

# Do Likes Predict Votes?

## Facebook Engagement and Election Results in Europe, 2010 to 2020

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### Abstract

Can the engagement parties receive on social media tell us how they will do at the polls? Studies of Twitter have reached mixed and often optimistic conclusions, but parties' own Facebook pages, where supporters respond to what parties post, have rarely been tested across many elections. I compare the share of Facebook interactions each party's page received in the four weeks before national elections with its share of the vote, for 207 party-elections in 34 elections in 15 European countries between 2010 and 2020, using posts collected through CrowdTangle. Among the 181 party-elections with a previous result, engagement shares were related to vote shares (correlation 0.60), but much less closely than the previous election result was (0.94). Once the previous result is known, the campaign engagement share added little, and what it added was not distinguishable from audience size before the campaign. Changes in engagement share during the campaign showed no clear relation to changes in vote share. Among parties whose vote share changed by at least a point, the direction of the change in engagement share matched the direction of the change in vote share in 52% of cases (62 of 120). In forecasts made one election at a time, adding engagement did not reduce the average error of just under four points from the previous result alone, and engagement alone more than doubled it. The party with the most engagement won the most votes in only 12 of 34 elections. On Facebook, likes appeared to measure the size of parties' audiences more than the movement of the electorate.

**Keywords:** election forecasting; social media; Facebook; engagement; vote share; political parties; Europe; CrowdTangle

## 1 Introduction

Social media data are cheap, plentiful and available in real time, and since the late 2000s researchers have asked whether they can predict elections. Early studies suggested that the volume of mentions of parties on Twitter tracked their vote shares closely (Tumasjan et al. 2010) or that more tweets went with more votes (DiGrazia et al. 2013). Critics soon showed that such results depended on arbitrary choices of parties, periods and measures, and that the same methods would have predicted a victory for

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the German Pirate Party (Jungherr et al. 2012; Gayo-Avello 2013). Studies of Facebook support have found weak or inconsistent links with results (Cameron et al. 2016).

Most of this work used mentions or followers. Parties' own Facebook pages offer a different signal: the likes, comments, shares and reactions that supporters give to what a party posts. This engagement is often reported as a sign of a campaign's momentum. My earlier work on Britain found that a party's Facebook engagement moved with its polling from month to month but added nothing to the polls as a signal (Hotham 2026). This paper asks whether engagement says anything about results across Europe.

It asks three questions using 207 party-elections in 34 national elections in 15 European countries between 2010 and 2020. **RQ1.** How closely does a party's share of Facebook engagement during the campaign match its share of the vote? **RQ2.** Does engagement add information beyond the previous election result? **RQ3.** Do changes in engagement during the campaign signal changes in support?

The answers are clear. Engagement and votes were related, but much less closely than successive election results, and engagement added almost nothing to the previous result. Changes in engagement during the campaign showed no clear relation to changes in the vote.

## 2 Data

**Elections and parties.** The posts come from CrowdTangle lists of official party pages that I built for my doctoral research and exported in October 2020 (CrowdTangle Team 2020; Hotham 2021). Election dates and results come from ParlGov (Döring et al. 2024). The pages were chosen for my doctoral research, not sampled at random. I use national parliamentary elections held between May 2010 and February 2020. A party-election is included if the party's page had posts at least twelve weeks before and at least twelve weeks after election day. An election is included if at least three parties meet this rule. This removes 13 elections, including both Irish elections, in which only Sinn Féin's page met the rule. I also exclude the French legislative elections, whose pre-campaign weeks fall in the presidential campaign, and the Greek election of June 2012, whose window overlaps the election of May 2012. This leaves 207 party-elections in 34 elections and 15 countries. For 181 party-elections in 33 elections, the party's result at the previous national election is available. The 2010 British election has no previous results in the data. In the 2016 Romanian election only one party has a previous result, so that election drops out of the models and forecasts, which use 180 party-elections in 32 elections.

