

# Suspicious Election Campaign Activity on Facebook

How a Large Network of Suspicious Accounts Promoted Alternative Für Deutschland in the 2019 EU Parliamentary Elections

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## Introduction

News reports and scholarly research have noted European far-right populist parties are overrepresented on social media, relative to their standing in the polls.

Several factors might contribute to this phenomenon.

Far-right parties complain their views are not given fair treatment by traditional outlets. One logical response has been for them to invest in alternative modes of communication. For example, the Sweden Democrats, UK Independence Party, and Jobbik (Hungary) devoted substantial resources to social media as early as 2014 (Klein & Muis, 2018).

Some of their success might be the result of algorithmic biases in the platforms themselves favoring populist movements. Recent reports have noted that recommendation engines tend to favor content that is divisive, or even conspiratorial in nature (Lewis, 2018).

Yet the question of whether there has been outright manipulation of platforms through the use of bots, sock puppets, and other artificial means has been largely a matter of speculation.

Most research has focused on Twitter, which has a relatively open API available to researchers. Yet Facebook has more active users in Europe than Twitter does *in the entire world* (Salinas, 2018). Facebook's market share in Germany is 65% compared to Twitter's 4%<sup>1</sup>. More than a quarter of German adults report getting news on Facebook daily (Pew Research Center, 2019).

This report focuses on Germany in the months leading up to the May 2019 European parliamentary elections.

## Methodology

We examined 6,817 political pages representing all the major and several minor parties in Germany: Alliance 90/The Greens (Greens), Alternative for Germany (AfD), the Christian Democratic Union and Christian Social Union political alliance (CDU/CSU), Die Linke, the Free Democratic Party (FDP), the National Democratic Party of Germany (NPD), Piratenpartei, and the Social Democratic Party of Germany (SPD).

We included public pages of politicians, party regional branches, official factions, youth wings, and national pages. We excluded fan pages (e.g., "Bikers for AfD").

We examined nearly 220 million interactions within these pages and their content from October 2018 to May 2019. These include profile-to-page (like, follow), page-to-page (follow), and profile-to-post (like, share, comment) interactions.

The study was conducted in accordance with the George Washington University's guidelines on social media research<sup>2</sup>.

## Findings

### AfD Dominated German Political Facebook

Over 86% of shares and 75% of comments on German political Facebook from October 2018 to May 2019 were Alternative Für Deutschland content. This is particularly notable in that AfD never exceeded 15% of public support in polls during this time period.

No populist party – indeed, no party period – dominated the political space of Facebook as thoroughly as AfD. In aggregate, AfD received roughly five times the engagement of all other German political parties *combined*. As the AfD did not outspend the other parties, resource allocation, on the surface, cannot explain this outcome.

AfD's recent social media overperformance is consistent with other scholarly research on prior elections. According to researchers at the Technische Universität München, half of the retweeted messages ahead of the September 2017 elections were about the AfD. (Serrano and Shahrezaye, forthcoming)

### AfD Content Was Promoted by a Dense Network of Suspicious Accounts

We found evidence that AfD and aligned groups attempted to tilt the playing field in the party's favor.

Below, we describe a large, dense network of suspect accounts appearing to have no other purpose than to promote AfD posts. All of these suspicious accounts have multiple features commonly seen in fake accounts though rarely in real ones. Many are obvious fakes, such as profiles using stolen photos of well-known actors or a deceased head of state.

## Quantifying AfD's Facebook Presence

### Footprint

- AfD maintained 1,663 pages. This means it had more active<sup>3</sup> pages than all the other parties *combined*.
- The median follower count of AfD pages was 1,296 (Die Linke: 647, SPD: 459, FDP: 428, CDU/CSU: 390, Green: 356).

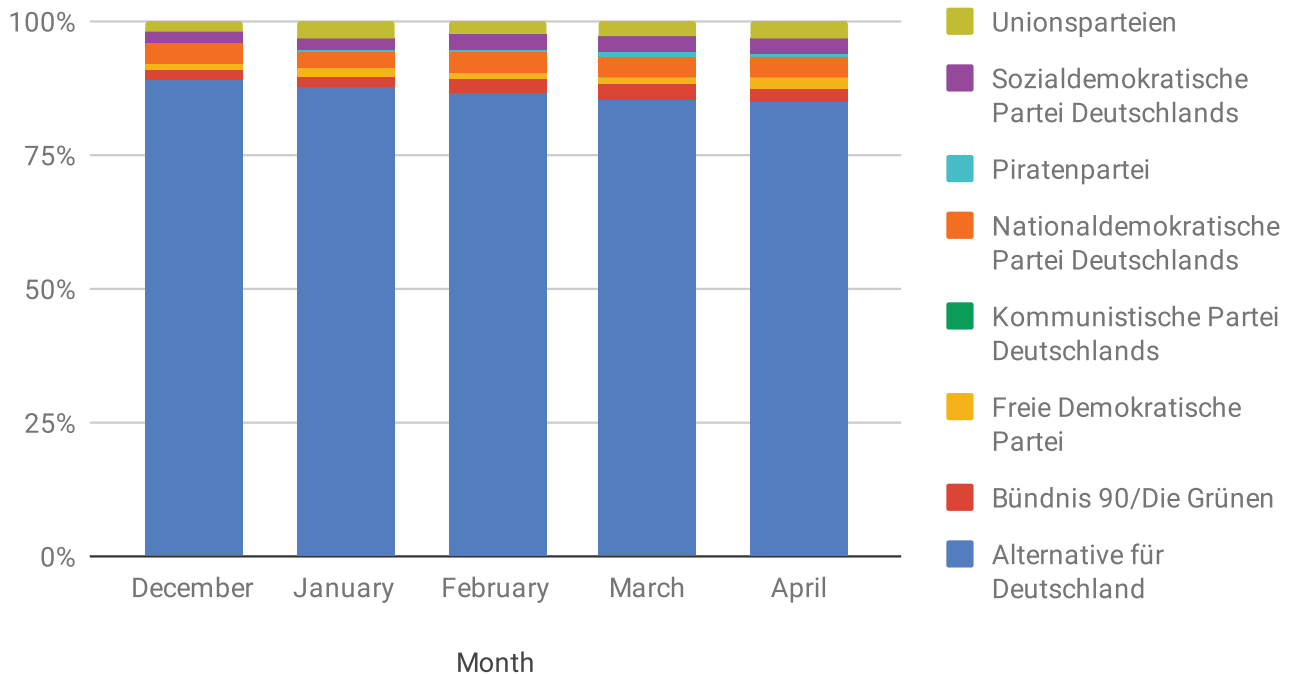
### Engagement

- AfD content was shared between five and seven times more than all the other parties *combined*.
- AfD content received four times the comments of all the other parties *combined*.

### Content Produced

- From October 2018 to May 2019, AfD produced 1.2 times as many individual posts than the other parties combined.
- The AfD began its efforts earlier than the other parties. It produced approximately the same number of posts per month from October to May. Meanwhile, CDU/CSU increased their production eightfold, mostly in the last month.

## Shares on Facebook



## Content Strategy

### Links

Forty-eight percent of AfD posts included links. Clusters of a few dozen AfD pages at a time<sup>4</sup> consistently posted the same links in tandem. This clustered linking represents 32% of the total link sharing activity by AfD.

