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From Meetups to Adminship: The Offline Path to Leadership on Wikipedia

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Abstract

Wikipedia is one of the most widely used platforms for online knowledge production, yet its sustainability depends on a small group of elected administrators who enforce rules. Prior research has largely explained leadership trajectories through online activity and platform-native measures. In this paper, I extend this perspective by examining how offline interactions are associated with leadership outcomes in the German-language Wikipedia. Using a unique, observational dataset that combines two decades of online behavioural traces with records of offline community events, I apply hybrid multilevel random effects models to analyse both candidacy and election success. I find that attending offline meetings does not strongly predict who decides to run for administrator, but it substantially increases the chances of being elected. These statistical effects, however, are not consistent over time: offline interactions were most influential in the platform's early years and declined in importance in more recent periods. The results demonstrate how social ties and in-person interactions intersect with online governance processes, offering new insights into leadership, participation, and the temporal dynamics of peer production communities. Beyond Wikipedia, this work contributes to computational social science by showing how online and offline interactional layers jointly structure leadership in large-scale digital platforms, while highlighting the need for future work capable of directly testing the mechanisms proposed here.

Code and Data —
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Introduction

Who rises to leadership in online communities, and why? Across digital platforms, leadership positions signal trust, confer status, and often come with the responsibility of maintaining the health of the community (Matias 2019; Grisel 2024). Whether in social media groups, peer production projects, or digital commons, the pathways to authority are shaped by visibility, reputation, and social ties. Understanding these dynamics is crucial, not only for the governance of individual platforms but also for broader debates about participation and democratic processes in online environments.

Wikipedia offers a particularly valuable setting for studying leadership in large-scale online communities. As one of the most visited websites worldwide, it relies on a small group of elected administrators who enforce rules, resolve conflicts, and sustain collaborative knowledge production (Asikin-Garmager et al. 2025; Steinsson 2024; Karczewska 2024). Administrator status is granted through "Requests for Adminship" (RfAs), deliberative processes in which candidates are publicly evaluated and voted on by peers (Ren, Zhang, and Kraut 2023; Jemielniak 2014). Prior research has shown that online activity—such as editing patterns, discussion behaviour, and reputation signals—strongly predicts RfA outcomes (Burke and Kraut 2008). Although Wikipedia is primarily an online project, its community also extends into the offline world. In-person meetings, such as informal meetups or editathons, create—somewhat selective and exclusive—opportunities for contributors to connect beyond the screen. They allow for rich forms of social interaction to build trust and showcase one's commitment, expertise, and leadership qualities (Richter 2020; Schwitter 2022). While interpersonal ties and offline networks have long been recognised as central to voting behaviour in political science (Lazarsfeld, Berelson, and Gaudet 1944; Campbell 2013; Campbell et al. 2019), their role in digital governance processes has been largely overlooked.

In this paper, I address this gap and ask: to what extent does participation in offline meetings influence (1) who runs for administrator, and (2) who is successfully elected? The study uses a unique observational dataset combining two decades of online activity with records of offline community events in the German-language Wikipedia to examine both candidacy and electoral success across different time periods. In doing so, the study connects closely to classical political science research to test to what extent these considerations hold within the digital space and within a virtual election for a position of power. Extending previous work by Schwitter (2024a; 2024b) which investigated who participates in elections and how offline ties influence article editing behaviour on Wikipedia, this paper examines the determinants of candidacy and electoral success. This expands the theoretical perspective from focusing on the mobilisation of voters and editors to the social embeddedness of leadership trajectories and selection processes. This type of fine-grained analysis is typically out of reach in politi-

cal science, where the early social networks and long-term behavioural trajectories of real-world leaders are rarely observable with comparable precision. More broadly and generally, the study contributes to computational social science by linking micro-level social ties to macro-level governance outcomes and leadership trajectories in one of the largest peer production systems on the web.

Background and Related Work

This study explores how offline ties influence leadership trajectories within Wikipedia. I conceptualise this process along two distinct but interrelated explananda: running as administrator and winning elections. By examining how these gatherings influence community dynamics, I aim to shed light on a relatively understudied aspect of Wikipedia's governance structure and online communities in general and contribute to a growing body of literature that examines leadership and volunteering in digital publics (Burke and Kraut 2008; Forte, Larco, and Bruckman 2009; Matias 2019; Shaw and Hill 2014; Ren, Zhang, and Kraut 2023).

Running to Become an Administrator

Before any election can take place, candidates must first be nominated, either through self-nomination or peer endorsement. In conventional settings, leadership positions are often associated with instrumental rewards such as financial compensation. In contrast, leadership roles on online platforms like Wikipedia are voluntary, unpaid and entail considerable extra labour (Matias 2019; Arazy et al. 2015). The decision to run as administrator cannot be easily explained by self-interest alone but is driven by additional motivational factors (Preece and Shneiderman 2009), similar to explaining actively editing Wikipedia (Crowston and Fagnot 2018; Schwitter 2024a). As recent empirical work has shown, the number of candidates stepping forward for adminship has been declining in many language versions of Wikipedia, including the German-language version (Asikin-Garmager et al. 2025).

Crowston and Fagnot (2018) have established a theoretical framework to explain contributions towards user-generated content. Building on theories of helping behaviour (Schwartz and Howard 1982) and social movement participation (Klandermans 1997), they argue that users who identify more strongly with the mission and the values of Wikipedia are more likely to increase their engagement. Feeling part of a group is essential to transform interests into collective actions (Gotham 1999) and generally increase commitment to these actions and in turn also contribution (Bateman, Gray, and Butler 2011; Johnson, Chang, and Yang 2010). Previous research has further shown that online production communities are characterised by progressive movements from the community's periphery to positions of responsibility and influence at the community's core (Arazy et al. 2015; Dahlander and O'Mahony 2011), thus underscoring that the achievement of administrator status is a progression towards the centre by already active and committed users.

Against this background, I argue that offline Wikipedia events provide opportunities for interpersonal interaction and identity reinforcement. These spaces allow editors to develop affective ties, to build reputational and social capital, and to gain a more embodied sense of community belonging (Farzan et al. 2011). Understanding Wikipedia as a social movement and given the general importance of networks in social movements (Diani and McAdam 2003; Ganz 2010), it can be expected that a user who is involved in the offline component of Wikipedia might be more inclined to get more involved online, meaning that offline engagement may strengthen a user's commitment to the community, making them more likely to volunteer for leadership. Another, not mutually exclusive, mechanism can also be hypothesised: Alternatively, strategic actors may attend offline events to signal dedication, build visibility, and improve their electoral prospects.

Additionally, given the substantial responsibilities associated with and the often burdensome nature of the administrative role, offline events may further function as informal recruitment sites, where trusted peers encourage or persuade community members to stand for election, thereby shaping the pipeline of candidates beyond purely individual initiative. Research on volunteer labour and low-promotability tasks in different contexts has shown that individuals are more likely to take on demanding roles when prompted through personal appeals, peer recognition, or social pressure (Claiy et al. 1994; Snyder, Omoto, and Smith 2009).

Beyond simple participation, a user's structural position within the offline network may further influence their decision to run for administrator. In network theory, central actors often function as key sources of information and resources (Cullen, Gerbasi, and Chrobot-Mason 2015; Emerson 1962). Generally, a central network position comes with power and influence (Friedkin 1993) and exhibits positive effects for the individual (Macaulay et al. 2017; Sparrowe et al. 2001). It could thus be assumed that users who are central in the offline network strive for a position of importance in the online space.

In all of these cases, offline ties and a central position within the offline network act as a social infrastructure for leadership emergence in Wikipedia. I thus expect a positive effect of the attendance of meetups on running for administrator on Wikipedia.

Promotion Success

In electoral processes—whether in traditional political contexts or in digital environments—success depends not only on the intrinsic qualifications of the candidate, but also on their position in relevant social networks as they need to gain more (or enough) support to win. In line with ideas based on the concept of social capital, I argue that interpersonal ties and network position are key to understanding variation in promotion outcomes as these ties provide access to supportive resources (Lin 2001; Portes 1998). In the context of Wikipedia, where administrator roles are filled through community voting, offline ties and the offline network position of a candidate might matter in addition to their online network as offline interactions provide a venue for fostering trust and credibility in a way that complements (or even enhances) online actions. Prior research on other online communities has

shown that strong ties tend to develop and solidify in offline settings (Angelopoulos and Merali 2015; Ganglbauer et al. 2014). Strong offline ties developed through meetings might then offer additional channels a candidate can activate for support. Moreover, face-to-face meetings can also serve as social signals of commitment. Participation in offline events may be read by others as evidence of dedication to the community, a form of commitment that enhances perceptions of legitimacy (Collins 2005). In addition, the network position of candidates may further shape electoral success. Centrality in social networks signals commitment, power, and access to more resources. In the occupational context, people in more central network positions are also more likely to be promoted (Brass 1984, 1985).

While research has not previously dealt with the question of who runs as administrator, it has examined individual online behavioural indicators of administrator promotion. Burke and Kraut (2008) and Kordzadeh and Kreider (2016) find that having extensive and diverse experience, a high number of total contributions, and a longer tenure positively influence the probability of being promoted. Jankowski-Lorek et al. (2013) also consider the social activity by including editing on user talk pages. While they do not discuss their effects in detail, their overall model fares well at predicting successful election outcomes, thus suggesting that these social aspects might matter. In line with this, Picot-Clémente et al. (2015) provide further evidence that interaction with other users and administrators—measured through message exchange on talk pages—is a significant predictor of promotion success. Burke and Kraut (2008) on the other hand, find only limited effects of user talk edits. Oppong-Tawiah et al. (2016) use semantic analysis and make use of the comments posted on election pages. They also stress the role of structural capital, arguing that being socially embedded within core Wikipedia activity is the strongest determinant of success. Overall, these findings align with the broader argument that social ties function as pathways for influence and support, and they suggest that being connected to others online positively influences the probability of being elected.

Context: Requests for Adminship in the German-language Wikipedia

This study focuses on the governance dynamics within the online encyclopaedia Wikipedia, using the German-language edition as a case. Established in March 2001, the German-language version is one of the oldest and most active communities, featuring, as of December 2025, more than three million articles.

Across all language editions, Wikipedia operates as a volunteer-driven project, grounded in a decentralised and consensus-based governance structure. Policy decisions, content regulation, and dispute resolution are shaped collectively through deliberation and consensus-finding among contributors (Schneider 2022). Administrators play a pivotal role in the day-to-day operations and maintenance of Wikipedia. They are elected by the community via Request for Adminship (RfA) processes. Their tasks include enforcing site policies, addressing user misconduct, and performing technical functions such as deleting or protecting pages and blocking users. Administrators are thus critical in upholding Wikipedia's standards, its quality and integrity, and enforcing community norms (Yasseri et al. 2012).

The RfA process is the formal mechanism through which contributors are appointed to this role. Over the years, Wikipedia—and with it the RfA process—has undergone significant change. As the community has matured, participation patterns and governance norms have shifted (Halfaker et al. 2012; TeBlunthuis, Shaw, and Hill 2018; Müller-Birn, Dobusch, and Herbsleb 2013; Butler, Joyce, and Pike 2008; Viégas, Wattenberg, and McKeon 2007; Beschastnikh, Kriplean, and McDonald 2008; Frey et al. 2022). The German-language Wikipedia experienced rapid expansion in its early years, followed by a long period of stabilisation and gradual decline in the number of highly active editors. Over time, both community size and the volume of administrative work changed substantially, with routine tasks increasingly handled by automated tools and bots, and policy discussions becoming more formalised. While adminship was initially granted more informally during Wikipedia's very early years, since 2004, the process has become more institutionalised within the German-language Wikipedia. The number of RfAs has also dropped over time (see also Appendix A), both because the existing pool of administrators stabilised and because fewer editors pursue adminship, a trend observed across several language editions (Asikin-Garmager et al. 2025). Candidates can either be nominated by others or self-nominate. During a two-week voting period, candidates present their qualifications, experiences and motivations, while community members assess their past behaviour, editorial record, and perceived trustworthiness. Community deliberation takes place in a public, asynchronous space, where comments and votes are visible to all. For a candidate to be appointed administrator, they generally need at least 50 supportive votes and must receive a two-thirds majority of all votes cast. These quantitative benchmarks formalise what is, at its core, a social judgment process: contributors evaluate whether the candidate is sufficiently embedded, experienced, and reliable to take on administrative duties. The RfA process exemplifies the principles of transparency, accountability, and community involvement that underpin Wikipedia's governance structure, but it is also considered very challenging and taxing by eligible candidates (Asikin-Garmager et al. 2025). In addition, the process has changed over time alongside the evolvement of the platform. The structural and demographic shifts experienced by Wikipedia can mean that the social foundations of governance has shifted.

Materials and Methods

To address the aims of this study, the analyses draw on publicly available data on elections, meetings, and online activity, combined into a large-scale, longitudinal dataset. The data stems from the beginning of Wikipedia in 2001 up to the outbreak of the Covid-19 pandemic in March 2020.

Election Data

Administrator elections are publicly documented on designated Wikipedia pages[1]. During each election, eligible users can vote in favour of a candidate, against a candidate, or neutrally by placing their name in the respective *support*, *oppose*, or *neutral* sections of an election page. All election data was collected via a custom-built web-scraper for this analysis (Schwitter 2023b).

Eligibility to Be Elected To analyse the determinants of running for adminship, it is essential to define the pool of potential candidates. This pool consists of all users who meet Wikipedia's eligibility criteria which currently include a minimum tenure as well as thresholds of overall and recent activity. Blocked users, sock puppets (fake accounts), bots, and duplicate accounts are excluded from the election processes.

It is not straight-forward to collect all eligible candidates as any day could be the start of a new election and can feature a different pool of potential candidates. Conducting daily eligibility assessments over the entire 20-year period is computationally infeasible. Therefore, monthly collections were executed[2]. For each first in a month, a list of all eligible users was created (on the basis of tenure and activity; information on this was retrieved from the Wikipedia data dump[3]). Known bots were excluded. Sock puppets are not flagged, and it is thus not possible to identify them from the list of eligible users.

