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Twitter as political acclamation

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Acclamation as political form of communication has been used to understand political phenomena by a range of 20th century thinkers and recently has been used to analyze social media. However, if the notion of social media as acclamation is to be fruitful, it should be closely connected to inherent features of social media as technology and should be available to empirical analysis. To do so, this study follows a mixed-method approach. First, we offer a theoretical analysis of acclamation and how it links to each of the constituent parts of social media. Next, we build upon this theoretical analysis to study acclamation and social media as a matter of empirical data analysis to analyse the Tweets of the US-Presidents Obama, Trump and Biden. We apply regression models to measure the effects of acclamation. Our results show that acclamation is an essential feature of political communication but different for each President. This is in parts caused by the algorithms of Twitter which have different effects on the communication of the three Presidents. Our findings expand the idea of social media as acclamation and prove its relevance to the current political discourse.

KEYWORDS

acclamation, Twitter, Agamben, computational social science, US presidents, political theory

1. Introduction

The idea of acclamation has been used to understand political phenomena by a range of 20th-century thinkers (Kantorowicz, 1946; Schmitt, 2008; Peterson, 2011) and has been revived and extended by Agamben (2011). Dean (2017) recently used the perspective of political acclamation to analyze social media and pointed out that the way political communication works on social media platforms is a new form of acclamation and should be seen in this theoretical context: "acclamation occurs through what is today called 'social media,' where it is possible to 'follow' and be followed, to 'friend' and 'unfriend,' like and dislike, and express opinions in a virtual public domain at almost any time and anywhere. Here the practice of acclamation produces what we shall call 'public mood'" (Dean, 2017). The present study expands on Dean's idea by addressing three blind spots that Dean did not fully unravel: First, if the notion of social media as acclamation is to be fruitful, the analysis should be closely connected to inherent features of social media as technology. Second, such a connection between theory and technology should lead to the possibility of analyzing it empirically. Third, the concept of acclamation is so important for Agamben's theory of biopolitics that we have to discuss its disruptive impact on computational social science as a discipline as well as its consequences for modern democracies.

To connect the theory of acclamation with the inherent features of social media as a multifaceted technology, we follow a mixed-method approach with theoretical and empirical analyses in succession:

First, we offer a theoretical analysis of acclamation and how it links to social media as a phenomenon. We recapitulate the theory of acclamation and identify its core concepts. To link these ideas to social media analysis, we follow a framework introduced by Dhawan et al. (2022), which offers a functional deconstruction of social media into three constituent parts—"Social media networks refer to the community of people linked together through online tools. Social media communication includes not only the messages exchanged

between people but also the user-generated content and the engagement with this content by other users. Social media platforms refer broadly to the set of companies and tools that enable online social networks and communications" (Dhawan et al., 2022). We employ their framework to show how deeply embedded the concept of acclamation is in all aspects of social media as a phenomenon. We find that in each of these dimensions, we encounter challenges or harms for the political discourse that have often been discussed as defects of social media. We show that, from the perspective of acclamation, these central problems are instead logical consequences of acclamation by an online crowd.

Next, we build upon this theoretical analysis to study acclamation and social media as a matter of empirical data analysis. We use a case study of three US (former and current) presidents on Twitter—Barack Obama, Donald Trump, and Joe Biden, to show how the transfer from political theory to computational social science could be done. We follow the structure of social media networks, communication, and platforms and focus on Twitter as the most relevant online channel for political communication.

Based on this work, we find that there is a dangerous misconception in many approaches of computational social science (including the authors' works), namely, social media has usually been studied from the perspective of information theory and network theory, leading to the impression that the only aims of social media are to provide information and connect people. From this perspective, many aspects that shape political communication on social media—such as coordinated behavior, statements without new information, polarization, echo chambers, and hate speech—seem like defects of the platforms. But from the perspective of acclamation, these defects can instead be seen as functional features of the system. Finally, this suggests that social media is not something that could be "fixed" to foster a deliberative political discourse but should be seen as means of power and biopolitics serving "the dark side" of modern democracies.