By comparison, for CDU/CSU only 2% of link posting occurred over five or more pages. The Green Party repeated the same link over 5+ pages only 3% of the time.

We calculated the top ten most frequently linked domains for the major political parties in Germany. While AfD often shared mainstream sources (e.g., Bild, Welt, and Spiegel), sources that have been accused of misrepresentation or outright misinformation (Krasodonski-Jones, 2019) such as [journalistenwatch.com](http://journalistenwatch.com), [philosophia-perennis.com](http://philosophia-perennis.com), [tichyseinblick.de](http://tichyseinblick.de), [epochtimes.de](http://epochtimes.de), and [jungefreiheit.de](http://jungefreiheit.de) make up half of the ten most frequently promoted domains.

### Video

Just over 10% of AfD posts were videos, which is similar to other parties except the Greens (15%).

### Events

AfD promoted over 2,846 unique events (as identified by Facebook event\_id). This was far less than the Green Party which promoted 5,504 events during the study time period.

### Photos

AfD distinguished itself by producing an enormous number of photo memes, and promoting them across their many pages.

While other parties produced many photo posts, these were primarily photos of events, politicians, or

groups of supporters. No party other than AfD produced heavily designed photo memes at volume.

AfD's photo posts resemble advertisements, and they appear professionally designed. Many appear to use custom graphics, while others are constructed from templates and stock photos.

During the study period, AfD peaked at 657 unique photo memes per week, excluding reposting.

This level of unique photo content seems impossible to produce with "a couple of freelancers," as AfD has publicly claimed (Diehl, et al., 2019).

Examples of these photo memes can be seen below. While many mimic advertisements, they are not represented in Facebook's transparency archive which is restricted to paid content<sup>5</sup>.



5 Mrd. pro Tag - Nichts tötet mehr Lebewesen:

**Windräder sind die Killer der Lüfte!**

Afd

**Grüner Ökowahn tötet Umwelt**  
Wenn Windräder Bienen töten

Dr. Frank Grobe  
Mitglied des Landtages

**Milliarden getötete Tiere †**

MECKLENBURG-VORPOMMERN

Grüne drehen völlig durch

**Göring-Eckardt sieht Greta Thunberg als „Prophetin“!**

Alice Weidel

Ach Du heilige Greta!  
Klima-Ablaßhandel ist ja sowas von geil

Alternative für Deutschland

**DU SOLLST NICHT KLIMA SCHÄDIGEN!**

CORINA MIAZZA

Göring-Eckardt von den Grünen vergleicht Greta Thunberg mit Propheten

**Löst Greta Thunberg bald den Papst ab oder warum treffen sie sich Freitag?**

CORINA MIAZZA

Erst vergleicht sie ein Bischof mit Jesus, heute lauscht ihren Worten das EU-Parlament und Freitag der Papst?

Greta-Hype - Neutralität war gestern:

**Medien bereiten Klimaaktivistin Papst-Empfang!**

Afd

**Klima-Greta bekommt eine Goldene Kamera**

Andreas Winhart, MdL

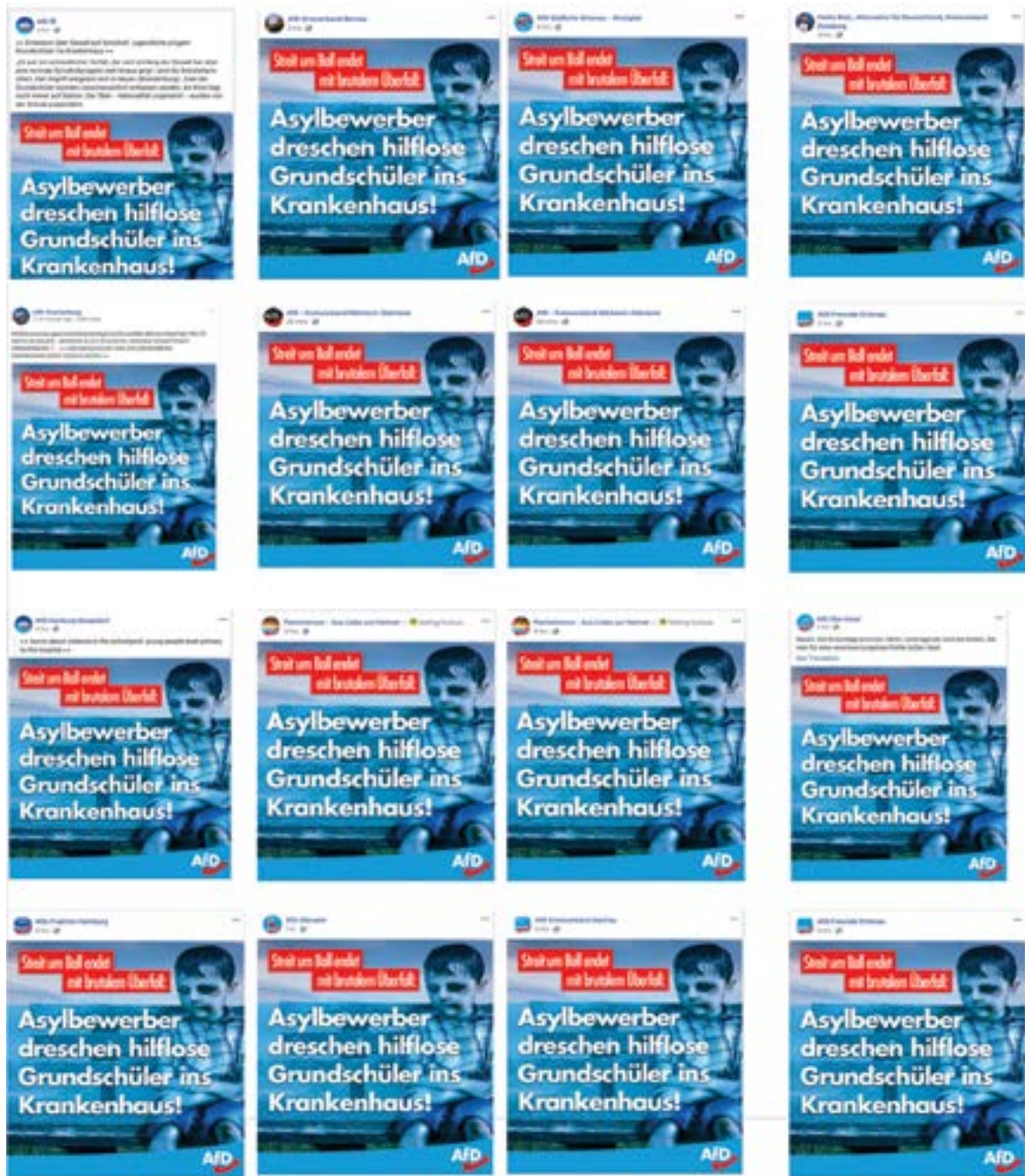
**Tolle schauspielerische Leistung! Wie holst du deinen Preis ab?**

Afd

## Reposting

AfD often reposts the same photo dozens of times, from dozens, if not hundreds, of active pages.

It is notable that the text overlay is customized on each image post, which might be an attempt to evade Facebook's spam policies<sup>6</sup>.





