DEMOCRACY REPORTING INTERNATIONAL

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Filtered for You: Algorithmic Bias on TikTok and Instagram in Germany

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Executive Summary

As TikTok and Instagram increasingly play a role as prominent sources of political information, understanding their recommender algorithms is essential for ensuring users can **maintain control over their feeds, encounter diverse perspectives, and engage meaningfully in democratic processes – particularly during elections.** This is especially important in light of the EU Digital Services Act and the EU Commission's guidelines for Very Large Online Platforms (VLOPs) and Very Large Online Search Engines (VLOSEs), which address recommender-based election-related risks with an aim to safeguard democratic participation. With this background in mind and in the context of the 2025 German federal election, we explored the recommender algorithms of TikTok and Instagram to assess the extent to which a user's political interest and preferences influenced the amount of political content they were exposed to and how this varied across the two platforms. In addition, we also examined user alignment with the recommended content, to determine whether or not political content was being recommended to users that differed significantly from their pre-defined positions.

To do this, we manually collected videos from both platforms by creating five user profiles, each representing a plausible individual from across the German

political spectrum with varying levels of political interest and distinct political leanings. The users were constructed as follows: While User 1 had no interest in politics, User 2 was engaged with multiple positions across the political spectrum, including the content from all parties listed below. User 3 mostly interacted with content linked to the SPD, Die Linke (The Left), and Bündnis 90/Die Grünen (Alliance 90/The Greens), while User 4 gravitated toward viewpoints associated with CDU and FDP. Lastly, User 5 strongly aligned with the AfD and, to a limited extent, with the BSW (considered as plausible in this study due to the parties' converging views on immigration and the Russia/Ukraine conflict).[1]

Data collection was conducted by scrolling through the feeds on both platforms with each user for 30 minutes per day over five days. We collected only TikTok videos and Instagram Reels, to ensure comparability across platforms. Data collection took place between 17 and 21 February 2025, a key period right before the election. In total, we collected 1,000 videos.

We found that:

/ A total of 431 videos contained political content related to the 2025 German federal elections. Out of these, 50.7 per cent of videos recommended by TikTok contained political content, compared to 36.6 per cent for Instagram, indicating that TikTok's recommender system was more likely to promote political content.

/ Without accounting for platform differences, algorithmic recommendations exposed our five users to political content unevenly. User 5, who engaged primarily with content linked to the AfD and the BSW, received the highest number of recommended political videos (63.6 per cent). Of the videos recommended to User 2 (the general political profile), 52.5 per cent contained political content related to the elections, followed by User 3, which engaged with content aligned with the SPD, Die Linke (Left Party), and Bündnis 90/Die

1 See further details on the logic of plausible profiles and how they were constructed in the methodology.

Grünen (Alliance 90/The Greens) (47.2 per cent), and User 4, whose interactions were primarily with content associated with the CDU and the FDP (47.0 per cent). Meanwhile, only 8.1 per cent of the videos that were recommended to User 1, the non-political user, contained political content. These findings show that not all political profiles were treated equally, as, apart from their leanings or interests, there were no further distinctions between each politically interested profile.

/ Algorithmic recommendations were more precisely tailored for the profile interacting with content related to the AfD and the BSW (User 5), as well as for the one engaging with the SPD, Die Linke, and Bündnis 90/Die Grünen (User 3), as most suggested videos aligned with their interests. TikTok's algorithm provided more tailored recommendations for these users than Instagram. For User 5, 83.6 per cent of TikTok's recommended political content aligned with their political interests, compared to 81.8 per cent on Instagram. User 3 saw even greater alignment on TikTok (91.1 per cent), but only 45.9 per cent on Instagram. Recommendations were less accurate for User 4, who aligned politically with the CDU and FDP. These findings suggest that there may be greater ideological targeting on TikTok than Instagram, and that TikTok is more likely to reinforce pre-existing beliefs.

/ Finally, when political content did not align with a user's preferences, it predominantly featured extreme right-wing material, raising concerns about algorithmic bias that prioritises this type of content. This could lead to: a) the reinforcement of certain political narratives; and b) the limitation of exposure to diverse perspectives.

Our findings suggest that platforms are not fully following the recommended measures set out in the EU Commission's guidelines for VLOPs and VLOSEs on election-related risks. This insufficient follow-through is evident on both TikTok and Instagram, where algorithmic biases in content recommendations for the

2025 German federal elections restricted exposure to diverse political viewpoints in two ways: a) by showing a disproportionately higher amount of political content to our user following more extreme positions across the spectrum, namely the AfD and the BSW; and b) by prioritising extreme right-wing content, regardless of user interest. While our data does not allow us to pinpoint the reasons behind these biases, one possible explanation is that (extreme) right-wing content is more salient and potentially more engaging on both platforms. Regardless, it is the responsibility of these platforms to ensure that such imbalances – regardless of their underlying reasons – do not undermine media pluralism, weaken online public discourse, or compromise the integrity of electoral processes across the European Union.

