

# Does the TikTok feed lean right? Exposure to Political Party Content among non-partisan users during regional and federal elections in Germany

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## Abstract

Populist parties are gaining popularity among young voters in many Western democracies. Young voters increasingly obtain news online through social media websites. TikTok has quickly ascended to become one of the most popular platforms globally. We evaluate exposure disparities regarding political parties by measuring the extent to which parties enter non-partisan users' feeds. By implementing a sock puppet audit using 78 automated users, we can hold individual user behaviour constant – the main mechanisms through which platform algorithms curate user feeds. We collect data in Germany ahead of the three regional elections in 2024 and the federal election in 2025 (N= 561.000 videos). Overall, political content constitutes 4-10% of user feeds in our sample. When non-partisan users encounter (unsolicited) political content, it is more likely to feature videos posted by or supportive of the far-right, populist Alternative für Deutschland (AfD) party than moderate parties. Further evidence on mechanisms explaining this right-wing visibility advantage points to the importance of multiplier networks and content virality.

Keywords: social media, audit, TikTok, election, populist, political

# 1. Introduction

This study measures disparities in exposure to political party content among young, non-partisan voters on TikTok. We distinguish more broadly between exposure to content supportive to populist parties and content affiliated to moderate parties.<sup>1</sup>

Populist parties are gaining ground across Western democracies, particularly among young voters who increasingly rely on social media for news and information. TikTok has rapidly emerged as a dominant force in the social media landscape, with over a billion monthly active users worldwide (Dellatto, 2021). In Germany, the app has 23 million users. It is particularly popular among younger audiences, with 64% of Germans under the age of 25 reporting usage of the platform within the last four weeks, spending an average of 57 min [95%-ci: 46.6 , 67.6] minutes per day on it (Bobzien et al. 2025). Additionally, 40% of young adults in the U.S. and 30% in Germany cite accessing news as one of their reasons for engaging on TikTok (mpfs 2023; Shearer et al. 2024). Given these trends, TikTok is an important source shaping political knowledge, attitudes and preferences of young voters.

Given its popularity, there are growing concerns regarding disparities in political exposure on the platform in terms of political parties and ideologies. Allegations of election interference have recently been launched by the European Parliament following an election in Romania (European Parliament 2025). In the US, the government issued a TikTok ban over fears of negative influence on national security relating to misinformation (Ibrahim et al. 2025).

Research on Facebook, X and YouTube has suggested that populist, conservative or right-wing actors achieve a higher reach on social media platforms compared to moderate parties (e.g. Davidson & Enos 2024; Huszár et al. 2022; González-Bailón, et al. 2022; Munger & Phillips 2020). Despite its scale, there is still scant empirical evidence regarding political communication on TikTok (Kubin & Sikorski 2021; Lorenz-Spreen et al. 2023; Zhuravskaya & Petrova 2020 for reviews).

In this study, we implement an election audit in the run-up to regional elections in three East German states (Brandenburg, Saxony, Thuringia) in September/October 2024 and the Federal Election in February 2025. Populist parties, namely the far-right Alternative fuer Deutschland (AfD) and the new Buendnis Sahra Wagenknecht (BSW), have shown recent success among young voters in the 2024 European Parliament elections. The AfD's vote share among 16- to 24-year-olds tripled compared to the 2019 election, a result that surprised many political observers.

Germany represents a particularly relevant case, both due to the potential downstream effects of social media on its changing political landscape and its distinctive regulatory environment for political communication. TV and radio channels are mandated to provide equal playing time for political messaging (Medienanstalten 2024) and advertisements undergo legal checks (for example, in terms of the potential to incite violence or undermine the constitution). Municipalities are tasked with reviewing and allocating locations for political posters during election times following quotas (Deutsche Anwaltsauskunft 2018). Social media has received more attention from regulators, yet monitoring violations of existing laws is technically challenging, partially because regulators do not have access to vital data from large platforms. As a result, large platforms are not systematically held accountable for incidental exposure to unsolicited political content. A populist advantage in exposure on social media would raise questions whether legislators are fulfilling their constitutional responsibility of enabling a balanced and informed public deliberation in election times (Forestal 2021). Partisan disparities in visibility would also raise question regarding the protection of minors who are incidentally exposed to political content while seeking entertainment.

We run a total of 78 automated sock-puppet accounts to assess differential exposure to political party content. The sock puppets are automated user agents designed to emulate new, non-partisan participants on the platform. While none of the users reveal any ideological or political preference in their behaviour, we introduce experimental variation in

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<sup>1</sup> Populist parties are defined by anti-elite and nativist agendas. In Germany, the AfD is commonly classified as populist and far-right and the new BSW party is labeled left (conservative) and populist (see Rooduijn 2024 for PopuList; Rovny et al. 2024 for most recent CHES data; Thomeczek 2024 on BSW).

the degree to which these non-partisan voters are interested in the election and seek information about it. We obtain data on all videos users were exposed to during their time on the platform (1 hour a day over approx.. 5-7 weeks around the elections). We assess disparities in exposure rates to official party accounts and general supportive party content and explore potential mechanisms.

We focus on non-partisan voters because research has suggested that undecided voters are most likely to be impacted by political information (Nanz & Matthes 2022). In addition, incidental exposure disparities regarding non-partisan and politically disinterested users presents a greater concern in terms of consumer protection and fair elections compared to users who actively engage with and seek partisan information. The unique advantage of the audit study approach is the ability to track exposure to content while holding individual user behaviour, networks, and time constant.

Our study finds a higher exposure to populist content, especially content affiliated with the right-wing AfD party, among non-partisan users on TikTok compared to exposure to moderate parties. By design, we can ascertain that these exposure disparities are not the result of revealed individual user behavior or preferences. We further explore the mechanisms explaining these disparities. Our study contributes to the growing literature on algorithmic political exposure by providing rare, systematic evidence from TikTok - a platform that has thus far received limited scholarly attention in this context.

In the following, we first discuss theory regarding exposure to political party content on social media platforms (section 2) and derive testable hypotheses. Second, we review existing evidence (section 3) before presenting our data and methods (section 4). We present overall results on exposure rates and potential mechanisms in section 5 before closing with a discussion on implications and further research (section 6).

## 2. Social media effects, exposure to political content and potential populist advantage

The study of political communication on social media is motivated by the assumption that exposure to political information on digital platforms can influence political outcomes (e.g. Mosca & Quaranta, 2021). Fujiwara and colleagues (2024) for example find an effect of Twitter use on electoral outcomes in the US (Fujiwara 2024). While causal attribution to media effects is a long-standing issue, a substantial body of evidence points to the general relevance of information provision and media effects on outcomes (e.g. Kubin & Sikorski 2021; Lorenz-Spreen et al. 2023; Zhuravskaya & Petrova 2020 for reviews ). Beyond voting behavior, meta reviews have indicated that exposure to political information is associated with news use, political knowledge, political participation, and political discussion (Nanz & Matthes 2022; Lorenz-Spreen et al. 2023). Given its wide use, especially among younger population, it is plausible for these effects to extend to social media.

A growing body of research has highlighted the significance of incidental exposure, where users are exposed to political content unintentionally - particularly among those who are not actively seeking political information (Ohme, 2019; Nanz & Matthes, 2022). These effects may be even stronger among individuals without established partisan affiliations, a focus of our study.

Young voters, in particular, having grown up with social media, may be more adjusted and susceptible to political information disseminated through this channel. Ohme (2019) finds that digital media environment (such as social media platforms) potentially socializes young voters into polarized information environments who, as a result, become more active in upcoming elections (Ohme 2019). In addition, young voters often lack established party preferences and tend to be more ideologically flexible than older generations.

