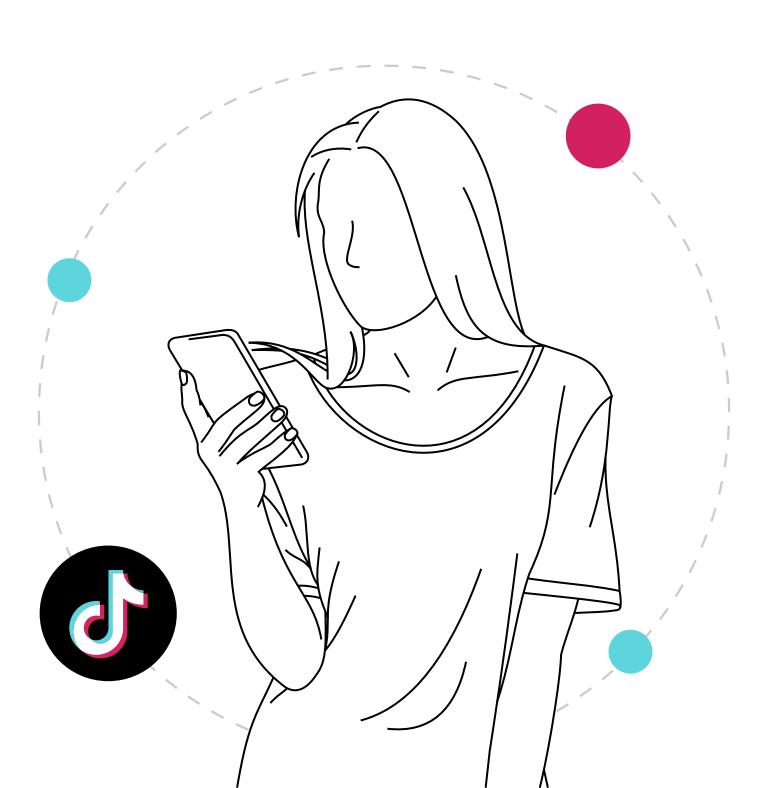
# THE TIKTOK EFFECT

HOW THE APP SHAPED
POLITICAL DISCOURSE DURING
FINNISH EUROPEAN ELECTIONS 2024





Managed by Calouste Gulbenkian Foundation

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## The TikTok Effect How the app shaped political discourse during Finnish European elections 2024

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### **Executive summary**

any see TikTok as little more than dance crazes and light entertainment. By 2024, however, the app has grown large enough to be an important channel for political campaigning. 47% of 18-24 year-olds use TikTok, and about a third of Finnish candidates for the European elections actively communicated on TikTok.

TikTok's algorithmic timeline, which personalises a continuous stream of videos, has been a matter of controversy, especially around elections. Critics argue that the algorithm amplifies outrage and trivialises political discourse, benefiting, for instance, parties that create provocative videos about opposing immigration.

In recent years, TikTok has implemented new policies to protect election integrity. They direct users towards authoritative information by placing labels with links on election-related posts. TikTok has also banned political ads and maintained community standards for videos prohibiting hate speech and certain forms of misinformation.

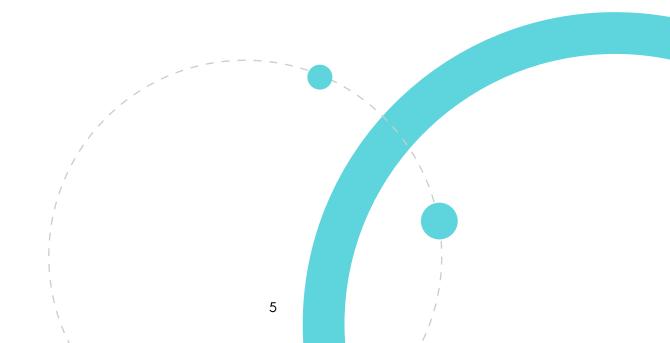
This study examines how TikTok presents political information during the European Election 2024 run-up. We find the following:

- For users who are searching for information on the app, **TikTok's search suggestions contain toxic language towards women and minorities**. They are also **biased by being almost exclusively negative towards some politicians**. TikTok's suggestions have likely **shaped what people searching for political information have seen and perpetuated negative stereotypes**. The current system is also easy to manipulate for adversarial actors.
- Videos by MEP candidates about contentious issues in domestic politics were most likely to be promoted by TikTok's recommendation system. 17-18% of videos about spending cuts and industrial action went viral, while less than 6% of videos discussing security or nature protection did. Contrary to public concerns, videos about immigration did not reach an exceptionally large audience.
- TikTok applied its labels for election-related videos inconsistently. Only two-thirds of videos with the three most popular election-related hashtags had labels attached to them. The inconsistency of labelling limits TikTok's ability to direct users to authoritative information sources. The presence of labels on videos from some candidates but not on others may change how the videos are perceived.

Our recommendations include moderating TikTok's search suggestions to remove toxic language towards women and minorities. TikTok should also take steps to make its search suggestions harder to manipulate. Lastly, the platform could think of other mechanisms to direct users to authoritative information sources.

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### Introduction

ByteDance, the company behind TikTok, often emphasises that it is an "entertainment platform" and not a social media app.¹ It claims that TikTok is not designed for following current events or connecting with friends, like X or Instagram. As TikTok's user base grows, it is, however, increasingly used by politicians to reach voters and users to search for political information. Before the 2024 European elections, 30% of incumbent MEPs from throughout the EU were on TikTok.² 44% of the Finnish candidates in the European elections had a TikTok account. By being co-chairs of the Code of Practice on Disinformation, Tiktok have taken a stance to both acknowledge their role in the political discourse and committed to intervene if they detect posts undermining a civic process.

TikTok is far from the most popular digital media platform. 21% of Finns use the app, with the highest usage concentrated among young people (47% of 18-24 year-olds).<sup>3</sup> Notably, TikTok is currently the only digital media app with a growing user base in Finland.<sup>4</sup> According to surveys, relatively few people use TikTok to follow the news (6% of the population and 26% of 18-24 year-olds).<sup>5</sup> This usage pattern illustrates that a significant share of the platform's content focuses on topics such as comedy and hobbies. The share of users following news through TikTok is also growing. Most Finnish newspapers and, for instance, political parties have now become active on the platform.

<sup>1</sup> Sherman, Alex (2022). TikTok exec: We're not a social network like Facebook, we're an entertainment platform. CNBC. https://www.cnbc.com/2022/06/16/tiktok-were-an-entertainment-app-not-a-social-network-like-facebook.html

<sup>2</sup> Morgan, Kevin (2024). Our work to prepare for the 2024 European elections. TikTok. https://newsroom.tiktok.com/en-eu/our-work-to-prepare-for-the-2024-european-elections

<sup>3</sup> Reunanen, Esa et al. (2024). "Uutismedia verkossa 2024." Reuters-instituutin Digital News Report - Suomen maaraportti. Media-alan tutkimussäätiö, Journalismin, viestinnän ja median tutkimuskeskus, p. 66. https://www.mediaalantutkimussaatio.fi/wp-content/uploads/Reuters\_Uutismedia-verkossa-raportti\_2024.pdf

<sup>4</sup> Ibid, p. 65.

In recent years, TikTok has adopted new policies to maintain the integrity of elections. Since its beginning, it has had community guidelines to combat misinformation and harmful content. Ahead of the 2020 U.S. Presidential Election, TikTok launched its first election integrity initiative. The initiative included the introduction of an in-app election information centre to provide users with accurate information about voting and the electoral process. TikTok also collaborated with fact-checking organisations to verify the accuracy of election-related content and banned political ads on the platform. A similar approach was continued in the European Union elections, with the addition of requiring creators to label Al-generated content that appears realistic. TikTok has also adjusted the functioning of its recommendation algorithm over time to diversify its recommendations and to "interrupt repetitive patterns".