Description of Election Data Between 2001 and the end of March 2020, the German-language Wikipedia held a total of 1213 elections for administrator status. Of these, 60.1% were successful (i.e. resulted in a candidate being promoted). 22 elections were excluded from the analysis, as they appeared to lack an eligible candidate. These mostly occurred around the time of policy changes, when eligibility thresholds shifted and enforcement likely lagged.

Data Setups Given the two primary research questions—(1) who runs for administrator, and (2) who is successfully elected—two distinct datasets were constructed.

1. Who runs for administrator? The data includes all eligible users, observed in each year in which they were eligible for at least one month.

To explore candidacy, I constructed a panel dataset including all users eligible for adminship in a given year. Eligibility was initially assessed monthly and then collapsed into yearly data for easier analysis. Across the 19-year observation window, I construct a panel dataset at the user-year level. The dataset includes 123,012 user-year observations from individuals who were eligible to run for administrator for at least one month in a given year. Each row represents one user in one year. Users can appear in multiple years if they remained eligible. If a user ran for adminship multiple times within the same year, this is counted as a single candidacy; re-elections (i.e. an election of a user who is currently administrator) are excluded from the analysis. In total, I observe 837 user-years in which a candidacy occurred.

2. Who wins elections? The data includes the candidates of all elections.

To analyse election outcomes, a separate dataset was constructed at the election level, including all candidates with valid nominations. There are 1191 elections with a valid candidate where a total of 756 different users (re-)ran for administrator. Most users only ran once, others up to 9 times (mean 1.58, median 1, standard deviation 0.96). 718 of these elections were successful.

Variables and Data Description

Table 3 in Appendix A shows descriptive information on all (uncentred) variables used in the analysis across the full timeline.

Offline Activity Measures This study draws on offline meetup data from Schwitter (Schwitter 2023a,b), which records Wikipedia users' attendance at offline events. The dataset contains information on 4418 meetups organised within the German-language Wikipedia. I exclude ten very large meetings (which have over 50 attendees and which are not primarily social events; this refers, for example, to Wiki-Conventions) from this dataset as I focus on meetings where it is reasonable to assume that attendees of the same meeting actually meet each other and have the opportunity to create a tie. To construct offline social ties, I treat two users as connected if they attended the same meetup. This is taken from the recorded co-attendance to meetings and should be seen as capturing the opportunity structure for social interaction rather than actual direct interpersonal ties. The resulting offline network is therefore an undirected and unweighted graph: a link indicates co-attendance at least once. The presence of a tie thus indicates opportunities for interaction, independent of the exact number of repeated encounters and of actual interaction quality or tie strength.

For each user and each point in time, I calculate offline activity and network centrality based on a rolling 12-month window. This window is constant across users and over time. The rationale is that many Wikipedia meetups are annual events, making prior-year activity a useful indicator of ongoing social ties. Consequently, only meetups within the previous 12 months contribute to the construction of the offline network at a given time and earlier meetings fall out of the window. I include a measure of the number of offline meetings a user has attended (within the previous 12

[1] See https://de.wikipedia.org/wiki/Wikipedia:Adminkandidaturen/Archiv

[2] A monthly collection can also be broadly justified with the Nyquist–Shannon sampling theorem from the field of signal processing. The theorem states that a sufficient sample-rate is anything larger than double the bandwidth samples per second (Shannon 1949). Applied to this context, a monthly sampling should be sufficient as new users can only join the sample after having been registered for at least two months.

[3] Data dumps provided by the Wikimedia Foundation offer well-structured data exports of different facets of Wikipedia. See for the German-language Wikipedia https://dumps.wikimedia.org/dewiki. For this study, the stub history meta data was used which contains information on all articles and on all article revisions without including the actual text data.

months before an election). Further, I incorporate a user's degree which represents the number of links that a node shares with others and works as a measure of popularity. For potential candidates, degree is measured in absolute terms, as the relevant question is how embedded a user is within the community of Wikipedians. When focusing on actual candidates and their ties to voters, however, I use a relative definition of degree (i.e., the proportion of voters with whom the focal user has an offline tie). This adjustment is necessary because the size and composition of voting populations differ across elections. A proportional measure allows comparisons across elections by capturing how well-connected a candidate is within the set of users participating in that specific election. Users have, on average, met 1.2 others in the past year, with the number ranging from 0 to 259, while candidates have met 2.5 per cent of the voters on average (ranging from 0 per cent to 41.7 per cent). The distributions are visualised in Appendix A, highlighting their skewness. As another measure of popularity, I use eigenvector centrality (Bonacich 1987). Eigenvector centrality scores correspond to the values of the first eigenvector of the graph adjacency matrix and assigns higher scores to users who are connected to other central users.

Online Activity Measures As my primary focus is on offline meetings, I control for a number of potentially confounding variables. In particular, I control for online network measures to better isolate the effect of offline ties. I consider two different online networks: collaboration and talk ties. A collaboration tie is based on the co-editing network (defined as users editing the same Wikipedia page directly after one-another). Talk ties refer to leaving messages on users' talk pages. Given the more rapid dynamics of online activity compared to offline, I focus on the previous two months of online activity. This time frame also aligns with the eligibility requirements for Wikipedia elections, where a user must have been active for at least two months to run for adminship. I control for users' degree and eigenvector centrality in both the collaboration and talk networks, as these network-based measures reflect a user's position within these online networks. Users have, on average, collaborated with (talked to) 48.5 (1.6) others in the past two months, with the number ranging from 0 to 4399 (1727), while candidates have collaborated with (talked to) 37.4 (7.6) per cent of the voters on average (ranging from 0 per cent to 100 per cent).

The current state of research has highlighted other determinants relevant for election success which will further be controlled for. Control variables include the previous total level of activity up to the time of interest (time of potential start of election in setup 1 or time of the election in setup 2) as well as the recent activity before the election (logged number of edits in the article mainspace in the past two months, i.e. measuring how many edits towards articles users have made). These measures capture how active users are in contributing content to Wikipedia. Tenure is measured as years passed since a user's first edit, which acts as a proxy for experience. Wikipedians vary greatly in their activity levels. Uses have, on average, made 985.6 total edits (116.8 mainspace edits in the past two months), with the number ranging from 0 to 218,278 (27,644), while candidates have made 4977 total edits (788.1 mainspace edits in the past two months), with the number ranging from 0 to 80,250 (10,462).

Further, I control for online features describing the relationship between users to capture social dynamics. Specifically, I account for whether a user has reverted or has been reverted by others in the past two months (i.e. has undone work by another user). For setup 1, I control for the logged number of times a user has reverted others and has been reverted by others; and for setup 2, I measure the proportion of voters who reverted the candidate and those who were reverted by the candidate. Users have, on average, reverted (have been reverted by) 1.4 (2.1) others in the past two months, with the number ranging from 0 to 610 (1697), while candidates have reverted (were reverted by) 1.5 (1.7) per cent of the voters on average (ranging from 0 per cent to 100 per cent). Lastly, I control for the number of previous times a user has ran as candidate.

Statistical Approach

To analyse the data, I employ an extended regression framework that incorporates network statistics as covariates. This approach is a well-established alternative to network-specific models (Cranmer and Desmarais 2011). The first setup—modelling running for administrator—features a multilevel data structure as repeated observations of yearly election (non-)participation are nested within users. To appropriately account for this structure and to distinguish between within-user and between-user effects, I make use of within-between models (REWB). The general technique was originally proposed by Mundlak (Mundlak 1978) to relax the assumption in the random effects (RE) estimator which states that the individual-specific unobserved effects are uncorrelated with the independent variables in the model (Schunck 2013; Wooldridge 2010). In these REWB models, RE regression models are estimated in which group-means of variables are included. Each-time varying predictor is decomposed into two components:

- Between component: $\bar{x}_i = \frac{1}{T_i} \sum_{t=1}^{T_i} x_{it}$
- Within component: $x_{it} - \bar{x}_i$

Within each group, the mean for each independent time-varying variable is calculated (between component); this represents the user-level average across time. The within component is the demeaned variable, capturing deviations from a user's own average at each time point. Inserting both components into an RE model yields the following form:

$$y_{it} = \alpha + \beta(x_{it} - \bar{x}_i) + \gamma\bar{x}_i + \delta z_i + \alpha_i + \epsilon_{it},$$

where y_{it} denotes the outcome for user i in period t. The variable x_{it} represents a time-varying covariate, and $\bar{x}_i$ denotes the mean of x_{it} across all periods for user i. The term z_i captures a time-constant covariate, that is, an attribute of user i that does not vary over time, and $\hat{\delta}$ refers to the effect of this covariate. The parameter α_i denotes the user-specific random intercept, which accounts for unobserved,

time-invariant heterogeneity across users, and ϵ_{it} is the idiosyncratic error term. In this formulation, the coefficient $\hat{\beta}$ identifies the within-user (fixed-effects) association and reproduces exactly the FE (within) estimate, $\hat{\gamma}$ reproduces approximately the between estimate as it captures the between-user association based on differences in users' average levels of the time-varying covariate. REWB models allow for a separation of within-individual dynamics from differences between users.

The second setup—modelling election success—is based on a simpler data structure as most users only run in one election, meaning that the data does not exhibit a panel structure. However, the data includes a small number of repeated observations, i.e. users that are repeatedly candidates. To take the within-user dependence into account, I include cluster robust standard errors at the user level. This adjustment allows the error terms to be arbitrarily correlated within the me user over time, while assuming independence across users.

I estimate linear probability models (LPMs) with robust standard errors, as they allow for straightforward interpretation and are unbiased and consistent estimates of an independent variable's average effect (Mood 2009; Wooldridge 2010). Robustness checks using an alternative model specification can be found in Appendix C (generalised linear (GLM) REWB models with a binomial function).

To account for changes in community structure and governance norms over time, the analyses are stratified into three equally long time periods: early years of Wikipedia (2003–2008; please note no traceable elections took place 2001/2002), later years of Wikipedia (2009–2014) and more recent years (2015–2020). The first time frame covers 30% of the total observations regarding running for administrator and 53% of the total observations regarding election success; the second time frame covers 30% of the total observations regarding running for administrator and 33% of the total observations regarding election success; the last time frame covers 40% of the total observations regarding running for administrator and 15% of the total observations regarding election success. This approach allows the examination of temporal shifts in the relationship between offline participation and adminship outcomes, while—in contrast to models which include interaction effects—also accounting for the fact that the importance of other determinants in the adminship outcomes might shift.

Results

This study analysed data from all 1191 elections that occurred on the German-language Wikipedia between its launch in 2001 and March 2020 and which featured a candidate who was eligible to be selected. Multivariate results for the two key outcomes—running for administrator and being successfully elected—are presented in Figures 1 and 2, respectively (full model results can be found in Appendix B; robustness checks in Appendix C).

Across both analyses and all time periods, I estimate the same set of four models to examine the association between offline participation and administrative outcomes. The first three models each include the full set of control variables and one offline participation measure at a time: (1) the number of offline meetings attended, (2) the logged number or the proportion of users met at offline events, and (3) the user's network centrality within the offline co-attendance network. Estimating these measures separately allows their associations with the outcome to be assessed without conflating conceptually distinct dimensions of offline engagement. The fourth model includes all three offline participation measures simultaneously, alongside the same control variables, and thus captures their partial associations conditional on one another. All models additionally decompose time-varying predictors into between-user and within-user deviations, following the REWB framework. For all models, the following notation is used:

- cm: cluster mean (between-user effect)
- cwc: centred within clusters (within-user effect)

Running for Administrator

Who is most likely to run as a candidate in a given year and what role do offline networks play in this? Descriptively and over the full time frame, I find that 19.8 per cent of candidates running to become administrator have attended a meetup in the previous year, indicating that offline participation is common but far from universal among candidates. It is, however, significantly more common than in the population of users not running, where only 3.6 per cent of users have attended a meetup in the previous year (according to a Chi-squared test with Yates' continuity correction, see Yates 1934). To examine this more systematically, I estimate multilevel linear probability models with random intercepts at the user level for the three time frames. In initial models including only one key predictor at a time (split up in a person's mean value, cm, and the person's within variation, cwc), the results suggest that greater offline engagement is positively associated with the probability of running for administrator in all time frames: the models suggest that the more meetings someone has attended, the more people they have met, and the more central they are in the meetup network (all both cm and cwc), the more likely they are to run for administrator in a given year (see Table 1).

Multivariate model results are shown in the coefficient plots in Figure 1. In the early time frame and controlling for other variables, there is some evidence of significant effects of offline interactions on the probability of running for administrator. I find that users who have met a higher number of users in the past year than on average (within variation of number of users met) are significantly more likely to run for administrator in a given year. I also find that users who attend, on average, more meetings, are less likely to run for administrator. This negative effect also holds for the between variation of the number of users met (model users only); this means that users are less likely to run the more users they have met throughout on average. However, this effect does not remain significant in the full model when including all offline network measures. Only for the centrality model, I find a negative between effect of meetup centrality, meaning that people who are more central in the meetup network are

	2003–2008	2009–2014	2014–2020
Been at meetings (cm)	0.0149 *(0.0025)****	0.0041 *(0.0009)****	0.0014 *(0.0006)**
Been at meetings (cwc)	0.0117 *(0.0025)****	0.0045 *(0.0012)****	0.0040 *(0.0015)***
Number of users met (log, cm)	0.0353 *(0.0045)****	0.0111 *(0.0017)****	0.0025 *(0.0010)**
Number of users met (log, cwc)	0.0219 *(0.0040)****	0.0106 *(0.0021)****	0.0045 *(0.0014)***
Meetup centrality (cm)	0.3930 *(0.0655)****	0.1895 *(0.0363)****	0.0626 *(0.0243)**
Meetup centrality (cwc)	0.1210 *(0.0471)**	0.0979 *(0.0339)***	0.0958 *(0.0313)***
Num. obs.	36,571	49,673	36,768
Num. groups (users)	14,612	18,691	10,988

Table 1: Running for administrator, bivariate LPMs by time period.
Note: $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Intercepts not shown.

less likely to run for administrator.