Whether social media as a source of political information may exhibit negative effects on the functioning of modern democracies remains contested (e.g. Guess et al. 2023; Ferrara 2020). Several studies suggest concerns that social media undermines the democratic process by spreading disinformation, fake news, and increasing polarization and

mistrust (e.g. Ferrara 2020; Garimella et al. 2018). Others argue that the potential negative impact of social media is exaggerated, and that social media can even lead to an increase in access to useful political information (e.g. Nyhan et al. 2023; Scharkow et al. 2020; Chen et al. 2021).

A critical area of concern is the potential populist party advantage on social media platforms. These parties are typically defined by their emphasis on a division between 'the people' and 'the elite' and their often nationalist and nativist policies (Mudde & Kaltwasser, 2017; Rooduijn et al., 2024). Previous studies on Facebook and X (formerly Twitter) suggest that populist and right-wing parties are more likely to achieve higher reach and engagement than their moderate counterparts (Davidson & Enos, 2024; Huszár et al., 2022). Huszár and colleagues (2022) find that right-wing political parties in six countries had a higher reach on X than left-wing counterparts. González-Bailón and colleagues (2022) find that right-leaning news sources were shared more frequently on Facebook and Twitter than left-leaning ones. Ye and Ferrara (2024) find that new accounts on Twitter experience a right-leaning bias in exposure within their default timelines (Ye & Ferrara 2024). Chen and colleagues (2021) find that conservative accounts tend to receive more followers on Twitter.

In contrast, studies on YouTube suggest that algorithmic recommendations do not favor extreme left or right content (Ledwich & Zaitsev 2019). Hosseinmardi and colleagues (2024) find that relying exclusively on the YouTube recommender systems results in less partisan consumption relative to real user consumption. Munger and Phillips (2022) find that the prevalence of right-wing content on YouTube is driven by user demand rather than by the platform's recommendation algorithms. Similarly, Chen and colleagues (2021) confirm a similar result for X that right-wing exposure is largely due to user preferences, not skewed algorithmic recommendations.

Initial analysis on TikTok in the US points to a conservative, right wing advantage. Serrano et al. (2020) show that Republican users generate more political content while Democrats engaged significantly more in cross-partisan discussions (Serrano et al. 2020). Another study on the US found that Republican (right-wing) accounts were more likely to be recommended to neutral users on the platform (Ibrahim et al., 2025).

Previous literature refers to a host of explanations for a potential populist advantage on social media.

Following Jungherr et al. (2019), digital media like TikTok enable outside challengers—such as populist opposition parties—to bypass traditional social institutions that have historically structured political discourse, including established parties and legacy media. These institutions have previously held a monopoly on political coordination and information distribution (Jungherr et al. 2019a). From this perspective, it is plausible that populist parties invest their resources in stronger social media presence and reach target audiences without filters and gatekeepers limiting their reach in the offline world. Among the few available studies for TikTok, Cervi et al. (2021) show that populist parties in Spain are more active than moderate parties and that the content has higher engagement by users (Cervi and Marín-Lladó 2021). Through high visibility on social media, populist parties can then gain “discursive power” to “introduce, amplify, and maintain topics, frames, and speakers that come to dominate attention in ongoing political discourse” (Jungherr et al. 2019b: 420) beyond the digital spaces.

Platforms such as TikTok argue that content curation is a function of users’ own revealed preferences through the behaviour on the platforms. User behaviour is expressed through views, likes, shares, comments, and follows. Disparities in exposure to political content is thus simply demand driven. This argument is difficult to disprove based on common studies using platform APIs or data donation from real users. As we explain later, we implement a study design that can adjust for individual behaviour and thus turns the focus on the supply side (what is available on the platform) and the algorithmic curation (what the algorithm selects to be included in user feeds).

While Facebook and X allow for longer text-based content, TikTok focuses on short audiovisual content. X and Facebook used to prioritize content based on a user’s network chronologically. From the outset, TikTok’s algorithm prioritized content with high engagement on the platform. For political parties, this means that rather than building a network of followers, it is more important to create content with high viral potential, such as polarizing, entertaining, emotional content. Populist parties often rely on emotional, polarizing content to engage users, a strategy well-suited to the format of social media platforms like TikTok. Given TikTok’s emphasis on short, eye-catching videos that generate

engagement, populist content—due to its emotive and controversial nature—often has higher viral potential compared to more measured, substantive posts by moderate parties (Kluknavská & Pospíšil Macková, 2024; Bossetta & Schmøkel, 2023; Ernst et al. 2018). Moderate parties - especially those in government - may be reluctant to adopt such strategies, as they risk alienating older and more moderate voters. For these reasons, populist party advantage may even be more pronounced on TikTok compared to established, text-based platforms such as X and Facebook. In the Spanish case study, Cervi and Marin-Llado (2021) show that posts by populist parties on TikTok focus more on entertainment compared to other parties (Cervi and Marín-Lladó 2021).

Beyond explanations focusing on the activity and performance of the political party (post volume, content etc.), the populist advantage could also be a result of user selection into the platform. Similar to Jungherr's argument that populist parties prefer less regulated public spaces to compensate for disadvantages in "legacy" media, it is also plausible to assume that users who find their own views underrepresented in mainstream media are more likely to sign up to social media platforms which feature content conforming with their views. To the best of our knowledge, there is limited research on the (partisan) selection into social media platform.

Despite the growing interest in social media's influence on political communication, there is limited research on how these dynamics play out specifically on TikTok, particularly concerning the exposure to political content among young, non-partisan users. While previous studies have shown the success of populist parties on other platforms, especially in the US, our study aims to provide new evidence on TikTok - a platform that is particularly popular among younger, less politically engaged users - in the largest European country, Germany.

### **3. Hypotheses**

Based on this brief discussion of the state of the art in the previous section, we postulate several theoretical expectations relating to the main outcome of interest (i.e. exposure rates to political parties) and relating to potential mechanisms explaining a potential populist advantage on TikTok.

Based on Jungherr et al. (2019), we hypothesize that young potential voters on TikTok are more frequently exposed to political content of populist parties relative to moderate parties (*H1*). We expect this to be true both for official party content posted by ‘official party accounts’ (from now on, labelled OPA), as well as ‘party-affiliated content’ (from now on, labelled PAC), i.e. videos which are supportive of a party but are posted by unofficial sources. We expect the disparities to hold for users who exhibit no interest in politics at all.

Further, we expect higher exposure rates to populist party content for politically interested (non-partisan) users (active) compared to politically disinterested (passive) users (*H2*). Politically interested users in this study occasionally search for information on “elections” and “politics” without revealing any partisan preference in their searches. Higher activity of populist parties on the platform during election times combined with a larger follower base on the platform may result in stronger association between interest in politics and populist content. In other words, the likelihood for a non-partisan, neutral user to encounter populist content when searching for information on the upcoming election is higher when the overall pool of available political content on the platform is larger and more popular among other users.

The previous section alluded to a few theoretical mechanisms which may account for a potential populist advantage on social media. The available evidence on these mechanisms is limited. We strive to provide evidence on the mechanisms, yet we were limited in the scope to which we were able to test them empirically. In this study, we can explore two main mechanisms which we label performance and input (i.e. supply). Performance captures how popular the content is on the platform measured by content engagement (likes). The input category measures the size of the support network (how many users upload party-affiliated content, sometimes called “multipliers”) and strategic hashtag use (how accounts use hashtags strategically to facilitate dissemination).

Based on these arguments, we hypothesize that populist parties achieve higher exposure rates due to the popularity of the content in terms of user engagement (*H4*) and the input strategies of actors uploading the content (*H5*).

In the discussion, we reflect on additional mechanisms which are not addressed empirically in this paper including user selection into the platform, malicious bot activity, as well as deliberate algorithm favoritism, and outline avenues for future research.