Introduction

Social media platforms employ sophisticated, engagement-based recommender algorithms that prioritise content that garners the most attention, measured by metrics such as time spent, clicks, views, and interactions. By systematically optimising engagement, these systems play a pivotal role in ranking content and, ultimately, driving platform revenue. Their functioning highlights that no piece of content has a "natural" position in a user's newsfeed; instead, placement is determined by algorithmic design – often reinforcing existing opinions in ways that platforms do not fully disclose.[2] As TikTok and Instagram become increasingly influential in shaping public opinion and political discourse, understanding how these algorithms prioritise and recommend content is paramount. Research on TikTok, for instance, has shown that its recommender system fine-tunes content based on user preferences, with feed personalisation resulting in up to 80 per cent of videos recommended aligning with predefined user interests[3]. More pertinent to our current investigation, a recent study investigating the content shown to

[2] Aviv Ovadya, "Bridging-Based Ranking", Belfer Center, 17 May 2022.

[3] Anna Semenova, Martin Degeling & Greta Hess, "Understanding TikTok's For You Feed", Auditing TikTok, 26 August 2024.

non-partisan users in Germany found that TikTok and Instagram frequently displayed political content, with extreme right-wing content being particularly prominent on these platforms – a finding at least in part aligned with our own.[4] These platforms, with their large user bases, are pivotal in influencing political views, and their algorithmic biases can significantly impact users' exposure to diverse political perspectives, shaping their understanding of current events, and potentially influencing their democratic participation. This process is particularly relevant and has the highest potential for impact during electoral periods.

The influence algorithms have on the visibility of certain political content has been directly addressed in recent European policy measures. For instance, the Digital Services Act indicates that VLOPs and VLOSEs should reduce the harm that their algorithm-based systems may directly or indirectly represent for individuals and societies.[5] In addition, the EU Commission guidelines for VLOPs and VLOSEs on mitigating systemic risks for electoral processes also provide requirements that digital platforms should meet.[6] Point 3.2.1. d) of the guidelines states that recommender systems can play a significant role in shaping the information landscape and public opinion, as recognised in recitals 70, 84, 88, and 94, as well as Article 34(2) of The Digital Services Act.

The EU Commission guidelines suggest that, to mitigate the risk that such systems may pose in relation to electoral processes, providers of VLOPs and VLOSEs should, among other actions:

"1. Ensure that recommender systems are designed and adjusted in a way that gives users meaningful choices and controls over their feeds, with due regard to media diversity and pluralism (point d(i)).

4 Global Witness, "TikTok and X recommend pro-AfD content to non-partisan users ahead of the German elections", 7 March 2024.

5 European Parliament and Council of the European Union, "Regulation (EU) 2022/2065 on a single market for digital services and amending Directive 2000/31/EC (Digital Services Act)", 27 October 2022.

6 European Commission, "Commission Guidelines for providers of Very Large Online Platforms and Very Large Online Search Engines on the mitigation of systemic risks for electoral processes pursuant to Article 35(3) of Regulation (EU) 2022/2065", 26 April 2024.

2. Regularly assess the performance and impact of recommender systems and address any emerging risks or issues related to electoral processes (point d(iv)).

3. Establish measures to provide transparency around the design and functioning of recommender systems, in relation to the data and information used in designing systems that foster media pluralism and diversity of content, to facilitate third party scrutiny and research (point d(v)).”

Study design

With this background in mind, we conducted our assessment of TikTok and Instagram’s recommender algorithms by creating five distinct user profiles, which we deployed on both platforms, each representing plausible individuals across the German political spectrum, with varying levels and specific political interests. User 1 exhibited no interest in German politics, whereas User 2 actively engaged with a wide range of political perspectives. User 3 predominantly aligned with viewpoints from the SPD, Die Linke (The Left), and Bündnis 90/Die Grünen (Alliance 90/The Greens), while User 4 shared political interests with the CDU and FDP. Lastly, User 5 strongly identified with the AfD’s political positions and shared some political interests with the BSW (in this analysis deemed plausible due to the parties’ aligned perspectives on immigration and the Russia-Ukraine conflict). For further insights into the reasoning behind plausible profiles and how they were constructed, refer to the Methodology section at the end of this report.

A video was classified as containing political content related to the election if it was posted by a German politician or a German political party account during the political campaign, included relevant political hashtags (e.g., #BTW25, #Bundestagswahl25, #politik, #CDU, #AfD, #Grüne, among others), or covered polarising

topics, such as immigration, asylum, refugees, climate change, the economic crisis, violence, and/or energy, with at least indirect relation to the electoral process. The full definition of political content is provided in the Methodology section.