## Artificial Promotion in Favor of Alternative Für Deutschland

AfD outpaced other political parties in the number of active pages, amount of content posted, and the average level of engagement that each post received. Additional analysis raises questions about the origins of this apparent success.

We identified a network of roughly 200,000 accounts that like or promote AfD pages and content. These accounts are densely networked and often engage in what appears to be coordinated behavior.

### Method: Identifying Suspicious Accounts

Social media influence campaigns are now endemic across the globe and are utilized on nearly every Internet platform.

In response to the proliferation of digital disinformation and influence campaigns, a large body of peer-reviewed scholarship has sought to identify automated accounts, professional trolls, and inorganic social media activity. (Cresci, et al., 2017) Drawing on this research, we identified seven primary features that are common to inorganic accounts, but rare in genuine ones. Accounts were classified as suspicious if they met three or more of the following criteria:

1. Multiple changes of name, location, and profile image during the observation period (>2 changes, 850,000 records).
2. Unlikely location: profiles in which home country and current location are outside of the EU (>30% of high frequency likers, 9,000 out of 60,000 sample).
3. Misaligned names: names that do not match five consecutive characters of the login name. For example, if the login name (in the URL) is Mohammed El-Khazan and the declared username is Peter Mueller, that indicates deception. This is after accounting for common diminutives – Jack for John, Natasha for Natalia, etc. (600,000 records).
4. Implausible names fitting a pattern: thousands of profiles that had two-letter first and last names (e.g., Ba Ni, Mi Ha, No Ha) (18,000 records).
5. Stolen photographs: for example, we found a profile using a photograph of a well-known actor, and another using the photo of the deceased former president of Kosovo.
6. Consistently liking posts from pages that are not followed by the profile, when page follows are known (600,000).
7. Different accounts using the same profile photo.

With these metrics in mind, we turn to the AfD-supporting accounts. Two different categories of suspicious accounts emerge from the data.

1. Suspicious profiles that like AfD pages but do not post. (Page Promoters)
2. Suspicious profiles that repeatedly promote AfD posts. (Post Promoters)

These two sets of accounts likely have different origins and explanations. The first group likely consists of fake “followers” bought from one of many online marketplaces to amplify follower count and make AfD appear more popular than it really is. The second set is more troubling: it appears to be a network of inauthentic accounts used to artificially inflate AfD’s visibility.

## Suspicious Page Followers

The first type is page promoters, which follow hundreds of AfD pages, but do not like individual posts. These are otherwise inactive accounts.

We believe these accounts were purchased from services like [www.boostfansonline.today](http://www.boostfansonline.today) or [kccatl.com](http://kccatl.com), which promise clients that they will “deliver within 2 - 4 days” and “unlock your true potential by ensuring you gain top placements.”

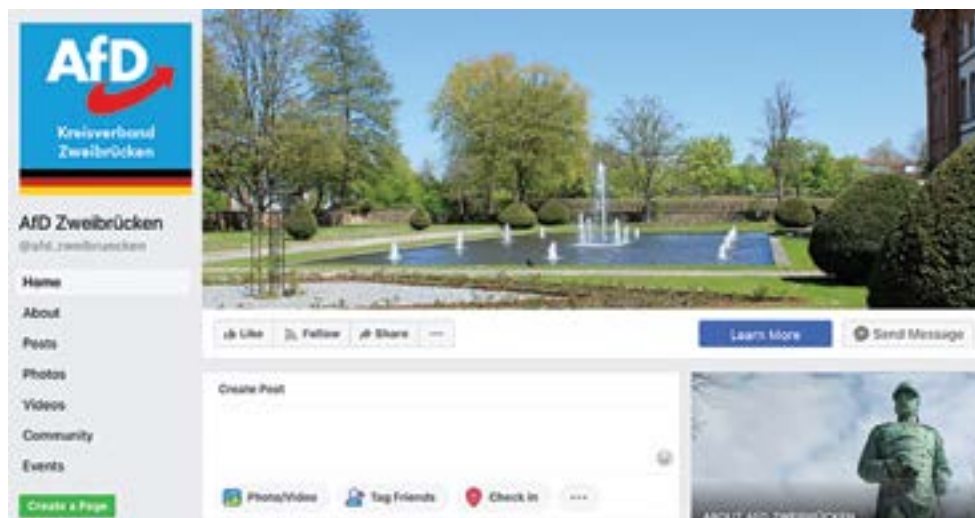
The cost and quality of these fake followers varies widely. Lower end followers range in price from \$70 - \$375 for 1,000 mixed European followers. Because accounts that promote AfD pages have a high concentration of followers in Romania, Macedonia, and Belarus, they were likely purchased at the same time and are midrange in price. Other followers, in places farther afield (e.g., Thailand and Indonesia) were likely purchased separately, and at a lower rate.

For a higher price, these services provide German followers, too. These profiles are harder to obtain in bulk, and vary in price with supply. Currently, 50,000 followers in Germany are offered by one service for \$5,589.80<sup>7</sup>. Most services cap their inventory at between 300 and 2,000.

Overall, more than 120,000 accounts in our data have profiles consistent with the fake followers sold by such services, as well as three or more of the previously noted suspicious hallmarks. These are conservative estimates of fake followers.

Pages for local chapters of AfD often have large numbers of followers that are more than 500km away from that location, something unusual for local organizations of any kind.

For example, AfD Zweibrücken represents a small town on the Schwarzbach River with just under 35,000 residents<sup>8</sup>. Of their nearly 2,200 followers, over 40% were located more than 500km away from Zweibrücken. As most of the followers are still in Germany, they were not included in the total number of suspicious accounts noted above.





### Irregular Patterns of Page Following

A motivated activist might reasonably follow a couple of local pages, a prominent politician, and perhaps the national page of a party. It seems reasonable to conclude that few people would feel the need to follow such a high number of individual factional and regional pages as seen in the figure below.



## Suspicious Post Promotion

The second network we identified is more concerning. It is a network comprised of highly active accounts operating in concert to consistently promote AfD content.

We found over 80,000 active promotional accounts with at least three suspicious features. Such a network would be expensive to acquire and require considerable skill to operate.

These accounts have dense networks of co-followership, and they consistently “like” the same sets of individual AfD posts.

Many of the accounts identified share similar suspicious features, such as two-letter first and last names. They like the same sets of pages and posts. It is possible that this is a single, centrally controlled network.

Rates of activity observed were high but not impossible to achieve without automation. A dexterous and determined activist could systematically like several hundred AfD posts in a day. It is less plausible that an individual would do so every day, often upvoting both original postings of an image and each repost across dozens of other pages. This seems even less likely when the profile’s last recorded action was a post in Arabic or Russian.

Additionally, we found thousands of accounts which:

- Liked hundreds of posts from over fifty distinct AfD Facebook pages in a single week in each of ten consecutive weeks.
- Like hundreds of AfD posts per week from pages they do not follow.

Automated accounts are the most likely explanation for these patterns. The current market price of an account that can be controlled in this way is between \$8 and \$150 each<sup>9</sup>, with more valuable accounts more closely resembling real users. In addition to supply fluctuations, account price varies according to whether the account is curated for the country and whether they are maintained with a geographically specific set of IP addresses, if they have a phone number attached to them (delivered with the account), and the age of the account (older is more valuable).