Finland presents an interesting case to study, as it is a small language area, and TikTok allocates fewer resources to ensure election integrity in such markets. According to TikTok's transparency report, only 34 out of its 6,287 content moderators in the EU (0.05%) speak Finnish, which raises questions about the company's ability to monitor and moderate election-related content effectively in this language.<sup>9</sup>

This report uses a novel data collection method to audit potential issues in TikTok's information environment in the run-up to the European Elections. We examine how TikTok presents political information to its Finnish users from various angles. At the end of the article, we also provide an overview of the information environment on other social media platforms during the study period.

<sup>6</sup> Perez, Sarah (2020). TikTok launches a US elections guide in its app. TechCrunch. https://techcrunch.com/2020/09/29/tiktok-launches-a-u-s-elections-guide-in-its-app/?guccounter

<sup>7</sup> Morgan, Kevin (2024). Our work to prepare for the 2024 European elections. TikTok. https://newsroom.fiktok.com/en-eu/our-work-to-prepare-for-the-2024-european-elections

<sup>8</sup> TikTok (2021). An update on our work to safeguard and diversify recommendations. https://newsroom.tiktok.com/en-us/an-update-on-our-work-to-safeguard-and-diversify-recommendations

<sup>9</sup> TikTok (2023). TikTok's DSA Transparency Report October to December 2023. https://www.tiktok.com/transparency/en/dsa-transparency/

### **Data collection**

CrossOver developed and dispatched a set of 11 data collection devices across Finland. These devices form the Crossover Finland Monitoring Network. The minicomputers were dispatched to residential areas in the areas of Espoo, Helsinki, Joensuu, Jyväskylä, Kittilä, Lappeenranta, Oulu, Salo, Seinäjoki, Tampere and Turku. These computers collect information about what is shown to the users on these platforms by sending requests to the platforms' servers either by simulating a regular user using the platform or via the official APIs (Application Program Interface).



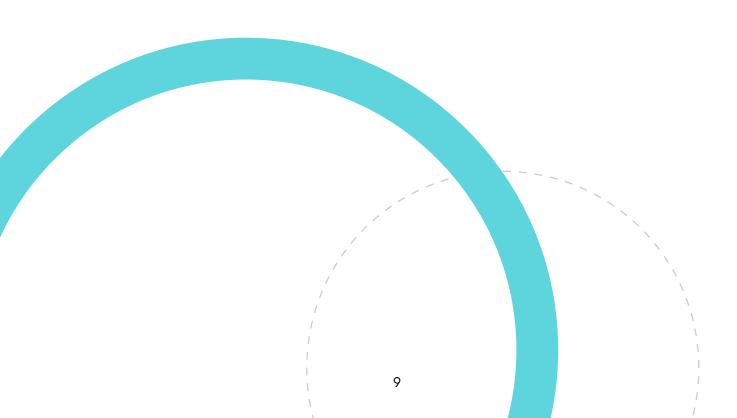
The data collection is based on search terms related to current political topics. We aimed to have a comprehensive set of search terms that addressed the most prominent political topics (see Appendix 1). We used a total of 104 search terms. To achieve this, we went through all of the questions on the voter advice apps of Yle and Helsingin Sanomat (the Finnish public service media company and a leading daily newspaper). We ensured that at least one of the search terms was related to each question posed on the voter advice apps. For a complete list of the search terms, see Appendix 1.

Data collection methods varied depending on the considered platform and the availability of the platform's official APIs. In the case of data collection through the APIs, the requests were done from one central location and when user simulation was used it was done via the distributed devices. A compiled view is publicly available at https://dashboard.crossover.social and extended data was used for the research presented in this report. The devices forming the monitoring network do not have user accounts on any platform nor do they have a prior browsing history. Recommendations given by the platform to an user with a history on the platform will be more personalised to the user specifically.

A limitation of this method is that user simulation data is collected through non-logged-in users, which can differ from the recommendation actual users would get when using the platforms as logged-in users. Recommendation algorithms might be fine-tuned to prioritise different types of content for logged-in users based on their historical data, while non-logged-in users receive a more generic application of the algorithm.

One of the devices from the CrossOver Finland was used to simulate user searches, using Tik-Tok's search functionality. The keywords listed in the Appendix were used as search queries and search suggestions were collected for each keyword every day between 3 and 11 June 2024.

Additionally, we collected metadata of videos from three election-related hashtags (#euvaalit, #euvaalit2024, and #eurovaalit), as well as videos from Finnish MEP candidate profiles. We downloaded metadata about the videos using TikTok's internal API. This method limited the number of videos to about 800 most recent videos for each hashtag. For MEP candidates, we collected all videos between the 15th of February and the 9th of June 2024. We identified all MEP candidates active on TikTok by first looking at the information the candidates had provided on the voter advice app of the newspaper Helsingin Sanomat. For the candidates who hadn't provided information about their TikTok accounts, we manually checked whether they had an account through TikTok's search functionality.



### Finnish politics and European elections

The European Parliament is a key legislative body within the European Union, responsible for enacting laws and adopting the EU budget in partnership with the Council of the European Union. Every five years, EU citizens elect the Members of the European Parliament (MEPs). This year's European elections were held between 6 and 9 June 2024. Out of a total of 720 MEPs, 15 were elected from Finland.

In the 2024 European Parliament elections, 233 candidates contested for seats in Finland. Candidates represented 14 different political parties, two of which, the Christian Democrats and Liike nyt (Movement Now), were in an electoral alliance.<sup>10</sup>

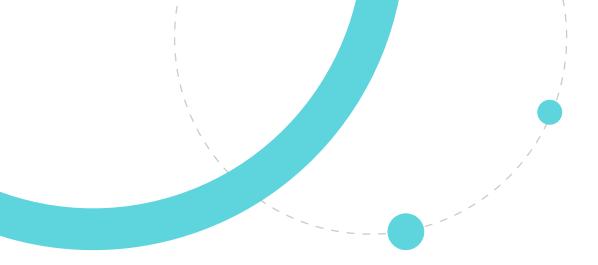
The Members of the European Parliament sit in political groups that are organised by political affiliation, not by nationality. The National Coalition Party came first in the election with 24.8% of the votes and 4 seats. In the European Parliament, the party is a member of the EPP group (the European People's Party). Compared to the previous elections, the Left Alliance / The Left was the biggest winner with 17.3% of votes and 3 seats, increasing its support by 10.4 percentage points. The 8 remaining seats were divided by the Social Democratic Party / S&D (2 seats), Centre party / RE (2 seats), the Green League / Greens/EFA (2 seats), the Finns Party / ECR (1 seat) and the Swedish People's Party / RE (1 seat). Ten of the elected MEPs are current members of the Finnish parliament (MP).

Elected candidate	Party
Mika Aaltola	National Coalition Party
Henna Virkkunen	National Coalition Party
Pekka Toveri	National Coalition Party
Aura Salla	National Coalition Party
Sirpa Pietikäinen*	National Coalition Party
Sebastian Tynkkynen	The Finns
Eero Heinäluoma	Social Democratic Party
Maria Guzenina	Social Democratic Party
Elsi Katainen	Centre Party
Katri Kulmuni	Centre Party
Ville Niinistö	Green League
Maria Ohisalo	Green League
Li Andersson	Left Alliance
Merja Kyllönen	Left Alliance
Jussi Saramo	Left Alliance
Anna-Maja Henriksson	Swedish People's Party

Table 1: Elected candidates in the European Parliamentary elections of 2024 in Finland, Source: Ministry of Justice.<sup>11</sup>

 $<sup>10\</sup> https://tulospalvelu.vaalit.fi/EPV-2024/en/ehd\_listat\_kokomaa.html$ 

<sup>\*</sup>If a MEP from the National Coalition Party is elected as a commissioner, Sirpa Pietikäinen will become a MEP. The commissioner is traditionally elected from the prime minister's party, which at the moment is the National Coalition Party.