## 4. Data & Methods

### 4.1. Sock puppet audits

One major obstacle for political scientists aiming to assess political communication on digital platforms is data access (de Vreese & Tromble 2023; Freelon 2018). Despite the growing influence of digital platforms in political life, the private companies operating these platforms restrict data access, often for proprietary reasons, which limits meaningful scrutiny. Sock puppet audits are a potential solution. Sock puppet audits are novel in the field of political communication and more common in the field of computer science and algorithm studies (Bandy 2021; Urman 2024). In essence, researchers create user accounts on social media platforms and monitor the content these accounts encounter. Accounts are automated to simulate real user behavior (as much as possible). Data is systematically extracted via web scraping. For details on the technical implementation of the data extraction process see [anonymized for review].

Data collected through sock-puppets shifts focus from studying inputs – i.e. what political actors do on social media (e.g. Beltran et al. 2020; Munger and Phillips 2022; Guinaudeau, Munger, and Votta 2022, Stier et al. 2020) – to study outputs, i.e. what content reaches users. This approach allows to hold important variables constant which may bias results arising from observational data on real users, such as individual user behavior (likes, views, searches etc.), the network (who they follow) and time (all users are online during the same period for a similar amount of time). In our study, we programmed users to follow identical and simultaneous online behavior patterns in the same location (what, when, and where users like and view content) and controlling their networks (who they follow).

## 4.2. Data collection

TikTok is a short-form video platform where users create and consume videos typically ranging from 15 seconds to 3 minutes. The app's algorithm curates a personalized "For You" feed. Videos appearing in the feed can be posted by anyone active on the platform and is not restricted to accounts followed by the user. We collect all videos included in TikTok "For You" feeds of 33 users in 2024 (regional elections) and 45 users in the 2025 (federal elections).

Users were programmed to scroll through their feed until a video with hashtags relating to their interest (see Table 1) appeared. When it did, the user watched the video for its full length, but no longer than 2 minutes and liked it.<sup>2</sup> We "nudged" the users once per session, after 35–45 videos, towards one of their assigned interests at random (see Table 1). We refer to nudging when users searched for a specific hashtag in the top search bar rather than simply scrolling through their feed. When executing a nudge, users searched for a randomly selected keyword from their interest categories via the search bar, then scrolled through the search results page for 5 to 7 swipes without entering detailed video view. The combination of feed with occasional nudges avoids pushing users into a specific direction ("rabbit hole") too early while ensuring variation in exposure across user behavior types.

We varied the accounts regarding user behavior (political interest vs. no active political interest). The interested users featured additional keywords in their interest profile such as "elections" and "politics". As a result, interested users occasionally search for political information in addition to pursuing their other non-political interests. Politically interested users still search non-political topics in addition to the elections. Users are deliberately designed not to fall into rabbit holes or enter filter bubbles. Even after political content relating to the election was searched, subsequent searches can be related to non-political hobbies. This always balances the feed and is likely to be the reason why overall exposure to political content is low in our study. We claim that this design better

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<sup>2</sup> In our 2024 data collection for regional elections, 100% of videos matching the interest profile were liked. In our 2025 data collection for the federal election, 25% of videos matching the interest profile were liked. We made this change to reflect more realistic user behaviour.

captures real behaviour of users on TikTok and provides a conservative estimate of political exposure overall.

In the case of users with an interest in elections, videos with political content are watched in full but not liked. By this, we stipulate that politically interested users may watch videos with opposing ideological viewpoints merely out of interest, but not because they support the contents. Using a blacklist of keywords, we ensured that users never liked content which features their non-political interest in combination with a political keyword.

Table 1 provides an overview of the user behaviour types with their corresponding interest profiles for each election period. We made small adjustment between elections.

**Table 1: Hashtags to control search behavior of users**

User behaviour	Regional Election (2024)	Federal Election (2025)
Neutral	#friends, #foryou, #dogs, #ideas, #cooking, #comic #travelling, #funny	#comedy, #dogs, #photography, #nature, #cooking, #travelling, #music
Interest in Election/Politics	#stateelections2024, #elections2024	btw2025, federalelections2025, #politics, #elections2025, #election campaign, #sundayquestion, #democracy

Note: Neutral users are users with strictly non-political interest profiles. Users with an interest in the election use additional search terms revealing their interest to seek content on the election and politics.

Users did not engage with other users. The accounts did not leave comments, did not follow other accounts or publish their own content. Hence, the accounts were not supposed to exert any influence on the TikTok ecosystem and only act as passive observers.

The data collection included all videos that were shown to users by the platform (i.e. exposure), including engagement metrics (number of likes and comments,), video creator (account), and video hashtags.

We collect data at two instances. First, the regional elections in three German states, i.e. Saxony, Brandenburg and Thuringia between 13.08.2024 and 06.10.2024. All three are East German states with high electoral support for the right-wing AFD and traditionally also the far-left “die Linke”. The three regions are also interesting because the recently

created, left populist party BSW is competing in elections for the first time. This party was also polling high in those regions. Unlike the AFD, the BSW cannot rely on a long legacy of activity on TikTok, yet it is also a populist party running on an anti-elite platform. East German regions have limited external validity particularly because they are the regions with high electoral outcomes for populist parties. Regional elections also commonly attract less attention in the news and public discourse more generally. Therefore, we also collected data during the federal election in 2025 between 22.01.2025 and 02.04.2025. See Table 2 and Table 3 for sample sizes.

Data is available at [anonymized for review] as part of the replication materials. The study received ethical approval by [anonymized for review]. In addition, Appendix I provides a more detailed discussion of ethical and legal considerations regarding sock puppet audits.

### 4.3. Measurement

The analysis is based on two central outcome variables: Exposure to Official Party Accounts (OPAs) and exposure to Party-Affiliated Content (PAC). OPA is defined by the number of times a video appears in the user feed which was posted by an official party representative (including official party accounts and the accounts of the top 10 official candidates of that party in each region). The comprehensive list of accounts was compiled by a collaborative effort of several research teams in Germany (Barth et al. 2025).

PAC is defined by the number of times a video appears that is supportive of a party but not authored by any official actor. We operationalize PAC using large language models (LLM) for text classification/annotation based on the author of the video and video description. The video description is provided by the author and usually consists of 1-2 sentences or just hashtags. We identified the best-performing LLM (Gemini 2.5-Pro) against a human coded sub-sample of 2000 videos drawn from the overall sample (see Table A2 in Appendix II). Details on the LLM performance and the validation exercises is provided in Annex II. The LLM was prompted to 1) score the likelihood of political content from 0-1, 2) identify any major political parties mentioned (SPD, CDU/CSU, FDP, Gruene,

die Linke, BSW, AFD), as well as 3) the sentiment towards mentioned parties (positive, negative, neutral). We find agreement rates between human coders and between dictionary-based keyword matches of above 90% (see Table A1 in Appendix II). Using the LLM approach detects more political content as it is not restricted by specific keywords and considers more context. Robustness checks revealed, however, that the main results are same regardless of how the main PAC outcome is measured.

We analyze exposure rates across all users and then report exposure rates separately for politically interested (active) and disinterested users (passive) (see 5.2.). While we report rates for all main parties in Germany, we focus the interpretation of the results on the distinction between populist and moderate parties. In Germany, the AfD and BSW are categorized as populist parties (exhibiting both anti-elite and nativist agendas). The center-right *Christlich Demokratische Union* (CDU), the center-left party *Sozialdemokratische Partei Deutschlands* (SPD), the liberal party *Freiheitlich-Demokratische Partei* (FDP), and the center-left, green party *Buendnis 90/Die Gruenen* (Greens), are categorized as moderate parties. This grouping is consistent with the recent literature on party positions (Rooduijn 2024 for PopuList; Rovny et al. 2024 for most recent CHES data; Thomeczek 2024 on BSW).

For further analyses, we explore various mechanisms that may explain disparate exposure rates by party affiliation. Here we use video likes (how many users clicked “like” for a video appearing in our feeds), support network (how many unique users upload political content, i.e. “multipliers”), and input strategy (which hashtags and how many are used by users who upload political content).

The described measures are used to test our primary hypotheses regarding differential exposure by party type (H1), user behavior (H2), and underlying mechanisms (H4–H5).