**Measures.** For each party-election I sum the interactions (likes, comments, shares and emoji reactions) the party's page received in the four weeks before election day (the campaign) and in the eight weeks before that (the pre-campaign period). Election day and the days after it are excluded. Engagement shares are computed among all the parties in the data in each election, and current vote shares are renormalised among the same parties, so that both sum to one in each election. Engagement shares therefore describe competition only among the parties in the data. When current and previous vote shares are compared, both are renormalised among the parties with a previous result, so that they refer to the same set of parties. In 13 of the 33 elections with previous results, this set is smaller than the full set. This choice does not affect the log models, because the election fixed effects absorb it. Before taking logs I add 0.0001 to each engagement share, because one party had no engagement in either period in two elections.

### 3 Method

I compare levels and changes. For levels, I regress the log of a party's vote share on the log of its previous vote share and its log engagement shares, with election fixed effects. For changes, I regress the change in log vote share since the previous election on the change in log engagement share between the pre-campaign and campaign periods. I report the within  $R^2$ , which excludes the variation explained by the election fixed effects. Standard errors are clustered by election. With 32 clusters this is adequate but at the low end. To assess predictive value directly, I forecast each election's vote shares from models estimated on all other elections, renormalise the forecasts to sum to one, and compare the mean absolute error and the share of elections in which the largest party is correctly identified.

## 4 Results

### 4.1 Related, but loosely

Figure 1, left, shows campaign engagement shares against vote shares for the 181 party-elections with a previous result. The two were related, with a correlation of 0.60 (0.58 across all 207), but parties' engagement shares often differed widely from their vote: the German Pirate Party in 2013 took about a third of the engagement among the parties in the data with about 4% of their vote, and Portugal's PAN in 2019 a quarter with about 4%, while some large parties took far less than their vote. The previous election result was a much better guide, with a correlation of 0.94 with the current result in the same party-elections. These pooled correlations mix differences within elections with differences between them. Within elections, the median correlation between engagement and vote shares was 0.54 across the 34 elections. The party with the most campaign engagement won the most votes in only 12 of 34 elections.

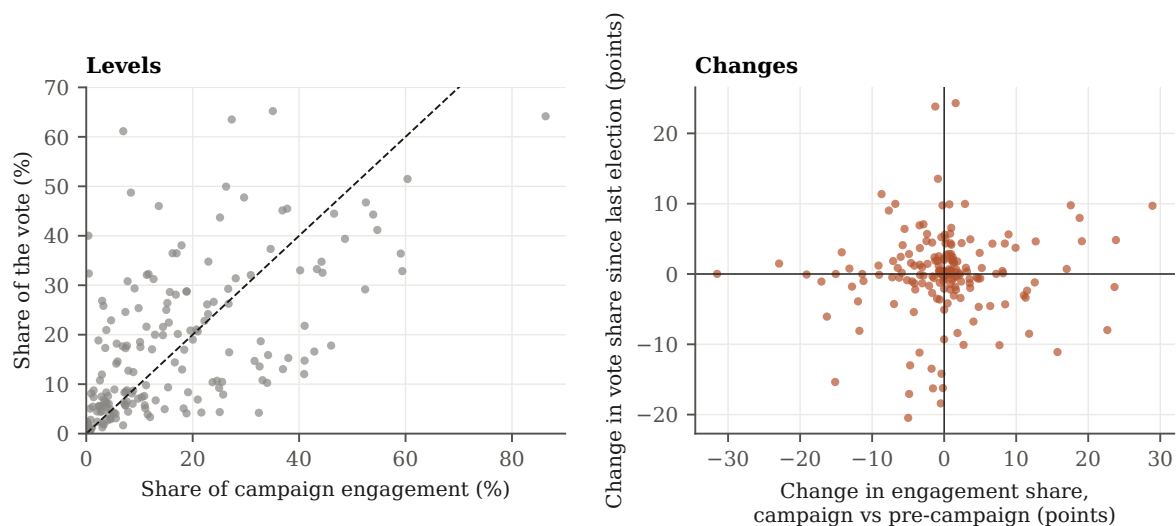


**Figure 1.** Left: share of the vote against share of Facebook interactions in the four weeks before the election. Right: change in vote share since the previous election against change in engagement share between the pre-campaign weeks and the campaign. Engagement shares are among the parties in the data in each election. In the right panel, current and previous vote shares are among the parties with a previous result. 181 party-elections.