Even if the identified accounts represented the entire promotional, purchasing this level of synthetic activity would cost more than a million dollars at current rates.

Data collection from Facebook is limited, making it difficult to estimate the size of the network or the scale of the problem. Accounts in our dataset had persisted for at least a year.

## Suspicious Features

### Names Changes

More than 20,000 profiles (20,253) changed their name at least once during the study period. For example, Jacques Ouzi became Jean Michel Rousseau and then finally José Paledire. Игорь Андреев changed names to Dell Leo and then finally settled on Guide Coah. Rymaxpi Bst became Mandy Ted Newlife. Fabio Di Marco became Lorenzo Valenti.

Facebook’s naming policy states: “The name on your profile should be the name that your friends call you in everyday life”<sup>10</sup>. While it is possible over 20,000 people presented the legal documents necessary to change their name, it seems more reasonable to conclude that these accounts were inauthentic and in violation of the Facebook policy

## Unlikely Location

We attempted to collect public location data on a random sample of 44,000 profiles and were able to resolve the geolocation of 24,137, slightly more than 50% of the sample.

These locations were mapped to coordinates using the Google Maps place search API.

This is the resulting location map of AfD supporters.

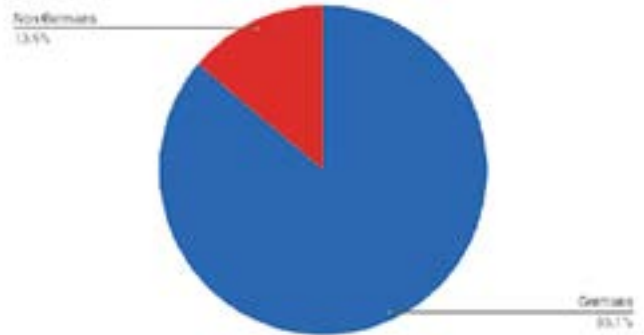


The proportion of foreign promoters and followers are roughly similar.

AfD Page Followers



AfD Post Promoters





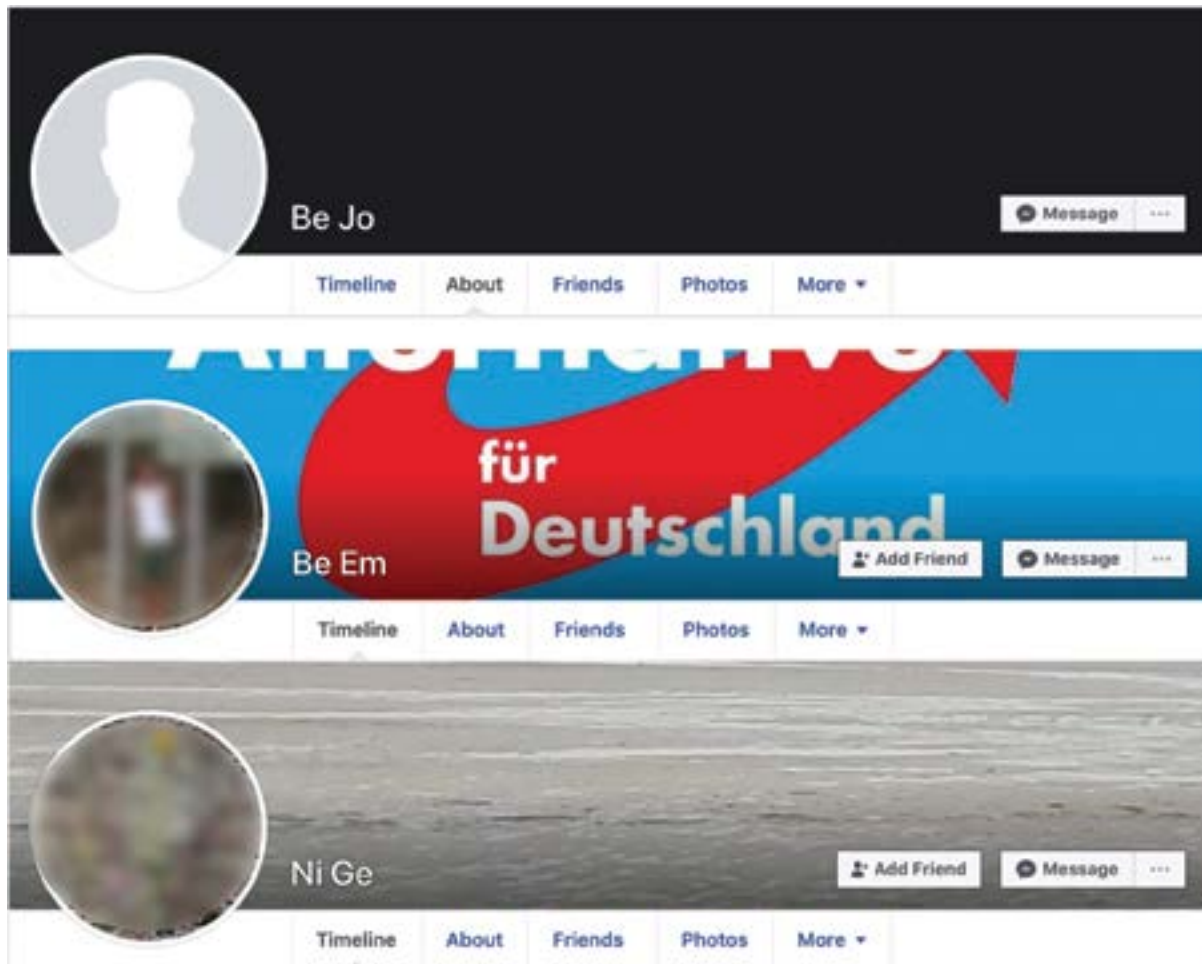


## Examples: Unlikely Names

We took the names of all page likers and divided them into components: first, last, middle, and suffix.

We then suppressed the 2,000 most common German surnames and searched for anomalous patterns, with one emerging immediately: 17,579 profiles with two-letter last names and two-letter first names who “like” hundreds of AfD posts. In total, we observed 115,477 post offering likes from this set.

For example: Ni Ha liked 811 posts, Mi Ho liked 1,548, and Mx Kx liked 578. Further examples of two-letter names include An Ak, Ha Dz, Mi Pe, Ni Ge, Ni Ga, Wo Ad, and Pa Pl. This pattern is irregular, and unmistakable.





## Examples: Stolen Photos

This profile uses the actor Jonathan Rhys Meyers as its profile photo. Even following a broadcast segment on Germany's ZDF television network about this account (Mündges & Stoll, 2019), Facebook had not removed it as of this writing.