2. A theoretical framework for social media networks, communication, and platforms as acclamation

We first discuss the theory of acclamation and then apply it to social media through the lens of its constituent parts, namely, networks, communication, and platforms.

2.1. What is acclamation?

Agamben discusses the concept of acclamation following Carl Schmitt (2008) who put forward the proposition that acclamation is even more important to express the "will of the people" than formal elections: "The people exist only in the sphere of publicity. The unanimous opinion of one hundred million private persons is neither the will of the people nor public opinion. The will of the people can be expressed just as well and perhaps better through acclamation, through something taken for granted, an obvious and unchallenged presence, than through the statistical apparatus that has been constructed with such meticulousness in the last fifty years" [Schmitt (2008), Crisis of Parliamentary Democracy, 16].[1] Schmitt aims to erode the differences between democracy and dictatorship by arguing that acclamation—which is common in Cesarian, fascist, and totalitarian regimes—is the original emergence of "the people": "acclamation is an eternal phenomenon of all political communities. There is no state without a people, and no people without acclamations" (Quoted by Agamben, 2011, p. 172). Agamben (2011, p. 169) describes acclamation in The Kingdom and the Glory as follows: "What is an acclamation? It is an exclamation of praise, of triumph ('Io triumphe!'), of laudation or of disapproval (acclamatio adversa) yelled by a crowd in determinate circumstances". Every word in this "definition" is meaningful: Acclamation is an exclamation, which means it has to be uttered in a given time and space, but these circumstances are determinate. The subject of the acclamation is a crowd. Its content can be of different forms: exclamation of praise, triumph, laudation, or disapproval. The determinate circumstances point to the use of acclamation in institutions such as theaters, circuses, the church, or the empire. Agamben also points out that verbal exclamation was traditionally combined with additional symbols and gestures. "The acclamation was accompanied by a gesture of raising the right hand (testified in both pagan and Christian art) or, in theaters and circuses, by applause and the waving of handkerchiefs. Here the acclamation could be directed [...] not only to athletes and actors, but also to the magistrates of the republic and, later, to the emperor. [...] The acclamations were often ritually repeated and, at times, modulated" (Agamben, 2011, p. 169).

It is important to note that Agamben sees acclamation as a form of political articulation that is by no means irrelevant or just an archaic ritual: "the acclamation points toward a more archaic sphere that brings to mind the one that Gerner used to call [...] prelaw, in which terms that we customarily consider juridical appear to act in a magic-religious manner. More than a chronologically earlier stage, we must think here of something like a threshold of indistinction that is always operative, where the juridical and the religious become truly indistinguishable. A threshold of this type is that which elsewhere we have called sacertas, in which a double exception, from both human and divine law, allows a figure to emerge, *homo sacer,* whose relevance for law and politics we have attempted to reconstruct. If we now call 'glory' the uncertain zone in which acclamations, ceremonies, liturgies, and insignia operate, we will see a field of research open before us that is equally relevant and, at least in part, as yet unexplored" (Agamben, 2011, p. 188). As noted above, Agamben also includes acclamation by disapproval in his concept. For analyzing social media, this form of acclamation is very important because the formation of the "crowd" in the digital sphere is not as strictly regulated by "gate-keepers" as it would be in other institutional settings. Disapproval of course shows that the crowd is not content with the object of acclamation but it is essential to note that even this negative exclamation is a form of acclamation. By the denial of praise, the crowd accepts the "glory" because acclamation as disapproval only makes sense if the roles of "the crowd" and,

1 This review of the concept of acclamation is mostly following Dean (2017) and quotations of Schmitt are indirect quotes from Dean, to have the English translation at hand, instead of the original text.

e.g., the "emperor" are accepted. Or, to put it in Hegelian terms, *acclamatio adversa* is the negation of the positive acclamation but it is not the negation of the negation. Jung (2019) could demonstrate the formative character of disapproval acclamation with the example of post-revolutionary France (1789–1848). He showed that the refusal of public applause is a strong negative signal to the ruler that at the same time confirms the roles of the ruler and the ruled.

