zettacap

Analyzing the 2017 German Election
Social Media Influence Index

September 2017

Summary

Social Media interactions are very similar to traditional polls and surveys in many ways, except that they offer much larger sample sizes in real time and with very limited data distortion. Using social media and alternative on-line datasets to forecast elections worked out well in the 2016 US and 2017 French elections where ZettaCap's Social Media Influence (SMI) forecasts beat polls, betting markets, and traditional analysts in predicting election outcomes.

For the German Election, SMI forecasts Merkel will win her fourth term as Chancellor, which is in-line with polls and betting markets. The standouts will be the two further right-leaning parties, the FDP and AfD. SMI also forecasts weaker performance by the two furthest left-leaning parties, the Greens and the Left, with the Greens on the verge of not reaching the 5% minimum.

Alternative on-line data sources such as the number of views for candidate videos, Facebook 'Likes' for highlighted videos, Google Search Trends for candidates, and Wikipedia Page Views for candidates help to round out the analysis of the German election. These datasets tell slightly different stories but tend to confirm the larger conclusions of SMI.

Disclaimer Warning

SMI is still an experimental forecasting method. That being said, it was the only known forecast of Trump winning with the correct number of electoral votes, 306. It was also the first known forecast to predict that Macron would win the French election – eventually producing the lowest known forecasting error for that election. Even with such a positive trackrecord, the number of case studies has been limited as has been the trackrecord for social media's ability to project trends of any kind. Additionally, there are other issues that warrant disclaimers relating specifically to the German election and its potential impact on SMI forecasts, which are highlighted at the end of this paper.

Establishment Politics to Prevail (but not how you think)

Unlike many major elections in the last two years, Germany should escape the wrath against 'Establishment' politics. In fact, polls, betting markets and our Social Media Influence (SMI) forecast a victory for Merkel. This will be her fourth term as Chancellor, making her one of the few pillars of democratic stability left after a series of surprising elections and impeachments across the globe. Both Merkel's CDU and its traditional main rival, SPD, are forecast to come in first and second. However, both are expected to slightly underperform polls figures making the 'Establishment's' victory somewhat bittersweet.

The real upsets in the German election are expected to come from the smaller parties. Last election saw only two minor parties, the Greens and the Left, make it passed the 5% minimum popular vote hurdle to make it into the Bundestag. According to SMI forecasts, these two left-leaning parties will underperform whereas the two minor right-leaning parties, the AfD and FDP, should well outperform polls and make it into the Bundestag. According to polls, the Greens should easily surpass the required minimum while SMI says it is too close to call.

The make-up of the Bundestag should go from one center-right party (CDU) and three left-leaning parties (SPD, Greens, and Left) to potentially three right-leaning parties and two left-leaning parties. The change in German politics will be significant.

The media and political analysts will likely declare this election a victory for the 'Establishment' as the focus would remain on Merkel. However, looking at the make-up of the Bundestag, Germany will be pulled much further to the right. Furthermore, SMI forecasts the two further extreme right parties performing very well, which will throw a wrench in plans to continue with politics-as-usual in Germany post-election.

Ruling Coalition

SMI had forecast a ruling coalition of the CDU and FDP as the expected vote totals of their combined figures put them over the 50% threshold. Updated forecasts put this in doubt. SMIs for both the CDU and FDP have marginally declined. Currently, SMI forecasts show that such a coalition might not reach the 50% minimum. It is so close in fact, that voter turnout will likely determine if this coalition is viable.

If this coalition is not workable, a repeat of the CDU/SPD 'Grand Coalition' is likely. Judging from Merkel's easy demeanor during the only televised debate against Schulz from the SPD, it almost seems like she is expecting this outcome. Additionally, her campaign appears to have gone into neutral with an apparent goal to make as few waves as possible. This has been observed in social media where the massive CDU is acting more like a minor party and in traditional campaigning where her tone is more of reconciliation with left-leaning parties than as a political rival.

The outcome of the ruling coalition will likely come down to the degree to which FDP outperforms current polls. SMI forecasts a very strong performance by the FDP, which could be enough for this ruling coalition to be formed. Polls however make such a scenario virtually impossible.