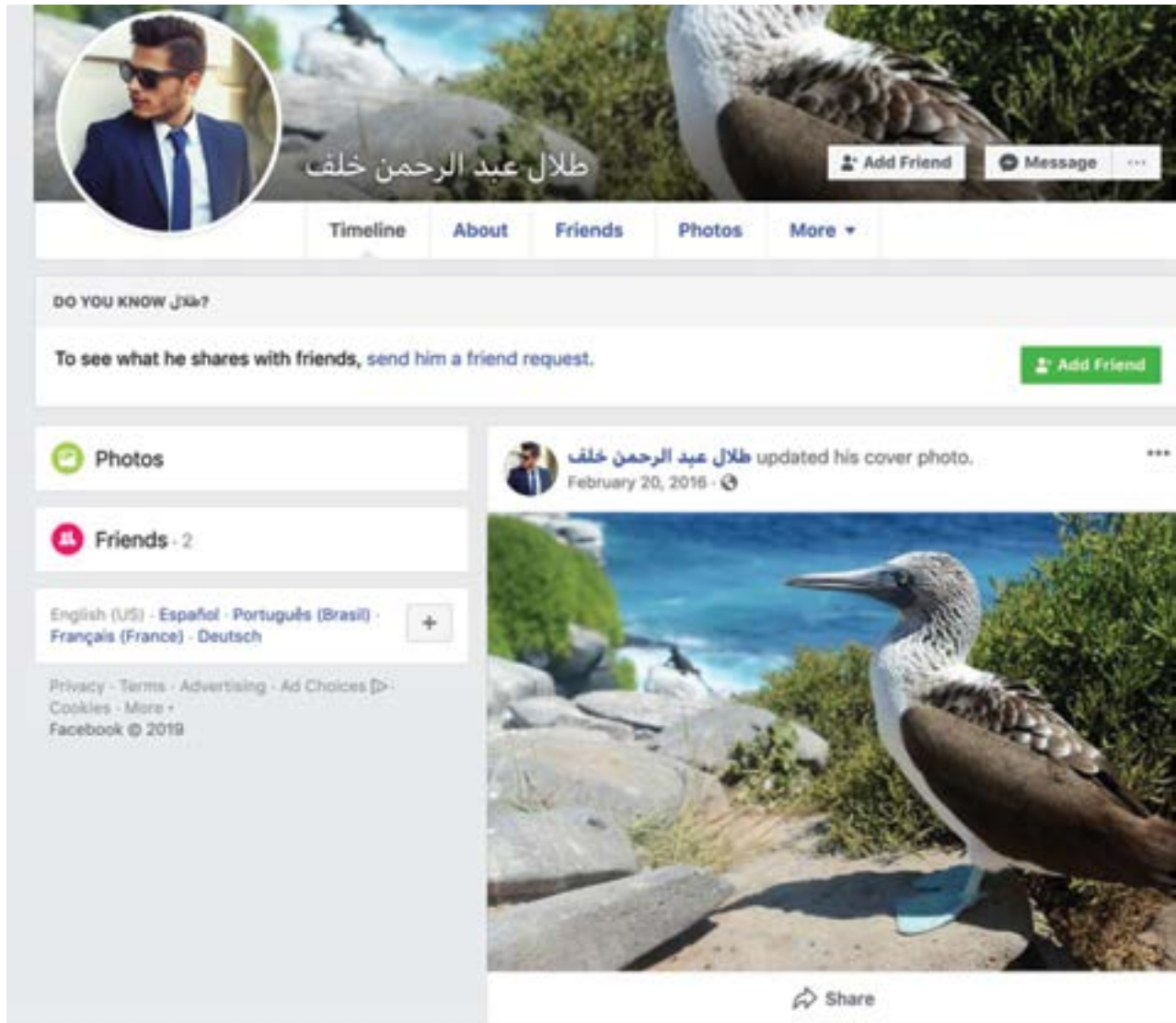
This profile has no public elements on it other than what appear to be hundreds of stolen photos of young Japanese women.





## Arabic Language Identified Account with Abnormal Level of Activity

Additionally, we found 53 accounts with Arabic names and no biographical information who “like” hundreds unique AfD pages.

Though we cannot rule it out, it seems unlikely that these are real people using their actual names.



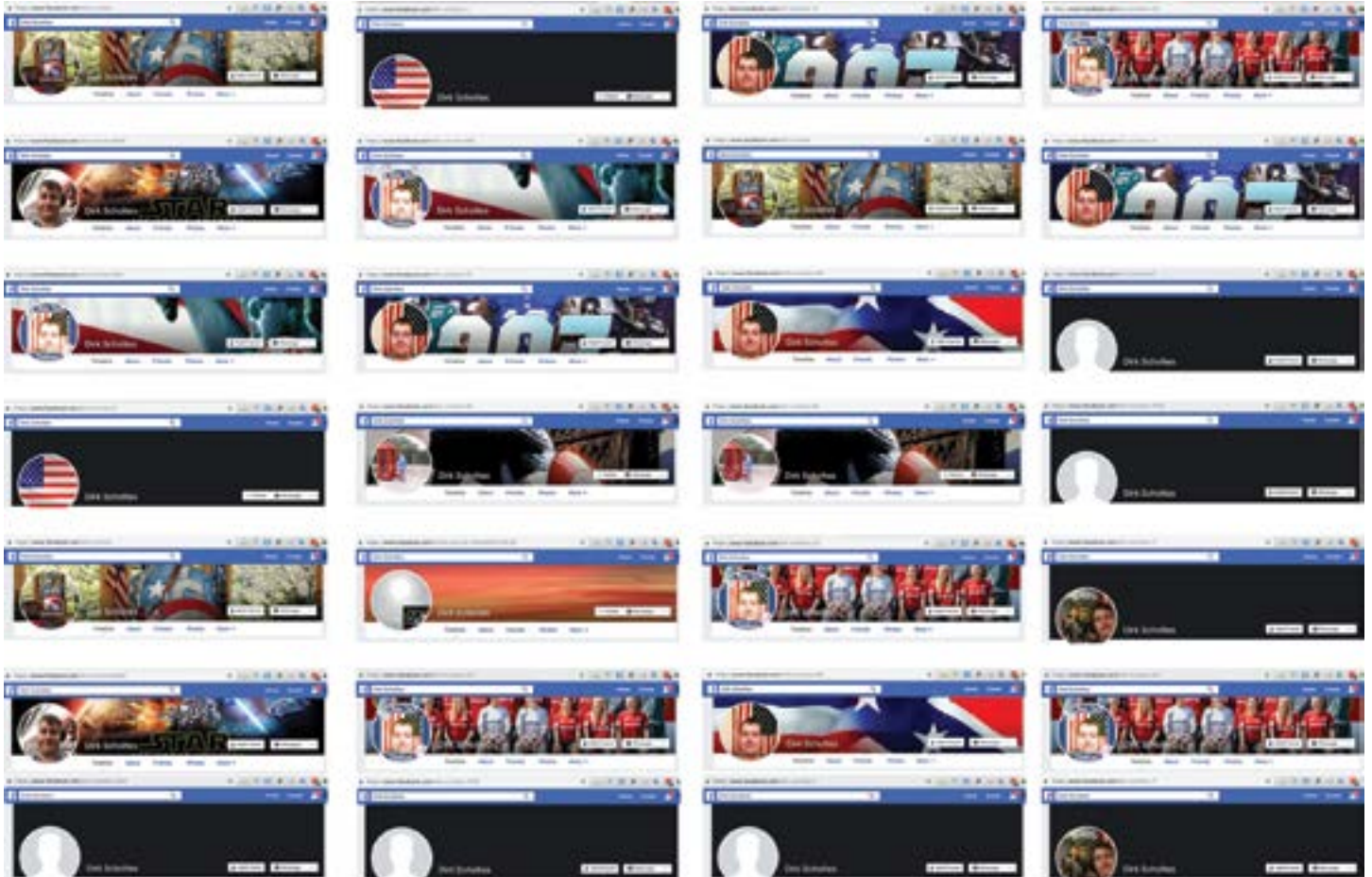
	Siegfried Daebritz		Evangelische Christen in der AfD - Alternative		AFD Alzey-Worms		Martin Reichardt MdB
	AFD Greiz-Altenburg		Ostfront-Versand		AFD Hildesheim Stadtratsfraktion		AFD Unteres Filstal
	AFD Neumünster		AFD Kreis Flensburg-Schleswig		AFD Unterfranken		AFD Rheinland-Pfalz
	AFD Hamburg-Bergedorf		Janin Klatt-Eberle		Peter Feiser, AfD		AFD Norderstedt
	AFD Wahlhelfer		AFD Schleswig-Flensburg		Alternative für Wilhelmshaven AfD/WI		AFD-Fraktion Abgeordnetenhaus
	Michael Weller - AfD		AFD-Stadtratsfraktion Hannover		AFD Brandenburg Oder-Spre		AFD-Freunde Stuttgart
	AFD Gebietsverband Sonneberg		Christian Müller - AfD Bayern		AFD Bezirksverband Schwaben		AFD Ortsverband Kreis Groß-Oerau Süd
	Tobias Rausch		AFD Kreisverband Bendsburg		Martina Jost		Uwe Scheidemann
	Steffen Schroeder - AfD Börde		Steffen John - AfD		AFD-Ortsverband Panketal		Nikolaus Kramer MdB
	AFD Saarland		Manfred Gudath - AfD		AFD Kreisverband Frankfurt am Main		Alexander von Wiese
	Dietmar Friedhoff AfD Bundestagsabgeordnet		AFD Neukirchen		AFD Offenbach Land - Alternative für		AFD Kreisverband Saalekreis