A very important aspect of acclamation is developed by Agamben in linking acclamation to the Christian liturgies. Acclamation is not a spontaneous reaction but a "gigantic choreography of power" (Agamben, 2011, p. 184). The work of Jung (2019) adds another important point to the theory of acclamation: Because acclamation is coordinated, there is always the danger of manipulation.[2] Jung describes that the silence of the people in the streets when the ruler passed by could be seen as real acclamation by denying applause or as made-up coordinated behavior to present a fake will of the people. But the same is true for positive acclamation: Jung (2019, p. 226) describes that it was common practice to hire people for "small money" or use policemen and soldiers disguised in the crowd to start the cheering.[3] Is there a modern form of acclamation? Agamben argues there is. Following Schmitt (2008), Agamben states that public opinion as shaped by media is the modern form of acclamation. And this acclamation constitutes the "glory" contemporary democracies are built upon: "Contemporary democracy is a democracy that is entirely founded upon glory, that is, on the efficacy of acclamation, multiplied and disseminated by the media beyond all imagination" (Agamben, 2011, p. 256). Hegelich (2012), in his study on power, state, and participation, also argued that media in modern democracies is the place where the "public interest" is created and that this sphere should be seen as the central element for the formation of the modern state. Given that the media landscape has changed dramatically due to the rise of social media platforms, Dean's (2017) idea of seeing political communication on social media as a form of acclamation is an important conceptual advance that can help us understand the underlying processes that sometimes seem like a decline of democracy (Dhawan and Hegelich, 2023).

2.2. Constituents of social media and acclamation

To link the idea of acclamation to social media, we borrow the framework introduced by Dhawan et al. (2022), which offers a functional deconstruction of social media into three constituent parts—"Social media networks refer to the community of people linked together through online tools. Social media communication includes not only the messages exchanged between people but also the user-generated content and the engagement with this content by other users. Social media platforms refer broadly to the set of companies and tools that enable online social networks and communications" (Dhawan et al., 2022). We employ this framework to show how deeply embedded the concept of acclamation is in all aspects of social media as a phenomenon.

2.2.1. Social media networks and acclamation

Social media networks, to state the obvious, connect people. The mission statement of Facebook, for example, states: "…give people the power to build community and bring the world closer together" (Zuckerberg, 2021). The way people connect differs with platform design. On Facebook, for example, the "friendship" connection is bidirectional, both accounts have to accept to be "friends." On Twitter, on the other hand, the connection is not reciprocal: people following your account are your "followers" while the term "friends" is used for the accounts that you are following. It has been observed that social media networks tend to have special features when analyzed from a network theory perspective: The emerging network of friends and followers is a small-world network (Dhawan et al., 2022). "A small-world network is characterized by the following properties: (i) the local neighborhood is preserved […]; and (ii) the diameter of the network, quantified by average shortest distance between two vertices [...], increases logarithmically with the number of vertices […]. The latter property gives the name small-world to these networks, because it is possible to connect any two vertices in the network through just a few links" (Amaral et al., 2000, p. 11149). Small-world networks, therefore, are forming at the same time as a local and a global crowd. Two accounts that follow a third account are more likely to follow each other. At the same time, any accounts can be connected through just a few links. In addition, social media networks can be described as scale-free: "that is, they have a distribution of connectivities that decays with a power law tail" (Amaral et al., 2000, p. 11149). In a scale-free network, some nodes have much more vertices than others. For social media networks, this means that some accounts have millions of friends and followers while the average number of followers is very low. Barack Obama has 133.5 million followers on Twitter (https://twitter.com/BarackObama) which is the highest number of all users. The average number of followers is estimated to be 707 while 391 million users do not have any followers at all (Brandwatch.com, 2020). Twitter users are, therefore, not

2 "It is little surprise, then, that the question of whether the observed behavior could in fact be considered a genuine expression of the crowd's feelings, or was rather to be interpreted as a spectacle staged (or even forced) from the outside, always played a key role in such controversies. Thus, observers who, for political reasons, had an interest in diminishing the significance of the event, readily suspected masterminds from the respective opposing camp behind the silence of the people - if the masses had not remained silent of their own accord, it was consequently not the undisguised expression of the will of the people that their political opponents believed it to be. The suspicion of manipulation of such skeptics could refer to the fact that the united silence of large crowds often - even when it actually occurred spontaneously - gave the impression of a coordinated action." (Jung, 2019, p. 225).