SMI Forecasts vs Polls
Using polls as a base scenario, we compare the latest SMI forecasts. The table below summarizes polls, SMI forecasts and the differentials between polls and SMI forecasts.

Table 1: German Election: Social Media Influence (SMI) Forecasts vs Average Polls

Party	Political Spectrum	Average of Recent Polls	SMI Forecasts	Differential
CDU/CSU	Center-right	36.2%	34.9%	-1.3 p.p.
SPD	Center-left	22.1%	21.1%	-1.0
AfD	Far-right	10.5%	12.1%	1.6
Left	Far-left	9.8%	8.3%	-1.5
FDP	Right	9.4%	14.1%	4.7
Green	Left	7.7%	5.2%	-2.5

Source: ZettaCap, INSA, Forsa, Forschungsgruppe Wahlen, Allensbach, Infratest dimap, Emnid, Trend Research, YouGov. Note: Average of polls taken from polls over previous week.

As previously stated, the large 'Establishment' parties are predicted to do quite well in absolute terms. The CDU and SPD, the two largest parties in Germany and those in the current ruling coalition, are forecast by both polls and SMI to gain in aggregate over 50% of the popular vote. This will allow them to form a ruling coalition if desired. However, both parties are forecast by SMI to underperform current polls. These SMI forecasts are fairly negative considering the forecast for SPD is at the very low end of poll data over the last month whereas the forecast for the CDU is actually lower than *any* poll figures over the last month.

The AfD's expected outperformance has come about very late in the campaign. This is due to the emergence of Alice Weidel as an important leader in the election. She had been a fairly unknown politician until recently, but has performed extremely well in terms of SMI and has brought her party up in the process. The big question here is if there will be enough time for improved SMI to work its way into votes as there is unusually a delay. Weidel is one of the major SMI standouts for the campaign season – not the election, but of the campaign which really only technically includes the six week window before election-day.

The two further left-leaning parties, the Greens and the Left, are expected to disappoint the most. Both parties were consistent SMI underperformers. This was somewhat surprising given the topics that dominated the last few years in Germany and globally which included global warming, the environment, and immigration – all of which are normally key topics for these parties. The inability to generate significant SMI in such an environment is a major red flag.

The real standout of this election is Christian Lindner and his FDP. We called attention to his increasing SMI early in 2017 and forecasted that Lindner's strong early traction on social media would result in improved performance for the FDP. Recall that the party did not surpass the 5% minimum last election and many believed the party would end up withering. Lindner did the seemingly impossible by resurrecting the FDP. This process was called very early by SMI ratings.

4

Currently, SMI forecasts place the final FDP vote at almost 5 percentage points above average polls. For a relatively small party, this type of outperformance is astounding. As highlighted in the Disclaimers near the end of this report, there are many reasons why SMI might over-estimate FDP's actual votes. One of the main issues is that Germany has an indirect voting system in that the country's lower house, the Bundestag, eventually elects the Chancellor as compared to other countries where the electorate votes directly for the primary leadership, such as for President in the US or France. This indirect system will likely diminish the impact of Lindner's strong SMI as it places higher importance on large well-established parties and career politicians. In short, a 5 percentage point differential is extremely large, so take it with a grain of salt. Expect outperformance but understand that Germany's unique system will likely dampen SMI accuracy to a certain degree.

Non-SMI Alternative Data
SMI ratings are used to forecast election results. Prior to election-day, they have been shown to work extremely well as leading indicators to polls. However, even with a strong trackrecord, SMI is still only one single variable. It is instrumental to take a look at other alternative data in order to confirm some trends and insights. Doing so in other elections has helped in interpreting trends and providing a better understanding of what trends have a chance of extending.

Next, we look at Video Views, Video 'Likes', Google Search Trends, and Wikipedia Pageviews. While providing different insights, there are a handful of commonalities that tend to standout.

Social Media Video Views
Video is quickly becoming a major force in social media. Especially in politics, videos are an easy way to depict ideas and keep the electorate up-to-date. Many of the more successful political campaigns have been focusing on video and making it a central part of its social media strategy. One of the primary locations to share video for campaigns is on Facebook. As Facebook offers views, 'Likes', shares and other metrics on these videos, we can analyze the reach and popularity of political videos.