In the elections, the Left Alliance leader Li Andersson broke a record by receiving more votes than any other politician in Finnish history excluding the presidential elections: a total of 247,604 votes, which was almost 14% of all votes cast.<sup>12</sup>

In Finland, voter turnout for the European Parliament elections tends to be lower than for national elections. The voter turnout of persons entitled to vote and living in Finland was 42.4% this year, decreasing slightly from the 2019 elections (42.7%).<sup>13</sup> The majority of votes were cast in advance, with 25.3% of all eligible voters submitting their votes before the election day.<sup>14</sup> Women voted somewhat more actively than men (44% vs 40.8%).<sup>15</sup>

Foreign and security policy were important election themes across party lines in the EP elections. The threat posed by Russia is a major concern in Finland. Other key election themes included economy, immigration policy, as well as EU's competitiveness and jurisdiction. Slowing down the loss of biodiversity and combating climate change were also important themes for several parties.

Representatives of the Left Alliance and the SPD, in particular, campaigned with the idea that voting for them would prevent the far-right from gaining power in the European Parliament.<sup>18</sup> Many politicians also accused members of each other's EP groups of "Putinism" or being pro-Russian.<sup>19</sup> Finnish candidates were more unanimous in security affairs. The dividing lines were especially pronounced in environmental issues, agriculture and forestry, joint debt, and themes related to immigration.<sup>20</sup>

<sup>11</sup> https://tulospalvelu.vaalit.fi/EPV-2024/en/kokomaaval.html

<sup>12</sup> Särkkä, Nanna et al. (2024). Data paljastaa: näin Suomi äänesti. YLE. https://yle.fi/a/74-20092026

<sup>13</sup> https://vaalit.yle.fi/epv2024/tulospalvelu/fi/

<sup>14</sup> https://vaalit.fi/-//1410853/25-prosenttia-aanioikeutetuista-aanesti-ennakkoon-eu-vaaleissa-suomessa

<sup>15</sup> https://tulospalvelu.vaalit.fi/EPV-2024/fi/aanestys1.html

<sup>16</sup> See for example: Piirainen, Elli, Niilola, Merja (2024). Näihin teemoihin eurovaalit ratkeavat asiantuntijoiden mielestä. YLE. https://yle.fi/a/74-20092693; Swedish People's Party's EU election program (2024). https://val.sfp.fi/fi/rkp-eu-vaaliohjelma-2024/; National Coalition Party's EU election program (2024). https://www.kokoomus.fi/kokoomuksen-eu-vaaliohjelma-2024/; The Christian Democrats EU election program (2024). https://www.kd.fi/eurovaaliohjelma-2024/

<sup>17</sup> See for example: The Left Alliance's EU election program (2024).

https://vasemmisto.fi/eurovaalii/eurovaaliohjelma/#collapse-tuhoutuvan-ympariston-eurooppa-vasemmiston-visio-ilmastokestavasta-euroopasta; Swedish People's Party's EU election program (2024).

### Toxic language and biases in TikTok's search suggestions

TikTok is primarily accessed through its timeline feature, which presents users with a personalised, endless stream of recommended videos. As the platform has grown in popularity, there are some indications that it has also become a means for many individuals to search for information – although there is limited research and public data regarding the extent of this usage. A survey conducted by Adobe in the United States suggests that over 40% of Americans utilise TikTok as a search engine. Nearly 10% of Generation Z users are more inclined to rely on TikTok for their search needs compared to traditional search engines like Google.<sup>21</sup>

Many search engines or social media platforms (including TikTok) offer search suggestions, which provide users with extended search phrases based on their initial input. While this functionality can be beneficial to users, it has its challenges, particularly when it comes to political information. One key concern is the impartiality of search engines towards different candidates or political parties. For instance, during the 2016 U.S. presidential election, some claimed that autocomplete suggestions associated Donald Trump with crimes while failing to do so for Hillary Clinton.<sup>22</sup> As search suggestions are partly influenced by user behaviour, particularly the searches made by other users, they may inadvertently perpetuate stereotypes about groups or individuals or even propagate false claims. Research on suggestions about political candidates has shown that negative suggestions (e.g. scandals or allegations) receive more clicks and are more influential in shaping opinion than positive suggestions.<sup>23</sup> Hence, an imbalance in which candidates or parties have negative suggestions associated with them may shape their public perceptions.

A recent example of platforms' mitigation measures are steps taken by Google in response to similar issues for the Google Search predictions feature. They aimed to remove toxic language and problematic content, with a seemingly heightened focus on suggestions related to individuals' names.<sup>24</sup> Furthermore, Google appears to take additional precautions during election periods. Previous research by the authors has indicated that nearly all search suggestions related to the candidates' names were removed during the Finnish presidential elections, presumably to maintain a neutral stance and avoid potential influence on voters' perceptions.<sup>25</sup>

TikTok appears to have done little to moderate its search suggestions. We retrieved TikTok's suggestions for the 104 search terms the CrossOver data collection network followed to study the search suggestions. The suggestions were retrieved daily between June 3rd and 11th (one week preceding and two days following election day). We additionally retrieved search suggestions for the names of all candidates in the European Parliament elections, all members of Parliament in Finland, and various minorities. We examined all search suggestions individually and noted all exceptional or problematic suggestions.

<sup>21</sup> Adobe Express (2024). Using TikTok as a Search Engine.

https://www.adobe.com/express/learn/blog/using-tiktok-as-a-search-engine#:-:text=Key%20 takeaways, of %209%20 times%20 per %20 month. The search-engine for the search-engine

<sup>22</sup> Flores, Reena (2016). Hillary Clinton Google suggestions accused of favoring candidate. CBS News.

https://www.cbsnews.com/news/hillary-clinton-google-suggestions-accused-favoring-candidate-election-2016/

<sup>23</sup> Epstein, Robert et al. (2023). The Search Suggestion Effect (SSE): How Autocomplete Search Suggestions Can Be Used to Impact Opinions and Votes. SSRN. https://papers.csm.com/sol3/papers.cfm?abstract\_id=4535163

<sup>24</sup> Google (n.d.) How Google autocomplete predictions work.

https://support.google.com/websearch/answer/7368877?hl=en#zippy=%2Chow-we-handle-issues-with-predictions

<sup>25</sup> Jantunen, Salla et al. (2024). Politics online: Politics online Algorithms, election-related content and Finns. Faktabaari. https://crossover.social/wp-content/uploads/2024/05/CROSSOVER Politics Online.pdf

#### Names of politicians and parties

TikTok's search suggestions are based on information from several sources. The platform suggests the usernames of popular TikTok accounts as well as hashtags. Additionally, the suggestions appear to contain the titles of popular videos on the platform. While this is hard to confirm, it is also possible that suggestions are based on popular searches done by users, as they are in Google.<sup>26</sup>

TikTok's search suggestions appear to be based on approximate matches between the text typed in by the users and potential suggestions from the sources mentioned above. This means that some associations are relatively random between, for instance, the names of politicians or parties and TikTok's search suggestions. For example, typing in "Eva Biaudet" (MEP candidate from SFP) results in a suggestion "eva and kristian have sex in the sauna pt 1". Suggestion for "Tuuli Kousa" (MEP candidate from Green League) include "tuuli tits best pics".