3 "And even during political events, it was not difficult to find people who, for 'small money,' were willing to loudly express their support (or, if the situation required it, disapproval). Moreover, soldiers, policemen, or other public servants had not infrequently been instructed in advance to applaud at the right time." (Jung, 2019, p. 226).

equal—while every user is granted a voice, only a few are heard. Seen from the perspective of "connecting the people" in political discourse, the structure of a social media network looks very odd: Instead of bringing the world closer together, we find echo chambers (Montag and Hegelich, 2020) in which information sent by powerful accounts (the global aspect of small-world-networks) is spread in a clandestine structure (the local aspect of small-world networks) but filtered already through the hubs that emerge from the scale-free character. Shahrezaye et al. (2020) could prove that the friendship network (without relying on any additional context) is enough to predict the political orientation of users which is an empirical proof of echo chamber structures. Many researchers have seen echo chambers as a problem, a challenge, or even a defect for political communication (Serrano et al., 2019; Montag and Hegelich, 2020) leading to polarization (Shahrezaye et al., 2019). But if we take the perspective of acclamation, things look very different: Following an account is not just opening a channel to regularly receive information from that account but a publicly visible act: the number of followers indicates how acclaimed an account is. It makes perfect sense that most accounts do not gain many followers: The glory is reserved for the real leaders, or more precisely for the function of leading. Obama, as the most followed Twitter account, does not actively represent the kingdom anymore because he is no longer the president of a superpower but his glory continues. It is similar to Agamban's analysis of the symbol of the (worshiped) empty thrown: "The apparatus of glory finds its perfect cipher in the majesty of the empty throne. Its purpose is to capture within the governmental machine that unthinkable inoperativity—making it its internal motor—that constitutes the ultimate mystery of divinity" (Agamben, 2011, p. 245). The disproportion in number of followers constitutes the different roles of the crowd and the (glorious) object of acclamation. The network hubs (accounts that connect the local structured masses to the divine majesties) are the links that organize the acclamation. Following is not the only technique for acclamation in social media networks (though it is the most important one). On many social media networks, it is possible to directly address a user (e.g., with the @-symbol). Hegelich and Shahrezaye (2015) could show the example of communication by German politicians on Twitter that this channel of direct mentioning is mainly used to attack members from different political parties. From the perspective of acclamation, this means that direct mentions may be used to start a negative acclamation, hoping that the crowd will join in.

