of this paper are thus threefold: first, we outline up-to-date workable methods for capturing and analysing political campaigning in a substantially diversified social media landscape; second, we present the practice mapping framework as a valuable new tool for the analysis of social media activity and engagement patterns; and third, we apply these approaches to the analysis of social media campaigning in the 2025 Australian federal election, adding to a longitudinal study of Australian elections that reaches back as far as 2007. These insights extend beyond Australia, as many democracies face similar challenges with platform fragmentation, data access, and shifting campaign strategies. Our approach offers a framework for tracking election campaigns in this evolving digital landscape, informing electoral monitoring and political strategy globally.

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## LET THE STRUCTURES SPEAK! A MULTILEVEL COMPARISON OF ONLINE DISCOURSES DURING AUSTRALIAN FEDERAL ELECTIONS

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### Introduction

The contemporary sociopolitical scenario is affected by tensions between *local* particularities, *global* trends, the imaginaries they create, and the affordances of the digital media landscape. These *glocal* meaning-making processes (Demuru, 2020) have made it increasingly complex to understand phenomena such as populism, polarization, conspiracy theories, disinformation, and their interconnections. Moreover, scholars' interest in studying these phenomena through the analysis of digital media content or users' online interactions has demanded the development not only of new data collection approaches, but also of new frameworks to process and analyze large volumes of data in meaningful ways, sparking innovation and fostering the development of new methodologies.

Natural Language Processing (NLP) methods have been invaluable tools for the computational analysis of online texts, especially in relation to critical periods such as elections (e.g. Schöne et al., 2021), broader debates like climate change (e.g., Dahal et al., 2019), or when seeking to identify facets of specific phenomena: for example, affective language usage suggesting polarized dynamics (e.g., Buder et al., 2021) or lexical items connected to conspiracy theories (e.g., Buehling, 2025). But Németh's (2023) methodological literature review of polarization studies using NLP methods identifies several issues with such approaches—a lack of interdisciplinarity, an avoidance of qualitative approaches in addition to NLP, and an excessive focus on a few popular NLP methods—whose combined implications also can reveal limitations in how scholars operationalize texts when computationally studying digital media content.

Most approaches to using NLP remain at the level of recognizing, weighing, and interpreting single verbal elements or assessing their frequency or patterns, and are unable to address the intricacies of language in the same way that qualitative and manual approaches can. Popular NLP methods provide valuable insights and are straightforward in their application but only study what semioticians call “discursive structures” (Quezada, 1991): a concrete, explicit, and superficial level of analysis. Identifying topics or clouds of concepts (topic modelling), ranking the most used words per type (part-of-speech tagging), identifying entities (named entity recognition), and weighing the positive, negative, or neutral emotional tone of words or phrases by using dictionaries of words (sentiment analysis) all reveal relevant features of the texts analyzed, but cannot provide resources for understanding what digital media users are saying.

Although the shortcomings of these methods in computationally analyzing texts in depth and at a large scale may have been partially circumvented by the use of Large Language Models (LLMs) and Machine Learning (e.g., mapping key topics across large datasets, identifying the stance of different entities, etc.), there is overlooked potential in the use of less popular NLP methods, like dependency parsing—whose focus is detecting the functions or relationships connecting words—to address “semionarrative structures” (Quezada, 1991): an abstract, structural, or deeper level. Similarly, there are opportunities for enhancing the application of LLMs through an additional goal: *tracing* language structures. This means searching for specific sequences of relationships or connections between words based on the functions they play in the text, not only which words are specifically included, to reveal aspects of the phenomenon we are studying. This is different from relying on AI-powered interpretations because the connections between words when tracing structures are identified exclusively based on how language works.

## **Data Collection, Case Selection, and Methodology**

In this paper, I combine several NLP methods: *topic modelling*, *named entity recognition*, *part-of-speech tagging*, and *dependency parsing*, to provide an in-depth comparative analysis of Facebook data for the leading candidates in the 2022 and 2025 Australian federal elections. This involves *identifying the core communicative features* and *narrative structures* exhibited by the Facebook posts of the two main candidates campaigning in each election year—Scott Morrison (Liberal/National Party, incumbent) and Anthony Albanese (Labor Party, challenger), and Peter Dutton (Liberal/National Party, challenger) and Anthony Albanese (Labor Party, incumbent), respectively—as well as those exhibited by a sample of comments and replies responding to their posts.

My methodological framework provides a pathway to address and make sense—separately and in conjunction—of the *discursive* and *semionarrative* levels of analysis, and makes it possible to work with eight dimensions of comparison: (1) the same politician throughout one election campaign, (2) different politicians throughout one election campaign, (3) the same politician across election campaigns, (4) different politicians across different election campaigns, (5) users posting in response to one politician throughout one election campaign, (6) users posting in response to different politicians throughout one election campaign, (7) users posting in response to the same politician across election campaigns, and (8) users posting in response to different politicians throughout different election campaigns.

I specifically aim to identify any patterns of polarization expressed in my datasets, and to explore what they say about Australia’s electoral environment. To do so, I will also explain how my operationalization of polarization aligns with my operationalization of selected discursive features and narrative structures. For example, I use dependency parsing to trace two narrative structures that I have adapted from semiotic theory: *objects of desire* and *direct assessments*. Tracing objects of desire, in essence, involves identifying a subject (who?) connected through specific verbs (e.g., wants, wishes, desires) to one or more objects (what?). Similarly, tracing direct assessments involves identifying declared judgments or descriptions of the attributes (what?) ascribed to a subject (who?) or object. Among other possibilities, this serves to analyze what a certain politician says he wants for the future of Australia, and what the same politician says his main opponent wants, or

to compare changes in the ways in which the politician describes himself in different elections, potentially unveiling polarization configurations.

The main contribution of this work is to apply a new methodological pathway to computationally enable multilevel comparisons of online texts posted by top Australian politicians and regular users during the last two federal elections. Moreover, the selected period is particularly relevant to understanding the current sociopolitical landscape of Australia, and its perspectives for the future, because it allows us to evaluate the role potentially played by local events like the 2023 Voice to Parliament Referendum—an unsuccessful initiative that sought to provide Aboriginal and Torres Strait Islander peoples with representation to advise federal parliament in policy and legal decisions—and international events such as Donald Trump's 2024 reelection in the United States in adding to, changing, or maintaining the expressions of polarization evidenced in 2022 in the 2025 elections campaign.

Being able to computationally identify explicitly mentioned verbal elements as well as texts' underlying structures and to match them to my operationalization of aspects of polarization is fundamental to revealing deeper levels of meaning construction. In this sense, adding the analysis of structures can enhance any comparative study by allowing researchers to identify similarities and differences between texts' more and less explicit characteristics—in other words, beyond specific actors, topics, contexts, or timeframes.

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