Table 2 and 3 show a summary of the user activity and overall exposure rates within our observation window. Note that the exposure rates in Table 2 and 3 are not (yet) adjusted for clustering within users and the time spent online.

**Table 2: Summary of user activity (Regional Elections)**

category	Days online	# bots	Total # of videos	Total # political videos	Political Rate	# of OPA videos	OPA Rate	# of PAC videos	PAC Rate
active	55	18	34947	1685	0.048	214	0.006	1156	0.033
passive	54	15	41040	754	0.018	42	0.001	383	0.009
Total	55	33	75987	2439	0.032	256	0.003	1539	0.020

Note: Data collected by the authors August - October 2024 (regional elections); Table reports aggregate statistics of all created users by user behavior and state. OPAs stands for Official Party Accounts and includes accounts linked to parties at the federal, regional and local level, the respective youth organizations of the parties and the top 10 election candidates of each party in each state, given they were TikTok members. PAC includes videos supportive of one of the political parties uploaded by unofficial accounts (i.e. other users).

**Table 3: Summary of user activity (Federal Elections)**

Category	Days online	# bots	Total # of videos	Total # political videos	Political Rate	# of OPA videos	OPA Rate	# of PAC videos	PAC Rate
Active	72	33	339182	38965	0.115	8701	0.026	27936	0.082
Passive	57	12	146141	6536	0.045	811	0.006	3309	0.023
Total	72	45	485323	45501	0.094	9512	0.020	31245	0.064

Note: Data collected by the authors January-April 2025 (federal elections). Table reports aggregate statistics of all created users by user behavior and state. OPAs stands for Official Party Accounts and includes accounts linked to parties at the federal, regional and local level, the respective youth organizations of the parties and the top 10 election candidates of each party in each state, given they were TikTok members. PAC includes videos supportive of one of the political parties uploaded by unofficial accounts (i.e. other users).

#### 4.4. Analysis

We employed a multi-level modelling framework to analyse exposure to political content across different content types (official party accounts, i.e. OPA; party-affiliated content PAC) and political parties (all major parties in Germany). The analysis was conducted using Linear Mixed-Effects Models (LMMs) with random intercepts to account for the hierarchical structure of the data, where observations are nested within social media bots/users. Videos are nested within bots because the algorithm curates video selection based on past behaviour. The model accounts for variation between interest profiles (active vs. passive).

Each model was estimated separately for each political party, treating exposure to that party's content as a binary outcome variable (coded as 1 for exposure and 0 for non-exposure). Based on the fitted models, we predict the average probability of exposure by the level of political interest.

For each political party  $p$  and content type  $c$  (*OPA* or *PAC*), we estimated separate mixed-effects models of the form:

$$Y_{ij} = \beta_0 + \beta_1 \times \text{PoliticalInterest}_{ij} + u_i + \varepsilon_{ij}$$

where  $Y_{ij}$  is the exposure (0,1) for video  $j$  of bot  $i$ ;  $\beta_0$  is the fixed intercept;  $\beta_1$  is the fixed effect of political interest (passive vs active) for video  $j$  of bot  $i$ ;  $u_i$  is the random intercept for bot  $i$ ; and  $\varepsilon_{ij}$  is the residual error term.

We implemented a parametric bootstrap procedure ( $N=100$ ) to generate confidence intervals for average predicted exposure probabilities.

## 5. Results

### 5.1. Overall exposure to political content

As described above, all our sock puppets had balanced interest profiles. Passive (politically disinterested) users did not search or watch any information related to politics or the elections. Active users maintained the interests of passive users (e.g. friends, cooking, dogs etc.), but in addition, occasionally searched for political information (e.g. election, politics).

For the regional elections, we find that 3.9 videos per 100 videos in the feed were political in nature. 2.6% included an explicit mention of a political party via hashtags. For users seeking information about the election, exposure increased to 5.2%. For users not interested in the election (passive), the exposure was 2.2%.

For the federal election, as expected, overall exposure to political content was higher. We find that 9.5 videos per 100 videos in the feed were political in nature. 6.7% included an explicit mention of a political party via hashtags. For users seeking information about the

election, exposure increased to 11.4%. For users not interested in the election (passive), the exposure was 4.4%.

In sum, we observe that new, non-partisan users on TikTok are exposed to political content. Given the high speed of scrolling through the feed, 5 videos in a 100, especially if those 5 videos were not prompted by user behaviour, appear sizable. A first look at overall exposure also shows the power of LLM classification which is able to classify political content beyond clearly identifiable markers such as party hashtags or explicit political terms. Table A3 in Appendix II shows that 30% of political content classified by the LLM would have remained undetected using the dictionary-based keyword matching.

## 5.2. Exposure to Official Party Accounts (OPA)

### 5.2.1. Passive non-partisan users without interest in the election

For the regional elections, we find that new, non-partisan users who are *not* interested in the election (i.e. passive) have a probability of encountering a post from an official AfD account (politician, candidate, party, affiliated organization) of 0.05%, i.e. 5 in 10.000 videos in the feed (see Figure 1 and 2). While the probability is low overall, it is more than twice as high as the probability of being exposed to any other party (BSW = 0.02%, CDU/CSU, FDP, Linke, SPD all at 0.01%, and Gruene below 0.01%). Due to the low number of OPA expositions, the confidence intervals are too wide to establish statistical significant differences between parties, however, the difference in the point estimates is meaningful.

For the federal election, we again find higher exposure levels. We find that new, non-partisan users who are *not* interested in the election have a probability of encountering a post from an official AfD account (politician, candidate, party, affiliated organization) of 0.2%, i.e. 2 in 1.000 videos in the feed (see Figure 1 and 2). This is four times higher exposure relative to the regional elections. The party with the second highest exposure probability is the SPD with 0.13%, followed by die Linke (0.11%), BSW (0.06%), Gruene (0.05%), CDU/CSU (0.03%), and FDP (0.01%).

### 5.2.2. Active non-partisan users with modest interest in the election

For the regional elections, we find that new, non-partisan users who are interested in the election (i.e. active) have a probability of encountering a post from an official AfD account (politician, candidate, party, affiliated organization) of 0.21%, i.e. 2 in 1.000 videos in the feed (see Figure 1 and 2). While the probability is low overall, it is more than twice as high as the probability of being exposed to any other party (die Linke = 0.10%, Grüne = 0.10% CDU/CSU = 0.09%, BSW = 0.06%, and SPD and FDP at 0.04%).

For the federal election, we again find higher exposure levels. We find that new, non-partisan users who are not interested in the election have a probability of encountering a post from an official AfD account (politician, candidate, party, affiliated organization) of 1.19%, i.e. approximately 12 in 1,000 videos in the feed (see Figure 1 and 2). This is significantly higher exposure relative to the regional elections. The party with the second highest exposure probability is Die Linke with 0.75%, followed by SPD (0.21%), BSW (0.11%), Grüne (0.14%), CDU/CSU (0.15%), and FDP (0.01%).

### 5.3. Exposure to Party-affiliated content

#### 5.3.1. Passive non-partisan users without interest in the election

For the regional elections, we find that new, non-partisan users who are *not* interested in the election (i.e. passive) have a probability of encountering a post supporting the AfD of 0.4%, i.e. 4 in 1.000 videos in the feed (see Figure 1 and 2). Again, the probability for AfD exposure is more than four times as high as the probability of the party with the next highest exposure probability (SPD = 0.11%, Grüne= 0.09%, CDU/CSU=0.06%, BSW and die Linke= 0.05%, and FDP below 0.001%).

