

Does Posting More Pay?

Posting Volume and Engagement on the Facebook Pages of European Parties and Leaders, 2010 to 2020

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Abstract

Parties decide how often to post on social media, and a common worry is that posting more spreads their audience’s attention more thinly. I use 856,699 posts from 112 party pages and 74 party leaders’ pages in 20 European countries, posted between January 2010 and September 2020 and exported from CrowdTangle, to ask how the engagement a page receives changes when it posts more. I compare each page with itself, holding constant what was happening in its country that month or day. Across months, engagement rose nearly in proportion to the number of posts: a month with twice as many posts brought roughly 1.9 to 2 times the interactions. Engagement per post did not fall in the basic comparison, and fell by about 5% for each doubling once each page’s long-run trend is allowed for. Within the month the picture is sharper. On days when a page posted more than it usually did that month, each post drew about 13% less for each doubling, while in data where engagement was shuffled within the month the figure is zero. Posts made within an hour of the page’s previous post drew about 12% less. The monthly pattern held across the decade, for large and small pages, campaign and other months and populist and other parties, and was stronger for leaders’ pages than for party pages. Because pages may post more when they expect more interest, the estimates describe how engagement moves with volume rather than the effect of a decision to post more. They show little dilution from posting more in a month, and a clearer cost when posts are bunched within a day.

Keywords: Facebook; political parties; party leaders; posting frequency; social media engagement; attention; Europe; CrowdTangle

1 Introduction

How often should a party post? Party staff face this question every day, and it involves a trade-off. More posts give followers more chances to respond and give the platform more material to show them. But attention is limited ([Simon 1971](#)), and if each follower will engage with only so much from one source, extra posts may simply split the same engagement across more items ([Weng et al. 2012](#)). Platforms add another layer: a ranking system that shows each user only some of a page’s posts may treat a burst of posts differently from a steady stream ([Bucher 2012](#)).

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Research on parties' use of Facebook has looked mostly at what they post and when: the formats and styles that draw engagement and the rhythm of the permanent campaign (Larsson 2016; Bene et al. 2022). The volume of posting appears mainly as a description of how active parties are, and much less as a factor in how much engagement they receive. Yet it is the decision parties control most directly, and the answer matters for how one reads engagement figures. If engagement per post falls as posting rises, parties that post a lot will look less effective per post than they are in total; if it does not, total engagement largely tracks effort.

This paper asks three questions using 856,699 posts from 186 pages of parties and party leaders in 20 European countries between 2010 and 2020. **RQ1.** When a page posts more in a month, does its total engagement rise in proportion, or does engagement per post fall? **RQ2.** Within a day, does posting more, or posting soon after a previous post, cost the individual post? **RQ3.** Does the relationship differ between parties and leaders, large and small pages, campaigns and routine periods, and over the decade?

The answers are as follows. Across months, engagement scaled nearly one for one with the number of posts, with at most a small fall per post. Within days, there was a clearer cost: posts drew less on a page's busier days than on its quieter days in the same month, and less when they followed the previous post within an hour.

2 Background

Attention and volume. The idea that attention is the scarce resource in an information-rich world goes back at least to Simon (1971). Models of online diffusion show that when many items compete for limited attention, the success of each depends partly on how many others it competes with (Weng et al. 2012). For a party page, the competition is partly with the page's own posts. If a fixed group of followers engages with a roughly fixed amount of a page's content, extra posts should bring diminishing returns: total engagement would rise less than in proportion to the number of posts, and engagement per post would fall.

Platforms. Facebook does not show every follower every post a page makes. Its ranking decides which posts each user sees, so a page cannot count on reaching all its followers (Bucher 2012). Those who produce content for platforms learn such rules largely through experience (Cotter 2019). There are reasons the ranking could treat volume either way: more posts give it more chances to find one that a given user will engage with, while posts made close together may compete for the same slots in users' feeds.