## 4.2 Little beyond the previous result

Table 1 gives the models. The previous vote share alone explained most of the variation in the current one within elections (elasticity 0.87, within  $R^2$  0.85). Adding the campaign engagement share raised the explained variation slightly (coefficient 0.12, SE 0.04; within  $R^2$  0.87). But when the pre-campaign engagement share was added too, the campaign coefficient fell to 0.00 (SE 0.06), and neither share was clearly distinguishable from zero (pre-campaign 0.14, SE 0.07; the two are highly collinear, with a correlation of 0.93 between their logs). What little engagement told us about the result could not be separated from the size of a party's audience before the campaign. In four party-elections in the models, the previous result is for an earlier or later alliance list. Excluding them gives similar estimates (campaign share 0.11, SE 0.04, in model 2).

**Table 1.** Vote shares, previous vote shares and Facebook engagement shares.

|                                   | (1)<br>Log vote<br>share | (2)<br>Log vote<br>share | (3)<br>Log vote<br>share | (4)<br>Change in log<br>vote share |
|-----------------------------------|--------------------------|--------------------------|--------------------------|------------------------------------|
| Log previous vote share           | 0.87 (0.03)              | 0.78 (0.05)              | 0.76 (0.05)              |                                    |
| Log campaign engagement share     |                          | 0.12 (0.04)              | 0.00 (0.06)              |                                    |
| Log pre-campaign engagement share |                          |                          | 0.14 (0.07)              |                                    |
| Change in log engagement share    |                          |                          |                          | −0.03 (0.05)                       |
| Within $R^2$                      | 0.85                     | 0.87                     | 0.88                     | 0.002                              |
| $N$                               | 180                      | 180                      | 180                      | 180                                |

*Note:* Election fixed effects; standard errors clustered by election. Shares are among the parties in the data in each election. The change in log vote share is since the previous national election; the change in log engagement share is between the eight pre-campaign weeks and the four campaign weeks. Within  $R^2$  excludes the variation explained by the election fixed effects. 180 party-elections in 32 elections; the 2016 Romanian election, with one party with a previous result, is dropped as a singleton.

## 4.3 No clear link with campaign changes

Changes in engagement during the campaign showed no clear relation to changes in support (Figure 1, right). The elasticity of the change in vote share with respect to the change in engagement share was  $-0.03$  (SE 0.05; 95% confidence interval  $-0.14$  to  $0.08$ ). This rules out more than a small positive relationship, but not a small one. On the percentage-point scale, a party whose engagement share rose by ten points gained on average about 0.6 points of vote share (slope 0.06, SE 0.06), not distinguishable from zero. Among the 120 party-elections in which the vote share changed by at least a point, the direction of the change in engagement share matched the direction of the change in vote share in 52% of cases (62 of 120), close to what chance would give. The overall growth of a party's engagement during the campaign also showed no clear relation to the change in its vote share in ParlGov, not renormalised ( $-0.03$  points per log point, SE 0.70; 176 party-elections). Excluding the alliance comparisons leaves the elasticity unchanged ( $-0.04$ , SE 0.05).

## 4.4 No help in forecasting

Figure 2 shows forecasts made one election at a time from models estimated on the other elections. Simply carrying forward the previous result gave an average error of 3.8 points per party, and a model

based on the previous result 3.7. Adding campaign engagement slightly increased the error (3.75 against 3.71). Engagement alone gave an error of 8.7 points and identified the largest party in only 38% of elections, against about 70% for models using the previous result.

