Facebook activities of parties and leading candidates in the 2017 German federal elections

WORKING PAPER 1.1 – Analysis of metadata

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Campaign communication and interaction of the parties and leading candidates in the 2017 federal election campaign

Internet-based forms of communication, such as online forums, comment sections and in particular social networks, are now suspected to be of negative influence to the political debates in Germany as well as other democratic countries (e.g. discussions on hate speech, post-factual politics, etc.). In stark contrast to optimistic scenarios that anticipated an improvement of democratic deliberation, it has become increasingly evident that the quality of political participation online has fallen short of these expectations. Especially in the run-up to and during the recent federal elections in Germany, these threats to the democratic process have been discussed extensively in the German public. Against this background, the project “Election campaign in unsocial networks (WasNbtw17)” analyzes the Facebook profiles of the parties and their leading candidates in the 2017 federal election campaign, with a special interest in the discursive behavior in comment sections. For this purpose we collected all posts and comments on the public Facebook pages of parties that had a real chance of joining the Bundestag and their respective leading candidates (from 29 January to 24 September 2017). The data was collected using Facebook’s application programming interface (Graph API). The individual posts and comments were retrieved in a uniform format including content as well as metadata and stored in a database for analysis. It is important to emphasize that the data collected cannot be used to draw any inferences to single users since the dataset we work with is anonymized. Nevertheless, the user profiles in the record are distinct, so that several comments of a particular user can still be assigned to them. This working paper documents the current status of the metadata analysis carried out so far. The findings allow first statements about performances of studied parties and their leading candidates during the election campaign.

Differences in activity and advantage for the right-wing populists

The first step is to look at the distribution of Facebook activities with regard to the absolute number of activities on the parties’ profiles. We differentiate between posts alone (Fig. 1) and posts plus respective comments (Fig. 2). Even these simple frequency distributions show that the parties have used Facebook in different ways in their election campaigns and that there are considerable differences in the levels of activity they were able to generate. On the one hand, this can be explained by different emphases in the re-
spective online election campaigns, i.e. the choice between various online platforms and social networks as well as different patterns between the institutional profiles of the parties and those of the leading candidates. The Greens may serve as an example for this. The party has relatively little activity on its Facebook page. But other studies have shown that the party and its candidates focused their communication on Twitter and were significantly more active there.¹

**Figure 1:**

![Number of posts on parties' Facebook profiles (29 January 2017 - 24 September 2017)](image)

Particularly striking is the clear advantage of the right-wing populist party: Alternative für Deutschland (AfD). The AfD was able to accumulate more activity than the subsequent four parties combined. With regard to the parties’ own activities, it becomes clear that all parties have generated new content regularly and that the number of posts has increased on all profiles within the last four weeks of the election campaign (Fig. 3). The accumulated level of activity shows the lead of the AfD over all other parties. Its level of activity is higher compared to the other parties throughout the election campaign (Fig. 4). It is therefore not attributable to a singular peak in attention, but a constant trend. Although the CDU was able to reach the starting level of the AfD at the end of the election campaign, the AfD was able to increase the level of activity much more significantly during this final period.
It is also noteworthy that all parties, with the exception of the AfD, show a relatively homogeneous level of activity. The CSU is apparently the most successful of the "small" parties, the activities on the party profile even exceed those of the SPD. However, a look at the profiles of the leading candidates puts this advantage into perspective since the CSU leading candidate has accumulated hardly any activity on his personal page. The numbers are also more significant when only exclusive users are considered, i.e. those who are active exclusively on the profile of the CSU (s. below).
The AfD’s advantage in activity can be put into perspective when the numbers for the leading candidates are considered (Fig. 5). Alice Weidel, part of the AfD leadership duo, did not score particularly high regarding both posts and comments. The particularly high activity of the FDP’s leading candidate Christian Lindner is striking. Evidently it is not enough to only focus on the role of Facebook in the campaign strategy of a party, but it is also necessary to look at the internal relationship between party and personal profiles in order to obtain a more comprehensive picture. The FDP published the second most posts, but underperformed in total activity compared to all other parties (posts and comments). The impact of a highly personalized campaign becomes clear on the profile of the leading candidate that has by far the highest number of posts and significantly more comments than the leading candidates of the AfD, Greens and CSU. It is also noteworthy that the activity distribution of the CSU and its leading candidate shows an opposing trend. While the level of activity on the party profile is almost on par with the sister party, posts on the page of the leading candidate were hardly commented on. The different levels of activity for the leading candidates of the Greens further indicate the need for differentiation with regard to the significant difference between both leading candidates and the relatively low activity on the party profile.