Q	Eva Biaudet
Q	eva biaudet
Q	eva and kristian have sex in the sauna pt 1 (eva ja kristian panee saunas pt 1)
Q	eva
Q	salkkarit eva and kristian have sex (salkkarit eva and kristian panee)
Q	eva hameniemi
Q	eva lundstromm
Q	evade
Q	salkkarit eva and kristian kiss (salkkarit eva and monica pussailee)

For some politicians, the search suggestions were not random but related to searches made and videos produced about those individuals. In many such cases, the suggestions were negative or problematic. For some prominent female politicians, the search suggestions contained objectifying phrases. For instance, for Sanna Marin (former prime minister), the suggestions included "sanna marin masturbation video" and "sanna marin farts". For Katri Kulmuni (former leader of the Centre party), one of the suggestions was "katri kulmuni tits".

<sup>26</sup> Google Search Help (nd.). How Google autocomplete predictions work. https://support.google.com/websearch/answer/7368877?hl=en#zippy=%2Cwhere-autocomplete-predictions-come-from

Q	Sanna Marin
Q	Sanna Marin
Q	sanna marin masturbation video (sanna marin runkkaus video)
Q	sanna marin party video
Q	sanna marin farts (sanna marin pierasee)
Q	sanna marin edit
Q	sanna marin flour (sanna marin jauho)
Q	sanna marin drugs (sanna marin huumeet)
Q	sanna marin in my dm lyric

Frequently, the search suggestions can be read as accusations or criticism. For instance, suggestions for Mauri Peltokangas (The Finns MP and MEP candidate) included "turncoat" ("takinkääntäjä") and "mauri peltokangas cutting from pensioners". For Pekka Haavisto, TikTok suggests "pekka haavisto abducting children" (pekka haavisto lapsi kaappaa). In other cases, some suggestions that could be read as negative were more directly connected to public events or scandals related to politicians. For instance, typing Petrus Pennanen (MEP candidate from Open Party) into TikTok autocompletes to "petrus pennanen amphetamine". For Ville Merinen (MP and MEP candidate for SDP), suggestions include both "ville merinen shouts" and "ville merinen apologises".

In addition to individual politicians, TikTok users are likely to search for the names of parties. The search suggestions for parties were largely neutral, except for the Social Democratic party. Searching for "demarit" (a colloquial term for SDP) autocompletes to both "demarit get the fuck out" (demaritvittuun) and "demarit hands in other people's pockets" (demarit toisten taskuilla). These suggestions appear to be based on hashtags since the suggestions contain several words that are written together (without spaces in between) and corresponding hashtags have been used in posts.

Some hashtags in question only have 1 to 3 posts associated with them. This suggests that it would be relatively easy to manipulate search suggestions on TikTok by automating posts to hashtags, for instance, from sock puppet accounts. A malicious actor using this strategy could influence the search suggestions of their political opponents.

Q	demarit
Q	demariteemu
Q	demaritytti
Q	change the demarit (demaritvaihtoon)
Q	demarit get the fuck out (demaritvittuun)
Q	demarit hands in other people's pockets (demarittoistentaskuilla)
Q	demarita
Q	demari
Ω	demari joke (demarivitsi)

#### Suggestions related to political topics

In addition to going through suggestions related to politicians and parties, we used a list of search terms related to politics (104 terms in total). Most of the search terms had no suggestions we viewed as problematic. One notable exception was searches related to vaccines, which resulted in suggestions such as "vaccine harms" and "vaccine fear". Clicking on these suggestions leads to search results containing some videos from medical experts disputing common vaccine-related fears. However, search results also contain videos discussing the harms caused by COVID-19 vaccines and vaccines given to small children, such as the rotavirus vaccine. The presence of these videos suggests that TikTok's enforcement of its COVID-19-related policies, which aim to direct users to authoritative sources on vaccines and to remove misinformation, are not successfully enforced when it comes to Finnish-language videos.<sup>27</sup> The problem is exacerbated by the search suggestions that direct users to videos about vaccine harm.

- Q rokotus
- Q vaccination fear (rokotus kammo)
- Q vaccination harms (rokotushaitta)
- Q vaccination video (rokotusvideo)
- Q opposition to vaccines (rokotusvastaisuus)
- Q travel vaccine (matka rokotus)
- Q influenza vaccine (influenssarokotus)
- Q vaccination backside (rokotus pepun)
- Q vaccination certificate (rokotustodistus)
- Q vaccination (rokotus)

Search suggestions related to minorities and genders on TikTok contain hostile expressions. This was the case for almost all such search terms in our dataset. When searching for "women" ("naiset"), suggestions included "women to the kitchen" (naisetkeittiöön) and "women shut your mouth" ("naisetpitääturpansakiinni"). The suggestions for "jews" included "jews into the oven" (juutalaisetuuniin), while suggestions for "gays" include "gay kill yourself" ("homotapaittes"). Other hostile search suggestions were "roma people steal" ("romanit varastaa") and "refugees out" ("pakolaiset pois"). TikTok has removed all suggestions for some expressions that are slurs directed towards minorities, but typing in part of a slur still returns longer statements that combine slurs with other words. These results show that the search suggestions make the problem of hate speech on the platform worse and that TikTok is not successfully enforcing its commitments to countering hate on its platform.<sup>28</sup>

- Q naiset
- Q women (naiset)
- Q women into the kitchen (naisetkeittiöön)
- Q women suck (naisetonperseestä)
- anow women run after me (nytnaisetperässänijuoksevat)
- Q women like (naisettykkää)
- Q women vs men (naisetvsmiehet)
- Q women shut their mouth (naisetpitääturpansakiinni)
- women academia (naisetakatemia)

 $<sup>27 \</sup>quad \text{TikTok (nd.) Supporting our community through COVID-19.} \quad \text{https://www.tiktok.com/safety/en-us/covid-19/}$ 

<sup>28</sup> TikTok (nd.) Countering hate on TikTok. https://www.tiktok.com/safety/en-us/countering-hate/

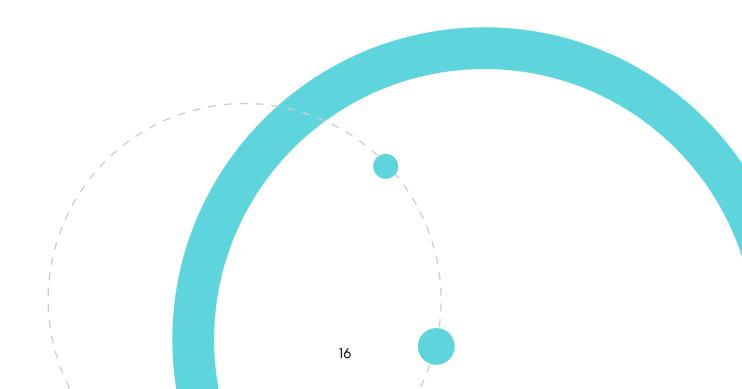
### TikTok's inconsistent labelling of political information

One policy that TikTok adopted for the European parliamentary elections was to direct people to trusted sources of information by attaching labels or flags on posts. TikTok's approach was to direct people to an Election Centre in their local language, a website that contained an overview of the election and how people could participate in it, educational videos and instructions about misinformation and how it could be identified, and links to some official sources, such as the European Parliament's official TikTok account.

TikTok directed its users by placing labels on top of posts related to the election. In its announcement of election integrity, TikTok wrote the following:

"Videos related to the European elections will be labelled to direct people to the relevant Election Centre. As part of our broader election integrity efforts, we will also add reminders to hashtags to encourage people to follow our rules, verify facts, and report content they believe violates our Community Guidelines."