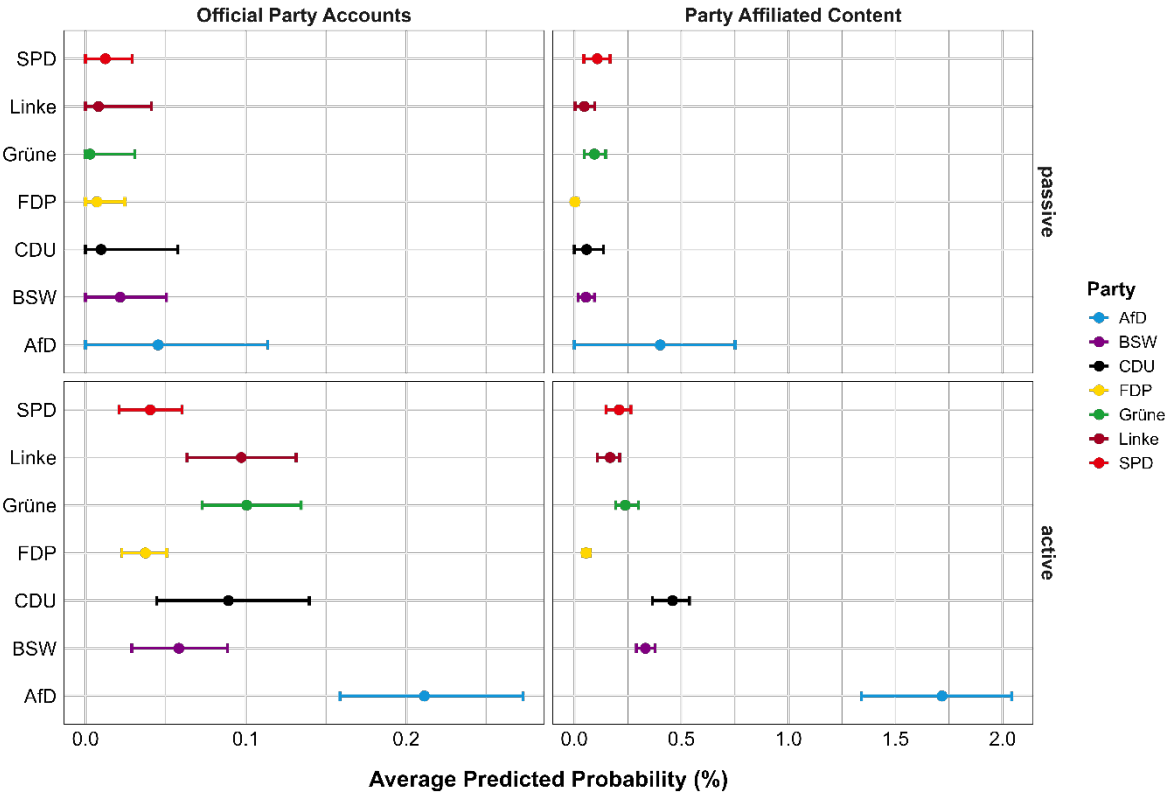
For the federal election, we again find higher exposure levels. We find that new, non-partisan users who are *not* interested in the election have a probability of encountering a post supporting the AfD of 1.06%, i.e. 1 in 100 videos in the feed (see Figure 1 and 2). The party with the second highest exposure probability is the SPD with 0.13%, followed by CDU/CSU (0.39%), SPD (0.39%), die Linke (0.35%), Grüne (0.19%), BSW (0.14%), and FDP (0.07%).

#### 5.3.2. Active non-partisan users with modest interest in the election

For the regional elections, we find that new, non-partisan users who are interested in the election (i.e. active) have a probability of encountering a post supportive of the AfD of 1.7%, i.e. 17 in 1.000 videos in the feed (see Figure 1 and 2). The probability is more than three times as high as the probability of being exposed to the party with the next highest exposure probability (CDU/CSU = 0.46%, BSW = 0.33%; Gruene = 0.24%, SPD = 0.21%; Linke=0.17%, and FDP at 0.05%.

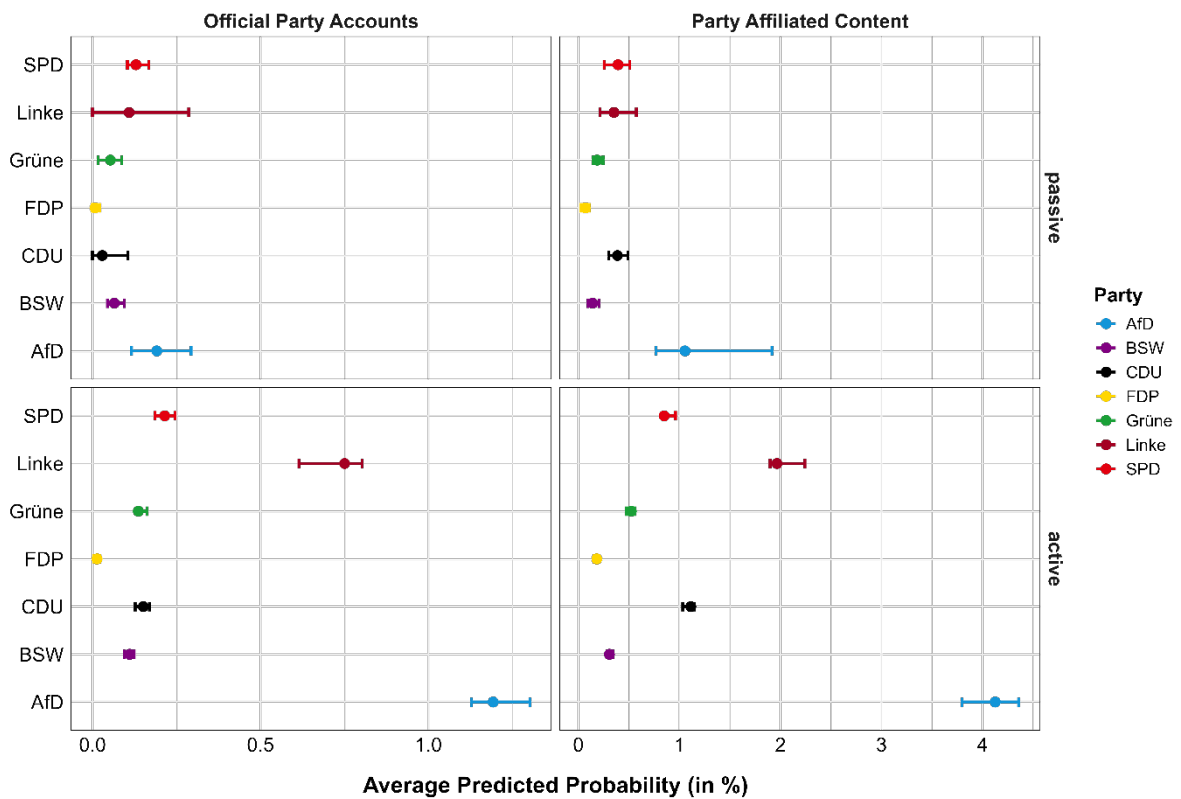
For the federal election, we again find higher exposure levels. We find that new, non-partisan users who are interested in the election have a probability of encountering a post supportive of the AfD of 4.13%, i.e. approximately 4 in 100 videos in the feed (see Figure 1 and 2). The party with the second highest exposure probability is Die Linke with 1.9%, followed by CDU/CSU (1.11%), SPD (0.8%), Gruene (0.52%), BSW (0.3%), and FDP (0.18)

**Figure 1: Exposure to Political Party Content by Interest in the Election (Regional Elections 2024)**



Note: Data collected by the authors Sep/Oct 2024 (N=75.987). 95%-confidence intervals were calculated using bootstrapping (N=100).

**Figure 2: Exposure to Political Party Content by Interest in the Election (Federal Elections 2024)**



Note: Data collected by the authors February-April 2025 (N=485.323). 95%-confidence intervals were calculated using bootstrapping (N=100).

When comparing the exposure rates for the AfD relative to moderate, centrist parties such as SPD and CDU, we find that exposure to OPAs is 2-7 times higher for passive users, 2-8 times higher for active users. We find that exposure to PAC is 3-8 times higher for passive users, and 4-8 times higher for active users.