Facebook video data, which are depicted in the following chart, for the main candidates of each party more or less confirm our conclusions from SMI. Highlighted her are the main observations from the Video Views:

1. <u>CDU / Merkel defensive position</u> – Merkel is simply not putting her neck out, she is ahead in the polls and the betting markets have her well over 90% probability of becoming the next Chancellor. She, unfortunately, seems to have become overconfident in that many metrics point to her and her campaign not taking risks and being more conservative in their campaigning style. Having only put out 3 videos in a week right before election-day on her primary social media platform confirms this.
2. <u>CDU voter apathy</u> – The videos that have been posted seem to do well on average in terms of number of views, but also not exceptionally well. This is unusual for a number of reasons. First, the size of the party is fairly large in relative terms, so mediocre view metrics is not very supportive. Second, Merkel is more active on Facebook so this should be a primary source of information for her followers. Again, the fact that her 3 posted videos are not more heavily trafficked is not a supportive sign. This appears to confirm our speculation of voter apathy amongst CDU voters. In Merkel's defense, it might be difficult to generate much enthusiasm for a fourth term, but still it is not a supportive sign.
3. <u>SPD / Schulz is trying hard but making little impact</u> – there seems to be a general opinion that Schulz is just not being aggressive enough, but this is hardly supported by his video metrics. Videos have been a cornerstone for his Facebook strategy, and in general they seem fairly well put together. However, like

the case of the CDU, the SPD should naturally have higher viewership as its party has more members than the smaller parties. And, its view numbers are not overly impressive.

4. <u>AfD / Weidel is impressive</u> – for a party of its size, its view numbers are actually quite attractive. This becomes even more impressive when you consider that its apparent leading candidate (she technically is a co-lead but she has taken the forefront) was relatively unknown at the beginning of 2017. This observation again backs up SMI analysis in that it confirms that although the size of AfD's following is not exceptionally large, there is an intensity and enthusiasm within the AfD electorate that is lacking in multiple of the other parties.

5. <u>Left and Greens disappoint</u> – the parties further to the left on the political spectrum are not getting much traction on social media and this shows when looking at view metrics. It almost seems as if left-leaning parties do not have much of a message this election. This observation might be closer than you think. Recall that the center-right CDU has 'borrowed' many left-leaning stances including energy usage, global warming, immigration policy, and (at least partial) EU integration. Also recall that during the main televised debate Merkel moved further left as she agreed with many points brought up by Schulz. Merkel has done an exceptional job at stealing left-leaning parties' thunder and it seems to be reflected in their social media metrics.

6. <u>FDP is the star of the election</u> – FDP and Christian Lindner are clearly the outperformers in terms of video viewership. They have the two single highest view metrics and their average is extremely high. Recall as well that FDP did not even hit the 5% minimum popular vote last election, so these metrics are exceptional. Also note that according to polls, the FDP is the pulling up the rear together with the Greens. This large divergence between polls and video viewership highlights just how much enthusiasm FDP is generating in social media.