Findings

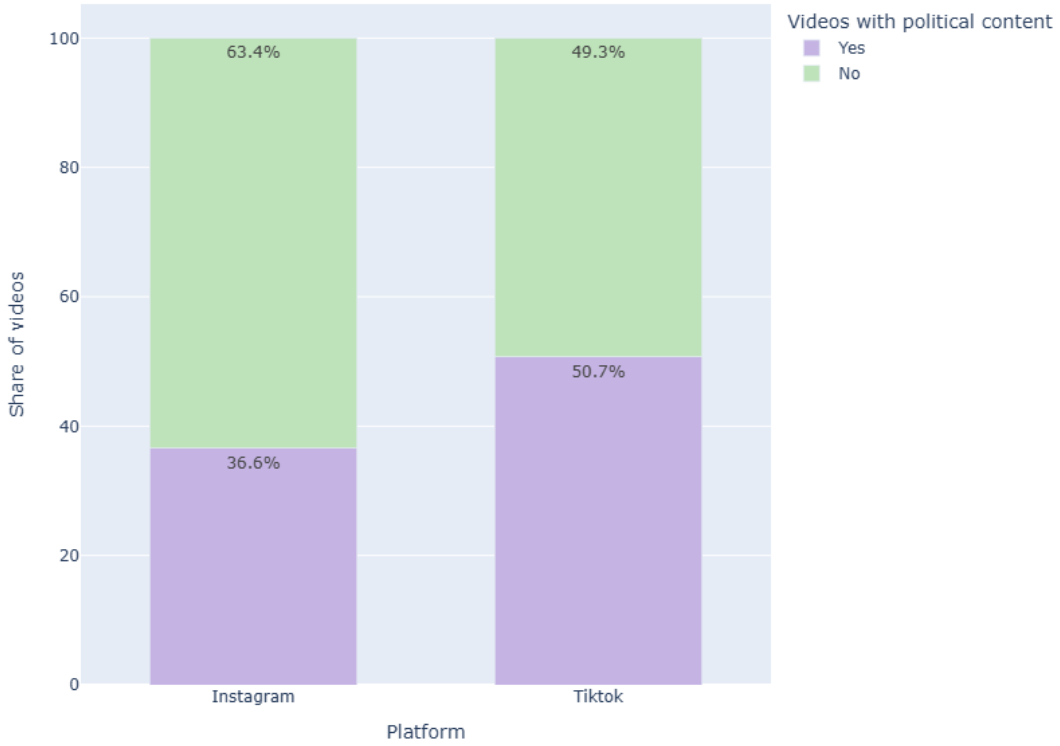
To carry out our study, we conducted a systematic analysis of videos to assess whether TikTok and Instagram users were exposed to political content related to the 2025 German federal elections. Additionally, we explored the nature of the content being recommended to users on these platforms.

First, we assessed the overall share of videos with political content and their distribution across platforms. Next, we examined whether exposure varied for individual users, initially regardless of platform (thus, on aggregate), and then while also taking the platform into account. We then focused on the type of content recommended, analysing the extent to which algorithmic recommendations aligned with users' political preferences, regardless of the platform. Following this, we explored whether the type of content recommended differed between TikTok and Instagram, and the degree to which users were recommended political content that was not aligned with their political profiles. Finally, since algorithms prioritise not just specific content but also the accounts that publish it, we conducted a qualitative assessment of these accounts to examine how political narratives are framed and engaged with by users.

Exposure to political content overall and across platforms

Our search yielded a total of exactly 1,000 videos from Instagram and TikTok. User 1 (the non-political profile) was exposed to 198 videos, User 2 (the general political user) to 200, User 3 (whose political preferences were aligned with the SPD, Die Linke, and Bündnis 90/Die Grünen) to 197, User 4 (who followed the CDU and FDP) to 232, and User 5 (which shared political interests with the AfD and the BSW) to 173. Among these, we found that a significant number of videos contained political content related to the 2025 German federal elections. Specifically, 43.1 per cent of the videos in our sample had political content.