Parties. Research on the permanent campaign shows that parties post throughout the electoral cycle and more during campaigns (Larsson 2016), and studies of candidates have found only modest links between how actively they use social media and how much they are discussed online (Hong and Nadler 2012). Studies of engagement usually treat the number of posts as a control or examine engagement per post (Bene et al. 2022). My earlier work on European parties found that how much attention parties receive on Facebook depends on their size, status and ideology (Hotham 2026a,b). This paper looks at the one input fully under a party's control.

3 Data

Pages and posts. The posts come from CrowdTangle lists of official party and party leader pages that I built for my doctoral research and exported in October 2020 (CrowdTangle Team 2020; Hotham 2021). They cover the national parties in 20 European countries that had Facebook pages and won seats or a meaningful share of the vote, and the leaders of many of them. I use all posts from January 2010 to September 2020: 856,699 posts from 112 party pages and 74 leader pages, which received 897 million interactions between them.

Measures. For each post CrowdTangle records likes, comments, shares and emoji reactions; I call their sum interactions. I aggregate posts into page-months and page-days, recording the number of posts, the total number of interactions and the mean, median and maximum interactions per post. In the median page-month, a page made 32 posts; on the median day on which it posted, it made two. For each post I also record its position among the page’s posts that day and the time since the page’s previous post. I mark the 30 days before national parliamentary elections, using dates from ParlGov.

4 Method

The central model compares each page with itself across months, holding constant what was happening in its country that month. For page p in country c and month m ,

$$\log(1 + Y_{pm}) = \beta \log N_{pm} + \alpha_p + \gamma_{cm} + \varepsilon_{pm}, \quad (1)$$

where Y_{pm} is total interactions (or interactions per post), N_{pm} is the number of posts, α_p is a page fixed effect and γ_{cm} a country-month fixed effect. The coefficient β is an elasticity. For total interactions, $\beta = 1$ means engagement rises in proportion to posts, and $\beta < 1$ means diminishing returns. For interactions per post, $\beta = 0$ means no dilution. I use page-months with at least three posts, and cluster standard errors by page. The country-month effects absorb elections, scandals and news that affect all parties in a country at once; the page effects absorb stable differences in size and popularity.

The same model at the level of page-days asks whether busy days cost individual posts. Here I use page-month and country-day fixed effects, so that each day is compared with the same page’s other days in the same month. This removes changes in a page’s popularity from month to month, which would otherwise mix with differences between days. A second problem is mechanical: the median or best post of a day with many posts is a statistic of more draws than that of a day with one post, so it would differ even if busy days were no different from quiet ones. To show what to expect under that null, I reassign interactions at random among posts of the same page in the same month, keeping each day’s number of posts, and re-estimate every day-level and post-level model on five such shuffled data sets. The difference between the observed estimate and this shuffled null measures the cost of a busy day beyond chance. At the level of posts, I relate each post’s interactions to the number of posts the page made that day, its position in the day’s sequence (for days with at most ten posts, with sixth and later posts grouped) and the time since the previous post, with page-month, country-day and post-type fixed effects. Day-level models use the days on which a page posted.

The design is not an experiment. Pages may post more when they expect more interest, for example when the party is in the news, and the country-month and country-day effects absorb this only when the news affects all parties in a country. I therefore report three checks: whether posting in the next

calendar month predicts this month’s engagement, models with a separate linear trend for each page, and differences between kinds of page. A campaign month is a month containing any of the 30 days before a national election; 5% of page-months are campaign months.

5 Results

Table 1. Elasticity of engagement with respect to the number of posts, within pages.

Outcome (log)	Elasticity (SE)	Shuffled null	N
<i>Page-months (page and country-month fixed effects)</i>			
Total interactions	1.01 (0.04)		17,443
Mean interactions per post	0.02 (0.04)		17,443
Median interactions per post	-0.02 (0.04)		17,443
Total interactions, with page-specific linear trends	0.91 (0.02)		17,443
Mean per post, with page-specific linear trends	-0.08 (0.02)		17,443
Total interactions, month instead of country-month effects	1.02 (0.04)		17,624
<i>Page-days (page-month and country-day fixed effects)</i>			
Total interactions	1.01 (0.01)	1.18	314,614
Mean interactions per post	0.02 (0.01)	0.19	314,614
Median interactions per post	-0.13 (0.01)	0.03	314,614
Best post of the day	0.46 (0.01)	0.63	314,614
<i>Posts (page-month, country-day and post-type fixed effects)</i>			
Interactions on the post	-0.20 (0.01)	0.00	850,680