## Example: Same Photo, Same Name, Multiple Profiles Level of Activity

According to Facebook's community standards, "maintaining multiple accounts" is forbidden. As this is an established standard, it seems reasonable to assume that these accounts would have been identified and corrective action taken. This is especially true for accounts with the same name and profile image that follow each other.

More obvious still are accounts with the same name and profile that "follow" each other.

### *The Case of Dirk Scholtes*

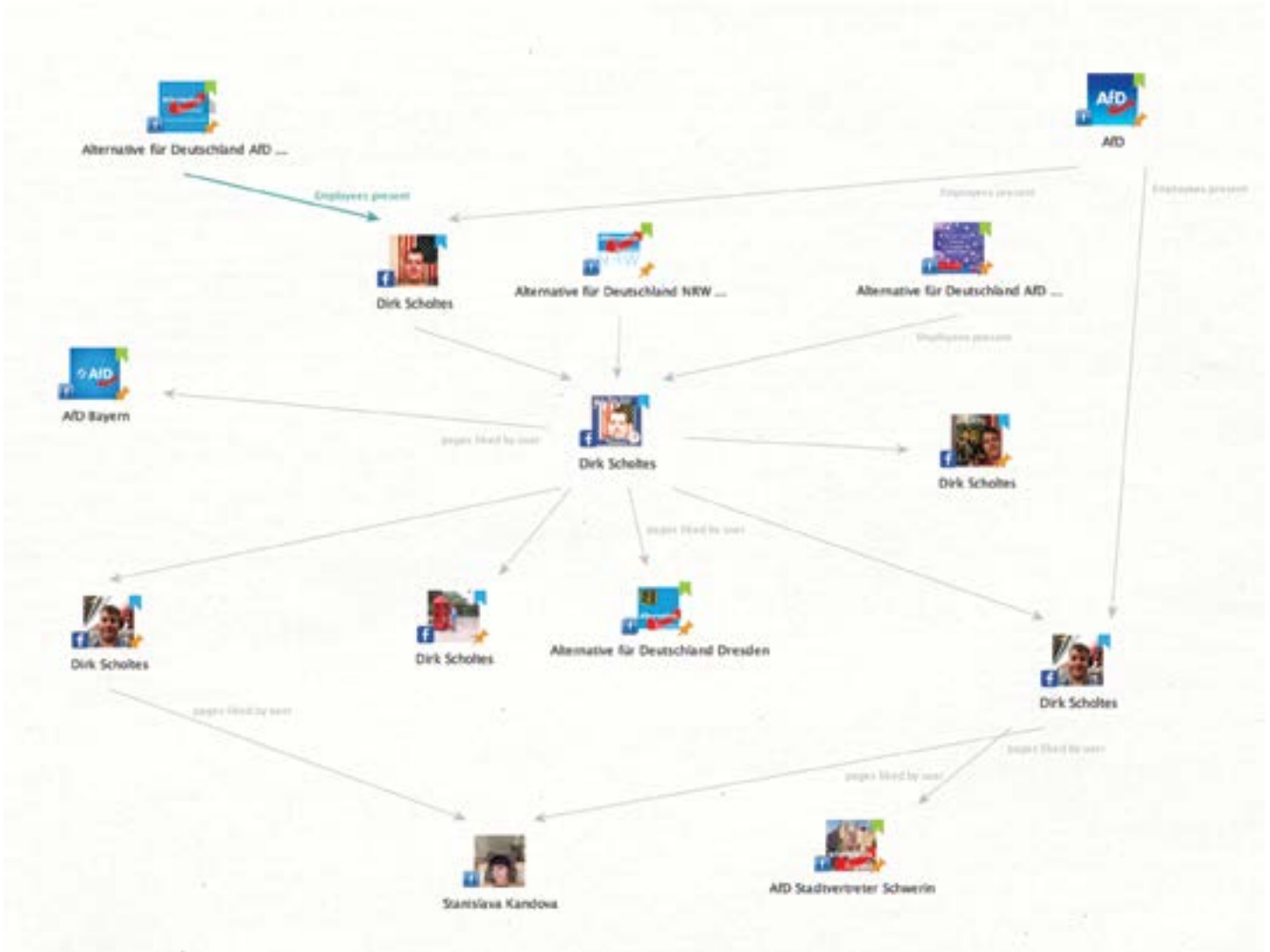


We identified 21 different Facebook profiles with the name "Dirk Scholtes."

Many of the photos contain the hallmarks of evasion – the photo borders, for example, are frequently used to stymie image matching technology.

Additional Dirk Scholtes profiles exist on other platforms. There are 22 Twitter accounts that are similar in appearance. Some are blocked in Germany as they contain explicit and illegal Nazi content and insignia.

The profiles claim to be employees at different branches of AfD.



## Conclusion

A large network of suspicious accounts was active in promoting AfD Facebook pages in the lead up to the 2019 European Parliament elections.

Our analysis of suspicious accounts should be considered conservative, as our focus was only on a small set of the strongest predictors that are easiest to gather at scale. The true number of fraudulent accounts is likely higher.

What the data do not reveal is the extent to which there may have been violations of either German or EU law. For instance, in addition to prohibitions against fraud, German law limits contributions from foreign nationals to €1,000, and requires a fair market valuation of any in-kind aid from foreign sources. Additionally, the ambiguous ownership of the accounts comprising the network should be investigated.