Figure 1: Distribution of videos with political content by platform

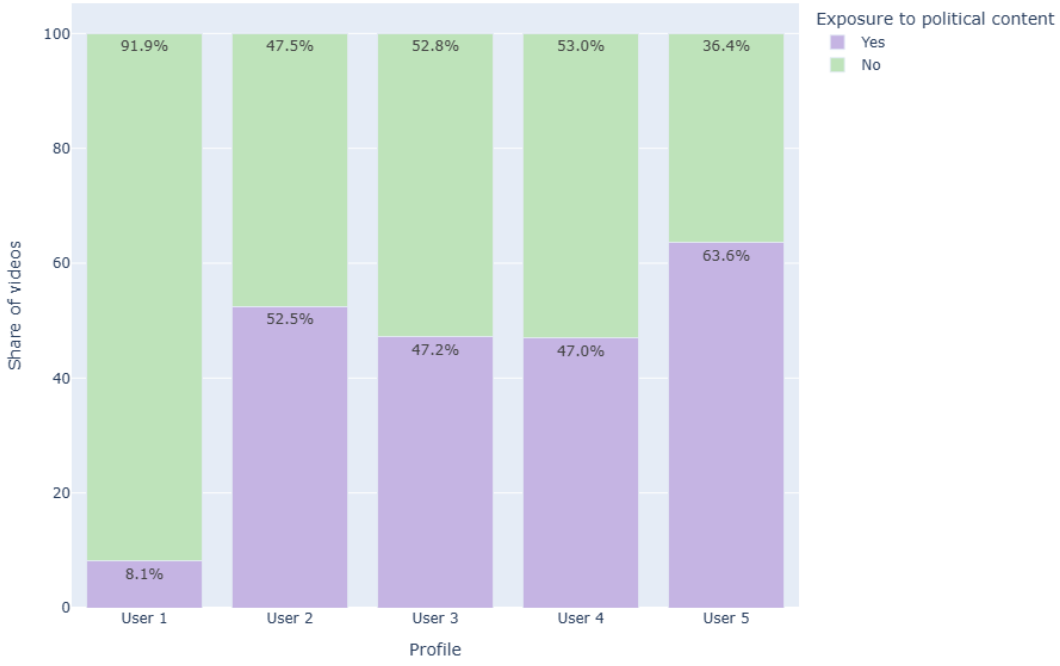


We observed more political content on TikTok than on Instagram: Over 50 per cent of the videos recommended by TikTok featured political content related to the German federal elections, compared to 36.6 per cent on Instagram. This shows that TikTok's algorithm was more effective at amplifying engaging content, compared to Instagram's algorithm.

Did the exposure to political content vary by users?

We continued by examining users' exposure to political content, regardless of platform, and observed that algorithmic recommendations did not distribute political content evenly across users. User 5, who interacted with AfD and BSW content, had the highest exposure to political content, as 63.6 per cent of the videos recommended for this profile were political in nature.

Figure 2: Exposure to political content by profile



Of the videos recommended for User 2 (the general political profile), 52.5 per cent were political in nature. This figure was higher than that for the user interacting with SPD, Die Linke and Bündnis 90/Die Grünen content (User 3) and for the user following the CDU and the FDP (User 4), at 47.2 per cent and 47.0 per cent, respectively. This can partially be explained by the fact that User 2 (the general political user) was interested in the entire political spectrum, and had overlapping interest with User 5, who had the highest number of political recommendations. Despite showing no explicit interest in politics, User 1 (the non-political user) still received political content in 8.1 per cent of recommended videos. This uneven distribution of political content likely contributes to the reinforcement of existing political preferences, and limits users' exposure to diverse perspectives, potentially deepening polarisation.

Did the exposure to political content vary by platform?

In our analysis of users' exposure to political content across platforms, we found that User 5, who strongly shared political interests with the AfD, and to some extent with the BSW, received the highest number of recommended political videos on both Instagram and TikTok.

Table 1: Distribution of exposure to political content by profile and platform

	Instagram		TikTok	
Profile	No	Yes	Yes	No
User 1	18%	82%	0%	100%
User 2	41.3%	58.7%	64.6%	35.4%
User 3	37.1%	62.9%	56%	44%
User 4	31.3%	68.7%	67.3%	32.7%
User 5	53.4%	46.6%	78.6%	21.4%

Specifically, on TikTok, 78.6 per cent of the recommended videos for this user were classified as political, with the share decreasing to 67.3 per cent for User 4, who followed the CDU and FDP, 64.6 per cent for User 2 (the general political profile), and 56 per cent for the profile sharing political interests with the SPD, Die Linke and Bündnis 90/Die Grünen (User 3). The non-political profile (User 1) received no recommendations for videos published by German politicians or political parties, nor for videos with political hashtags or those covering polarising topics during the election campaign. This contrast suggests that TikTok's algorithm effectively tailored recommendations to this last profile, as this user was largely shielded from political content, whereas the general political profile (User 2), who actively engaged with politics, was exposed to a significant amount of such content.