Over time, the importance of offline interactions diminishes somewhat: in the next time frame (2009–2014), there is still a positive and significant effect of the within variation of the numbers of users met when controlling for all variables and a slight negative effect of the numbers of meetups attended (model meetings only). By the last time frame (2015–2020) and when controlling for all variables, there is a negative effect of the between variation of the number of users met and a slight positive effect of meetup centrality (within variation).

Overall, there is rather limited evidence for the role of offline ties in the decision to run for administrator, and the coefficients are small compared to the importance of online networks (for example, the effects of having talked to more users on average is twenty times larger than having met more users offline). Taking into account the online activities within Wikipedia, offline interactions do not seem to play a major role in explaining candidacy. The strength of these effects varies across model specification (see robustness check in Appendix C), but the substantial interpretations remains the same.

Winning Elections: Becoming Administrator

Who is most likely to succeed when running for administrator, and what role do offline networks play in this? At a descriptive level, offline engagement is more common among successful than unsuccessful candidates. Among all successful candidates, 45.4 per cent have attended at least one offline meetup, compared to a substantially lower share of 23.0 per cent among unsuccessful candidates. This difference is statistically significant according to a Chi-squared test with Yates' continuity correction (Yates 1934). These descriptive patterns suggest that offline participation may be associated with electoral success, but they do not account for differences in candidates' overall activity levels and other relevant dimensions. Bivariate regression results echo the pattern found in the analysis of candidacy: attending more meetings, meeting more eligible users personally, and being more central in the meetup network are all positively associated with the probability of winning an election (see Table 2).

Multivariate model results are shown in the coefficient plots in Figure 2. There are no notable differences between the main models presented here and robustness check conducted with generalised linear, i.e. logit, models, which are presented in Appendix C.

In the early time frame, I find that each offline measure—meeting attendance, proportion of voters met, and meetup centrality—shows a significant and positive association with the likelihood of winning elections when included individually. However, the significance of these associations diminish in the full model that includes all three simultaneously. This pattern likely reflects the high correlation between the three variables in the first time frame, as they all capture overlapping dimensions of offline engagement, which, in the early years, slowly grew in local regions. When entered jointly, multicollinearity increases uncertainty around each estimate, making it difficult to isolate their individual contributions. Overall, however, meetup attendance had beneficial effects for candidates in the early years of Wikipedia.

In contrast to the earlier period, the later time frame (2009–2014) reveals a somewhat different pattern: only the number of voters met and the meetup centrality reach statistical significance on at least the 10 % significance level when entered separately, but they all become jointly predictive in the full model. One possible explanation for this lies in the structural evolution of the offline environment. As the number and geographic dispersion of meetups increased, the dimensions of offline engagement—frequency of participation, breadth of interpersonal contact, and positional centrality—may have become less tightly coupled. This decoupling reduces multicollinearity, thereby allowing each form of engagement to contribute uniquely in the combined model.

By the last time frame (2015–2020), none of the offline measures play a significant role when controlling for the online interactions (please note the last time frame also covers the fewest elections).

Conclusions

Wikipedia combines online and offline interactions to sustain a collaborative, volunteer-driven community, with administrators playing a central role in governance. While celebrated as an open and democratic platform (Konieczny 2009; Wright 2010-05-01, 2010), leadership selection in Wikipedia also reflects social dynamics, including inequalities in participation and recognition (Kittur et al. 2007;

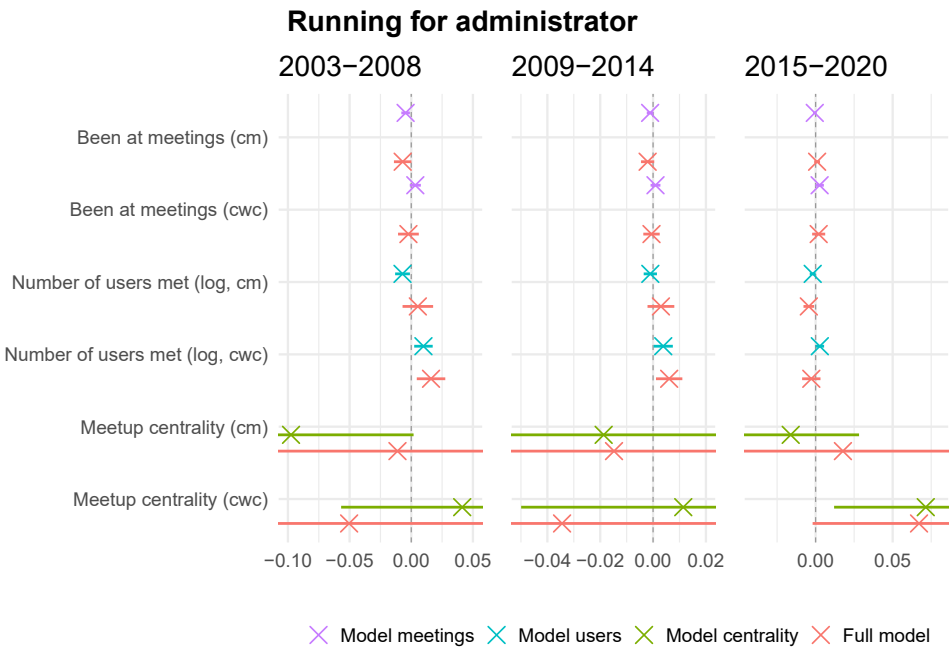

Figure 1: Modelling running for administrator (Table 4, Table 5, and Table 6 in Appendix B). Note: Horizontal line reflects 95% confidence interval. The plot is cropped for better visibility of small effects. Models meetings/voters/centrality refer to models which include all control variables but only the displayed predictors of the offline network. The full model includes all offline network predictors simultaneously. cm: cluster mean (capturing the between effect); cwc: centred within clusters (capturing the within effect).

	2003–2008	**2009–2014**	**2014–2020**
Been at meetings	0.0196 *(0.0064)***	0.0245 *(0.0067)****	0.0148 *(0.0072)**
Share of voters met	0.0149 *(0.0035)****	0.0347 *(0.0064)****	0.0240 *(0.0077)***
Meetup centrality	0.2891 *(0.0801)****	0.5348 *(0.1416)****	0.3658 *(0.1386)***
Num. obs.	616	389	174

Table 2: Winning administrator election, bivariate LPMs by time period.
Note: $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Matei and Britt 2017; Ortega, Gonzalez-Barahona, and Robles 2008; Shaw 2012; Shaw and Hill 2014; Niederer and van Dijck 2010; Ren, Zhang, and Kraut 2023). The administrator is central in this discussion: it is an elected role that carries both prestige and responsibility, offering privileged access but also demanding considerable unpaid labour.

This study examined how offline interactions are associated with both the decision to run for administrator and the likelihood of election, using data from all 1191 elections in the German-language Wikipedia between 2001 and 2020. I analysed meeting attendance, number of users met, and centrality in offline meetup networks alongside online activity patterns. Because the data is inherently observational, these analyses identify associations rather than causal effects, and unobserved factors—such as personality traits, interpersonal skills, local community integration and others—may influence both offline participation and electoral outcomes.

The results show that offline engagement had a modest association with candidacy and election outcomes in Wikipedia's early years: individuals embedded in offline networks were more likely to be elected, even if they were not more likely to run. Over time, these associations diminished. In fact, in the later time periods, users who have met more other users offline are, on average, less likely to run—a somewhat counter-intuitive result, given the assumption that offline engagement deepens commitment. One plausible interpretation is that users who invest in offline activities may orient themselves toward community-building roles rather than administrative ones, or that offline involvement fosters forms of identification or responsibility that do not align with the specific burdens of adminship (or might result in other governing roles). Structurally, it might also be the case that users with with strong offline connections may have become administrators early in their tenure, meaning that later periods become disproportionately composed of highly offline-connected users who have already self-selected out

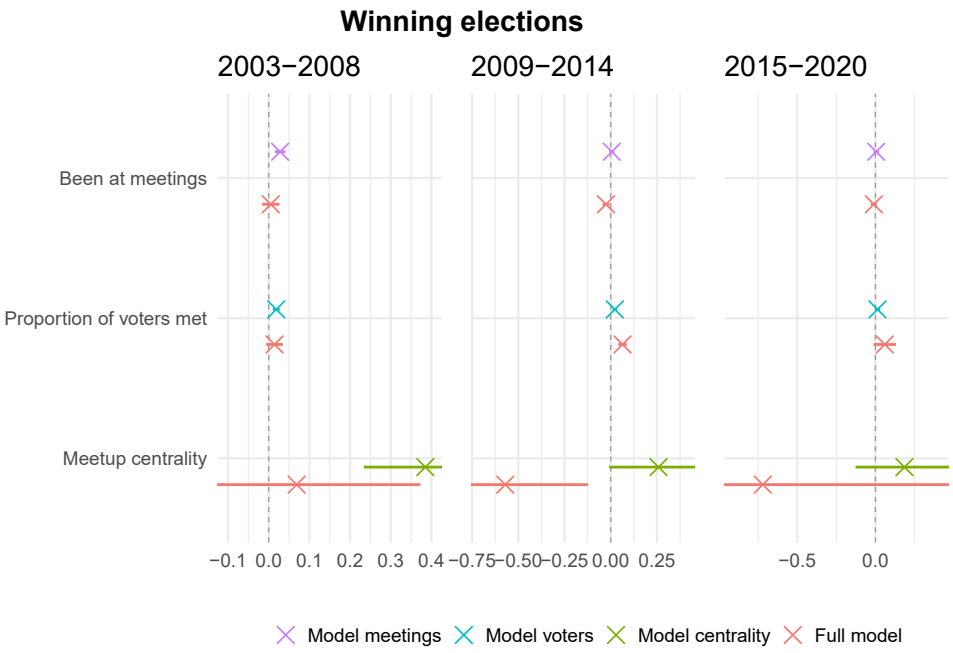

Figure 2: Modelling successful candidacy (based on Table 7, Table 8, and Table 9 in Appendix B). Note: Horizontal line reflects 95% confidence interval. The plot is cropped for better visibility of small effects. Models meetings/voters/centrality refer to models which include all control variables but only the displayed predictors of the offline network. The full model includes all offline network predictors simultaneously.

of candidacy (see also Figure 6 in Appendix A). These remain speculative pathways, and future work is needed to distinguish among them.

The early-period associations suggest that personal familiarity and social embeddedness may have shaped how voters evaluated candidates, even even if they do not initially encourage candidacy or work as a motivator. These associations should not be understood in a deterministically causal way, but can be seen as part of the broader social cues related to suitability and reliability available to participants in a small community. As the platform institutionalised and scaled, the relative importance of these offline relational cues appears to have declined.

Why has the importance of offline meetups diminished within more recent periods? The smaller number of elections in the most recent period likely reflects broader institutional changes—such as declining candidacy rates, increasing expectations for adminship, and a stabilisation of community governance (Asikin-Garmager et al. 2025)—which may themselves contribute to the reduced influence of offline networks over time. The temporal shifts in election volume are part of the mechanism through which Wikipedia's governance structures have evolved. Overall, offline ties appear to have played different roles at different stages in the project's institutional development, reflecting shifts in community size, administrative expectations, and the sociotechnical mechanisms through which trust and legitimacy are produced.

These findings open space for reflecting on broader tensions in peer governance systems: namely, the trade-off between governance structures that rely on the accumulation of social capital (for example, through face-to-face interactions), and those that emphasise procedural equality and impersonal forms of participation. High-relationship governance—where familiarity, trust, and embeddedness play central roles—may foster cooperation and community resilience, but may also increase susceptibility to familiarity bias or even informal capture by connected cliques (Kharazian, Starbird, and Hill 2024). In contrast, low-relationship governance may better uphold formal equality but at the potential cost of lower commitment or cohesion. These dynamics are not static: as both the structure and scale of offline participation and the online norms and rules evolve over time, so too may the nature of these trade-offs. This suggests that the sociotechnical design of governance mechanisms—and the relational structures they encourage or enable—should be seen not only as neutral tools but as normative choices with consequences for equity, access, and legitimacy.

It is important to note that this study focuses on a small, active subset of contributors who attend offline meetups within the context of the German-language Wikipedia. The findings should not be overgeneralised to all Wikipedias, and I caution against using these results to justify preferential treatment or exclusion of participants based on offline or online activity. The offline population is self-selecting, and their participation reflects motivations and social positions that are not fully captured by available data.

Future research should explore causal mechanisms underlying these associations, for instance whether offline interactions provide exposure to role models, support networks, or opportunities to signal commitment—in some sense functioning as smoke-filled back rooms (De Luca, Jones, and Tula 2002; Stegbauer 2009). Offline meetup participation may also contribute to the accumulation of social and symbolic capital that is unevenly distributed within the community, shaping who is perceived as legitimate and trustworthy in leadership roles. These processes, and thus offline meetups, might work as pathways of elite reproduction, in which in-person networks consolidate influence, facilitate informal vetting and where advantage emerges from and field-specific legitimacy (Rahman Khan 2012; Bourdieu 2018). Offline spaces may also channel contributors into alternative organisational roles by shaping role identities and perceived obligations (Van Maanen and Schein 1977). Offline engagement may motivate candidacy, but it may also sort contributors into specific leadership pathways, affecting who remains a potential candidate. Identifying these mechanisms requires designs capable of addressing omitted variable concerns of the observational data at hand, such as natural experiments, quasi-experimental variation in offline participation opportunities, and qualitative and ethnographic work. More granular analyses of specific meetup spaces, local contexts, and evolving governance norms could further reveal how offline structures continue to interact with digital governance.

Finally, while this study focuses on pathways into administrative leadership, an important direction for future work is to examine whether offline ties shape post-selection behaviour, such as conflict resolution or enforcement patterns. Addressing these questions requires longitudinal post-election activity data and might be enhanced through qualitative data from administrators.