The labelling of social media content by platforms has been a common strategy by social media platforms. For instance, during the COVID-19 pandemic, Facebook applied a label to all discussions about vaccines to direct people to information about the testing of vaccines and vaccine safety.<sup>30</sup> Many platforms now feature labels on information that has, for instance, been fact-checked and found to be false by third parties. TikTok's election labels are an example of a topic-specific label applied to all posts on a particular topic.



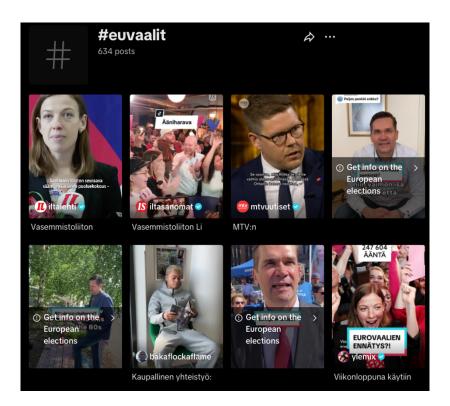


Figure 1. A screenshot from the web-based interface of TikTok's search results, showing the content label on some of the posts (accessed on the 14th of June 2024)

We gathered a dataset of election-related posts to study how TikTok applies the election label. We collected posts that used one or more prominent Finnish hashtags related to the European election: #euvaalit, #euvaalit2024, and #eurovaalit. We downloaded 1,265 posts using these hashtags from the period between the 15th of February 2024 (when the flagging policy was announced) and the 9th of June (the day of the election).<sup>31</sup> We manually reviewed 100 messages from each hashtag and found all posts to be election-related.

Next, we checked whether this sample of election-related posts contained TikTok's election label. 66.2% of the posts in our dataset (838 posts out of 1265) contained the election label.

<sup>31</sup> We were limited to 800 messages per hashtag due to TikTok's technical limits.

Account	Description of the account	Total posts with hashtags	Labelled	PCT
mika.aaltola	The campaign profile of Mika Aaltola, National Coalition Party's MEP candidate	71	71	100%
perttujussila	The Tiktok profile of Perttu Jussila, Green League's MEP candidate	58	48	83%
annamajahenriksson	The campaign profile of Anna-Maja Henriksson, the Swedish People's Party chairperson and MEP candidate	41	39	95%
mammamiettii	Anonymous account campaigning for the Left Alliance, criticising the current right-wing government	37	34	92%
henna.virkkunen	The campaign profile of Henna Virkkunen, the National Coalition Party's MEP and MEP candidate	32	31	97%
niinaratilainen	The Tiktok profile of Niina Ratilainen, Green League's MEP candidate	31	19	61%
mepelsikatainen	The TikTok profile of Elsi Katainen, the Centre Party's MEP and MEP candidate.	30	18	60%
teijamakkonen	The TikTok profile of Teija Makkonen, State Secretary of The Finns, Helsinki City Councillor, and MEP candidate for The Finns	29	26	90%
mika.lintila	The TikTok profile of Mika Lintilä, MEP candidate for the Centre Party	27	26	96%
petrimikaelrinne	The campaign profile of Petri Rinne, the Centre Party's MEP candidate	26	18	69%

Table 2. Accounts with the highest number of posts in the three studied hashtags

Whether posts are flagged appears to depend on the presence of text descriptions in the video about the European Elections. Notably, a significant share of videos on TikTok don't have descriptions or other text associated with them but rely exclusively on the video. Having the text description is, however, not sufficient. For instance, posts from Teosto about the elections appear never to have gotten the flags, even though these posts were explicitly about the election and used election-related hashtags and other text descriptions. Some candidates also rarely get the labels. As Table 3 suggests, only about a third of Paco Diop's (pacofturku) and Gashaw Bibani's (gashawbibani) election-related posts had the labels. This is not an advantage for the candidates but suggests that TikTok's system is missing a large share of posts that are obviously about the elections (with some of the most common election-related hashtags).

Account	Description of the account	Total posts with hashtags	Labelled	PCT
teostoofficial	Teosto's Tiktok profile. Teosto is a copyright society for composers, lyricists, arrangers and music publishers in Finland	11	0	0%
aleksanterigustafsson	The Tiktok profile of the Social Democratic Party's Regional Coordinator in the Häme region. Commenting on domestic politics.	18	1	6%
The Tiktok profile of Finnish National Youth Council Allianssi,		13	1	8%
yksitystili  Social media content creator, occasionally commenting on domestic politics		10	1	10%
pacoofturku  The Tiktok profile of Paco Diop, MEP candidate for the Left Alliance		15	5	33%
gashawbibani The Tiktok profile of Gashaw Bibani, MEP candidate for the Left Alliance		9	3	33%
samuelbroman  The campaign profile of Samuel Broman, the chairman of the Ostrobothnia district for the Swedish People's Party and MEP candidate for the Swedish People's Party		11	4	36%
laurilinden	The TikTok profile of Lauri Linden, MEP candidate for the Left Alliance	15	6	40%
susanna.strandvik  The Tiktok profile of Susanna Strandrvik, MEP candidate for the Freedom Alliance		12	5	42%
markku.rentto	The Tiktok profile of Markku Rentto, MEP candidate for the National Coalition party	22	10	45%

Table 3. Accounts with at least eight posts in election-related hashtags and the lowest percentage of election-related posts labelled as such.

The inconsistent application of labels may be a problem if TikTok aims to fulfil its goal of directing people to trusted information about the election. Fewer people would be directed towards TikTok's Election Centre for additional contextual information. Some users may follow politics but only see videos from the accounts to which the labels were more rarely applied. Moreover, the presence of such labels may subtly influence the perception of the quality of the information in videos. Experimental research has pointed to an "implied truth" effect, in which social media posts without labels are more likely to be considered truthful, independent of their actual content. This effect was found in social media feeds featuring labels for false or disputed content. Labelled posts are also less likely to be shared. While the labels about the elections are applied to all posts regardless of their content, it is possible that they would subtly influence user's perceptions. This is another reason why the consistent application of these labels is important.

<sup>32</sup> Pennycook, G., & Rand, D. G. (2020). Who falls for fake news? The roles of bullshit receptivity, overclaiming, familiarity, and analytic thinking. Journal of Personality, 88(2), 185-200. https://doi.org/10.1111/jopy.12476

### TikTok's algorithm amplifies contentious political topics

One distinctive feature of TikTok is its algorithmic timeline that creates an endless, personalised stream of videos. The way recommendations shape what gains visibility, particularly in the runup to an election, has become controversial. There are concerns that the algorithm amplifies outrage and trivialises political discourse, emphasising "confrontation and trivialisation of messages." There are fears that it amplifies parties with anti-immigration communications, such as Germany's Alternative for Deutschland (AfD). For instance, Maximilian Krah, AfD's lead MEP candidate, gathered a large audience with provocative videos against immigrants, which forced TikTok to reduce the visibility of his posts. Though it's hard to verify, some research claims that the performance of posts on political topics reflects the interest of Chinese authorities, for instance, suppressing pro-Ukrainian and pro-Israeli hashtags.

TikTok's recommendation system analyses user behaviour and preferences to determine which videos to show each user. Following an account is just one signal among many that users want to see a particular type of content.<sup>37</sup> Although the specifics of TikTok's algorithm are closely guarded, researchers describe it in terms of testing with increasing user segments.<sup>38</sup> Newly uploaded videos are first presented to groups responsive to those videos, typically an established audience for an account or topic. If the engagement with the video, measured by viewing time and reactions, exceeds a predetermined threshold, it is shown to a broader audience within a different user segment. Expanding the video's audience continues until the video fails to meet the required engagement threshold.