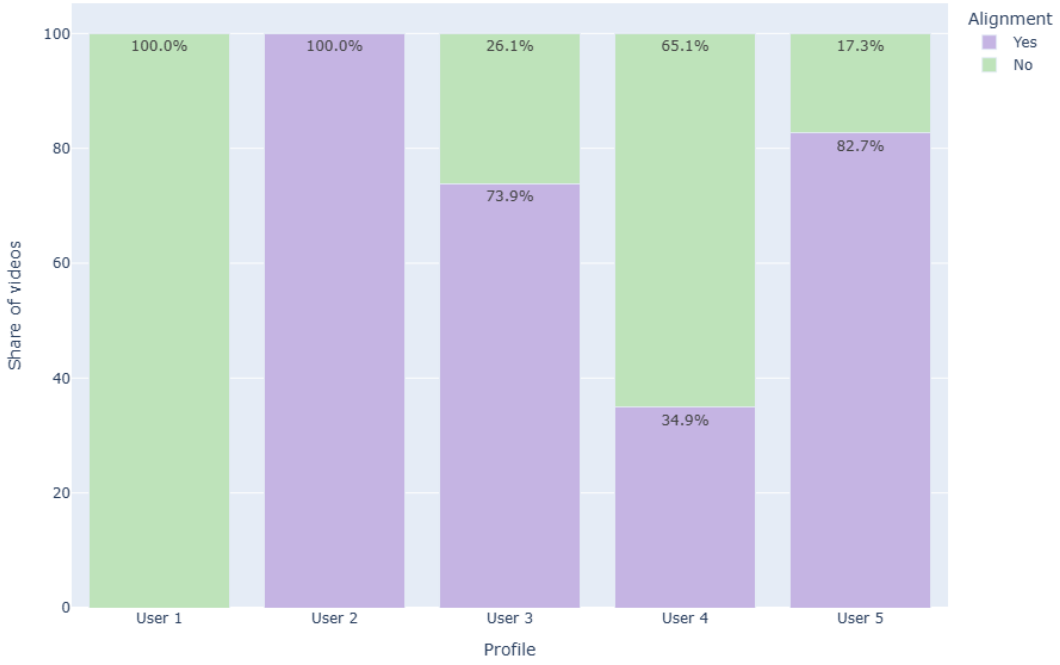
The trend was similar on Instagram: User 5, who engaged mostly with AfD, and to a smaller degree with BSW content, was the most exposed to political content (53.4 per cent), followed by the general political profile (User 2) (41.3 per cent), User 3, who shared political interests with the SPD, Die Linke und Bündnis 90/Die Grünen (37.1 per cent), and User 4, who followed the CDU and FDP (31.3 per cent). Unlike TikTok, however, 18.0 per cent of the videos recommended to the non-political profile (User 1) on this platform were political, showing that, despite demonstrating no political interest, this account was frequently exposed to political content.

Was political content aligned with or tailored to user views?

To explore this question, we focused on videos with political content to examine the extent to which algorithmic recommendations adapted to different users and reflected their political preferences, regardless of platform. Our analysis showed that algorithmic recommendations were more precisely tailored for the profile interacting with content related to the AfD and the BSW (User 5), as well as for the one engaging with SPD, Die Linke, and Bündnis 90/Die Grünen (User 3), but were less accurate when it came to the profile sharing political preferences with

the CDU and FDP (User 4). Almost 83 per cent of the recommended videos for User 5 came from the official accounts of Alice Weidel, co-chairwoman of the AfD, and Sahra Wagenknecht, leader of the BSW, the AfD's and BSW's official party accounts, or included hashtags such as #AfD, #Alice, #AliceWeidel, #Blau and #BSW. Some of these videos also focused on the parties' stances on immigration and foreign policy in direct relation to the election process. Furthermore, 73.9 per cent of the content recommended to User 3 aligned with their political preferences. These videos were posted by politicians from the SPD, Die Linke, and Bündnis 90/Die Grünen, or contained hashtags such as #DieLinke, #LeftParty, #Linke, #OlafScholz, #DeshalbDieLinke, #Grüne, and #SPD.

Figure 3: Political content alignment with user interest



For the user engaging with CDU and FDP content (User 4), algorithmic recommendations were less precise, with only 34.9 per cent of suggested videos aligning with their political preferences. These videos were posted by the official CDU and FDP party accounts, CDU leader Friedrich Merz's official account, and CDU and FDP politicians such as Marco Buschmann (FDP) and Markus Söder (CSU). Additionally, some videos contained relevant hashtags, including #FDP, #CDU, #FriedrichMerz, #TeamMerz, #TeamMerz2025, #Lindner, and #ChristianLindner.

Videos recommended to the general political profile (User 2) were entirely aligned with their political preferences, as defined by their profile. Representing the full spectrum of German politics, the political videos appearing on this user's For You or Reels feeds were all political in nature. In contrast, and by definition, 100 per cent of political content recommended to the non-political profile (User 1) was deemed irrelevant in relation to their interests.

Did content alignment differ between TikTok and Instagram?

Having analysed the alignment of algorithmic recommendations with users' political preferences, we investigated whether the type of political content recommended to users differed between TikTok and Instagram.