#### 5.4. Mechanisms explaining variation in political party exposure

There are a myriad of potential mechanisms explaining the exposure advantage for populist party content, especially far-right content, on TikTok. While the specifics of the algorithm are a well-kept business secret, the advantage of the audit study design, as compared to observational designs, is that certain important aspects can be accounted for as they were held constant, such as individual user behavior, followers, the network,

the location and the timing. Still, several potential mechanisms explaining variation in political content exposure remain. In the following, we discuss potential mechanisms which we were able to start exploring empirically: content performance (video likes) and user input (supply). We close this section by briefly discussing alternative mechanisms not measured here.

#### 5.4.1. Content performance

AfD content could be more popular on the platform in terms of user engagement such as likes. More popular content is then prioritized by the algorithm and distributed at a higher rate. To descriptively assess this mechanism, Figure 3 (regional elections) and 4 (federal election) illustrate the mean and median likes for OPA and PAC videos by party.

We do not find major differences in the mean and, partly, the median likes between the AfD and other parties (see Panels A and B in Figure 3 and Figure 4) in both elections and for OPA and PAC. However, we find a higher number of AfD videos with very high engagement (over 100.000 likes) (see Panel C). This descriptive picture supports the notion that the AfD exposure advantage is not driven solely by general popularity of AfD content, but by viral posts which achieve high visibility.

#### 5.4.2. User input (supply)

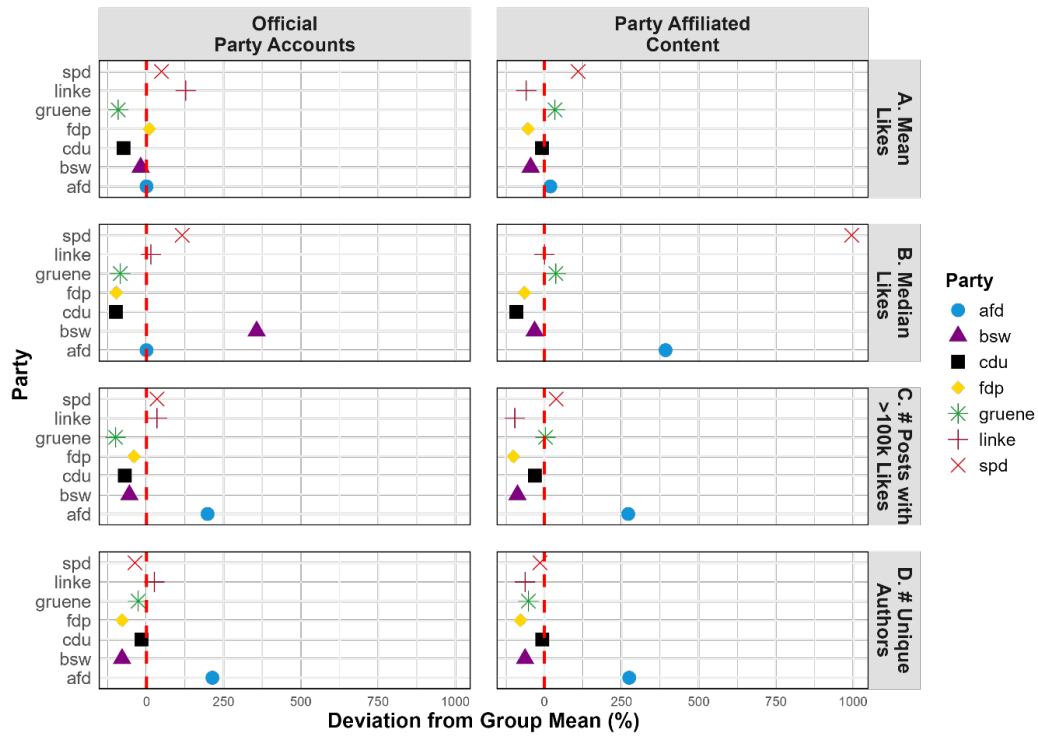
AfD content could be disseminated more frequently to users because it is available on the platform in higher numbers (i.e. supply). If more videos are uploaded by official channels or volunteers/ party supporters, the higher the chance for individual videos to perform well or for the algorithm to select one of them (net of performance).

In terms of official accounts, we found that AfD candidates in all three regions and at the federal level were more likely to be members on TikTok than other parties. Out of 30 top listed candidates across all 3 regional states, for example, 18 AfD candidates were active on TikTok, relative to 9 of SPD, 3 of CDU, 6 of die Grünen, 1 of BSW, 5 of die Linke, and 3 of FDP. In Table A4 in the Appendix, we show the number of posts by official party accounts and respective number of followers at the federal level and each regional level during our observation period. Despite exceptions (i.e. Brandenburg), the data shows that the official AfD accounts are not consistently more active on the platform than other parties.

However, we see substantially higher number of followers for AfD party accounts relative to all other parties at all levels (3-25 times more followers at the federal level; 22-52 times more followers in Brandenburg; 69-177 times more followers in Saxony; 1.5 to 11.6 times more followers in Thuringia).

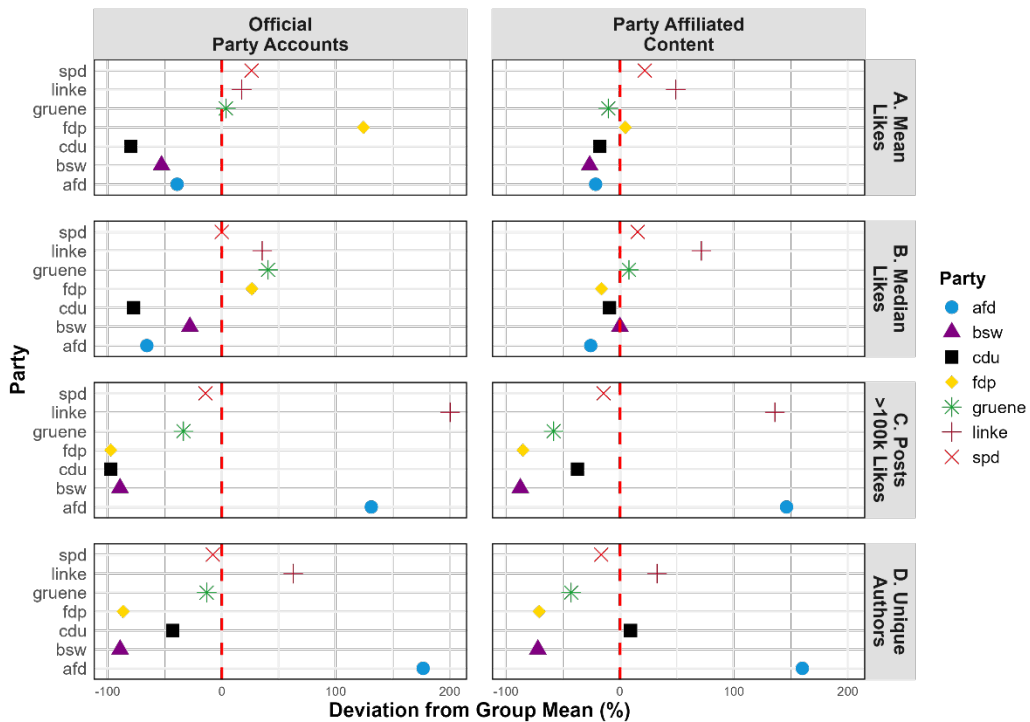
This pattern is clearer regarding unofficial party affiliated content (PAC). We found that there were 377 unique accounts which posted content in support of the AfD which appeared in our feeds, relative to 47 for SPD, 25 for CDU, 20 for Gruene, 10 for BSW, 8 for die Linke, and 2 for FDP. In other words, there were 8-16 times more unofficial accounts posting AfD-affiliated videos than there were accounts posting videos affiliated to the centre-left and centre-right party. These numbers are reflected in large percentage deviation for the AfD relative to other parties with respect to the number of unique accounts posting videos in support of AfD (see Panel D in Figures 3 and 4). These accounts can be considered a support network or multipliers. We cannot ascertain whether these accounts were real users or automated bots and whether the accounts were operated from abroad (e.g. Keller & Klinger 2019).