Note: Each row is a separate regression of $\log(1+x)$ on the log number of posts in the month or day, with standard errors clustered by page. Page-months with at least three posts; page-days with at least one post. Page-specific trends are entered as page-by-time interactions. The shuffled null is the mean estimate over five data sets in which interactions were randomly reassigned among posts of the same page in the same month, keeping each day’s number of posts; it shows what each estimate would be if busy days were no different from quiet days in the same month. Across the five shuffles the null estimates varied by less than 0.01.

5.1 Across months, engagement scales with posts

Table 1 shows the main estimates. Across months, the elasticity of total interactions with respect to the number of posts was 1.01 (SE 0.04). A month in which a page posted twice as much, relative to other parties in its country, brought about twice the interactions. Engagement per post did not change: the elasticity was 0.02 for the mean and -0.02 for the median. Part of this reflects long-run growth, since pages that posted more over the decade also gained engagement. Allowing each page its own linear trend lowers the elasticity of the total to 0.91 (SE 0.02) and gives a small fall in the mean per post (-0.08 , SE 0.02), about 5% for each doubling of posts.

Figure 1 shows the same relationship without assuming a functional form. Months are grouped by how many posts the page made compared with its own median month. Total interactions rose steadily with volume, from about 80% below a usual month in the quietest months to about 200% above it in the busiest. Interactions per post were flat across the range. In the busiest months, with more than 2.7 times the usual number of posts, the average post drew about 12% less, but the interval includes no change. A model with a squared term shows a gradual flattening: the elasticity is about 1.1 at ten posts a month, 1.0 at the median of 32 and 0.84 at 150 (Table 2).

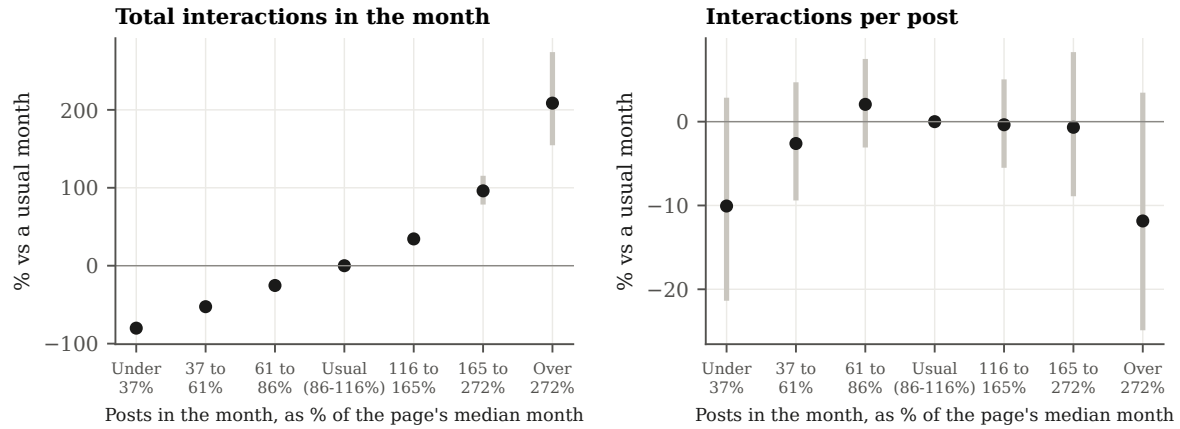


Figure 1. Total interactions and interactions per post, by the number of posts in the month relative to the page's median month. Estimates from page and country-month fixed effects models, relative to months with 86% to 116% of the page's usual number of posts. Bars are 95% confidence intervals, clustered by page.