There are limitations of the offline interaction data which is based on co-attendance at meetups. This approach follows standard two-mode affiliation network logic, but consequently produces a relatively dense one-mode projection in which all attendees of a given event are connected to one another. The data thus captures opportunities for face-to-face contact rather than direct evidence of interpersonal interaction. Future research which goes beyond archived meeting data could employ RFID sensor networks or similar sociopattern and communication-level trace approaches to truly gather fine-grained measures of social interaction (Lutter, Riebling, and Weidner 2025; Génois et al. 2023). More granular data could help validate and refine the network used here and more confidently identify pathways of offline socialisation. As the descriptive evidence shows, offline meeting participation is a niche phenomenon within the German-language Wikipedia: most contributors never attend offline events, while a small minority is embedded in these networks. Yet, the fact that meetups are not a universal feature of participation does not render them unimportant: on the contrary, for those involved, offline interaction may change their experience of the community, shaping social recognition, trust, and access to governance in ways that remain overlooked in studies focusing exclusively on online activity.

Overall, this study demonstrates that leadership in large-scale online communities is shaped not only by online behaviours but also by offline social structures, while recognising that these findings document patterns of association rather than causal influence. Integrating multiple layers of interaction—online and offline—remains essential for understanding the sociotechnical dynamics of digital governance.

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The author confirms that the manuscript was primarily written by the author. Generative AI (GPT-5, via ChatGPT) was used in a limited, editorial capacity to suggest phrasing improvements and help polish clarity and readability. Generative AI was also used to generate a first draft of R code for plotting. All content, analysis, and intellectual contributions remain entirely those of the human author.

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Paper Checklist

1. For most authors...

   (a) Would answering this research question advance science without violating social contracts, such as violating privacy norms, perpetuating unfair profiling, exacerbating the socio-economic divide, or implying disrespect to societies or cultures? Yes; study uses anonymised data and respects user privacy.

   (b) Do your main claims in the abstract and introduction accurately reflect the paper's contributions and scope? Yes; claims match analysis and reported findings.

(c) Do you clarify how the proposed methodological approach is appropriate for the claims made? Yes; see section Material and Methods. Methods (multilevel models) align with research questions and are in line with standard practices in the social sciences.

(d) Do you clarify what are possible artifacts in the data used, given population-specific distributions? Yes; we note that results are specific to meetup attendees in the German-language Wikipedia and may not generalise to all Wikipedias.

(e) Did you describe the limitations of your work? Yes; discussed observational nature, causality limits, and scope constraints in the Conclusion.

(f) Did you discuss any potential negative societal impacts of your work? Yes; noted focus on a small active subset and caution against overgeneralisation in the Conclusions.

(g) Did you discuss any potential misuse of your work? Yes; cautioned that results should not be used to favour or exclude users based on offline activity in the Conclusions.

(h) Did you describe steps taken to prevent or mitigate potential negative outcomes of the research, such as data and model documentation, data anonymization, responsible release, access control, and the reproducibility of findings? To some extent, see above.

(i) Have you read the ethics review guidelines and ensured that your paper conforms to them? Yes; study has also been approved by the ethical advisor of the Department of Sociology from my institution.

2. Additionally, if your study involves hypotheses testing...

(a) Did you clearly state the assumptions underlying all theoretical results? NA

(b) Have you provided justifications for all theoretical results? NA

(c) Did you discuss competing hypotheses or theories that might challenge or complement your theoretical results? While I do not test hypotheses, I do link to theory; different theoretical approaches are discussed in the Background section and in the Conclusion.

(d) Have you considered alternative mechanisms or explanations that might account for the same outcomes observed in your study? While I do not test hypotheses, I do link to theory; different theoretical approaches are discussed in the Background section and in the Conclusion.

(e) Did you address potential biases or limitations in your theoretical framework? No, as theoretical approaches were mentioned as lens to interpret the results. Biases should not be relevant except to offer new lenses of interpretations (but I am not aware of any).

(f) Have you related your theoretical results to the existing literature in social science? Findings are related to the political science literature.

(g) Did you discuss the implications of your theoretical results for policy, practice, or further research in the social science domain? Yes; discussed in the Conclusions

3. Additionally, if you are including theoretical proofs...

(a) Did you state the full set of assumptions of all theoretical results? NA

(b) Did you include complete proofs of all theoretical results? NA

4. Additionally, if you ran machine learning experiments...

(a) Did you include the code, data, and instructions needed to reproduce the main experimental results (either in the supplemental material or as a URL)? NA

(b) Did you specify all the training details (e.g., data splits, hyperparameters, how they were chosen)? NA

(c) Did you report error bars (e.g., with respect to the random seed after running experiments multiple times)? NA

(d) Did you include the total amount of compute and the type of resources used (e.g., type of GPUs, internal cluster, or cloud provider)? NA

(e) Do you justify how the proposed evaluation is sufficient and appropriate to the claims made? NA

(f) Do you discuss what is "the cost" of misclassification and fault (in)tolerance? NA

5. Additionally, if you are using existing assets (e.g., code, data, models) or curating/releasing new assets, **without compromising anonymity**...

(a) If your work uses existing assets, did you cite the creators? Yes; offline dataset is cited.

(b) Did you mention the license of the assets? No, license is given in the cited source.

(c) Did you include any new assets in the supplemental material or as a URL? Published code and data in an anonymised version and linked it in the manuscript.

(d) Did you discuss whether and how consent was obtained from people whose data you're using/curating? Election data was scraped from public sources.

(e) Did you discuss whether the data you are using/curating contains personally identifiable information or offensive content? Data comes from a public source.

(f) If you are curating or releasing new datasets, did you discuss how you intend to make your datasets FAIR? Dataset is already published.

(g) If you are curating or releasing new datasets, did you create a Datasheet for the Dataset? Dataset is already published.

6. Additionally, if you used crowdsourcing or conducted research with human subjects, **without compromising anonymity**...

(a) Did you include the full text of instructions given to participants and screenshots? The data used refers to human subjects, but information was web-scraped and they did not explicitly take part in research.

(b) Did you describe any potential participant risks, with mentions of Institutional Review Board (IRB) approvals? See above.

(c) Did you include the estimated hourly wage paid to participants and the total amount spent on participant compensation? See above.

(d) Did you discuss how data is stored, shared, and deidentified? See above.

Appendices

Appendix A: Data Description

Descriptive Table

Variable	Candidate (Setup 1)	Winning (Setup 2)
Number of meetups attended	0.17 (1.15) 0 / 40.3	1.76 (3.64) 0 / 38
Number of other users met (log)	0.12 (0.63) 0 / 5.56	–
Proportion of voters met	–	2.52 (4.85) 0 / 41.67
Eigenvector centrality meetup network	0.0053 (0.045) 0 / 1	0.098 (0.22) 0 / 1
Number of other users collaborated with (log)	2.56 (1.74) 0 / 8.39	–
Proportion of voters collaborated with	–	37.39 (24.41) 0 / 100
Eigenvector centrality collaboration network	0.038 (0.067) 0 / 1	0.29 (0.19) 0 / 1
Number of other users talked to (log)	0.29 (0.75) 0 / 7.45	–
Proportion of voters talked to	–	7.63 (9.86) 0 / 100
Eigenvector centrality talk network	0.0055 (0.022) 0 / 0.97	0.12 (0.14) 0 / 1
Number of times reverted others (log)	0.26 (0.75) 0 / 6.41	–
Number of times got reverted (log)	0.28 (0.82) 0 / 7.44	–
Proportion of voters reverted by candidate	–	1.54 (3.99) 0 / 100
Proportion of voters reverted candidate	–	1.74 (4.32) 0 / 100
Number of times previously run	0.018 (0.15) 0 / 4	0.58 (0.99) 0 / 8
Mainspace edits, two months (log)	3.14 (1.88) 0 / 10.23	5.89 (1.56) 0 / 9.26
Total edits (log)	4.29 (2.66) 0 / 12.29	7.96 (1.55) 1.61 / 11.43
Years since first edit	4.48 (3.61) 0.00024 / 18.72	3.55 (3.42) 0.047 / 16.21
Observations	123012	1191
Observations realised (dependent variable = 1)	837	718
Groups	27294	756

Table 3: Descriptive information on all variables included in the models. Given are mean (standard deviation), minimum / maximum.

Data Visualisations

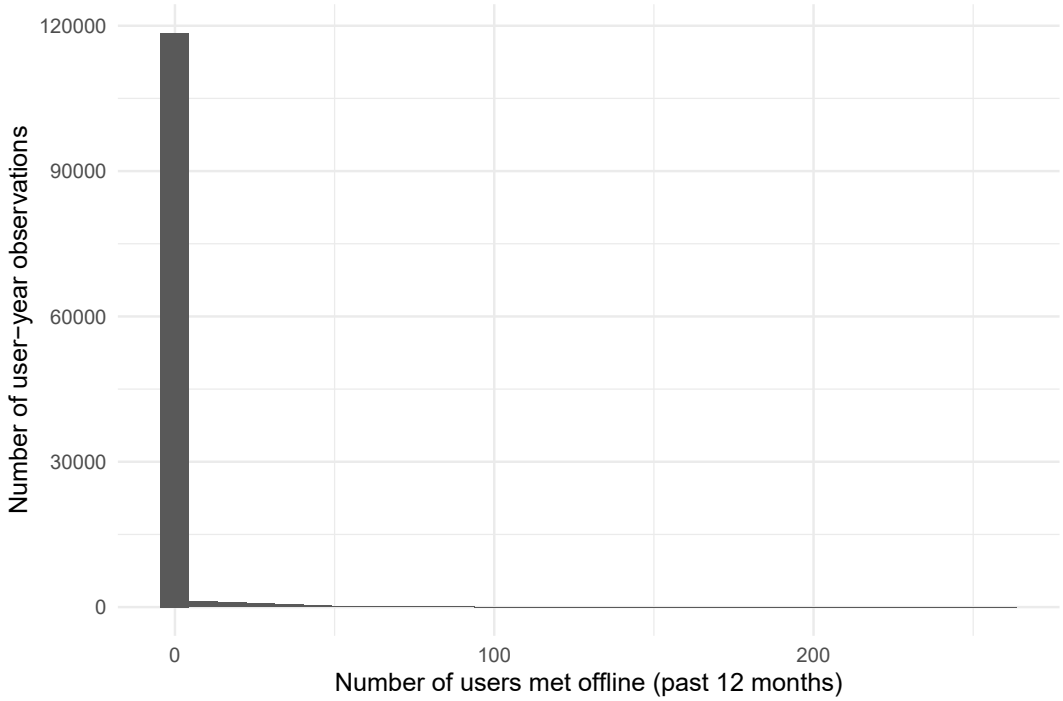

Figure 3: Distribution of offline meeting exposure among admin-eligible users.

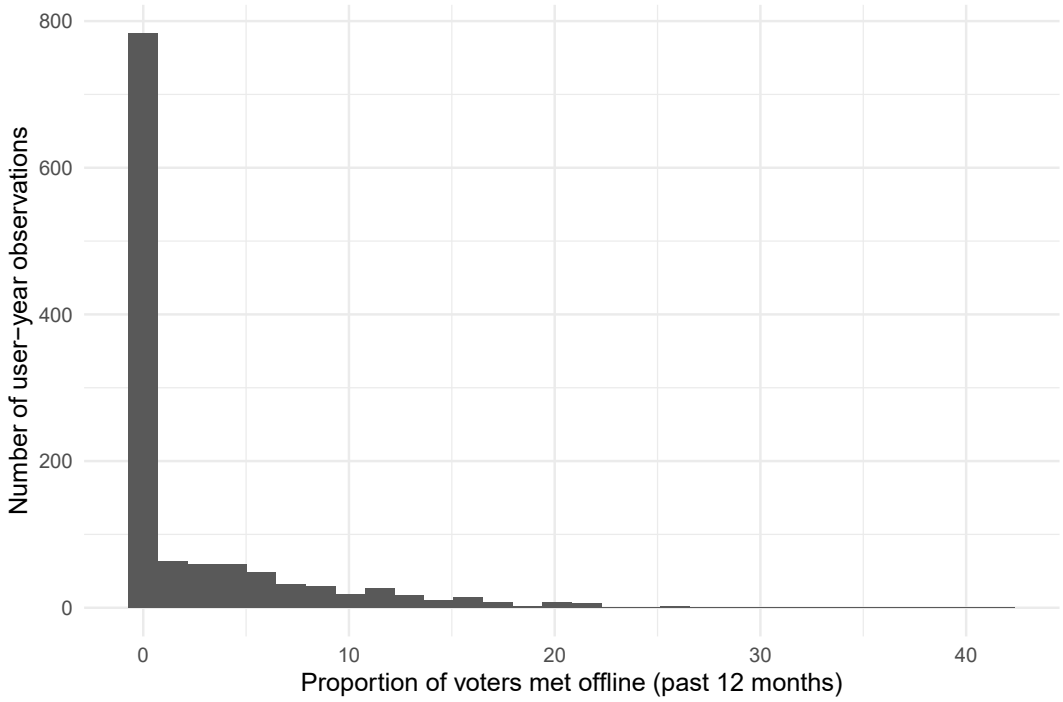

Figure 4: Distribution of offline meeting exposure among candidates running for administrator.