In the aftermath of the 2016 U.S. election, Facebook has reportedly devoted energy and resources in an attempt to reduce fraudulent behavior on its platform. Data from the 2019 European Parliamentary elections, however, raises questions about the effectiveness of Facebook's efforts to date.

## Notes

1. Based on the following social media statistics resource: <http://gs.statcounter.com/social-media-stats/all/germany>.
2. George Washington University Libraries. 2018. "Social media research ethical and privacy guidelines." Washington, D.C., February 15. [https://gwu-libraries.github.io/sfm-ui/resources/social\\_media\\_research\\_ethical\\_and\\_privacy\\_guidelines.pdf](https://gwu-libraries.github.io/sfm-ui/resources/social_media_research_ethical_and_privacy_guidelines.pdf).
3. Active is defined as having posted at least once in a calendar month and received at least ten shares in total across all posts.
4. The median for AfD was 32.
5. Details about the European Commission Code of Practice on Disinformation can be found at: <https://ec.europa.eu/digital-single-market/en/news/code-practice-disinformation>
6. Facebook's spam policies can be found at: <https://www.facebook.com/communitystandards/spam>
7. Found at the following online marketplace: <http://buy-fans-likes-followers.com/index.php/en/buy/itemlist/category/5>
8. Based on the following population statistics website: <https://ugeo.urbistat.com/AdminStat/en/de/demografia/popolazione/zweibrucken/7320/3>
9. Prices found here: <https://buyaccs.com/en/>
10. The policy can be found here: <https://www.facebook.com/help/112146705538576>

## References

- Achten, N. (2018, February 14). "Germany: Flawed Social Media Law." Human Rights Watch. <https://www.hrw.org/news/2018/02/14/germany-flawed-social-media-law#>
- AfD Kreisverband Unterfranken Nord. (2019, January 29). Accessed June 2, 2019. <https://www.facebook.com/afdunterfranken.nord/posts/973602822828258>.
- Aral, S. and Walker, D. (2012). "Identifying influential and susceptible members of social networks." *Science* 337, pp. 337-341
- Bond, R. M., Settle, J. E., Fariss, C. J., Jones, J.J., Fowler, J. H. (2016). "Social Endorsement Cues and Political Participation." *Political Communication*, pp. 261-281.
- Bond, R. M., Fariss, C. J., Jones, J. J., Kramer, A. D., Marlow, C., Settle, J. E., Fowler, J. H. (2012, September 13). "A 61-million-person experiment in social influence and political mobilization." *Nature, Letters*, Vol 489.
- BoostFansOnline.today. (n.d.). "Buy Facebook Likes | Buy Real Facebook Likes | Buy Facebook Likes Cheap." Accessed May 24, 2019. [http://www.boostfansonline.today/buy-facebook-fans/?gclid=EAIaIQobChMI3eab3L204gIVq6OzCh3o-g\\_IEAAYASAAEgKTePD\\_BwE](http://www.boostfansonline.today/buy-facebook-fans/?gclid=EAIaIQobChMI3eab3L204gIVq6OzCh3o-g_IEAAYASAAEgKTePD_BwE).
- Busvine, D. (2018, September 13). "German far right far ahead in use of social media." Reuters. <https://uk.reuters.com/article/uk-germany-election-socialmedia/german-far-right-far-ahead-in-use-of-social-media-idUKKCN1LT1KA>
- Buyaccs.com. (n.d.). "Buy Facebook.com Accounts @ Buyaccs.com." Accessed May 24, 2019. <https://buyaccs.com/en/buy-bulk-facebook-accounts.php>.
- Buyaccs.com. (n.d.). "Buyaccs.com: Bulk Accounts with Instant Delivery After Payment." Accessed May 24, 2019. <https://buyaccs.com/en/>.
- Centola, D. (2011). "An experimental study of homophily in the adoption of health behavior." *Science*, pp. 1269-1272
- Christakis, N. A. and Fowler, J. H. (2009). *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives* (Little, Brown, and Company).
- Connolly, K. (2019). "Germany's AfD Turns on Greta Thunberg as It Embraces Climate Denial." *The Guardian*, May 14, 2019. <http://www.theguardian.com/environment/2019/may/14/germanys-afd-attacks-greta-thunberg-as-it-embraces-climate-denial>.

- Cresci, S., Di Pietro, R., Petrocchi, M., Spognardi, A., Tesconi, M. (2017). "The Paradigm-Shift of Social Spambots: Evidence, Theories, and Tools for the Arms Race." Proceedings of the 26th International Conference on World Wide Web Companion, 963-72. WWW '17 Companion. Republic and Canton of Geneva, Switzerland: International World Wide Web Conferences Steering Committee.
- DoctorSeo.net. (n.d.). "Facebook Likes - Germany." Accessed May 24, 2019. <https://www.doctorseo.net/facebook-likes-deutsch>.
- Facebook. (n.d.). "Community Standards." Accessed May 25, 2019. <https://www.facebook.com/communitystandards/misrepresentation>.
- FBskip.com. (n.d.). "Buy Facebook Likes, Fans & Followers. Unlimited Lifetime Warranty 4\$." n.d. Accessed May 24, 2019. <https://fbskip.com/>.
- Davidson, T., & Lagodny, J. (2017, September 26). Germany's far-right party AfD won the Facebook battle. By a lot. The Washington Post. Retrieved from [https://www.washingtonpost.com/news/monkey-cage/wp/2017/09/26/germanys-far-right-party-afd-won-the-facebook-battle-by-a-lot/?utm\\_term=.67d400550851](https://www.washingtonpost.com/news/monkey-cage/wp/2017/09/26/germanys-far-right-party-afd-won-the-facebook-battle-by-a-lot/?utm_term=.67d400550851)
- Diehl, J., Lehberger, R., Müller, A., Seibt, P. (2019). "How the German Right Wing Dominates Social Media." Spiegel Online, April 29. <https://www.spiegel.de/international/germany/germany-afd-populists-dominate-on-facebook-a-1264933.html>.
- FollowerPackages.net. (n.d.). "Buy Real Facebook Likes | Instant Results -." FollowerPackages.com. Accessed June 2, 2019. <https://www.followerpackages.com/buy-facebook-likes/>.
- Ernst, N., Engesser, S., Büchel, F., Blassnig, S., Esser F. (2017). "Extreme Parties and Populism: An Analysis of Facebook and Twitter across Six Countries." Information, Communication and Society 20 (9): 1347-64.
- European Commission. (2018, September 26). "Code of Practice on Disinformation" Digital Single Market - European Commission. <https://ec.europa.eu/digital-single-market/en/news/code-practice-disinformation>.
- Famoid.com. (n.d.). "Buy Real Facebook Likes - Instant & Secure Facebook Post Likes!" Famoid. Accessed June 2, 2019. <https://famoid.com/buy-facebook-likes/>.
- Frier, S. (2019). "Facebook's Crisis Management Algorithm Runs on Outrage." Bloomberg.com. Bloomberg. March 14, 2019. <https://www.bloomberg.com/features/2019-facebook-neverending-crisis/>.
- Froio, C. and Ganesh, B. (2018). "The Transnationalisation of Far Right Discourse on Twitter: Issues and Actors That Cross Borders in Western European Democracies." European Societies, 1-27.
- Gerbaudo, P. (2014). "Populism 2.0: Social Media Activism, the Generic Internet User and Interactive Direct Democracy." In Social Media, Politics and the State, 79-99. Routledge.
- Heath, R. and Delcker, J., (n.d.). "Germany." Politico. Accessed May 24, 2019. <https://www.politico.eu/2019-european-elections/germany/>.
- Hegelich, S. (2018). Die digitale Revolution der Meinungsbildung Social Media im Wahlkampf. Hans Seidel Stiftung, Munich, Germany
- Holmes, A. (2018, April 17). "87% of Germans Approve of Social Media Regulation Law." Latana Brand Analytics. <https://daliaresearch.com/blog-germans-approve-of-social-media-regulation-law/>
- Huckfeldt, R. & Sprague, J. (1995). Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign (Cambridge Univ. Press)
- Kahya, D., and Unearthed staff. (2019). "German Far Right Targets Greta Thunberg in Anti-Climate Push." Unearthed. May 14, 2019. <https://unearthed.greenpeace.org/2019/05/14/germany-climate-denial-populist-eike-afd/>.
- KhosraviNik, M. (2017). "Right Wing Populism in the West: Social Media Discourse and Echo Chambers." Insight Turkey 19 (3): 53-68.
- Klein, O., and Muis, J. (2018). "Online Discontent: Comparing Western European Far-Right Groups on Facebook." European Societies, July, 1-23.
- Krasodonski-Jones, A. (2019, February). "Suspicious Minds: Conspiracy Theories in the Age of Populism." Martens Centre. Accessed June 5, 2019. <https://martenscentre.eu/publications/suspicious-minds-conspiracy-theories-age-populism>.