Exhibit 1: German Election: Number of Views of Videos published on Candidate Facebook pages, from 9/12/17 to 9/19/17
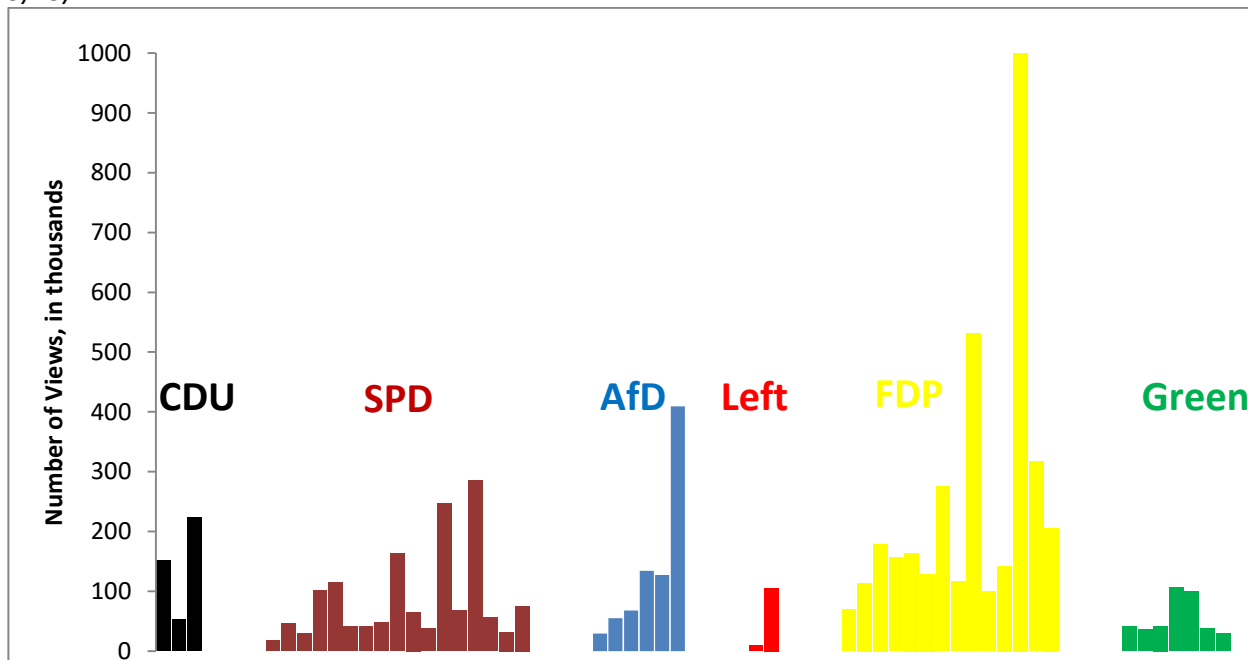
Source: Facebook

Note: The videos are shown in reverse chronological order with the newest video published by the candidate on the candidate's furthest left side and the publication dates getting older as you go to the right of each party's/candidate's area. Each bar is one video, so that the CDU's candidate, Merkel, only published 3 videos during this week period. Also, the layout of the order of appearance of the political parties was chosen to reflect the parties' poll

standings such that CDU currently has the highest polls whereas Greens have the lowest – in other words the parties move in descending order of poll strength from the left side of the chart to right.

Facebook Video 'Likes'

Another way of looking at videos is to simply look at the number of 'Likes' or comments or some other metric. To try to even out the analysis a little, as parties tend to post such a divergent number of videos, we took the three highlighted videos on the candidate's page and then averaged the number of 'Likes'. This analysis, like most, has drawbacks, but in general it is a simple way to judge voter approval. More 'Likes' should equate to greater approval.