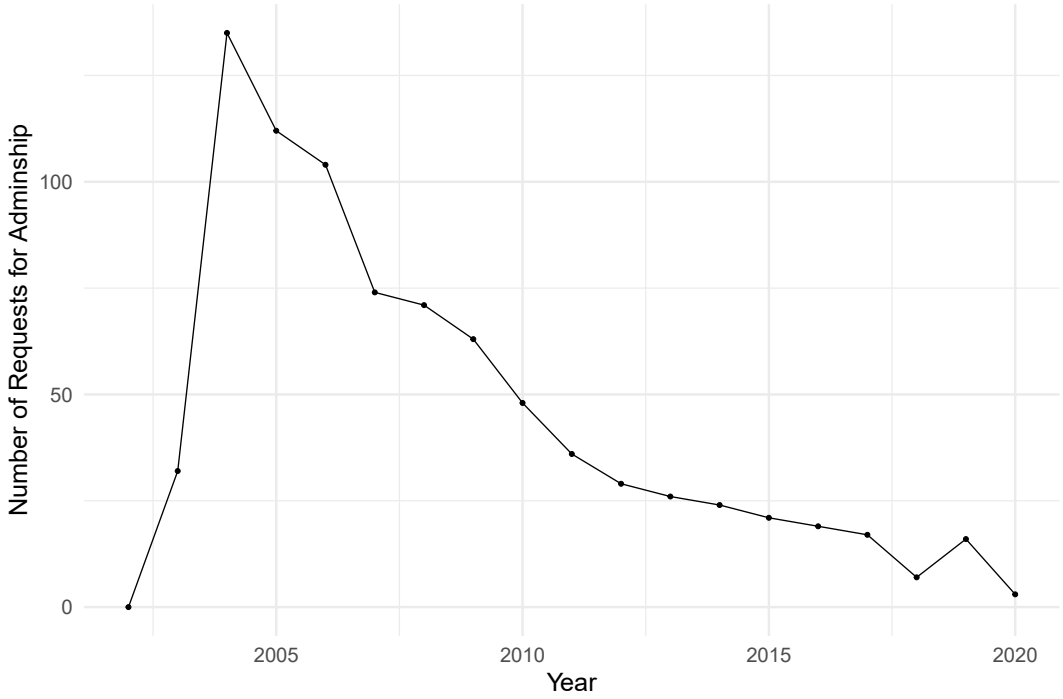

Figure 5: Number of requests for adminships per year in the German-language Wikipedia.

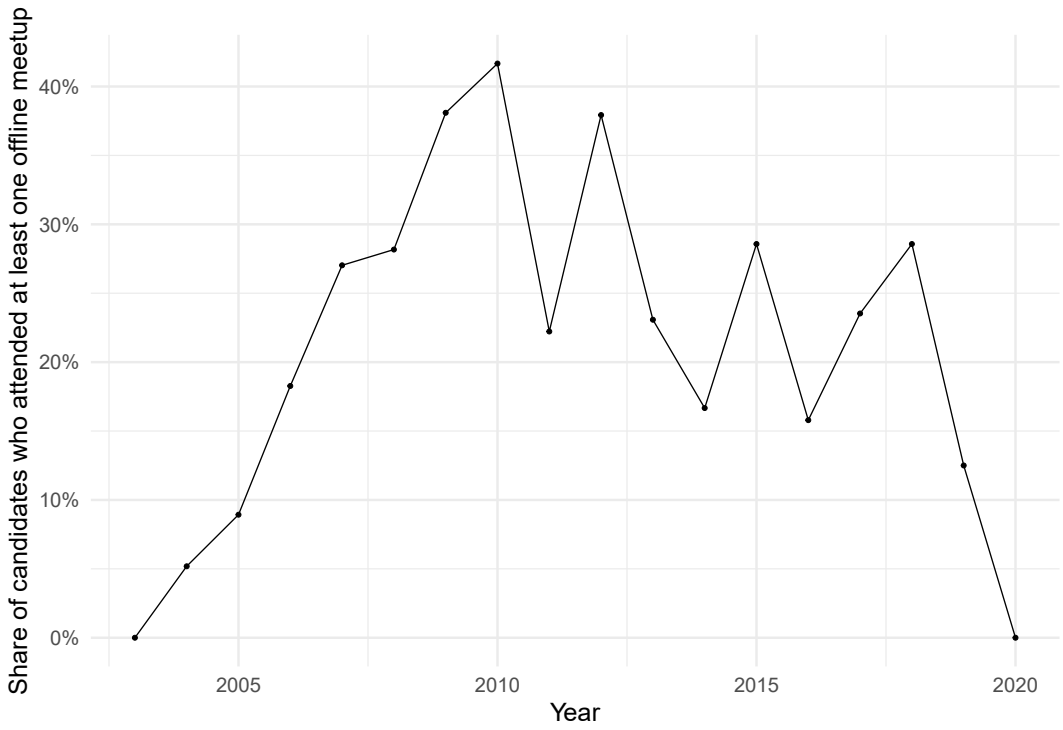

Figure 6: Share of administrator candidates who attended at least one offline meetup in the preceding year.

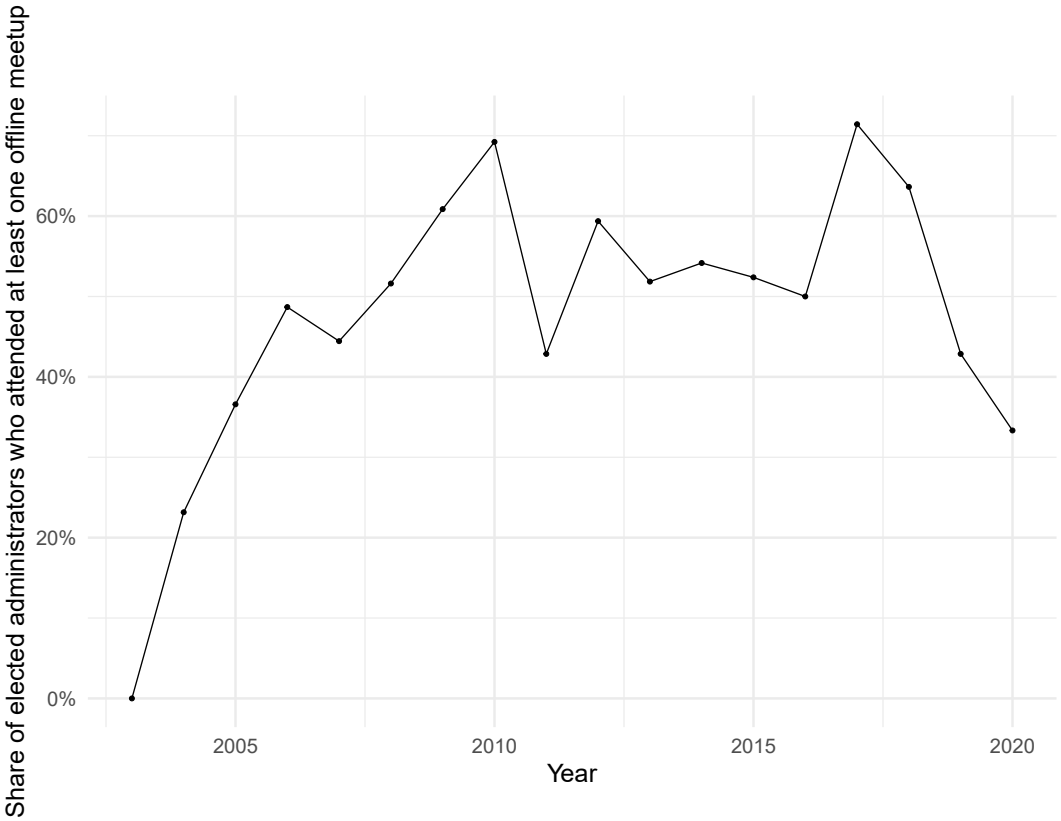

Figure 7: Share of successful administrator candidates who attended at least one offline meetup in the preceding year.

Appendix B: Main Models

Regression Models: Running For Administrator

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$0.0078\ (0.0009)^{***}$	$0.0078\ (0.0009)^{***}$	$0.0079\ (0.0009)^{***}$	$0.0077\ (0.0009)^{***}$
Been at meetings (cm)	$-0.0046\ (0.0018)^{*}$			$-0.0070\ (0.0036)^{+}$
Been at meetings (cwc)	$0.0033\ (0.0023)$			$-0.0023\ (0.0043)$
Number of users met (log, cm)		$-0.0071\ (0.0031)^{*}$		$0.0053\ (0.0063)$
Number of users met (log, cwc)		$0.0099\ (0.0038)^{*}$		$0.0160\ (0.0059)^{**}$
Meetup centrality (cm)			$-0.0975\ (0.0507)^{+}$	$-0.0112\ (0.0787)$
Meetup centrality (cwc)			$0.0413\ (0.0501)$	$-0.0504\ (0.0670)$
Number of users collaborated with (log, cm)	$-0.0060\ (0.0014)^{***}$	$-0.0060\ (0.0014)^{***}$	$-0.0061\ (0.0014)^{***}$	$-0.0061\ (0.0014)^{***}$
Number of users collaborated with (log, cwc)	$0.0007\ (0.0010)$	$0.0006\ (0.0010)$	$0.0008\ (0.0010)$	$0.0006\ (0.0010)$
Collaboration centrality (cm)	$0.5979\ (0.0468)^{***}$	$0.5957\ (0.0469)^{***}$	$0.5997\ (0.0470)^{***}$	$0.5969\ (0.0468)^{***}$
Collaboration centrality (cwc)	$0.1237\ (0.0401)^{**}$	$0.1244\ (0.0400)^{**}$	$0.1216\ (0.0400)^{**}$	$0.1240\ (0.0400)^{**}$
Number of users talked to (log, cm)	$0.0433\ (0.0045)^{***}$	$0.0435\ (0.0045)^{***}$	$0.0416\ (0.0045)^{***}$	$0.0434\ (0.0044)^{***}$
Number of users talked to (log, cwc)	$-0.0025\ (0.0028)$	$-0.0027\ (0.0028)$	$-0.0023\ (0.0028)$	$-0.0027\ (0.0028)$
Talk centrality (cm)	$0.3065\ (0.1092)^{**}$	$0.3076\ (0.1096)^{**}$	$0.3204\ (0.1068)^{**}$	$0.3088\ (0.1065)^{**}$
Talk centrality (cwc)	$0.8804\ (0.1290)^{***}$	$0.8804\ (0.1287)^{***}$	$0.8853\ (0.1289)^{***}$	$0.8805\ (0.1289)^{***}$
Mainspace edits 2 months before (log, cm)	$0.0099\ (0.0012)^{***}$	$0.0100\ (0.0012)^{***}$	$0.0101\ (0.0012)^{***}$	$0.0099\ (0.0012)^{***}$
Mainspace edits 2 months before (log, cwc)	$0.0018\ (0.0009)^{*}$	$0.0018\ (0.0009)^{*}$	$0.0018\ (0.0009)^{*}$	$0.0017\ (0.0009)^{+}$
Total edits up to election (log, cm)	$-0.0126\ (0.0006)^{***}$	$-0.0126\ (0.0006)^{***}$	$-0.0125\ (0.0006)^{***}$	$-0.0126\ (0.0006)^{***}$
Total edits up to election (log, cwc)	$0.0049\ (0.0006)^{***}$	$0.0047\ (0.0006)^{***}$	$0.0050\ (0.0006)^{***}$	$0.0048\ (0.0006)^{***}$
Number of times reverted others (log, cm)	$-0.0382\ (0.0054)^{***}$	$-0.0380\ (0.0054)^{***}$	$-0.0382\ (0.0054)^{***}$	$-0.0382\ (0.0054)^{***}$
Number of times reverted others (log, cwc)	$-0.0030\ (0.0025)$	$-0.0029\ (0.0025)$	$-0.0029\ (0.0025)$	$-0.0029\ (0.0025)$
Number of times got reverted (log, cm)	$0.0096\ (0.0044)^{*}$	$0.0098\ (0.0045)^{*}$	$0.0101\ (0.0044)^{*}$	$0.0098\ (0.0044)^{*}$
Number of times got reverted (log, cwc)	$0.0136\ (0.0027)^{***}$	$0.0133\ (0.0027)^{***}$	$0.0136\ (0.0027)^{***}$	$0.0133\ (0.0027)^{***}$
Years since first edit (cm)	$0.0029\ (0.0006)^{***}$	$0.0029\ (0.0006)^{***}$	$0.0028\ (0.0006)^{***}$	$0.0029\ (0.0006)^{***}$
Years since first edit (cwc)	$0.0003\ (0.0006)$	$0.0004\ (0.0006)$	$0.0004\ (0.0006)$	$0.0004\ (0.0006)$
Number of previous elections ran	$0.2419\ (0.0224)^{***}$	$0.2415\ (0.0224)^{***}$	$0.2420\ (0.0224)^{***}$	$0.2418\ (0.0223)^{***}$
AIC	-69330.9807	-69347.6820	-69300.6143	-69334.2733
BIC	-69126.8124	-69143.5138	-69096.4461	-69096.0770
Log Likelihood	34689.4903	34697.8410	34674.3072	34695.1367
Num. obs.	36571	36571	36571	36571
Num. groups: id	14612	14612	14612	14612
Var: id (Intercept)	0.0000	0.0000	0.0000	0.0000
Var: Residual	0.0087	0.0087	0.0087	0.0087