- Larsson, A. O. (2017). "Going Viral? Comparing Parties on Social Media during the 2014 Swedish Election." *Convergence* 23 (2): 117-31.
- Lewis, P. (2018). "'Fiction Is Outperforming Reality': How YouTube's Algorithm Distorts Truth." *The Guardian*, February 2, 2018. <http://www.theguardian.com/technology/2018/feb/02/how-youtubes-algorithm-distorts-truth>.
- Mündges, S. and Stoll, U. (2019). "US-Studie zu Fakes auf Facebook: Verdächtige Accounts unterstützen AfD [US study on fakes on Facebook: Suspicious accounts support AfD]." *ZDF*, 22 May. Accessed May 22, 2019. <https://www.zdf.de/nachrichten/heute/us-studie-davis-verdaechtige-accounts-unterstuetzen-afd-soziale-netzwerke-zdfcheck-100.html>.
- Nickerson, D. W. (2007). "Does email boost turnout?" *Quarterly Journal of Political Science* 2, 369-379; Kenny, C. B. (1992). Political participation and effects from the social environment. *American Journal of Political Science* J36, pp. 259-267 (1992)
- OurFollower.com. (n.d.). "Facebook Followers - Get FB Followers To Promote Your FB Page/profile." Our Follower. Accessed June 2, 2019. <https://www.ourfollower.com/facebook-followers/>.
- Pew Research Center. (2019). "Facts on News Media & Political Polarization in Germany." n.d. Pew Research Center's Global Attitudes Project. Accessed June 5, 2019. <https://www.pewresearch.org/global/fact-sheet/news-media-and-political-attitudes-in-germany/>.
- Rose-Stockwell, T. (2017). "This Is How Your Fear and Outrage Are Being Sold for Profit." *Quartz*. Quartz. July 28, 2017. <https://qz.com/1039910/how-facebooks-news-feed-algorithm-sells-our-fear-and-outrage-for-profit/>.
- Salinas, S. (2018). "Peak Social? The major social platforms are showing a significant slowdown in users." *CNBC*, 8 August.
- Schelter, S., Biessmann, F., Zobel, M., Teneva, N. (2016). Structural Patterns in the Rise of Germany's New Right on Facebook. In *ICDM Workshops*. IEEE Computer Society, Barcelona, Spain, 440-445.
- Serrano, J. C M., Shahrezaye, M., Papakyriakopoulos, O., Hegelich, S.. (forthcoming). "The Rise of Germany's AfD: A Social Media Analysis." In *Proceedings of International Conference on Social Media and Society*, (Toronto).
- Serrano, J. C. M., Hegelich, S., Shahrezaye, M., Papakyriakopoulos, O. (2018). *Social Media Report: The 2017 German Federal Elections*. TUM University Press, Munich, Germany
- Serrano, J.C.M., Shahrazaye, M., Papakyriakopoulos, O., Hegelich, S. (2018). "The Rise of the AfD: A Social Media Analysis." <http://blogs.oii.ox.ac.uk/policy/wp-content/uploads/sites/77/2018/08/IPP2018-Serrano.pdf>.
- Silver, V. (2017). "The German Far Right Finds Friends Through Facebook." *Bloomberg News*, September 29, 2017. <https://www.bloomberg.com/news/articles/2017-09-29/the-german-far-right-finds-friends-through-facebook>.
- Stier, S., Posch, L., Bleier, A., Strohmaier, M. (2017). "When Populists Become Popular: Comparing Facebook Use by the Right-Wing Movement Pegida and German Political Parties." *Information, Communication and Society* 20 (9): 1365-88.
- Winterbauer, S. (2018). "Die Fakten Und Die Toten: Wie Tichys Einblick Mit Einer Abstrusen Zahl über Ertrunkene Flüchtlinge Stimmung Macht › Meedia." August 9, 2018. <https://meedia.de/2018/08/09/die-fakten-und-die-toten-wie-tichys-einblick-mit-einer-abstrusen-zahl-ueber-ertrunkene-fluechtlinge-stimmung-macht/.ok-likes-deutsch>.
- Zhou, M. (2018, July 27). "Facebook: We've Removed Hundreds of Posts Under German Hate Speech Law." *CNet*. <https://www.cnet.com/news/facebook-weve-removed-hundreds-of-posts-under-german-hate-speech-law/>



## Domains Shared, By Party

Rank	Die Linke	FDP	AFD	CDU/CSU	Green	SPD
1	spiegel.de	oberberg-aktuell.de	welt.de	welt.de	mein-klagenfurt.at	spiegel.de
2	neues-deutschland.de	welt.de	focus.de	bild.de	orf.at	vorwaerts.de
3	taz.de	spiegel.de	bild.de	br.de	derstandard.at	zeit.de
4	tagesschau.de	faz.net	jungefreiheit.de	csu.de	spiegel.de	sueddeutsche.de
5	zeit.de	handelsblatt.com	spiegel.de	sueddeutsche.de	sueddeutsche.de	welt.de
6	sueddeutsche.de	liberale.de	journalistenwatch.com	onetz.de	gruene.at	tagesspiegel.de
7	tagesspiegel.de	bild.de	faz.net	merkur.de	meinbezirk.at	tagesschau.de
8	welt.de	rp-online.de	epochtimes.de	bayernkurier.de	zeit.de	gmx.net
9	akweb.de	morgenpost.de	philosophia-perennis.com	focus.de	taz.de	fr.de
10	handelsblatt.com	focus.de	tichyseinblick.de	faz.net	kurier.at	spd.de





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