Exhibit 2: German Election: Comparing Average Polls for Parties and Average Facebook 'Likes' for Highlighted Videos on Candidate's Facebook Page
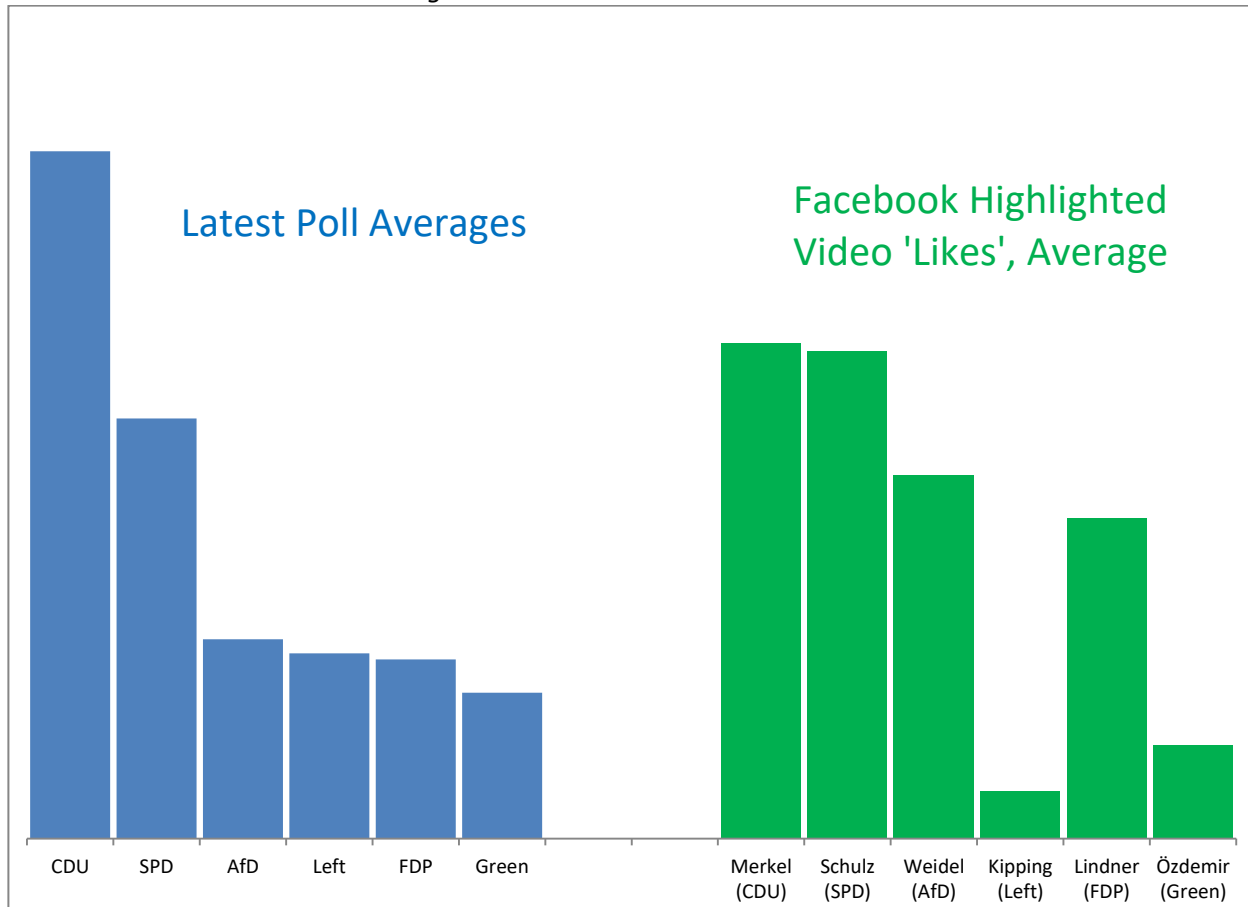
Source: Facebook, INSA, Forsa, Forschungsgruppe Wahlen, Allensbach, Infratest dimap, Emnid, Trend Research, YouGov.

The observations from Facebook 'Likes' are somewhat similar to those derived from other sources and help to confirm larger trends.

Weakness of the CDU is evident, but much of this could be attributed to Merkel's apparent strategy of not making waves. She is just barely in the lead on this metric which is worrisome considering her large poll lead.

...

The AfD and FDP tend to significantly outperform on 'Likes'. Such outperformance is generally reflected by other on-line data which helps to confirm this observation and supports SMI forecasts. Likewise, the poor 'Likes' performance of the two further left-leaning parties, the Greens and the Left, also helps to confirm lower SMIs.

Google Search Trends for Candidates
An intuitive way of measuring general interest in a candidate is to look at Google Search Trends for that individual. This is not always the best measure as higher ratings could simply uncover ignorance concerning that candidate or it could occur due to a negative event, such as a scandal, involving that candidate. In general, however, higher search volume can be interpreted as more interest.