**Figure 3: Content engagement and input by party ( Regional Elections 2024)**



Note: Data collected by the authors Sep/Oct 2024 (N=75.987).

**Figure 4: Content engagement and input by party ( Federal Elections 2025)**



Note: Data collected by the authors February-April 2025 (N=485.323)

#### 5.4.3. Platform knowledge

One further potential explanation for disparities in exposure rates are varying skills in using the platform for strategic advantage. One way to do so is to use specific hashtags in video descriptions when inputting content to the platform. It is possible that content using certain popular hashtags (e.g. #fyp, #viral, #funny) are more likely to be disseminated by the algorithm (net of content performance). Further analysis on the hashtag use (see Table A5 and A6 in the Appendix) shows that the AfD uses the hashtag #funny and #fyp more frequently than other parties, except for the SPD, yet the differences are marginal. Overall, the AfD does use only slightly more hashtags on average (6.3) than other parties (BSW= 6.0; CDU= 5.8; Linke= 5.6; SPD= 5.4) except for the Greens (6.7).

#### 5.4.4. Alternative mechanisms

Alternative mechanisms explaining the AfD success include user selection and deliberate algorithm preference. Both user selection of specific users into the platform in terms of ideology and age are plausible. It is possible that users with a stronger affinity for far-right content are also more likely to join TikTok. Recent survey data in the US does not suggest political disparities in TikTok membership whereas as membership of other platforms (X) has moved to the right (Törnberg 2025).

Younger populations are more likely to vote for extreme positions, such as those advocated by far-left or far-right populist parties, than older populations (Arzheimer 2018). Therefore, the exposure advantage for the AfD, and partially for BSW, regarding official accounts could be a result of the particular user composition active on the platform.

Concerning the latter, the algorithm could be designed to prioritize content produced by specific accounts affiliated to certain parties. Such tempering has been observed with Elon Musk's takeover of the messaging application X. Studies suggested that posts by Mr. Musk and many other right-wing commentators were displayed more often following the change in ownership (e.g. Barrie 2023). However, a number of studies assessing algorithm bias on YouTube and X suggest that exposure to extreme political content is largely driven

by user preferences rather than bias in platform recommendations (e.g. Chen et al. 2021; Hosseinmardi et al. 2024; Ledwich & Zaitsev 2019, Munger & Phillips 2022).

At this point, our study can only provide partial, descriptive evidence on content performance and input. The sock-puppet approach is useful to study mechanisms as certain “confounding” factors such as user behavior, user input, as well as timing (current events, platform changes etc.) are held constant. At this stage, we were unable to further unpack the relative importance of certain mechanisms because our observations are limited to videos which appeared in our feeds, not the complete pool of videos in the risk set (see more details in discussion). However, our results support the notion that the populist advantage on TikTok is driven by viral posts on the platform as well as a large support base rather than biased recommender systems (e.g. Chen et al. 2021; Hosseinmardi et al. 2024; Ledwich & Zaitsev 2019, Munger & Phillips 2022).

## 6. Discussion

We conducted a digital sock puppet audit to investigate exposure to populist, far-right and far-left content on TikTok during the run-up to German regional elections in 2024 and the German federal election in 2025. We created a total of 78 new, non-partisan, fully automated user accounts, or "sock puppets," with varying level of political interest. Over a five-week period, these accounts were exposed to 561,310 videos.

Overall exposure to political content among our non-partisan users in our sample varied between 4-10%. Even among users who are not interested in politics at all, 1 in a 100 videos is political content supportive of the AFD. Users were more likely to be exposed to political content supportive of the right-wing AfD relative to all other parties. The AfD advantage in exposure increases for non-partisan users who show some interest in elections. Users occasionally searching for information about the upcoming elections are more likely to be exposed to right-wing content, suggesting that the pool of political content available on the platform is skewed to the right.

This populist exposure advantage is small for official party accounts. It is larger for unofficial accounts which post political, party-affiliated content. We provide descriptive

evidence that AfD-affiliated content is uploaded by more unofficial accounts relative to other parties and that official AfD accounts. We also show that AfD has more high-performing viral posts above 100.000 likes than any other party.

Platforms usually defend imbalanced feeds with arguing that feeds are a function of past user behaviour. As a unique feature of our study design, we can show that these disparities are not a result of individual user behaviour. Rather than individual demand, our results bring attention to the supply side and algorithmic curation. The importance of the supply side is consistent with research on YouTube (Munger & Phillips 2022) and Facebook (Thomeczek 2024a). It is also consistent with investigative media reporting on AfD affiliated social media groups which coordinated volunteers with the aim to increase visibility of AfD content on TikTok (Correctiv 2024). Overall, the results are consistent with the argument that populist parties are more willing to adopt and are more active on new social media sites.

While the main goal of this study was to measure exposure disparities rather than assess algorithm bias, our results indirectly support the notion that exposure disparities are likely the result of supply volume and popularity of content on the platform rather than politically biased recommender algorithms. We find, for example, that the AfD has more viral posts. This interpretation is consistent with studies for YouTube and X (e.g. Chen et al. 2021; Hosseinmardi et al. 2024; Ledwich & Zaitsev 2019, Munger & Phillips 2022). Regardless of the reasons, higher exposure to populist parties for new, non-partisan is concerning as many users may not be aware why certain content appears on their feed, content is not labelled as political and considering that German regulation aims to provide balanced information in times of elections.

The study faced several limitations. While 78 users are large for this type of audit study, a higher number of users would have allowed us to introduce more “exogenous” variation of user types and behaviors and model how the algorithm responds. We were also not able to directly measure the algorithmic selection of videos into our feeds. Real-time data on past and current party uploads to the platform would have allowed us to estimate the exposure risk relative to the complete pool of party videos available on TikTok. We were also not able to assess the degree of user selection on the platform. This could be done

through user surveys and comparing population characteristics with representative population surveys. Both perspectives provide promising avenues for further research.

This study demonstrates how non-partisan users - including politically disinterested ones - face higher exposure to populist party content relative to moderate parties on TikTok. This visibility advantage on TikTok - an important source for news for younger populations - could increase populists' "discursive power" (Jungherr et al. 2019b) and have potential downstream effects on opinion formation, politicization, and voter preferences. It also raises concern regarding media's legislated role to provide diverse and balanced information to voters and concerns around the protection of minors who may use the platform for entertainment and incidentally consume politically tendentious content diets.

We argue that audit studies such as ours are important as social media platforms are important spaces for political deliberation in the digital age. At the same time, there is less public accountability compared to offline spaces and limited willingness of platforms to allow researchers access to data (de Vreese & Tromble 2023; Freelon 2018).

**Data Availability Statement**

Replication code for the analysis is provided as part of the submission and will be uploaded online upon acceptance of the paper.

**Author contributions**

{}: Design, Analysis, First Draft; {}: Data collection, Review; {}: Design, Analysis, Writing, Review; {}: Design, Review

**Competing Interests**

The authors do not report any competing interests

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## **APPENDIX I - Ethical and legal consideration**

Sock-puppet audits commonly raise questions regarding legal and ethical standards. The main legal concerns are 1) violating platform's terms of service, and 2) infringing upon data protection of other users on the platform. Audit studies are applied broadly in the computer science field. While it is accepted that this research violates terms of services of the platform which, to varying degrees, discourages the use of automated users, ethics boards give priority to the public interest in understanding potential risks to users and society. Our research focused on political communication about official political parties in Germany which is of key public interest.

Data protection issues arise when scraping sensitive personally identifying information (PII) such as name, email, postal address, etc., from other users. We do not collect any PII data. Information on account names are public and visible to any user on the platform.