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 4: Running for administrator (early time frame, 2003–2008).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$0.0112\ (0.0015)^{***}$	$0.0113\ (0.0015)^{***}$	$0.0113\ (0.0015)^{***}$	$0.0113\ (0.0015)^{***}$
Been at meetings (cm)	$-0.0011\ (0.0006)^{+}$			$-0.0021\ (0.0013)$
Been at meetings (cwc)	$0.0009\ (0.0009)$			$-0.0006\ (0.0016)$
Number of users met (log, cm)		$-0.0010\ (0.0013)$		$0.0030\ (0.0026)$
Number of users met (log, cwc)		$0.0038\ (0.0019)^{*}$		$0.0061\ (0.0025)^{*}$
Meetup centrality (cm)			$-0.0187\ (0.0286)$	$-0.0148\ (0.0533)$
Meetup centrality (cwc)			$0.0114\ (0.0313)$	$-0.0344\ (0.0489)$
Number of users collaborated with (log, cm)	$0.0017\ (0.0007)^{**}$	$0.0017\ (0.0007)^{**}$	$0.0017\ (0.0007)^{**}$	$0.0017\ (0.0007)^{**}$
Number of users collaborated with (log, cwc)	$-0.0001\ (0.0006)$	$-0.0002\ (0.0006)$	$-0.0001\ (0.0006)$	$-0.0001\ (0.0006)$
Collaboration centrality (cm)	$0.1093\ (0.0326)^{***}$	$0.1093\ (0.0326)^{***}$	$0.1095\ (0.0326)^{***}$	$0.1106\ (0.0326)^{***}$
Collaboration centrality (cwc)	$0.1271\ (0.0352)^{***}$	$0.1276\ (0.0352)^{***}$	$0.1271\ (0.0352)^{***}$	$0.1270\ (0.0352)^{***}$
Number of users talked to (log, cm)	$0.0079\ (0.0038)^{*}$	$0.0076\ (0.0038)^{*}$	$0.0076\ (0.0038)^{*}$	$0.0076\ (0.0038)^{*}$
Number of users talked to (log, cwc)	$0.0013\ (0.0024)$	$0.0012\ (0.0024)$	$0.0013\ (0.0024)$	$0.0012\ (0.0024)$
Talk centrality (cm)	$0.5175\ (0.2033)^{*}$	$0.5127\ (0.2027)^{*}$	$0.5204\ (0.2045)^{*}$	$0.5137\ (0.2040)^{*}$
Talk centrality (cwc)	$0.6132\ (0.1451)^{***}$	$0.6047\ (0.1448)^{***}$	$0.6148\ (0.1466)^{***}$	$0.6114\ (0.1459)^{***}$
Mainspace edits 2 months before (log, cm)	$0.0002\ (0.0006)$	$0.0002\ (0.0006)$	$0.0002\ (0.0006)$	$0.0002\ (0.0006)$
Mainspace edits 2 months before (log, cwc)	$-0.0005\ (0.0004)$	$-0.0005\ (0.0004)$	$-0.0005\ (0.0004)$	$-0.0005\ (0.0004)$
Total edits up to election (log, cm)	$-0.0044\ (0.0004)^{***}$	$-0.0044\ (0.0004)^{***}$	$-0.0044\ (0.0004)^{***}$	$-0.0044\ (0.0004)^{***}$
Total edits up to election (log, cwc)	$0.0036\ (0.0004)^{***}$	$0.0035\ (0.0004)^{***}$	$0.0036\ (0.0004)^{***}$	$0.0035\ (0.0004)^{***}$
Number of times reverted others (log, cm)	$-0.0067\ (0.0024)^{**}$	$-0.0065\ (0.0024)^{**}$	$-0.0066\ (0.0024)^{**}$	$-0.0066\ (0.0024)^{**}$
Number of times reverted others (log, cwc)	$-0.0019\ (0.0012)$	$-0.0019\ (0.0013)$	$-0.0019\ (0.0012)$	$-0.0019\ (0.0012)$
Number of times got reverted (log, cm)	$0.0044\ (0.0020)^{*}$	$0.0045\ (0.0020)^{*}$	$0.0045\ (0.0020)^{*}$	$0.0045\ (0.0020)^{*}$
Number of times got reverted (log, cwc)	$0.0033\ (0.0012)^{**}$	$0.0032\ (0.0012)^{**}$	$0.0032\ (0.0012)^{**}$	$0.0033\ (0.0012)^{**}$
Years since first edit (cm)	$-0.0005\ (0.0002)^{***}$	$-0.0006\ (0.0002)^{***}$	$-0.0006\ (0.0002)^{***}$	$-0.0006\ (0.0002)^{***}$
Years since first edit (cwc)	$-0.0005\ (0.0002)^{*}$	$-0.0005\ (0.0002)^{*}$	$-0.0005\ (0.0002)^{*}$	$-0.0005\ (0.0002)^{*}$
Number of previous elections ran	$0.0929\ (0.0133)^{***}$	$0.0926\ (0.0133)^{***}$	$0.0930\ (0.0133)^{***}$	$0.0925\ (0.0133)^{***}$
AIC	-134223.5289	-134244.7649	-134228.1358	-134220.0087
BIC	-134012.0117	-134033.2477	-134016.6186	-133973.2386
Log Likelihood	67135.7645	67146.3825	67138.0679	67138.0044
Num. obs.	49673	49673	49673	49673
Num. groups: id	18691	18691	18691	18691
Var: id (Intercept)	0.0001	0.0001	0.0001	0.0001
Var: Residual	0.0038	0.0038	0.0038	0.0038

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 5: Running for administrator (middle time frame, 2009–2014).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$0.0037\ (0.0012)^{**}$	$0.0035\ (0.0012)^{**}$	$0.0037\ (0.0012)^{**}$	$0.0036\ (0.0012)^{**}$
Been at meetings (cm)	$-0.0005\ (0.0006)$			$0.0010\ (0.0010)$
Been at meetings (cwc)	$0.0026\ (0.0014)^{+}$			$0.0020\ (0.0022)$
Number of users met (log, cm)		$-0.0019\ (0.0010)^{+}$		$-0.0044\ (0.0018)^{*}$
Number of users met (log, cwc)		$0.0027\ (0.0014)^{+}$		$-0.0028\ (0.0030)$
Meetup centrality (cm)			$-0.0162\ (0.0226)$	$0.0177\ (0.0375)$
Meetup centrality (cwc)			$0.0715\ (0.0303)^{*}$	$0.0671\ (0.0352)^{+}$
Number of users collaborated with (log, cm)	$0.0013\ (0.0005)^{*}$	$0.0014\ (0.0005)^{**}$	$0.0013\ (0.0005)^{*}$	$0.0014\ (0.0005)^{**}$
Number of users collaborated with (log, cwc)	$-0.0016\ (0.0007)^{*}$	$-0.0015\ (0.0007)^{*}$	$-0.0016\ (0.0007)^{*}$	$-0.0016\ (0.0007)^{*}$
Collaboration centrality (cm)	$0.0113\ (0.0217)$	$0.0096\ (0.0216)$	$0.0121\ (0.0216)$	$0.0110\ (0.0215)$
Collaboration centrality (cwc)	$0.1415\ (0.0370)^{***}$	$0.1417\ (0.0370)^{***}$	$0.1417\ (0.0370)^{***}$	$0.1422\ (0.0369)^{***}$
Number of users talked to (log, cm)	$0.0080\ (0.0026)^{**}$	$0.0084\ (0.0026)^{**}$	$0.0079\ (0.0026)^{**}$	$0.0083\ (0.0026)^{**}$
Number of users talked to (log, cwc)	$0.0034\ (0.0019)^{+}$	$0.0037\ (0.0020)^{+}$	$0.0035\ (0.0019)^{+}$	$0.0034\ (0.0019)^{+}$
Talk centrality (cm)	$0.0017\ (0.1165)$	$0.0080\ (0.1185)$	$-0.0078\ (0.1144)$	$-0.0081\ (0.1158)$
Talk centrality (cwc)	$0.1607\ (0.1220)$	$0.1657\ (0.1238)$	$0.1573\ (0.1208)$	$0.1556\ (0.1211)$
Mainspace edits 2 months before (log, cm)	$-0.0010\ (0.0004)^{*}$	$-0.0010\ (0.0004)^{*}$	$-0.0010\ (0.0004)^{*}$	$-0.0010\ (0.0004)^{*}$
Mainspace edits 2 months before (log, cwc)	$0.0001\ (0.0004)$	$0.0001\ (0.0004)$	$0.0001\ (0.0004)$	$0.0001\ (0.0004)$
Total edits up to election (log, cm)	$-0.0006\ (0.0003)^{*}$	$-0.0006\ (0.0003)^{*}$	$-0.0006\ (0.0003)^{*}$	$-0.0006\ (0.0003)^{*}$
Total edits up to election (log, cwc)	$0.0013\ (0.0005)^{*}$	$0.0013\ (0.0005)^{**}$	$0.0013\ (0.0005)^{**}$	$0.0013\ (0.0005)^{*}$
Number of times reverted others (log, cm)	$-0.0025\ (0.0014)^{+}$	$-0.0026\ (0.0014)^{+}$	$-0.0025\ (0.0014)^{+}$	$-0.0025\ (0.0014)^{+}$
Number of times reverted others (log, cwc)	$-0.0006\ (0.0011)$	$-0.0006\ (0.0011)$	$-0.0006\ (0.0011)$	$-0.0006\ (0.0011)$
Number of times got reverted (log, cm)	$0.0010\ (0.0012)$	$0.0009\ (0.0012)$	$0.0010\ (0.0012)$	$0.0009\ (0.0012)$
Number of times got reverted (log, cwc)	$0.0000\ (0.0013)$	$0.0000\ (0.0013)$	$0.0001\ (0.0013)$	$0.0001\ (0.0013)$
Years since first edit (cm)	$-0.0003\ (0.0001)^{***}$	$-0.0003\ (0.0001)^{***}$	$-0.0003\ (0.0001)^{***}$	$-0.0003\ (0.0001)^{***}$
Years since first edit (cwc)	$-0.0003\ (0.0001)^{*}$	$-0.0004\ (0.0001)^{**}$	$-0.0003\ (0.0001)^{*}$	$-0.0003\ (0.0001)^{*}$
Number of previous elections ran	$0.0748\ (0.0133)^{***}$	$0.0751\ (0.0133)^{***}$	$0.0749\ (0.0133)^{***}$	$0.0746\ (0.0133)^{***}$
AIC	-122721.5978	-122697.6712	-122759.0571	-122735.1167
BIC	-122517.3006	-122493.3740	-122554.7599	-122496.7700
Log Likelihood	61384.7989	61372.8356	61403.5285	61395.5583
Num. obs.	36768	36768	36768	36768
Num. groups: id	10988	10988	10988	10988
Var: id (Intercept)	0.0002	0.0002	0.0002	0.0002
Var: Residual	0.0019	0.0019	0.0019	0.0019

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 6: Running for administrator (late time frame, 2015–2020).

Regression Models: Winning Elections

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$0.3998\ (0.1401)^{**}$	$0.3724\ (0.1400)^{**}$	$0.3695\ (0.1386)^{**}$	$0.3798\ (0.1401)^{**}$
Been at meetings	$0.0280\ (0.0067)^{***}$			$0.0050\ (0.0109)$
Proportion of voters met		$0.0186\ (0.0043)^{***}$		$0.0142\ (0.0104)$
Meetup centrality			$0.3850\ (0.0772)^{***}$	$0.0687\ (0.1553)$
Proportion of voters collaborated with	$-0.0003\ (0.0015)$	$-0.0007\ (0.0016)$	$-0.0006\ (0.0016)$	$-0.0006\ (0.0015)$
Collaboration centrality	$0.6332\ (0.1897)^{***}$	$0.6805\ (0.1877)^{***}$	$0.6509\ (0.1889)^{***}$	$0.6772\ (0.1878)^{***}$
Porportion of voters talked to	$-0.0001\ (0.0018)$	$-0.0002\ (0.0017)$	$0.0000\ (0.0018)$	$-0.0002\ (0.0017)$
Talk centrality	$-0.1886\ (0.1527)$	$-0.1780\ (0.1489)$	$-0.2141\ (0.1505)$	$-0.1883\ (0.1497)$
Mainspace edits 2 months before (log)	$-0.0049\ (0.0270)$	$-0.0037\ (0.0267)$	$-0.0030\ (0.0266)$	$-0.0035\ (0.0267)$
Total edits up to election (log)	$0.0121\ (0.0225)$	$0.0136\ (0.0222)$	$0.0172\ (0.0221)$	$0.0128\ (0.0220)$
Proportion of voters reverted candidate	$-0.0049\ (0.0045)$	$-0.0046\ (0.0045)$	$-0.0049\ (0.0045)$	$-0.0046\ (0.0045)$
Proportion of voters reverted by candidate	$-0.0032\ (0.0036)$	$-0.0034\ (0.0037)$	$-0.0034\ (0.0037)$	$-0.0034\ (0.0037)$
Years since first edit	$0.0107\ (0.0296)$	$0.0063\ (0.0304)$	$0.0065\ (0.0300)$	$0.0054\ (0.0304)$
Number of previous elections ran	$-0.1160\ (0.0392)^{**}$	$-0.1031\ (0.0403)^{*}$	$-0.1145\ (0.0403)^{**}$	$-0.1109\ (0.0408)^{**}$
R^2	0.07	0.08	0.07	0.08
Adj. R^2	0.05	0.07	0.06	0.06
Num. obs.	602	602	602	602

$^{***}p < 0.001; {}^{**}p < 0.01; {}^{*}p < 0.05; {}^{+}p < 0.1.$

Table 7: Winning elections (early time frame, 2003–2008).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-1.0792\ (0.1717)^{***}$	$-1.0003\ (0.1670)^{***}$	$-1.0550\ (0.1679)^{***}$	$-1.0761\ (0.1663)^{***}$
Been at meetings	$0.0055\ (0.0068)$			$-0.0261\ (0.0092)^{**}$
Proportion of voters met		$0.0219\ (0.0061)^{***}$		$0.0636\ (0.0118)^{***}$
Meetup centrality			$0.2584\ (0.1361)^{+}$	$-0.5705\ (0.2288)^{*}$
Proportion of voters collaborated with	$0.0010\ (0.0055)$	$0.0008\ (0.0054)$	$0.0007\ (0.0055)$	$-0.0003\ (0.0055)$
Collaboration centrality	$-0.0395\ (0.4940)$	$-0.0241\ (0.4849)$	$-0.0119\ (0.4954)$	$-0.0344\ (0.4830)$
Porportion of voters talked to	$0.0106\ (0.0119)$	$0.0072\ (0.0117)$	$0.0105\ (0.0118)$	$0.0086\ (0.0120)$
Talk centrality	$-0.7857\ (0.3386)^{*}$	$-0.7879\ (0.3447)^{*}$	$-0.8066\ (0.3431)^{*}$	$-0.6916\ (0.3544)^{+}$
Mainspace edits 2 months before (log)	$0.0840\ (0.0199)^{***}$	$0.0851\ (0.0192)^{***}$	$0.0849\ (0.0196)^{***}$	$0.0915\ (0.0190)^{***}$
Total edits up to election (log)	$0.1328\ (0.0288)^{***}$	$0.1193\ (0.0282)^{***}$	$0.1290\ (0.0281)^{***}$	$0.1214\ (0.0281)^{***}$
Proportion of voters reverted candidate	$-0.0654\ (0.0238)^{**}$	$-0.0612\ (0.0225)^{**}$	$-0.0654\ (0.0233)^{**}$	$-0.0545\ (0.0222)^{*}$
Proportion of voters reverted by candidate	$0.0050\ (0.0255)$	$0.0037\ (0.0247)$	$0.0032\ (0.0256)$	$-0.0005\ (0.0239)$
Years since first edit	$0.0249\ (0.0141)^{+}$	$0.0269\ (0.0144)^{+}$	$0.0253\ (0.0141)^{+}$	$0.0328\ (0.0139)^{*}$
Number of previous elections ran	$-0.0118\ (0.0528)$	$-0.0120\ (0.0506)$	$-0.0149\ (0.0519)$	$0.0052\ (0.0527)$
R^2	0.28	0.30	0.29	0.33
Adj. R^2	0.26	0.28	0.27	0.30
Num. obs.	388	388	388	388