TikTok's algorithm tailored recommendations more effectively to User 5 (the profile engaging with AfD and BSW-related content) and User 3 (the one interacting with SPD, Die Linke, and Bündnis 90/Die Grünen content), and was less attuned to User 4's political preferences (the profile that followed the CDU and FDP). For User 5, 83.6 per cent of the recommended political content aligned with their views on TikTok, compared to 81.8 per cent on Instagram. User 3 experienced even higher alignment on TikTok (91.1 per cent), but only 45.9 per cent of their political content on Instagram matched their preferences. We observed the opposite trend for User 4: This profile received only 28.4 per cent of political content aligned with their interests on TikTok, while this figure increased to 45.2 per cent on Instagram.

These differences highlight the role of algorithmic curation in shaping online political discussions. The greater ideological targeting on TikTok suggests that the platform may to some degree create echo chambers, especially for those users whose interests are aligned with the AfD, BSW, die Linke, SDP and die Grünen.

Table 2: Distribution of alignment of content by user and platform

	Instagram		TikTok	
Profile	No	Yes	Yes	No
User 1	0%	100%	/	/
User 2	100%	0%	100%	0%
User 3	45.9%	54.1%	91.1%	8.9%
User 4	45.2%	54.8%	28.4%	71.6%
User 5	81.8%	18.2%	83.6%	16.4%

How did non-aligned political content vary across users?

Building on this analysis, and to assess potential biases in algorithmic suggestions, we further examined non-aligned recommendations across users, regardless of platform (thus, on aggregate). Our findings showed that when recommended political content did not align with a user's political preferences, it predominantly featured extreme right-wing content, particularly for the user following the CDU and FDP (User 4) and the user sharing political preferences with the SPD, die Linke and die Grünen (User 3).

Specifically, 62.6 per cent of the non-aligned political content recommended for User 4 featured both AfD and anti-AfD content, while 69.5 per cent of the non-aligned political content encountered by User 3 contained AfD-content. It is important to note that for the purpose of this study we assume that anti-AfD content does not necessarily align with the interests of User 4, as we cannot assume that this user is always opposed to the party's proposals, hence all such videos were considered non-aligned.

Additionally, User 4 received some content related to the SPD, Die Linke and Die Grünen (29.8 per cent), videos opposing their political preferences (5.9 per cent), and satirical content about Bündnis 90/Die Grünen (1.5 per cent), though all in lower proportions compared to extreme right-wing content. Similarly, User 3 received content related to the CDU and FDP (13 per cent), as well as videos opposing their views, including content against the SPD, Die Linke and Bündnis 90/Die Grünen (17.4 per cent).

As noted above, the user who interacted with AfD and BSW content (User 5), was less frequently exposed to content that challenged their beliefs. When this user did encounter politically non-aligned videos, however, they often featured anti-AfD (52.6 per cent), videos with CDU and FDP content (21 per cent), and videos supporting the SPD, Die Linke and Bündnis 90/Die Grünen (15 per cent).

Our findings reveal an imbalance in algorithmic recommendations; the user that shared political interests with the CDU and FDP parties (User 4), as well as the user that interacted with SPD, Die Linke and Bündnis 90/Die Grünen (User 3) were disproportionately exposed to extreme right-wing content, while the user who shared political interests with the AfD and the BSW (User 5), encountered much fewer opposing viewpoints, with much of this being (extreme) right-wing content. Once again, while the dominance of extreme right-wing content may be a simple consequence of the relative salience and engagement potential of extreme right-wing content versus other types of content, these findings raise concerns about algorithmic bias, which may reinforce certain political narratives, while limiting exposure to diverse perspectives.

Qualitative assessment of accounts and comparison across platforms

The last part of our analysis consisted of a qualitative assessment of accounts that published videos containing political content related to the German federal elections. Algorithms prioritise not only specific types of content, but also the accounts that publish them, influencing the visibility and dissemination of information.

Our analysis revealed that TikTok featured systematically more content from official political party accounts, candidates, established media outlets, and journalists, with a stronger focus on direct political messaging, rather than ironic or satirical content. Compared to Instagram, political party and candidate official accounts posted more election-related content on this social media. Similarly, we observed a greater presence of media outlets and journalists (e.g., RTL Aktuell, ntv.de, Tagesschau), content creators (e.g., Hannes Kreschel), and fan accounts of candidates and political parties (e.g., Alice Weidel Fan, AfD.Deutschland) on this platform.

While political parties and major candidates also have official accounts on Instagram, we found fewer videos related to the German elections posted by these accounts. Instead, this platform featured more content from meme accounts, influencers, or individuals without explicit political affiliations, often posting ironic or humorous takes on the candidates. Notably, on Instagram, we identified ten AI-generated videos about SPD leader Olaf Scholz, depicting banal scenarios such as Scholz cooking, appearing as different movie characters, or dramatically jumping out of his seat in parliament and punching the air.

Contrasts between platforms underscored how platform-specific algorithmic biases could influence not only the visibility of political actors, but also the way political narratives are framed from a sourcing perspective. While TikTok fostered a more direct and formal political discourse driven by official accounts and established media, Instagram's engagement with political narratives relied more on humour and irony.