In comparison to other social media platforms, the audience of videos on TikTok is determined more by virality and less by the number of followers an account has.<sup>39</sup> Many uploaded videos will only be tested on the account's established audience, while those found to be popular will be recommended to increasingly larger user groups.<sup>40</sup> This also means that accounts typically have a small number of videos that gain significantly larger audiences than others, as they get picked up by TikTok's recommendation system. To understand TikTok's effect on political discourse, it is important to examine what kind of political topics gain visibility on its recommendation system.

<sup>33</sup> López Fernández, Víctor (2022). "New media in political campaign. The case of Madrid regional elections in 2021 on TikTok." Universitas, Revista de Ciencias Sociales y Humanas 36.

<sup>34</sup> Goujard, Clothilde (2024). Europe's far right uses TikTok to win youth vote. Politico. https://www.politico.eu/article/tiktok-far-right-european-parliament-politics-europe/

<sup>35</sup> Crossland, David (2024). TikTok limits AfD candidate's reach for breaching guidelines. The Times. https://www.thetimes.com/world/article/tiktok-limits-afd-candidates-reach-for-breaching-guidelines-xc6g77hk3

<sup>36</sup> Network Contagion Research Institute (2023). A Tik-Tok-ing Timebomb: How TikTok's Global Platform Anomalies Align with the Chinese Communist Party's Geostrategic Objectives. https://networkcontagion.us/wp-content/uploads/A-Tik-Toking-Timebomb\_12.21.23.pdf.

<sup>37</sup> Boeker, M., & Urman, A. (2022). An empirical investigation of personalization factors on TikTok. In Proceedings of the ACM web conference 2022 (pp. 2298-2309). https://dl.acm.org/doi/abs/10.1145/3485447.3512102

<sup>38</sup> Zhao, Z. (2021). Analysis on the "Douyin (Tiktok) Mania" phenomenon based on recommendation algorithms. In E3S Web of Conferences (Vol. 235, p. 03029), EDP Sciences. https://www.e3s-conferences.org/articles/e3sconf/abs/2021/11/e3sconf\_netid2021\_03029/e3sconf\_netid2021\_03029.html

<sup>39</sup> For example, Guinaudeau et al. (2022) find that on TikTok "1 percent increase in followers is associated with a 0.54 percent increase in median video view count", while the same number for YouTube is 0.73. Guinaudeau, Benjamin et al. (2022). Fifteen seconds of fame: TikTok and the supply side of social video. Computational Communication Research, 4(2), 463-485. https://www.aup-online.com/content/journals/10.5117/CCR2022.2.004.GUIN

<sup>40</sup> Zhao (2021), cited above.

#### Overview of TikTok use in elections

Party	Candidates on TikTok	Number of posts	Median view count	Total view count
Social Democratic Party	10	297	4707	11,972,669
Green League	17	854	3091.5	8,296,269
Left Alliance	13	337	11584	8,037,934
The Finns	13	241	4305	3,545,665
National Coalition	11	527	949	2,105,806
Center Party	11	269	1170	1,842,729
Freedom Alliance	7	197	1318	1,283,582
Open Party	2	34	4355.5	844,558
Swedish People's Party	5	77	1420	417,860
Communist Party	4	80	611.5	131,074
Movement Now	2	108	729.5	130,271
Christian Democrats	1	15	1146	35,362

Table 4. The number of candidates using TikTok and reach of videos for all parties with MEP candidates, based on posts between the 15th of February and 9th of June 2024

For our study, we first identified the TikTok accounts of Finnish MEPs and downloaded all their posts between the 15th of February and the 9th of June. This period spans from the week following the presidential election to election day for the European election. Table 4 gives an overview of how active politicians from different parties were on TikTok and the scale of the audience of their social media videos. 101 candidates had profiles on TikTok, or 44% of all candidates. Many of the profiles were, however, not active. Only 69 candidates posted at least ten times during the study period. These figures suggest that there are more important social media platforms for campaigning than TikTok. For comparison, well over 80% of candidates for parliamentary elections used Facebook or had their own campaign websites.<sup>41</sup>

Politicians from the Greens were most active on TikTok. 17 out of 20 of their candidates had a profile, and Green candidates also were overall the most active posters. Overall, candidates from the Social Democratic party, however, had the largest audience. This was mainly due to an individual candidate, Ville Merinen (MP from SDP), who had established a large audience on TikTok and whose videos frequently received more than 100,000 views (31 videos in total). Table 4 also shows that the typical political TikTok videos were not particularly popular, with the median view count in the low thousands for most parties. A small number of popular videos, however, became much more popular, and overall the videos from the largest parties were watched millions of times.

<sup>41</sup> Strandberg, Kim et al. (2024). Nuoret ehdokkaat ja kansalaiset sosiaalisessa mediassa, page 57. In Kestilä-Kekkonen, Elina et al. (2024). Pääministerivaalit polarisaation aikakaudella: Eduskuntavaalitutkimus 2023. Oikeusministeriö. https://www.vaalitutkimus.fi/wp-content/uploads/2024/05/Paaministerivaalit-polarisaation-aikakaudella-Eduskuntavaalitutkimus-2023.pdf

### TikTok's recommendations and political topics

To study the effects of TikTok's recommendation system, we examined which political topics tend to go viral in posts by Finnish MEP candidates. We focused exclusively on candidates who had posted at least ten videos during the study period because this method of assessing virality is unreliable with fewer data points. This resulted in a dataset with 69 MEP candidates and 3,093 videos.

We separated posts between those that had gone viral and those that hadn't and compared the content of these groups of posts. Whether or not a video had gone viral was determined based on whether its views were exceptionally high for the account that had posted it. We used this relative measure (instead of absolute numbers of views) because some popular TikTok accounts reach relatively high numbers of views with most of their videos (even without them going viral). We used a measure called modified z-score to measure how exceptional the view counts of posts were relative to other posts from the same account. We chose a threshold for z-scores so that 10% of posts were classified as viral.<sup>42</sup> Figure 1 describes one example of a viral video identified with this method.<sup>43</sup> Lauri Lindén (MEP candidate for the Left Alliance) had 12,518 followers, and his videos had a median of 18,204 views during the study period. The video criticising the government for its alcohol policy was viewed 367,561 times. Since this was an exceptionally high number for this account (over 20 times the median), the video was classified as viral.

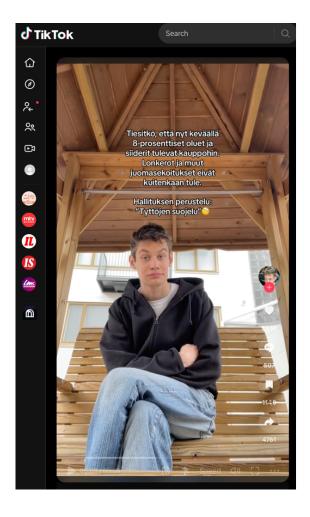


Figure 1. An example of a viral video: Lauri Linden's video criticising the government's alcohol policies

<sup>42</sup> Since the view count is not normally distributed, we describe variance through mean absolute deviance (MAD). We calculate a modified z-score based on MAD, and by setting the threshold for virality of this value at about 2, we select 10% of posts that are outliers on the side of having exceptionally high view counts for a particular account.

<sup>43</sup> https://www.tiktok.com/@laurilinden/video/7355473500565458209

We then looked for keywords that were distinctive for both viral and not viral posts, i.e. words that occurred more frequently in one group than the other. We looked for words related to political issues and policy discussions, such as "strike" or "nature". For this purpose, we used the text that video creators had added to the videos and their descriptions. We grouped several such keywords into individual topics when the keywords were related. We selected five topics which are distinctive for both viral and non-viral videos (ten topics in total).