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 8: Winning elections (middle time frame, 2009–2015).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-0.9987\ (0.2907)^{***}$	$-0.9886\ (0.2871)^{***}$	$-1.0051\ (0.2892)^{***}$	$-1.0027\ (0.2953)^{***}$
Been at meetings	$0.0049\ (0.0086)$			$-0.0104\ (0.0099)$
Proportion of voters met		$0.0133\ (0.0086)$		$0.0597\ (0.0365)$
Meetup centrality			$0.1858\ (0.1597)$	$-0.7198\ (0.6817)$
Proportion of voters collaborated with	$0.0097\ (0.0095)$	$0.0101\ (0.0092)$	$0.0099\ (0.0093)$	$0.0079\ (0.0093)$
Collaboration centrality	$-0.9225\ (1.0147)$	$-0.9342\ (0.9930)$	$-0.9333\ (0.9991)$	$-0.6990\ (1.0123)$
Porportion of voters talked to	$0.0035\ (0.0175)$	$0.0014\ (0.0172)$	$0.0017\ (0.0174)$	$0.0022\ (0.0172)$
Talk centrality	$-0.4629\ (0.9563)$	$-0.5926\ (0.9317)$	$-0.5834\ (0.9348)$	$-0.3824\ (0.9521)$
Mainspace edits 2 months before (log)	$0.0564\ (0.0420)$	$0.0597\ (0.0419)$	$0.0604\ (0.0420)$	$0.0605\ (0.0432)$
Total edits up to election (log)	$0.1106\ (0.0393)^{**}$	$0.1052\ (0.0388)^{**}$	$0.1083\ (0.0388)^{**}$	$0.1056\ (0.0399)^{**}$
Proportion of voters reverted candidate	$-0.1293\ (0.0530)^{*}$	$-0.1283\ (0.0524)^{*}$	$-0.1305\ (0.0532)^{*}$	$-0.1252\ (0.0527)^{*}$
Proportion of voters reverted by candidate	$0.0117\ (0.0400)$	$0.0197\ (0.0380)$	$0.0191\ (0.0387)$	$0.0237\ (0.0403)$
Years since first edit	$0.0366\ (0.0118)^{**}$	$0.0367\ (0.0118)^{**}$	$0.0365\ (0.0116)^{**}$	$0.0360\ (0.0122)^{**}$
Number of previous elections ran	$-0.0332\ (0.0301)$	$-0.0352\ (0.0290)$	$-0.0352\ (0.0295)$	$-0.0343\ (0.0289)$
R^2	0.29	0.30	0.30	0.32
Adj. R^2	0.24	0.26	0.25	0.26
Num. obs.	174	174	174	174

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 9: Winning elections (late time frame, 2016–2020).

Appendix C: Robustness Checks

Generalised Linear Regression Models: Running For Administrator

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-7.9268\ (0.3651)^{***}$	$-7.9254\ (0.3648)^{***}$	$-7.9320\ (0.3658)^{***}$	$-7.9437\ (0.3666)^{***}$
Been at meetings (cm)	$0.0723\ (0.0571)$			$-0.1094\ (0.1240)$
Been at meetings (cwc)	$0.0158\ (0.0621)$			$-0.0091\ (0.1137)$
Number of users met (log, cm)		$0.2236\ (0.1055)^{*}$		$0.3978\ (0.2128)^{+}$
Number of users met (log, cwc)		$0.0604\ (0.1098)$		$0.1688\ (0.1972)$
Meetup centrality (cm)			$1.4286\ (1.0516)$	$0.0604\ (1.6521)$
Meetup centrality (cwc)			$-0.2320\ (0.9203)$	$-1.0903\ (1.3987)$
Number of users collaborated with (log, cm)	$0.8178\ (0.1940)^{***}$	$0.8032\ (0.1940)^{***}$	$0.8204\ (0.1940)^{***}$	$0.8007\ (0.1943)^{***}$
Number of users collaborated with (log, cwc)	$1.0771\ (0.2716)^{***}$	$1.0760\ (0.2713)^{***}$	$1.0872\ (0.2721)^{***}$	$1.0842\ (0.2714)^{***}$
Collaboration centrality (cm)	$1.6925\ (0.8887)^{+}$	$1.6974\ (0.8882)^{+}$	$1.7031\ (0.8887)^{+}$	$1.7350\ (0.8906)^{+}$
Collaboration centrality (cwc)	$2.9635\ (1.2887)^{*}$	$2.9308\ (1.2874)^{*}$	$2.8821\ (1.2926)^{*}$	$2.8299\ (1.2957)^{*}$
Number of users talked to (log, cm)	$0.6857\ (0.1344)^{***}$	$0.6669\ (0.1343)^{***}$	$0.6883\ (0.1340)^{***}$	$0.6550\ (0.1351)^{***}$
Number of users talked to (log, cwc)	$0.4652\ (0.1203)^{***}$	$0.4659\ (0.1207)^{***}$	$0.4738\ (0.1201)^{***}$	$0.4663\ (0.1208)^{***}$
Talk centrality (cm)	$-3.3630\ (1.4705)^{*}$	$-3.4353\ (1.4628)^{*}$	$-3.4138\ (1.4776)^{*}$	$-3.2596\ (1.4827)^{*}$
Talk centrality (cwc)	$7.1637\ (1.5637)^{***}$	$7.1298\ (1.5649)^{***}$	$7.0245\ (1.5687)^{***}$	$7.1195\ (1.5737)^{***}$
Mainspace edits 2 months before (log, cm)	$0.5246\ (0.1715)^{**}$	$0.5382\ (0.1714)^{**}$	$0.5203\ (0.1714)^{**}$	$0.5373\ (0.1718)^{**}$
Mainspace edits 2 months before (log, cwc)	$0.0151\ (0.2465)$	$0.0207\ (0.2461)$	$0.0116\ (0.2468)$	$0.0153\ (0.2461)$
Total edits up to election (log, cm)	$-0.4942\ (0.0552)^{***}$	$-0.5017\ (0.0555)^{***}$	$-0.4956\ (0.0553)^{***}$	$-0.5042\ (0.0557)^{***}$
Total edits up to election (log, cwc)	$0.2407\ (0.0528)^{***}$	$0.2384\ (0.0530)^{***}$	$0.2428\ (0.0524)^{***}$	$0.2357\ (0.0531)^{***}$
Number of times reverted others (log, cm)	$-0.8945\ (0.1754)^{***}$	$-0.8836\ (0.1752)^{***}$	$-0.8878\ (0.1759)^{***}$	$-0.8844\ (0.1759)^{***}$
Number of times reverted others (log, cwc)	$-0.4157\ (0.1336)^{**}$	$-0.4145\ (0.1334)^{**}$	$-0.4077\ (0.1334)^{**}$	$-0.4078\ (0.1335)^{**}$
Number of times got reverted (log, cm)	$0.1065\ (0.1404)$	$0.1064\ (0.1398)$	$0.1036\ (0.1407)$	$0.1183\ (0.1403)$
Number of times got reverted (log, cwc)	$0.3474\ (0.1144)^{**}$	$0.3477\ (0.1145)^{**}$	$0.3443\ (0.1143)^{**}$	$0.3457\ (0.1142)^{**}$
Years since first edit (cm)	$-0.6248\ (0.1279)^{***}$	$-0.6301\ (0.1279)^{***}$	$-0.6170\ (0.1274)^{***}$	$-0.6133\ (0.1280)^{***}$
Years since first edit (cwc)	$-0.5356\ (0.1359)^{***}$	$-0.5438\ (0.1360)^{***}$	$-0.5311\ (0.1356)^{***}$	$-0.5333\ (0.1357)^{***}$
Number of previous elections ran	$4.0468\ (0.1927)^{***}$	$4.0562\ (0.1932)^{***}$	$4.0460\ (0.1925)^{***}$	$4.0569\ (0.1931)^{***}$
AIC	1806.1756	1803.1882	1805.9426	1809.4332
BIC	2001.8369	1998.8495	2001.6038	2039.1225
Log Likelihood	-880.0878	-878.5941	-879.9713	-877.7166
Num. obs.	36571	36571	36571	36571
Num. groups: id	14612	14612	14612	14612
Var: id (Intercept)	0.0000	0.0000	0.0000	0.0000

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 10: Running for administrator (early time frame, 2003–2008; logit).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-10.6922\ (0.8053)^{***}$	$-10.6454\ (0.8013)^{***}$	$-10.7543\ (0.8185)^{***}$	$-10.6322\ (0.7980)^{***}$
Been at meetings (cm)	$-0.0005\ (0.0585)$			$-0.2114\ (0.1209)^{+}$
Been at meetings (cwc)	$0.0343\ (0.0546)$			$0.1040\ (0.0846)$
Number of users met (log, cm)		$0.1013\ (0.1061)$		$0.2831\ (0.2259)$
Number of users met (log, cwc)		$0.0654\ (0.0978)$		$0.1903\ (0.1500)$
Meetup centrality (cm)			$1.2008\ (1.2058)$	$1.6493\ (2.0074)$
Meetup centrality (cwc)			$-1.1198\ (0.9798)$	$-3.9861\ (1.5136)^{**}$
Number of users collaborated with (log, cm)	$1.7359\ (0.2875)^{***}$	$1.7373\ (0.2860)^{***}$	$1.7435\ (0.2868)^{***}$	$1.7427\ (0.2882)^{***}$
Number of users collaborated with (log, cwc)	$1.3411\ (0.3428)^{***}$	$1.3578\ (0.3409)^{***}$	$1.3615\ (0.3433)^{***}$	$1.3100\ (0.3428)^{***}$
Collaboration centrality (cm)	$-9.4530\ (2.1257)^{***}$	$-9.3829\ (2.1178)^{***}$	$-9.6384\ (2.1152)^{***}$	$-9.3375\ (2.1265)^{***}$
Collaboration centrality (cwc)	$-1.5225\ (2.3612)$	$-1.3623\ (2.3680)$	$-1.5567\ (2.3467)$	$-1.1272\ (2.3667)$
Number of users talked to (log, cm)	$0.5534\ (0.1706)^{**}$	$0.5303\ (0.1687)^{**}$	$0.5550\ (0.1700)^{**}$	$0.5304\ (0.1702)^{**}$
Number of users talked to (log, cwc)	$1.0478\ (0.1639)^{***}$	$1.0493\ (0.1634)^{***}$	$1.0499\ (0.1645)^{***}$	$1.0533\ (0.1644)^{***}$
Talk centrality (cm)	$1.3139\ (2.9411)$	$0.7104\ (2.9211)$	$0.6202\ (2.9544)$	$0.8872\ (3.0580)$
Talk centrality (cwc)	$-2.0242\ (2.7093)$	$-2.1547\ (2.7807)$	$-1.5505\ (2.7412)$	$-2.1186\ (2.7893)$
Mainspace edits 2 months before (log, cm)	$0.1955\ (0.1878)$	$0.1917\ (0.1868)$	$0.2139\ (0.1875)$	$0.2030\ (0.1895)$
Mainspace edits 2 months before (log, cwc)	$-0.5352\ (0.2651)^{*}$	$-0.5544\ (0.2635)^{*}$	$-0.5366\ (0.2657)^{*}$	$-0.5315\ (0.2672)^{*}$
Total edits up to election (log, cm)	$-0.2560\ (0.0819)^{**}$	$-0.2537\ (0.0813)^{**}$	$-0.2530\ (0.0820)^{**}$	$-0.2605\ (0.0819)^{**}$
Total edits up to election (log, cwc)	$0.4635\ (0.0837)^{***}$	$0.4543\ (0.0833)^{***}$	$0.4788\ (0.0860)^{***}$	$0.4614\ (0.0842)^{***}$
Number of times reverted others (log, cm)	$-0.4052\ (0.2371)^{+}$	$-0.3908\ (0.2363)^{+}$	$-0.3848\ (0.2369)$	$-0.4142\ (0.2368)^{+}$
Number of times reverted others (log, cwc)	$-0.0449\ (0.1432)$	$-0.0443\ (0.1426)$	$-0.0490\ (0.1428)$	$-0.0449\ (0.1425)$
Number of times got reverted (log, cm)	$0.2439\ (0.1626)$	$0.2364\ (0.1617)$	$0.2100\ (0.1633)$	$0.2206\ (0.1637)$
Number of times got reverted (log, cwc)	$0.2904\ (0.1295)^{*}$	$0.2809\ (0.1293)^{*}$	$0.2863\ (0.1291)^{*}$	$0.2825\ (0.1285)^{*}$
Years since first edit (cm)	$-0.4128\ (0.0649)^{***}$	$-0.4191\ (0.0643)^{***}$	$-0.4213\ (0.0645)^{***}$	$-0.4271\ (0.0650)^{***}$
Years since first edit (cwc)	$-0.0138\ (0.0763)$	$-0.0117\ (0.0758)$	$-0.0100\ (0.0766)$	$-0.0140\ (0.0763)$
Number of previous elections ran	$1.9289\ (0.2086)^{***}$	$1.9077\ (0.2038)^{***}$	$1.9112\ (0.2288)^{***}$	$1.8793\ (0.2099)^{***}$
AIC	1333.5897	1332.1550	1331.8988	1330.6003
BIC	1536.2937	1534.8590	1534.6028	1568.5572
Log Likelihood	-643.7949	-643.0775	-642.9494	-638.3001
Num. obs.	49673	49673	49673	49673
Num. groups: id	18691	18691	18691	18691
Var: id (Intercept)	0.1424	0.0888	0.1072	0.0726