5.2 Within the month, busy days cost each post

Comparing a page's days within the same month, the total for the day rose about in proportion to posts (elasticity 1.01). But each post drew less on busy days. At the post level, the elasticity of a post's interactions with respect to the number of posts that day was -0.20 (SE 0.01), about 13% less for each doubling. In the shuffled data the same estimate is zero, so this is not a mechanical result (Figure 2). The day-level estimates point the same way. In the shuffled data, the mean per post and the total for the day rise with the number of posts, because a day with more posts is more likely to include an unusually successful one. In the observed data the day's mean per post did not rise (0.02 against 0.19 under the null), its best post did less well than chance would predict (0.46 against 0.63), and so did its median post (-0.13 against 0.03).

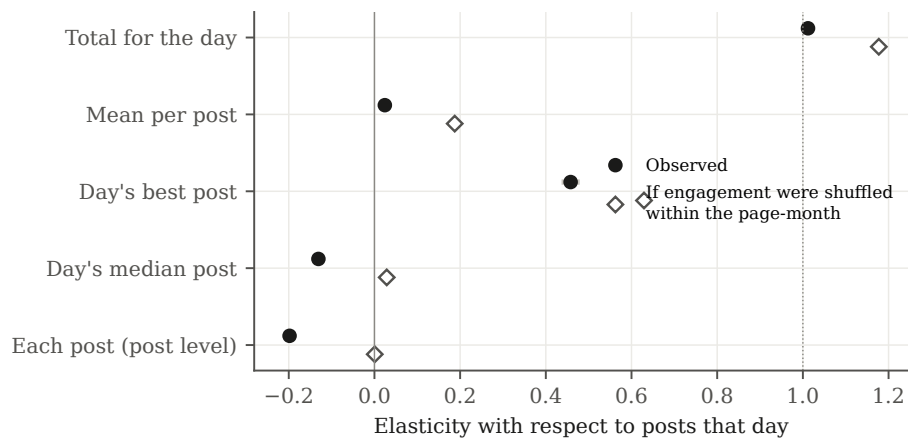


Figure 2. Elasticity of each outcome with respect to the number of posts that day, observed (with 95% confidence intervals) and in data where interactions were shuffled among posts of the same page and month. Page-month and country-day fixed effects; the post-level model also has post-type fixed effects.

Posts made soon after the page's previous post drew less (Figure 3). Compared with posts made more than a day after the previous post, posts made within an hour drew about 12% fewer interactions, and posts made one to 24 hours later 2% to 5% fewer. In the shuffled data, all of these differences are zero. A post's position in the day's sequence made little difference once the number of posts that day was held

constant: the second to fifth posts did about as well as the first.

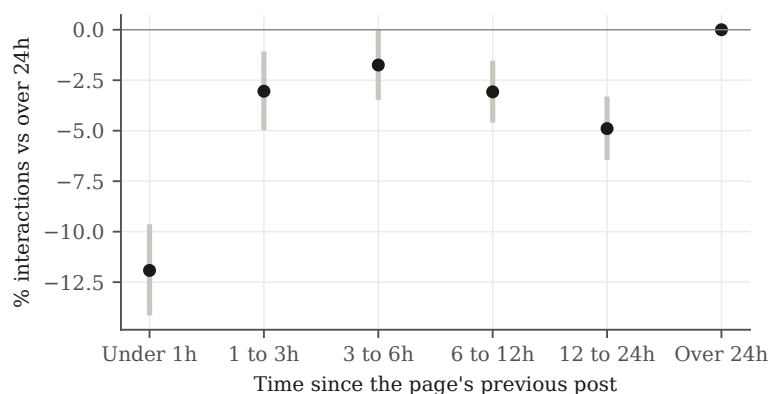


Figure 3. Interactions on a post by the time since the page's previous post, relative to posts made more than 24 hours later. Page-month, country-day and post-type fixed effects; 95% confidence intervals clustered by page. In shuffled data all estimates are zero.

How do these day-level costs relate to the monthly figures? Within pages, each 1% rise in a month's posts came with a 0.58% rise in the number of days on which the page posted, so about 40% of extra posting fell on already busy days. Combined with the day-level cost, this implies a fall in engagement per post of roughly 0.08 for each log point of monthly posts, which is close to the estimate from the model with page trends and too small to detect without them.