Exhibit 3: German Election: Comparing Average Google Search Trends of Main Candidates to Average Poll for Parties
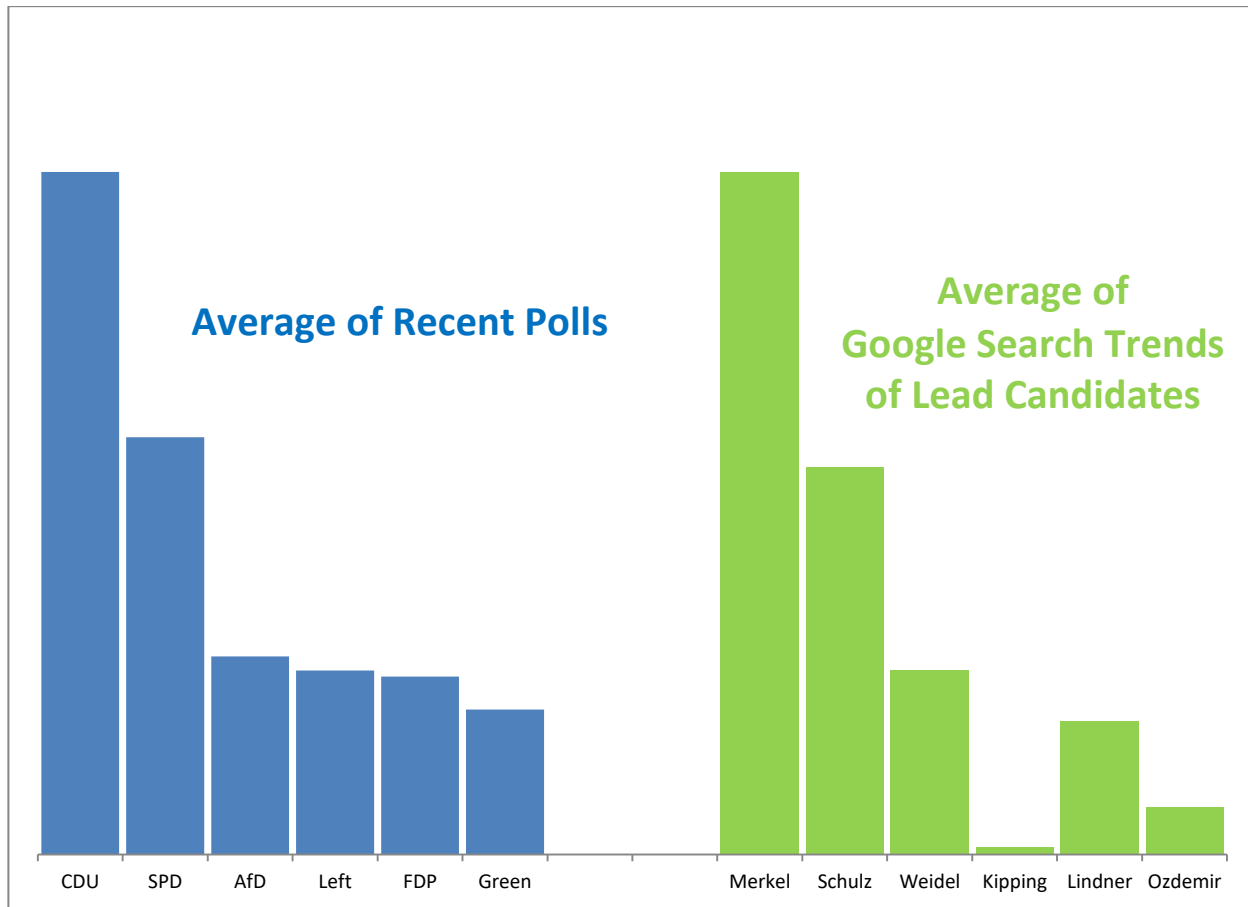
Source: Google, INSA, Forsa, Forschungsgruppe Wahlen, Allensbach, Infratest dimap, Emnid, Trend Research, YouGov.   Note: Google Search Trends were taken from Germany and Google Search Trends average is taken from 8/13/17 to 9/20/17.

Google Search Trends actually come fairly close to replicating average poll figures. The two standouts are the Left and Greens. The main candidates from these two parties post weak Google Search Trend data, implying that there is very little interest in them especially when compared to their parties' higher poll figures.

There are plenty of counterarguments. One is that these two parties are more ideological and less candidate-focused. Another is that these parties have stayed away from extreme positions which warrant fewer searches.

But, in reality, the weakness of these parties and candidates in Google Search simply reflect similar weakness picked up in other sources, including SMI.

Wikipedia Page Views

Conceptually, Wikipedia Page Views are similar to Google Search Trends. Both tend to measure general interest. If a potential voter is interested in learning more about a candidate, they will often end up on the candidate's Wikipedia page. Averaging the number of page views per candidate during the official campaign season is a good way to determine interest.