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 11: Running for administrator (middle time frame, 2009–2014; logit).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-16.3847\ (3.2339)^{***}$	$-18.5645\ (4.7555)^{***}$	$-16.7449\ (0.8161)^{***}$	$-28.0689\ (1.6585)^{***}$
Been at meetings (cm)	$-0.5216\ (0.2235)^{*}$			$0.6403\ (0.3750)^{+}$
Been at meetings (cwc)	$0.5077\ (0.1436)^{***}$			$-0.0300\ (0.1206)$
Number of users met (log, cm)		$-1.5888\ (0.6494)^{*}$		$-0.0961\ (0.9533)$
Number of users met (log, cwc)		$1.4391\ (0.4088)^{***}$		$0.4693\ (0.3834)$
Meetup centrality (cm)			$-20.1687\ (6.7056)^{**}$	$-30.7075\ (12.0369)^{*}$
Meetup centrality (cwc)			$16.6196\ (3.3352)^{***}$	$6.3343\ (3.6136)^{+}$
Number of users collaborated with (log, cm)	$3.3699\ (0.8476)^{***}$	$2.8986\ (1.6027)^{+}$	$2.5447\ (0.6412)^{***}$	$5.0054\ (0.8044)^{***}$
Number of users collaborated with (log, cwc)	$1.6101\ (0.8291)^{+}$	$4.2614\ (1.0753)^{***}$	$2.3283\ (0.4639)^{***}$	$2.6756\ (0.8297)^{**}$
Collaboration centrality (cm)	$-18.6870\ (7.4216)^{*}$	$-16.6092\ (13.7150)$	$-11.5898\ (0.7291)^{***}$	$-42.0674\ (4.8982)^{***}$
Collaboration centrality (cwc)	$10.4791\ (5.1216)^{*}$	$8.4242\ (7.6167)$	$15.7443\ (0.7832)^{***}$	$6.5060\ (4.6644)$
Number of users talked to (log, cm)	$0.6536\ (0.3440)^{+}$	$0.8171\ (0.8266)$	$1.1207\ (0.4129)^{**}$	$0.3481\ (0.4814)$
Number of users talked to (log, cwc)	$-0.0619\ (0.3004)$	$-0.0581\ (0.3821)$	$0.2505\ (0.2802)$	$0.2095\ (0.3406)$
Talk centrality (cm)	$14.6405\ (12.9440)$	$21.4344\ (20.6571)$	$20.0133\ (0.7151)^{***}$	$44.6109\ (5.6400)^{***}$
Talk centrality (cwc)	$-14.3865\ (10.2044)$	$-17.7733\ (12.8813)$	$-7.0814\ (0.7725)^{***}$	$-14.5270\ (5.1627)^{**}$
Mainspace edits 2 months before (log, cm)	$-0.8892\ (0.4284)^{*}$	$-0.2628\ (0.9831)$	$-0.6134\ (0.4698)$	$0.0569\ (0.6140)$
Mainspace edits 2 months before (log, cwc)	$-0.0033\ (0.5438)$	$-1.9880\ (0.6183)^{**}$	$-1.1118\ (0.3574)^{**}$	$-0.6157\ (0.5346)$
Total edits up to election (log, cm)	$-0.0577\ (0.1363)$	$-0.1134\ (0.3418)$	$-0.1274\ (0.1444)$	$0.1512\ (0.2260)$
Total edits up to election (log, cwc)	$0.8147\ (0.2105)^{***}$	$0.2885\ (0.2118)$	$0.2588\ (0.1688)$	$0.0469\ (0.1571)$
Number of times reverted others (log, cm)	$-1.3890\ (0.5131)^{**}$	$-0.4917\ (1.1229)$	$0.0451\ (0.4268)$	$-1.8388\ (0.6543)^{**}$
Number of times reverted others (log, cwc)	$-0.0671\ (0.2567)$	$0.3329\ (0.3329)$	$-0.2968\ (0.2649)$	$0.3087\ (0.3064)$
Number of times got reverted (log, cm)	$0.5526\ (0.3857)$	$-0.1880\ (0.7885)$	$-1.4872\ (0.4075)^{***}$	$0.3268\ (0.4732)$
Number of times got reverted (log, cwc)	$0.1169\ (0.2043)$	$-0.4599\ (0.2650)^{+}$	$0.3949\ (0.2336)^{+}$	$0.0737\ (0.2552)$
Years since first edit (cm)	$-0.1581\ (0.1070)$	$-0.2394\ (0.2697)$	$-0.0374\ (0.1102)$	$-0.6557\ (0.2502)^{**}$
Years since first edit (cwc)	$-0.3493\ (0.1428)^{*}$	$-0.5239\ (0.2287)^{*}$	$-0.4821\ (0.1538)^{**}$	$-0.0320\ (0.1755)$
Number of previous elections ran	$2.4722\ (0.4591)^{***}$	$2.5823\ (0.5686)^{***}$	$3.1205\ (0.4089)^{***}$	$1.8049\ (0.5393)^{***}$
AIC	682.1322	668.8965	649.5657	643.0479
BIC	877.9171	864.6813	845.3505	872.8822
Log Likelihood	-318.0661	-311.4482	-301.7828	-294.5239
Num. obs.	36768	36768	36768	36768
Num. groups: id	10988	10988	10988	10988
Var: id (Intercept)	7.0828	21.6020	32.9202	50.2284

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 12: Running for administrator (late time frame, 2015–2020; logit).

Generalised Linear Regression Models: Winning Elections

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	-0.4485 (0.6206)	-0.5428 (0.6342)	-0.5962 (0.6259)	-0.5359 (0.6339)
Been at meetings	0.1575 $(0.0495)^{**}$			0.0116 (0.0804)
Proportion of voters met		0.1123 $(0.0374)^{**}$		0.1004 (0.0856)
Meetup centrality			2.1596 $(0.6221)^{***}$	0.1753 (1.0081)
Proportion of voters collaborated with	-0.0020 (0.0072)	-0.0033 (0.0073)	-0.0032 (0.0073)	-0.0033 (0.0073)
Collaboration centrality	3.1487 $(0.9652)^{**}$	3.3495 $(0.9579)^{***}$	3.1831 $(0.9534)^{***}$	3.3445 $(0.9584)^{***}$
Porportion of voters talked to	0.0000 (0.0092)	-0.0000 (0.0091)	0.0006 (0.0092)	-0.0000 (0.0091)
Talk centrality	-0.9408 (0.7242)	-0.9362 (0.7025)	-1.0705 (0.7187)	-0.9540 (0.7018)
Mainspace edits 2 months before (log)	-0.0330 (0.1193)	-0.0280 (0.1181)	-0.0231 (0.1182)	-0.0270 (0.1188)
Total edits up to election (log)	0.0488 (0.1026)	0.0484 (0.1022)	0.0740 (0.0999)	0.0477 (0.1007)
Proportion of voters reverted candidate	-0.0225 (0.0229)	-0.0215 (0.0228)	-0.0224 (0.0231)	-0.0215 (0.0228)
Proportion of voters reverted by candidate	-0.0153 (0.0151)	-0.0161 (0.0153)	-0.0160 (0.0156)	-0.0160 (0.0153)
Years since first edit	0.0559 (0.1477)	0.0463 (0.1561)	0.0361 (0.1501)	0.0441 (0.1570)
Number of previous elections ran	-0.5568 $(0.1853)^{**}$	-0.5201 $(0.1919)^{**}$	-0.5499 $(0.1925)^{**}$	-0.5345 $(0.1906)^{**}$
R^2	0.07	0.08	0.07	0.08
Adj. R^2	0.05	0.07	0.06	0.06
Num. obs.	602	602	602	602

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 13: Winning elections (early time frame, 2003–2008; logit).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-10.2375\ (1.6596)^{***}$	$-9.8888\ (1.6577)^{***}$	$-10.1697\ (1.6495)^{***}$	$-10.4295\ (1.7043)^{***}$
Been at meetings	$0.0309\ (0.0444)$			$-0.1631\ (0.0595)^{**}$
Proportion of voters met		$0.1336\ (0.0477)^{**}$		$0.4230\ (0.1098)^{***}$
Meetup centrality			$1.4791\ (0.8826)^{+}$	$-3.9070\ (1.6433)^{*}$
Proportion of voters collaborated with	$0.0107\ (0.0306)$	$0.0110\ (0.0324)$	$0.0083\ (0.0316)$	$0.0119\ (0.0338)$
Collaboration centrality	$-0.2430\ (2.8072)$	$-0.2629\ (2.8697)$	$-0.0561\ (2.8663)$	$-0.7477\ (2.9302)$
Porportion of voters talked to	$0.0518\ (0.0689)$	$0.0341\ (0.0730)$	$0.0545\ (0.0713)$	$0.0265\ (0.0753)$
Talk centrality	$-4.3744\ (2.1344)^{*}$	$-4.6453\ (2.3091)^{*}$	$-4.6566\ (2.2845)^{*}$	$-3.8235\ (2.0972)^{+}$
Mainspace edits 2 months before (log)	$0.4538\ (0.1396)^{**}$	$0.4690\ (0.1432)^{**}$	$0.4625\ (0.1410)^{**}$	$0.5072\ (0.1462)^{***}$
Total edits up to election (log)	$0.9024\ (0.2129)^{***}$	$0.8348\ (0.2091)^{***}$	$0.8900\ (0.2084)^{***}$	$0.8537\ (0.2113)^{***}$
Proportion of voters reverted candidate	$-0.4672\ (0.1481)^{**}$	$-0.4460\ (0.1423)^{**}$	$-0.4703\ (0.1443)^{**}$	$-0.4259\ (0.1538)^{**}$
Proportion of voters reverted by candidate	$0.0590\ (0.1320)$	$0.0436\ (0.1358)$	$0.0517\ (0.1331)$	$0.0162\ (0.1550)$
Years since first edit	$0.1362\ (0.0843)$	$0.1441\ (0.0886)$	$0.1338\ (0.0840)$	$0.1812\ (0.0876)^{*}$
Number of previous elections ran	$-0.1269\ (0.3422)$	$-0.1263\ (0.3367)$	$-0.1408\ (0.3412)$	$-0.0339\ (0.3451)$
R^2	0.28	0.30	0.29	0.33
Adj. R^2	0.26	0.28	0.27	0.30
Num. obs.	388	388	388	388

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 14: Winning elections (middle time frame, 2009–2015; logit).

	Model Meetings	Model Voters	Model Centrality	Full Model
Intercept	$-9.3427\ (2.1903)^{***}$	$-9.5661\ (2.2954)^{***}$	$-9.5795\ (2.2909)^{***}$	$-9.8309\ (2.4693)^{***}$
Been at meetings	$0.0249\ (0.0444)$			$-0.0674\ (0.0528)$
Proportion of voters met		$0.0764\ (0.0527)$		$0.3668\ (0.2363)$
Meetup centrality			$1.0624\ (0.9335)$	$-4.2818\ (4.0596)$
Proportion of voters collaborated with	$0.0533\ (0.0590)$	$0.0605\ (0.0580)$	$0.0570\ (0.0581)$	$0.0475\ (0.0571)$
Collaboration centrality	$-4.6977\ (6.1672)$	$-5.3777\ (6.2347)$	$-5.0962\ (6.2224)$	$-4.0677\ (6.2148)$
Porportion of voters talked to	$0.0252\ (0.0898)$	$0.0125\ (0.0886)$	$0.0140\ (0.0895)$	$0.0168\ (0.0893)$
Talk centrality	$-2.8911\ (5.0436)$	$-3.8800\ (4.9950)$	$-3.7349\ (4.9659)$	$-2.8716\ (5.3068)$
Mainspace edits 2 months before (log)	$0.3442\ (0.2330)$	$0.3848\ (0.2483)$	$0.3806\ (0.2453)$	$0.4024\ (0.2656)$
Total edits up to election (log)	$0.7138\ (0.2572)^{**}$	$0.6994\ (0.2555)^{**}$	$0.7142\ (0.2570)^{**}$	$0.7143\ (0.2718)^{**}$
Proportion of voters reverted candidate	$-0.8579\ (0.3315)^{**}$	$-0.8429\ (0.3294)^{*}$	$-0.8600\ (0.3360)^{*}$	$-0.8083\ (0.3248)^{*}$
Proportion of voters reverted by candidate	$0.0308\ (0.2442)$	$0.0609\ (0.2295)$	$0.0643\ (0.2333)$	$0.0762\ (0.2398)$
Years since first edit	$0.1918\ (0.0639)^{**}$	$0.1978\ (0.0649)^{**}$	$0.1938\ (0.0631)^{**}$	$0.1975\ (0.0712)^{**}$
Number of previous elections ran	$-0.2060\ (0.1508)$	$-0.2227\ (0.1480)$	$-0.2211\ (0.1484)$	$-0.2281\ (0.1536)$
R^2	0.29	0.30	0.30	0.32
Adj. R^2	0.24	0.26	0.25	0.26
Num. obs.	174	174	174	174

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$; $^{+}p < 0.1$.

Table 15: Winning elections (late time frame, 2016–2020; logit).