Table 4 summarises the results. It shows that posts about specific topics were unlikely to become viral. Above all, videos that reminded the audience to go and vote very rarely went viral (videos that mention "election day" or "early voting"). Only 1.9% of such videos attained exceptionally high views, much fewer than the average of 10%. Similarly, videos that discussed economic topics or entrepreneurship, nature, or security were unlikely to go viral. For example, Mauri Peltokangas (MEP Candidate for The Finns party), made a video with the text description "The economic figures made economists go wild! ## #thefinns" (translated from Finnish). This video did not go viral and received 4,243 views - very close to the average for Peltokangas. Contrary to public concerns about TikTok expressed in the media, videos about immigration and refugees did not perform well on TikTok. Only 5.6% of such videos went viral.

Topics that performed well on TikTok during the election period were primarily related to domestic Finnish politics. In particular, they focused on contentious issues such as reductions in public spending, cuts in welfare benefits and industrial actions in the spring of 2024. Close to one-fifth of posts (18.3%) that discussed spending cuts or poverty went viral, a much higher proportion than the average 10%. Also, posts that addressed the incumbent government coalition (such as the example post in Figure 1) were likely to gain a large audience. Many videos during the election period discussed schools and mental health of young people, following a fatal school shooting by a bullied pupil in the city of Vantaa on the 2nd of April. Many of the videos discussing these events also went viral. For instance, Mika Niikko (MEP candidate for The Finns) filmed a video walking outside of the school where the shootings happened and discussing the bullying experiences of his own children. The video has been viewed over 180,000 times.

Keywords	Viral posts	not_ viral	Total posts	% viral
advance polling, election day (ennakkoäänestys, vaalipäivä)	2	101	103	1.9%
security, Ukraine (turvallisuus, ukraina)	4	117	121	3.3%
economy, entrepreneur, entrepreneurship (talous, yrittäjä, yrittäjyys)	7	156	163	4.3%
immigration, refugee, immigrant, migration, asylum (maahanmuutto, pakolainen, maahanmuuttaja, muuttoliike, turvapaikka)	4	68	72	5.6%
nature, forest (luonto, metsä)	7	110	117	6.0%
school, children (koulu, lapsi)	20	113	133	15.0%
labour market, strike, trade union movement, trade union, working life (työmarkkina, lakko, ayliike, ammattiliitto, työelämä)	15	73	88	17.0%
government, right-wing government, orpo (hallitus, oikeistohallitus, orpo)	50	229	279	17.9%
poverty, poor, low income, unemployed, unemployment, livelihood (köyhyys, köyhä, pienituloinen, työtön, työttömyys, toimeentulo)	13	58	71	18.3%
cut, spending cuts, budget negotiations (leikata, leikkaus, kehysriihi)	20	89	109	18.3%
Total	310	2783	3093	10.0%

Table 5. 10 political topics and the proportions of videos from Finnish MEP candidates that went viral for each topic, keywords translated from Finnish

<sup>45</sup> https://www.tiktok.com/@peltorengos/video/7369573832853654817

<sup>46</sup> https://www.tiktok.com/@mikaniikko/video/7353644589762268448

The results point to relatively large and systematic differences in the likelihood of videos on different political topics reaching large audiences on TikTok. Videos about contentious issues in domestic politics were most likely to be promoted by the platform's recommendation system. Contrary to public fears about anti-immigration populists reaching the largest audiences, the most prominent viral topics are related to welfare and labour policy. It is important to note that the emphasis on these topics is determined not only by TikTok's algorithm but also by the preferences of users and their behaviour on the app.<sup>47</sup> One notable limitation of our analysis is the limited scale of the data, as there are not many posts from Finnish MEP candidates on any particular topic.

### Other parts of the Finnish information environment

While this report focuses on Tiktok, Check First and Faktabaari have also monitored other platforms during the EP election. In addition to Tiktok, our monitoring covered Youtube, Mastodon, Google News, Instagram and Google's, Bing's and DuckDuckGo's search suggestions. However, we didn't find anything particularly problematic – that we hadn't already reported in our previous reports<sup>48</sup> – on the other platforms we monitored. On the other hand, as our first focus report published in March 2024 focused on Youtube, this time we didn't investigate Youtube as deeply as before. We believe that the data we collected will be of benefit for other researchers and journalists though, for investigating and analysing recommendation algorithms on Youtube in the run-up to the EP election.

Some of the social media accounts we highlighted in our previous reports<sup>49</sup> have stopped publishing content since the Finnish presidential election at the beginning of February. A very popular anonymous account on Tiktok, Sigma\_baller, which was a fan account of presidential candidate Jussi Halla-aho (The Finns), stopped publishing content immediately after the presidential election, and hasn't posted anything since.<sup>50</sup> Another anonymous account, Fin\_topsu on Youtube, that posted political content during the presidential election, did not participate in the EP elections either.<sup>51</sup>

Unlike during the Finnish presidential election in 2024<sup>52</sup>, in the EP election Google didn't stop giving search suggestions for the candidates when browsing from Finland. However, Google's search recommendations for the candidates we monitored were fairly neutral.

The overall aim of the CrossOver Finland project is to reinforce detection, analysis, investigation and disclosure of civil society-led disinformation and Foreign Information Manipulation and Interference (FIMI) in Finland. According to the observations by Faktabaari and Check First, no FIMI campaigns were detected in Finland in the European elections with the exception of the international Pravda network<sup>53</sup> and Operation Overload<sup>54</sup> which also reached Finland on a small scale.<sup>55</sup>

<sup>47</sup> Boeker, M., & Urman, A. (2022), cited above.

<sup>48</sup> Jantunen, S. & Havula, P. & Knuutila, A. & Kuster. G. (2024). Politics online: Algorithms, election-related content and Finns https://crossover.social/wp-content/uploads/2024/05/CROSSOVER\_Politics\_Online.pdf; Knuutila, A. & Havula, P. & Kuster, G., Lesplingart, A. (2024). "Up Next", biased politics? YouTube Recommendations and Political Bias in the Finnish Presidential Election 2024. https://crossover.social/wp-content/uploads/2024/03/Digitaalivahti raportti 2024.pdf

<sup>49</sup> ibid.

<sup>50</sup> https://www.tiktok.com/@sigma\_baller

<sup>51</sup> https://www.youtube.com/@fin\_topsu/videos

<sup>52</sup> Jantunen, S. & Havula, P. & Knuutila, A. & Kuster. G. (2024). Politics online: Algorithms, election-related content and Finns https://crossover.social/wp-content/uploads/2024/05/CROSSOVER\_Politics\_Online.pdf

Viginum (2024). Portal Kombat. Expansion of the pro-Russian propaganda network: new domain names.
 https://www.sgdsn.gouv.fr/files/files/Publications/20240428\_NP\_SGDSN\_VIGINUM\_PORTAL-KOMBAT-NETWORK-REPORT\_NEW%20DOMAIN%20NAME\_%28PART3%29\_ENG\_VF.pdf
 Atanasova, A. & Lesplingart, A. & Poldi, F. & Kuster, G. (2024). Operation Overload. Check First, ResetTech.

https://check first.network/operation-overload-how-pro-russian-actors-flood-newsrooms-with-fake-content-and-seek-to-divert-their-efforts/seek-to-divert-their-e

<sup>55</sup> Faktabaari (2024). Raportti: Uudenlaisella disinformaatiokampanjalla kuormitetaan toimituksia, faktantarkistajia ja tutkijoita ympäri maailmaa – myös Faktabaari kohteena. https://faktabaari.fn/fakta/check-first-paljasti-uudenlaisen-disinformaatiokampanjan-jolla-kuormitetaan-toimituksia-faktantarkistajia-ja-tutkijoita-myos-faktabaari-kohteena/; https://yle.fn/a/74-20093802

### Request for comment from TikTok

On 25/06/2024, the authors sent a request for comment to TikTok, providing the final draft of the present report.