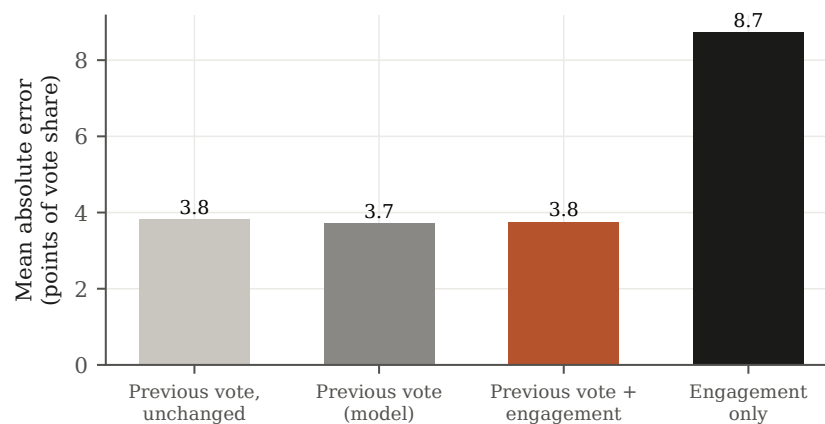


**Figure 2.** Mean absolute error of vote share forecasts, in percentage points per party, with each election forecast from models estimated on all other elections. Vote shares are among the parties with a previous result. 180 party-elections in 32 elections.

## 5 Discussion

Facebook engagement with party pages is often read as a sign of momentum. These results suggest it is a poor one. Engagement shares were related to vote shares, probably because larger parties tend to have larger audiences, but the relationship was loose, and the parties that dominated engagement were often not the parties that won. Above all, changes in engagement during campaigns, the signal that commentary most often reads as momentum, showed no clear relation to changes in the vote.

This is consistent with my earlier findings that engagement favours some kinds of party over others regardless of their vote, and that the engagement parties receive reflects their audiences' enthusiasm more than the size of their support (Hotham 2026). It also echoes the critiques of Twitter-based prediction (Jungherr et al. 2012; Gayo-Avello 2013): the people who engage with party pages are not a sample of voters, and their activity is shaped by what parties post and by the platform's ranking.

The design has clear limits. Polls, the obvious benchmark, are not included, so the test is against the previous result, a weaker baseline; engagement could still add something to polls in the final days, though the British evidence suggests not (Hotham 2026). The pages were selected for my doctoral research, not at random, and the elections are those in which several parties' pages were in my data. Engagement shares are computed only among those parties, so a party's share depends on which other parties are included. CrowdTangle's coverage and Facebook's ranking of posts changed over the decade, which may affect comparisons across years. With 32 elections, the clustered standard errors rest on a modest number of clusters. Engagement is measured on parties' own pages only, not on their leaders' pages or elsewhere.

## 6 Conclusion

Across 34 European elections, the Facebook engagement parties received during campaigns was a weak and unreliable guide to their results. It added little or nothing to the previous election result, and changes in engagement during the campaign showed no clear relation to changes in the vote.

### Data and code

The posts were exported from CrowdTangle in October 2020. CrowdTangle’s terms do not permit sharing the raw posts. Election results come from ParlGov. The analysis code, the list of pages and elections, and party-election aggregate data are available from the author.

### Provenance and AI use

The data were exported from CrowdTangle in October 2020 for my doctoral research. This paper builds on my doctoral thesis ([Hotham 2021](#)). The analysis and writing were completed in 2026.

I designed the study and am responsible for the analysis and conclusions. I wrote the text, with drafting and editing assistance from Claude (Anthropic), which also helped prepare the analysis code. I reviewed and checked all text and results.

### Ethics

Not applicable: the study involves no human participants. The data are public posts by the official Facebook pages of political parties, analysed only as counts of interactions aggregated by page and period, and published election results. No post content is quoted or reproduced, and no data on individual users are used.

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