5.3 Timing, pages and periods

Table 2 reports the checks. Posting in the next calendar month was only weakly related to this month's engagement (0.03, SE 0.02), which argues against pages posting more after a period of high engagement. Posting in the previous month was positively related to this month's engagement (0.09), consistent with activity building an audience over time, though other explanations are possible. The elasticity was between 0.88 and 0.95 in each part of the decade (2010 to 2013, 2014 and 2015, 2016 and 2017, 2018 to 2020), below the pooled estimate, which also draws on growth across periods. It did not differ detectably between larger and smaller pages, campaign and other months, populist and other parties, or before and after 2018, though campaign months are few. It was higher for leaders' pages than for party pages (1.16 against 0.93): a leader's extra posts brought at least proportionate engagement, while for party pages the estimate could not be distinguished from proportionate.

Table 2. Robustness and differences between pages: monthly elasticity of total interactions.

	Estimate (SE)	
<i>Timing (calendar months either side)</i>		
Posts this month	0.90 (0.02)	
Posts next month	0.03 (0.02)	
Posts last month	0.09 (0.02)	
<i>Curvature</i>		
Log posts	1.33 (0.13)	
Log posts squared	-0.05 (0.02)	
<i>Interactions (base elasticity; difference for group)</i>		
Leader pages (vs party pages)	0.93 (0.04)	0.23 (0.07)
Larger pages (above the median page's mean log page likes)	0.99 (0.04)	0.05 (0.06)
Election campaign month	1.01 (0.04)	0.05 (0.06)
Populist party	1.01 (0.04)	0.01 (0.08)
2018 onwards	1.03 (0.04)	-0.04 (0.07)
<i>By period</i>		
2010 to 2013	0.88 (0.04)	
2014 to 2015	0.95 (0.04)	
2016 to 2017	0.91 (0.04)	
2018 to 2020	0.90 (0.04)	

Note: Page-months with at least three posts; page and country-month fixed effects; standard errors clustered by page. In the interaction rows the first column is the elasticity for the reference group and the second the difference for the named group.

6 Discussion

The worry that posting more spreads an audience's attention thinly finds limited support at the level at which parties usually plan, the month. Pages that posted more in a month received nearly proportionately more engagement. Engagement per post fell little if at all: not at all in the basic comparison, and by about 5% for each doubling once pages' own trends are allowed for.

The costs of volume were clearer within the month. On a page's busier days, each post drew less than on its quieter days, and posts made within an hour of the previous one drew less still, while shuffled data show none of this. This fits the idea that posts made close together compete for the same attention, whether in followers' feeds or in the ranking system's choices. The associations point to timing, more than monthly volume, as where any cost of posting more arises.

The difference between parties and leaders suggests that followers of a leader's page welcomed extra posts more than followers of a party page did, perhaps because a leader's posts are more personal, though the data cannot show why.

The design has clear limits. Posting volume is chosen, and pages may post more when they expect more interest in ways the fixed effects do not absorb, such as news about the party itself within a month or a day. The weak link with next month's posting argues against feedback from engagement to posting, but does not address such shocks, so the estimates should be read as how engagement moves with volume within pages, not as the effect of a decision to post more. The data record engagement, not reach, so I cannot say whether extra posts reached new people or the same people more often. The pages are those on my CrowdTangle lists rather than a census, and the counts are those Facebook reported in October 2020.

7 Conclusion

Across 186 pages of European parties and leaders over a decade, months with more posts brought nearly proportionately more engagement and little or no less per post. Within the month, posts on a page's busier days and posts made close together drew less than chance would predict. The cost of posting more lay less in volume than in bunching.

Data and code

The posts were exported from CrowdTangle in October 2020. CrowdTangle's terms do not permit sharing the raw posts. The analysis code, the list of pages and page-month 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 and party leaders, analysed only as counts of interactions aggregated by post, page, day and month. No post content is quoted or reproduced, and no data on individual users are used.

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