Exhibit 4: German Election: Comparing Average Number of Wikipedia Page Views of Candidate's Page to Average Poll Figures for Parties
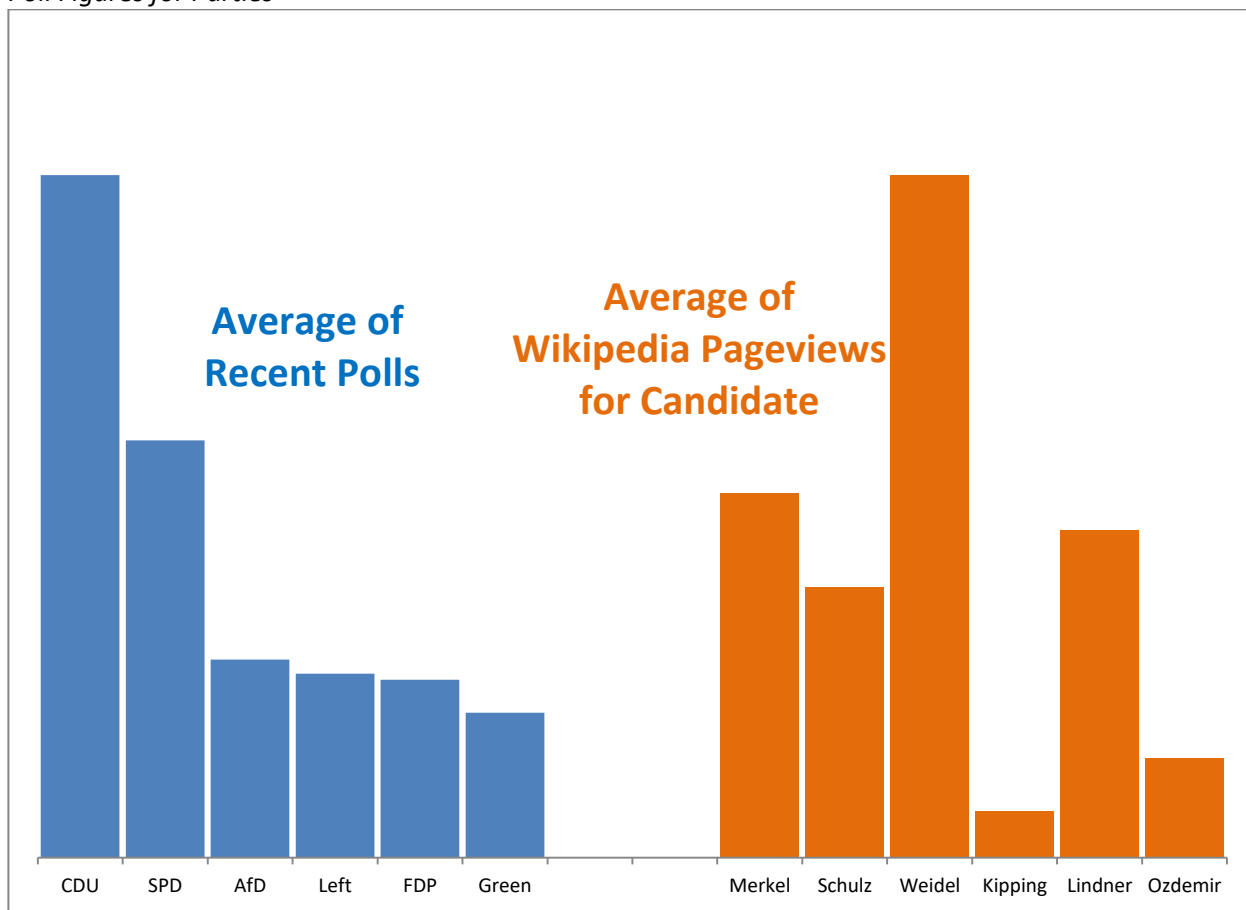
Source: Wikipedia, INSA, Forsa, Forschungsgruppe Wahlen, Allensbach, Infratest dimap, Emnid, Trend Research, YouGov. Note: Average of Page Views taken from 8/13/17 to 9/20/17. Page Views taken from the German ('de') version of Wikipedia.

Weidel of the AfD is the biggest standout for Wikipedia Page Views. This is not overly surprising as she was a comparatively late entrant into the race and of the candidates listed was presumably the least known. Then during the 6-week campaign window before election-day she has had considerable exposure to the public. It makes sense that Page Views on her personal Wikipedia page would be relatively high given these factors. However, such a high rating is impressive and helps to confirm other alternative data pointing to high levels of interest in her and the AfD.