What do these findings show?

With a focus on TikTok and Instagram, this study aimed at evaluating the potential harms posed by algorithm-based systems of VLOPs. We found that TikTok and Instagram's recommender algorithms exhibited imbalances in content recommendations, with TikTok showing a stronger tendency to push political content than Instagram.

Furthermore, our analysis revealed that the user who strongly aligned with the AfD and, to a lesser extent, with the BSW (User 5), received the highest number of video recommendations, most of which aligned with their views. Moreover, algorithmic recommendations were more precisely tailored for the user who engaged with the SPD, Die Linke, and Bündnis 90/Die Grünen content (User 3). TikTok's algorithm demonstrated greater effectiveness in personalising recommendations for both users. However, political biases were evident in misaligned recommendations: While User 3 (who was interested in the SPD, Die Linke, and Bündnis 90/Die Grünen) and User 4 (who engaged with the CDU and the FDP) were disproportionately exposed to extreme right-wing content, User 5 encountered fewer opposing viewpoints.

This finding, combined with the fact that users following the AfD and BSW received the highest exposure to political content overall, raises concerns about the extent to which these platforms ensure diverse and balanced information, thereby contributing to informed democratic participation. While these findings may be a simple consequence of the relative salience and potential for engagement of this type of content, this explanation does not redeem platforms from their responsibility to ensure that users are exposed to diverse and balanced information.

Finally, when analysing how political narratives were framed across platforms, we observed that TikTok fostered a more direct and formal political discourse, driven by official accounts and established media, while Instagram's engagement with political narratives tended to rely on humour and irony.

Rather than ensuring that recommender systems provide a balanced exposure to diverse political viewpoints, this study shows that TikTok and Instagram are not fully following the recommended measures set out in the EU Commission's guidelines for VLOPs and VLOSEs on election-related risks. It is the responsibility of these platforms to address these imbalances to prevent them from undermining media pluralism, weakening online public discourse, or compromising the integrity of electoral processes across the European Union and beyond.

Future Research

Future investigations into the degree to which social media platforms recommend political content could expand upon this report by using automated methods to increase the scale of content analysed. Using a series of bot accounts, or sock puppets, researchers can automatically simulate the behaviour of dozens of users at once, gaining a more comprehensive understanding of the sway algorithms have over exposure to political content. Alternatively, a deeper qualitative exploration of the type of political content recommended to users could also yield interesting results. Such an investigation could delve into the types of political content recommended to specific users, comparing and contrasting sources, content form, style, and major topics. This combination of scaled and focused analysis would allow for a clearer and more robust set of findings to derive assessments from.

Methodology

We manually collected data on TikTok and Instagram's recommender systems by creating five user profiles, representing plausible individuals across the German political spectrum with varying levels of engagement and diverse political interests. While User 1 had no interest in politics, User 2 was politically engaged with broad interests across the spectrum. User 3 primarily engaged with perspectives aligned with SPD, Die Linke (The Left Party), and Bündnis 90/Die Grünen (Alliance 90/The Greens), while User 4 gravitated toward viewpoints associated with the CDU and FDP. Lastly, User 5 strongly aligned with the AfD but also shared some political interests with the BSW. In this study, we identified these users as plausible individuals based on the following criteria, acknowledging that this classification is just one of many possible interpretations:

- User 3 was deemed plausible due to their party's support for progressive social policies, advocacy for greater government involvement in the economy, and commitment to gender equality.
- User 4 was considered plausible based on their party's alignment with economic liberalism, including fiscal policies favouring balanced budgets, debt reduction, and limited public spending.
- User 5 was regarded as plausible due to their party's stance on immigration and the Russia-Ukraine conflict.

We created each of these profiles on TikTok and Instagram, resulting in a total of ten accounts. Each user searched for and liked content according to their political preferences, based on hashtags and accounts that reflected their interests. Table 3 provides details on the specific hashtags and accounts each user used.

We established guidelines to simulate human behaviour. First, we focused on setting up user accounts and steering algorithms, following these steps:

1. We created Instagram and TikTok accounts on mobile phones for each user.
2. We spent between 30 and 60 minutes searching for content using predefined hashtags, customised for each user, on the TikTok "For You" feed and Instagram "Explore" page. Additionally, each user had a set of relevant accounts to check, based on their political preferences (see table below).
3. While looking for content and relevant accounts, each user liked approximately 20 videos.

The table below demonstrates how each profile was constructed.