The "yield" of attention, measured by the relationship between posts and respective user comments, is highest for the Federal Chancellor, which can of course be explained by an advantage of incumbency. Similarly, it can be assumed that the personalized run for office between the CDU chancellor and the SPD challenger helps both to attract more attention and user activity.
Where does the activity actually come from?

Who actually generates the activity in the comment sections of the Facebook pages of parties and leading candidates? Is it only a few people who spread spam and possibly "contaminate" the discursive climate with incivility? Is automated communication employed, maybe even in the form of much discussed social bots?² We have made various calculations to answer these questions. They do not provide any definitive answers, but they do allow tentative assumptions. First, we compare the Facebook pages of the parties with regard to the number of individual users active on each profile. Being active in this context means having written at least one comment. Figure 6 shows that there is an obvious disparity between the AfD and the other parties. What do we know about these users? Due to data collection and data protection legislation, we have no further background information on those users, such as socio-demographic variables, political orientation, previous voting behavior, etc. Therefore, all conclusions regarding the users can only be drawn on the basis of their activity, i.e. the meta and content data in our dataset.

Figure 6:
The picture becomes clearer when user activity is analyzed more thoroughly, i.e. by the number of comments a single user has made. As could be expected, we find an extreme power-law distribution for the entire period. This indicates that very few users contributed a lot of comments and most users commented only once (Fig. 7, the graph starts with a threshold of at least 14 comments). For the total data set the 100 most active users contributed 6 percent of the total number of comments. The most active two percent of the users have accounted for more than 41 percent of total activity.

**Figure 7:**
Looking at the unequal distribution and communication successes of the AfD, there is reason to discuss the importance of automated activity for online campaign communication. However, it is difficult to detect bot activity on a macro level. This holds especially true during election campaigns, since the widely discussed thresholds for "heavy automation" (more than 50 comments per day) are more prone to failing. Institutional and personal accounts of political parties and political leaders reach immensely high levels of activity during election campaigns. For example, no other user account reaches the activity of the profile of Christian Lindner (FDP). It is the only profile exceeding the 50-entries-per-day threshold for bot detection over the entire campaign period.

Another starting point is the identification of cross-party activity. By identifying the users that left comments on the Facebook pages of multiple parties and exclude (or separately examine) these users or their content, we can get closer to various analytical objectives. We take the exclusive activity of users on the Facebook page of only one party as an indicator of affiliation or sympathy of that person with the respective party. Since we do not have any other data that allow us to classify users according to their political orientation because of the nature of the data collection and the restrictions on data protection, this approximate assessment is of considerable importance. In addition, this analysis allows us to investigate separate content data of exclusive sets of communication. Table 1 shows how party profiles are related to one another in terms of cross-posting users. The table is to be read line by line: This means that 16.12 percent of the users who were active on the profile of the CDU also wrote at least one comment on the page of the CSU, etc. It is striking that all parties share a relatively large portion of cross-posters with the AfD (AfD column). Although the high proportions for the column can also be explained by the sheer number of AfD users, the especially high figures for the CDU and CSU point to an overlap that is still to be differentiated in terms of direction and content.

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**Social Bots**

Social bots are computer programs that automatically generate content and try to interact with real communication participants. Employing bots has become relatively simple with numerous open source programs available for easy use. Social bots are very active, especially on Twitter. Their role in political Facebook communication is not clear because it is a more challenging environment for computer programs which makes it unlikely that real users will pay lasting attention to bots activities.

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If we count the exclusive activity of a user as a sign of affiliation, we can modify the distribution shown above. Figure 8 shows not only the number of individual users, differentiated by party, but also the corresponding numbers and differences following the exclusion of cross-posters. In this distribution, the AfD stands out even more because it loses the least when cross-posters are removed. This finding indicates that the AfD performance is not based on "foreign" activity in the respective comment sections. At the other end of the spectrum, the CDU and CSU lose nearly (CSU) or more than (CDU) 50% of active users when the cross-posters are removed.\footnote{It is important to notice that this might also be a result of the programmatic closeness of the two sister parties.} The Greens also lose more than the SPD, FDP and Die Linke.
Conclusion

Overall, the findings show differences between the parties’ use of Facebook. At the current state of analysis, the performance of the AfD is noteworthy. This shows that the AfD has focused its campaigning activities on the social networks, in particular Facebook, where it was able to achieve a particularly high level of attention and mobilization. Previous studies have already shown how right-wing populist movements and parties are increasingly doing well in dealing with the new media. This observation is supported by our findings. Moreover, the data analysis clearly indicates the importance of differentiating between the profiles of the parties and top-level personnel, because internal differences in political communication can be revealed, some of which relativize the superficial findings of a mere party analysis. Finally, the metadata analysis also serves to further prepare the data for automated analysis of the content data, as will be presented in future working papers.