Lastly, ethical issues may arise when automated agents deceive other users on the platform by false pretending to be real users. In our application, the users do not post any content, comment on posts or share existing content. As such, the users were designed to be minimally invasive without harming other users on the platform. Studies for Twitter have suggested that 7-10% of users following political parties are likely 'social bots' (Keller & Klinger 2018). Arguably, in comparison, 34 users in our study will not disrupt the social media environment. For these reasons, the [anonymized for review] granted full ethical review of the project [decision XYZ *anonymized for review*].

## Appendix II: Measurement validation

### A. LLM validation against human coders

We conducted three separate human classification surveys (see first column in Table A1). In each survey, we compared human annotation of political content with results from LLM annotation using Gemini 2.5-Pro. We assess the results using Krippendorff alpha and the agreement rate in percent. Agreement between human coders and the LLM exceed 92% for general political content across all three surveys. Regarding party mentions, the agreement varies between 60-92%.

**Table A1: LLM validation through human classification surveys**

#	N	Date	Sampling <sup>3</sup>	# of Coders	Benchmark	Result for general political content		Result for mentioned parties	
						<i>K-Alpha</i>	<i>Agreement (%)</i>	<i>K-Alpha</i>	<i>Agreement (%)</i>
1	3898	August 2025	Most prevalent videos appearing in feeds, regardless of political content	1	Gemini-2.5-Pro	0,82	92,0	NA	
2	385	August 2025	Stratified random sample by content type, content performance and party	1	Gemini-2.5-Pro	0,91	95,81	0,90	92,9
3	573	June 2025	Stratified random sample of deduplicated OPA videos by party	2	Gemini-2.5-Pro	-0,0072	98,4	0,64	60,2

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<sup>3</sup> Content type = official party accounts, i.e. OPA; party-affiliated content PAC. Performance = by video likes

## B. LLM performance evaluation

We evaluated six LLMs on classifying political content in 385 German videos (see validation survey #2 in Table A1) using human annotations as ground truth. Agreement was measured with Krippendorff's  $\alpha$  for two dimensions: 1) political probability (i.e. What is the probability between 0 and 1 that the video contains political content) and 2) party mentions (i.e. does the video mention any of the major political parties in Germany). Gemini-2.5-Pro achieved the highest overall  $\alpha = 0.8737$  (Political  $\alpha = 0.9685$ , Parties  $\alpha = 0.7790$ ).

The prompt used for all LLMs was the following:

"You are a classifier for TikTok videos. Your task is to evaluate three things based on the video information: 1. A probability (0 to 1) of whether the video contains political content. 2. Whether, and if so, which parties are mentioned in the video (AfD, BSW, SPD, Greens, CDU/CSU, FDP, The Left, or 'None'). Here is the information about the video: Description: {desc}, Author: {creator\_name}. Always provide the answer exactly in the following format (only the values, no explanation): political\_probability: [number between 0 and 1]; mentioned\_parties: ['Party', 'Party'] or ['None'].

All models showed strong probability agreement ( $\alpha > 0.92$ ), but party detection varied ( $\alpha = 0.70$ – $0.79$ ).

**Table A2: LLM performance – league table (Krippendorff's  $\alpha$ )**

Model	Political content	Political Party Mentions	Videos
Gemini-2.5-Pro	0.9685	0.7790	385
llama-3.3-70b-instruct	0.9273	0.7872	385
GPT-4o	0.9466	0.7373	385
llama-3.1-sauerkrautlm-70b-instruct	0.9406	0.7414	385
mistral-large-instruct	0.9439	0.7166	385
GPT-4o mini	0.9227	0.6968	385

**Table A3: LLM vs keyword matching approach**

<b>Content</b>	<b># of detected videos using keyword approach</b>	<b># of detected videos using LLM approach</b>	<b># of detected ^ videos using Both</b>	<b>Agreement between keyword &amp; LLM (%)</b>	<b>Undetection (%)</b>
AFD	15745	21001	15611	99.1	25.0
SPD	2892	5232	2794	96.6	44.7
CDU	5504	8696	5444	98.9	36.7
LINKE	4229	7344	4179	98.8	42.4
GRÜNE	2579	5062	2544	98.6	49.1
FDP	1003	1933	952	94.9	48.1
BSW	1008	1526	1003	99.5	33.9
Overall	32000	45501	29040	90.8	29.7

Note: Comparison of the total number of classified videos by approach. Keyword represents keyword match (incl. hashtag) based on video description. LLM represents zero-shot classification using Gemini 2.5. Both represents the number of videos jointly classified as political by both approaches. Undetection is the percentage of LLM detected content which does not contain any obvious political keyword.

### Appendix III: Supplementary Materials

**Table A4: Number of videos posted and number of followers for official party accounts (2024, Regional Election)**

Level	Account	Videos	Followers	Relative AfD follower ratio
Federal	afdfraktionimbundestag	21	478500	1.0
Federal	buendnis_sahraw	32	18600	25.7
Federal	cducsu	20	25000	19.1
Federal	fdpbt	61	37100	12.9
Federal	diegruenen	33	26500	18.1
Federal	die.linke	24	43300	11.1
Federal	spdbt	25	140200	3.4
Brandenburg	afd_brandenburg	137	41400	1.0
Brandenburg	BSW	na	na	na
Brandenburg	cdubrandenburg	20	802	51.6
Brandenburg	FDP	na	na	na
Brandenburg	gruenebbg	16	1879	22.0
Brandenburg	die_linke_brandenburg	60	1211	34.2
Brandenburg	spdfraktionbrandenburg	na	na	na
Sachsen	afdsachsen	13	222000	1.0
Sachsen	bsw.sachsen.partei	7	2422	91.7
Sachsen	cdu.sachsen	7	1655	134.1
Sachsen	fdp.sachsen	3	128	1734.4
Sachsen	gruenesachsen	13	1250	177.6

Sachsen	dielinke.sachsen	18	3181	69.8
Sachsen	SPD	na	na	na
Thuringia	afd.thueringen	5	3626	1.0
Thuringia	bsw_thueringen	43	1223	3.0
Thuringia	cdu_thueringen	17	1130	3.2
Thuringia	fdpthueringen	2	312	11.6
Thuringia	gruene_th	25	2475	1.5
Thuringia	die_linke_th	10	2263	1.6
Thuringia	SPD	na	na	na

*Note: Data collected through APIFY API. Data refers to all videos posted by the respective accounts within the observation period of this study. The data does not refer to videos which users of our study were exposed to. Statistics were retrieved on 6 October 2024. Only videos posted after 13 August were considered.*

**Table A5: Hashtag use by party (Regional Elections 2024)**

Party	Mean # of hashtags used	Mean # of hashtags used by parties	Share of posts including #fyp	Share of posts including #funny	Share of posts including #viral
afd	6.571	5.000	0.336	0.000	0.150
bsw	5.760	5.500	0.120	0.000	0.080
cdu	7.200	3.357	0.300	0.000	0.000
fdp	3.000	4.200	0.000	0.000	0.000
gruene	9.200	2.000	0.600	0.000	0.100
linke	5.833	3.909	0.083	0.000	0.000
spd	5.500	2.125	0.417	0.021	0.146

*Note: Data on all videos including a party affiliation.*

**Table A6: Hashtag use by party (Federal Election 2025)**

Party	Mean # of hashtags used	Mean # of hashtags used by parties	Share of posts including #fyp	Share of posts including #funny	Share of posts including #viral
afd	9.92	7.79	0.23	0.01	0.09
bsw	5.96	6.73	0.10	0.00	0.09
cdu	7.88	7.49	0.12	0.01	0.06
fdp	5.87	2.80	0.26	0.04	0.17
gruene	8.49	4.68	0.21	0.01	0.06
linke	6.14	4.13	0.13	0.00	0.03
spd	9.14	3.93	0.21	0.02	0.08

*Note: Data on all videos including a party affiliation.*