Similarly, Lindner posts very strong Wikipedia Page Views, especially when compared to poll figures. Such data also help to confirm strong FDP data from other sources, including SMI data.

Conversely, the weakness of Kipping and Ozdemir, from the Left and Greens respectively, is rather obvious. Again, such weakness helps to confirm the relatively poor data that these candidates and parties have received from other data sources.

Summary
The German Election breaks with the current global trend towards anti-establishment politics as Merkel is poised to become a four-term Chancellor. Anti-establishment politics exist but manifest instead in the surge of right-leaning parties. Neither the AfD nor the FDP made it into the Bundestag during the last election but are expected to this election. What's more, both of these parties are expected to outperform already attractive polls. The following table shows that SMI and other on-line data point to the parties already in the Bundestag to generally underperform polls while the AfD and FDP are expected to outperform.

Table 2: German Election: Summarizing General Election Forecasts by On-line Data Sources

General Forecast	SMI	Video Views	Video 'Likes'	Google Search	Wikipedia Page Views	Currently in Bundestag
CDU to underperform polls	x	x	x		x	y
SPD to underperform polls	x			x		y
Left to underperform polls	x	x	x	x	x	y
Greens to underperform polls	x	x	x	x	x	y
AfD to outperform polls	x	x	x		x	n
FDP to outperform polls	x	x	x		x	n

The fact that multiple alternative datasets concur on most of these themes provides reinforcement. Germany should move to the right of the political spectrum with the two smaller right-leaning parties positively surprising while the two smaller left-leaning parties disappointing.

Now while we are confident in the analysis and the utility of analyzing social media and on-line data for forecasting purposes, there are a number of ways such forecasts could be inaccurate. The fact that these datasets are not fully tested is a primary reason. Additionally, there are German-specific reasons which are highlighted next.

Disclaimer: Merkel is a 3-term Incumbent
No type of analysis is perfect and social media is no exception. For forecasting, it tends to do very well in situations where enthusiasm, interest, and social interactions are important in determining an outcome. This describes politics and elections under normal circumstances.

However, its accuracy arguably could decline with incumbents. As incumbents are better known and established figures, they could tend to arouse less enthusiasm for instance than a new unknown candidate. This is obviously not always the case but you could assume this would decrease the accuracy of forecasts.

Merkel's case is exceptional as she has served 3 full terms as Chancellor. Everyone knows her. Additionally, she appears to have been extra careful during this last campaign to cause as few waves as possible. Playing the part of a 'boring yet steady-handed and competent' leader in a time when the country is doing so exceptionally well economically is not a bad strategy. But, such a strategy does not produce much enthusiasm on social media or in other on-line sources.   There is a distinct risk that our social media models might be off due to Merkel's exceptional case.

Disclaimer: Germany's Electoral System
The German system does not use a direct vote for Chancellor but an indirect one. This varies considerably when compared to the US and French systems that allow for direct voting for the President.

In Germany's case, each voter gets two votes – one for a local representative for the Bundestag and the second for the voter's party of choice. These two votes will then be used to determine the make-up of the Bundestag which will *then* elect the Chancellor.

SMI forecasts did exceptionally well during the US and French elections. However, if their systems included indirect voting, it is highly doubtful the forecasts would have been so accurate. For instance, it would be difficult to imagine that a Republican Congress would elect Trump as President if the US had a similar indirect system, even if Trump excelled in SMI terms and direct voting polls. Simply put, the German system places heavier weights on establishment politics and party structures, which could likely diminish SMI forecast accuracy.

Disclaimer: Greater Number of Forecasts

There are six viable parties in Germany. Additionally, some parties use co-leads for the election meaning that there are two primary national-level candidates representing the party. The higher number of parties and the even higher number of primary candidates increases the complexity. Then, there is the issue of party structure being more important in the German system as voters actually vote for a party selection as well as a local representative, so greater focus is necessary for parties and not just candidates. The greater number of forecasts increases the complexity as compared to other elections which would in theory decrease accuracy.