Table 3: Profile construction overview

Profile	Hashtags	Relevant Accounts
User 1	#freunde, #fürdich, #hunde, #ideen, #kochen, #lustig, #reisen, #witzig, #tiktokdeutschland, #deutsch, #english, #viral, #fyp, #germany, #german, #germanytiktok, #featureme, #featurethis, #tiktok, #language, #viralvideos, #funnyvideos, #trending, #justforfun, #love, #new, #like	Younes Zarou, Pamela Reif, FC Bayern, Apache 207, Heidi Klum, Sina Deinert, Dagibee
User 2	#freunde, #fürdich, #hunde,#ideen, #kochen, #lustig, #reisen, #witzig, #tiktokdeutschland, #deutsch, #english, #viral, #fyp, #BTW25, #wahlen2025, #wahlen25, #deutschland, #politik, #Bundestagswahl, #Bundestagswahl2025, #bundestag, #Deutschland2025, #kanzler	Friedrich Merz, Olaf Scholz, Robert Habeck, Christian Lindner, Alice Weidel, Sahra Wagenknecht, Die Linke
User 3	#BTW25, #wahlen2025, #wahlen25, #deutschland, #politik, #Bundestagswahl, #Bundestagswahl2025, #bundestag, #Deutschland2025, #kanzler, #klimaschutz, #klimakrise, #Grüne, #Büdnis90, #bündnis90diegrünen, #ZusammenWachsen, #TeamRobert, #spd, #spdbt, #klimawandel, #mieten, #linksfraktion, #Linke, #Klima, #Klimaschutz, #DieLinke, #Gewerkschaft, #nachderampellinks, #Wohnen, #Wohnung, #Miete, #Immobilien, #Lohn, #Arbeit	Olaf Scholz, Jan van Aken, Nina Treu, Robert Habeck, Die Grünen, Die Linke, SPD
User 4	#BTW25, #wahlen2025, #wahlen25, #deutschland, #politik, #Bundestagswahl, #Bundestagswahl2025, #bundestag, #Deutschland2025, #kanzler, #cdu, #cducsubt, #union, #csu, #wiedernachvorne, #insidecdu, #fdp, #freiheit, #investitionen, #staatsfinanzen, #AllesLässtSichÄndern, #EasyTax, #Wirtschaftswende	Friedrich Merz, Philipp Amthor, Junge Union Deutschlands, Insidecdu, CDU, Christian Lindner, FDP, Christian Dürr

User 5	#BTW25, #wahlen2025, #wahlen25, #deutschland, #politik, #Bundestagswahl, #Bundestagswahl2025, #bundestag, #Deutschland2025, #kanzler, #SozialeGerechtigkeit, #Löhne, #BSW, #frieden, #AfD, #musk, #aliceweidel, #alternativfürdeutschland, #TeamAlice, #DeshalbAfD, #chrupalla, #weidel, #afdfraktion, #SeiSchlauWähleBlau, #Blau, #AfDBlau	Alice Weidel, Sahra Wagenknecht, bsw.bund, afdfraktionimbundestag, Amira Mohamed Ali, afd.bund

Second, for the purposes of data collection we:

- Over five days, spent 30 minutes scrolling on each platform with each user daily.
- Classified the videos that appeared in each user's feed based on whether they contained political content related to the German federal elections and, if they did, whether they were aligned to the user's political preferences.
- A video or reel was considered to contain political content related to the German elections if it met any of the following criteria:

    1. It was posted by a German politician or a German political party account during the political campaign (from 16 December 16, when Chancellor Olaf Scholz lost a vote of confidence, until 21 February), regardless its content;
    2. It included political hashtags specified in table 3 for user 2, 3, 4 and 5 (e.g., #BTW25, #Bundestagswahl25, #politik, #CDU, #AfD, #Grüne, etc.), regardless of the account that published the video; and/or
    3. It covered the following topics: elections, as well as immigration/ asylum/refugees, climate change, the economic crisis, violence, and/or energy with at least indirect relation to the electoral process, regardless of the account that published the video.

- A video was considered to be aligned with the user's political preferences in cases when:

1. For instance, User 3 received a recommendation for a video that reflected their political preferences whether it came from the official SPD, Die Linke or Bündnis 90/Die Grünen accounts, a politician from those parties, or included hashtags relevant to their profile.

We collected only TikTok videos and Instagram Reels to ensure comparability across platforms. Data collection took place between 17 and 21 February 2025, once per day, at different times of the day (morning, afternoon, and night) to account for potential variations in user behaviour throughout the day. Five devices were used for data collection.

About Democracy Reporting International

DRI is an independent organisation dedicated to promoting democracy worldwide. We believe that people are active participants in public life, not subjects of their governments. Our work centres on analysis, reporting, and capacity-building. For this, we are guided by the democratic and human rights obligations enshrined in international law.

Acknowledgements

This brief was written by Camila Weinmann, Ognjan Denkovski and Francesca Giannaccini, with contributions from Duncan Allen and Selma Inocência. This paper is part of the access://democracy project, funded by the Mercator Foundation. Its contents do not necessarily represent the position of the Mercator Foundation.

STIFTUNG MERCATOR

Forset designed the layout of this publication.

Date: April 2025

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