On 03/07/2024, TikTok provided the following comment:

"We invest heavily in protecting the integrity of our platform through elections, and that includes connecting our community to reliable information at our Election Centers, labeling content, and removing harmful searches and other violations of our policies."

### Conclusions and recommendations

TikTok, a platform initially known for its entertaining content, has evolved into a site of political debate, attracting the participation of numerous politicians and parties. In response to this development, TikTok has implemented election integrity policies since 2022, including content moderation and establishing election centres to guide users towards authoritative information. Our study specifically examined search suggestions and the application of TikTok's political labels. Despite the platform's efforts, we discovered that search suggestions contain objectifying language towards women in politics and hostile language towards minorities. Moreover, for some politicians, the search suggestions are exclusively negative, potentially creating a bias in how the public perceives them. Additionally, we found that TikTok's application of political labels to posts is inconsistent, with only two-thirds of posts in election-related hashtags marked as political.

Further studies should explore whether the phenomena we have identified occur across other languages, including well-resourced language groups and smaller languages. TikTok should ensure that its search suggestion system doesn't contribute to the visibility of videos with toxic expressions. The following steps would help towards reaching that goal.

**Moderate search suggestions.** TikTok isn't primarily used through its search interface. However, search may still be an important interface, particularly during election periods when users might try to locate candidates and parties of interest. Google and other search engine companies have invested in reducing the biases and toxic content in their search suggestions. While even Google's approach may not be perfect, it suggests that partly automated moderation of search suggestions may be the way to reduce potential harm.

Make search suggestions harder to manipulate. TikTok creates search suggestions based in part on hashtags. Our study suggests that hashtags with relatively few posts may get included into search suggestions. Since malicious actors can easily automate posting videos with hashtags of their choice, this presents an opportunity to manipulate search suggestions for other users. A simple solution would be to only use hashtags in suggestions if they have been active for a long time and have a large group of users participating.

**Experiment with other ways to direct users to authoritative sources.** TikTok's approach to labelling election-related posts could probably be improved with investment, but the classification of videos is likely to be an error-prone process. Given its aim to direct users to authoritative sources of information, TikTok should experiment with a wider range of mechanisms than just labels. The platform could, for instance, add notes to users' timelines that contain links to election-related information and reminders to vote.

### **Annexes**

#### Review process

This document has been reviewed following **Check First's process**<sup>56</sup> including the review of the final document by two internal employees and two external reviewers qualified in the field of the research. The process assessment grid used by the reviewers is available **here**<sup>57</sup>.

The external reviewers for this document are :

- Director of NGO specialised in algorithmic recommendations
- Doctoral researcher from the University of Helsinki

This document has scored 95.83 out of 100 after review.

### **Archiving**

All the investigation data captured by CrossOver between Jan 24 2024 and Feb 11 2024 and are available on **GitHub**.

#### Appendix: Keywords used in data collection

The dataset produced by the study is based on 104 search terms. These search terms broadly refer to politics and elections (for instance, "presidential election" or "voting"). Other terms focus on political topics in public discussions in the period leading up to the election. For the latter, we aimed to have a comprehensive set of search terms that addressed the most prominent political topics. To achieve this, we went through all of the questions on the voter advice apps of Yle and Helsingin Sanomat and ensured that at least one of the search terms was related to each question posed on the voter advice apps. We excluded search terms so general that they would have matched with content that was not specifically Finnish (for instance, the search term "NATO").

<sup>56</sup> https://checkfirst.network/about-us/our-review-process-for-osint-operations/

<sup>57</sup> https://docs.google.com/spreadsheets/d/lka2rcMAmiUgDKIiTxXNS5cB0poax8C-GCC2GI1 sRmY/edit?usp=sharing

Table 6. List of search terms related to the European election and Finnish politics

Keyword	Indicative translation	Keyword	Indicative translation
Alexander Stubb	Alexander Stubb	Hjallis Harkimo	Hjallis Harkimo
Anna-Maja Henriksson	Anna-Maja Henriksson	hybridioperaatio	hybrid operation
Annika Saarikko	Annika Saarikko	hyökkäys	attack
Antti Häkkänen	Antti Häkkänen	ilmastonmuutos	Climate change
Antti Lindtman	Antti Lindtman	itämeri	Baltic sea
Arto Satonen	Arto Satonen	itäraja	Eastern border
aseapu	weapon aid	Jussi Saramo	Jussi Saramo
Aura Salla	Aura Salla	juutalainen	jewish/jew
demarit	democrats (pol. party)	karjala	Carelia
direktiivi	directive	Katri Kulmuni	Katri Kulmuni
Eero Heinäluoma	Eero Heinäluoma	keskusta	Center (Pol. party)
Eija-Riitta Korhola	Eija-Riitta Korhola	ketä äänestää?	for whom to vote?
energiakriisi	energy crisis	kiina	china
energiatehokkuus	energy efficiency	kokoomus	Coalition (pol. party)
ennakkoäänestys	early voting	kollageeni	collagene
ennallistaminen	restoration	kristillisdemokraatit	Christian democrats (pol. party)
eu vaalit	EU elections	lastensuojelu	child protection
euroopan komissio	European Commission	lentoturma	plane crash
euroopan parlamentti	European Parliament	Li Andersson	Li Andersson
euroopan unioni	European Union	liike nyt	Movement now (pol. party)
europarlamenttivaalit	European parliamentary elections	maahanmuuttajat	immigrants
eurovaalit	euro-elections	maanviljelijä	farmer
Eva Biaudet	Eva Biaudet	Maria Guzenina	Maria Guzenina
Henna Virkkunen	Henna Virkkunen	Maria Ohisalo	Maria Ohisalo
hiilinielu	carbon sink	Mauri Peltokangas	Mauri Peltokangas

Keyword	Indicative translation	Keyword	Indicative translation
maatalous	agriculture	Sofia Virta	Sofia Virta
meriraja	Maritime border	sosiaalidemokraatti	Social democrat
Merja Kyllönen	Merja Kyllönen	sotilaspiiri	military district
metsäteollisuus	forest industry	Suomenlahti	Gulf of Finland
Mika Lintilä	Mika Lintilä	terrorismi	terrorism
muslimi	muslim	terveydenhuolto	health care
Nato-jäsenyys	NATO membership	terveys	health
natsit	nazis	Teuvo Hakkarainen	Teuvo Hakkarainen
oikeisto	right-wing	TNT-tehdas	TNT factory
Ossi Tiihonen	Ossi Tiihonen	turvallisuus	security/safety
perussuomalaiset	The Finns (pol. party)	tuulivoima	Wind power
Petteri Orpo	Petteri Orpo	ukraina	Ukraine
poikkeuslaki	emergency law	vaaligallup	election polls
presidentti	president	vaalit	elections
puolustus	defence	vaalivilppi	election fraud
puolustusministeriö	Ministry of defence	vasemmisto	The left (pol. party)
puolustusteollisuus	defence industry	vasemmistoliitto	left-wing
rajalaki	border law	venäjä	Russia
rauha	peace	vihreä siirtymä	green transition
Riikka Purra	Riikka Purra	vihreät	The greens (pol. party)
rkp	Rkp (pol. party)	Ville Niinistö	Ville Niinistö
rokotus	vaccine	Wille Rydman	Wille Rydman
Russofobia	Russophobia	ydinase	nuclear weapon
sääntely	regulation	ydinvoima	nuclear power
Sari Essayah	Sari Essayah	yhdysvallat	United states (of America)
Sebastian Tynkkynen	Sebastian Tynkkynen	äänestys	vote
siirtolaiset	refugees		



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