2.2.2. Social media communication and acclamation

A common perception of social media communication is that it is about sharing information, an idea often promulgated by the platforms themselves. Consider, for instance, Twitter's mission statement: "to give everyone the power to create and share ideas and information instantly without barriers" (Twitter Inc., 2022a,d). However, this conception is not supported by how social media communication actually happens. According to Brandwatch.com (2020), 80% of all tweets are written by only 10% of the users. Papakyriakopoulos et al. (2020a) have shown for political communication on Facebook that ca. 5% of users are responsible for 25% of all the comments and were labeled by the authors as hyper-active users. According to Brandwatch.com (2020), 44% of Twitter accounts are deleted before they write a single tweet. If social media communication is really about democratizing information and ideas, it seems to perform very badly. There are, of course, other ways to participate in social media communication than posting one's own content. The majority of users, instead, participate by liking, retweeting, and sharing messages from others instead of writing and sharing their own ideas. The most used feature on Facebook and Twitter—to "like" something—is expressed with symbols that fall directly in the sphere of acclamation. The thumbs-up symbol used on Facebook has a history that goes back to the Roman arena while the heart symbol used on Twitter and Instagram can be connected to the praising of Jesus: "With the rise of Christianity, the heart took on a new symbolic importance. The heart of Jesus, representing the love he had for mankind, became a medium, if not an object, of worship" (Bowman, 1987, p. 337). If we accept that social media communication is about acclamation then the messenger (who becomes the object of acclamation) is more important than the message itself. Examining the most successful tweets (measured in likes) seems to support this hypothesis (Wikipedia, 2022). The most liked tweet is the announcement of the death of the actor Chadwick Boseman, followed by a tweet by Elon Musk, where he jokes that he would buy Coca-Cola and put the cocaine back in. In total, 19 of the 30 most liked tweets come from members of the K-pop band BTS, which is important to note, because of course not everything on Twitter is about acclamation. But there are several political tweets in the list from Obama, Biden, and Kamala Harris. From an information theory perspective, most of the most liked tweets have very high entropy (not using much of the information that could have been sent). Joe Biden writes on the day of his inauguration: "It's a new day in America." This tweet was sent from his private account and got 3.8 million likes and nearly half a million retweets. Biden has more followers on his private account than on the official @POTUS-account (36.5 million vs. 28.3 million). Harris wrote in her most successful tweet: "We did it, @JoeBiden.", using the described direct mention to give credit to the new president. In addition to liking, there are many more channels to utter acclamation: retweets, shares, reactions, and polls to name a few. Another point that shows the prevalence of acclamation instead of information in social media communication is fake news. The concept of fake news is not very well defined and sometimes stories that have been labeled "fake" may be recognized as plausible later. Papakyriakopoulos et al. (2020b), for example, took for granted that the COVID-19 virus was definitely not manmade and labeled all news about COVID as a lab leak or bio-weapon as conspiracy theories. However, even in cases where it is easily verifiable that information is wrong, fake news seems to spread more than true information. Vosoughi et al. studied the spread of fake news on Twitter and concluded: "Falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more pronounced for false political news than for false news about terrorism, natural disasters, science, urban legends, or financial information" (see also Lazer et al., 2018; Vosoughi et al., 2018, p. 1). Additionally, much of political fake news is about a candidate in an election (Grinberg et al., 2019). The increasing instances of political fake news on social

media attests to the idea of social media as political acclamation, because it is irrelevant if the positive or negative things that are attributed to a candidate are true or not.

2.2.3. Social media platforms and acclamation

There is a third perspective on social media that should be considered: The underlying structure is a computer service designed to maximize the profits of social media platforms. At the core, these platforms are an automatic recommendation system. Algorithms—nowadays deep learning networks (see Hegelich, 2023a)—decide the content an individual user will see. Not all details of these algorithms are public but the basic principles are very well known and can be understood when we are not asking how exactly the algorithms come up with a specific recommendation but rather take a look at what is optimized by these complex statistical equations. In 2018, Facebook announced an important change in the "News-Feed": "With this update, we will also prioritize posts that spark conversations and meaningful interactions between people. To do this, we will predict which posts you might want to interact with your friends about, and show these posts higher in feed. These are posts that inspire back-and-forth discussion in the comments and posts that you might want to share and react to—whether that's a post from a friend seeking advice, a friend asking for recommendations for a trip, or a news article or video prompting lots of discussion" (Moserri, 2018). On Twitter, the approach is similar: The recommendation system is trying to figure out which tweets might trigger a reaction by the individual user. "In addition to showing content from accounts and topics you follow; we also make recommendations to make it easier and faster for you to find content and accounts that are relevant to your interests. Our recommendations are based upon a variety of signals, including, but not limited to, interests you choose during onboarding, accounts and Topics you follow, Tweets you've liked, retweeted, or otherwise engaged with, and content that is popular in your network" (Twitter Inc., 2022b). So, what we find here is a strange coexistence: The social media platforms are using algorithms that are in line with their business model (see Montag and Hegelich, 2020; Montag et al., 2021) but in doing this, they are—at least in the political context—optimizing acclamation. We see, thus, that not only the input (social networks and media) but also the output (interaction) is based on the technical features that can be linked to the concept of acclamation. In recent years, the algorithmic recommendation system of social media platforms has changed quite substantially for political content. All platforms added new algorithms to block "harmful content" or to decrease the outreach of messages classified as harmful. Twitter names several categories of content that are banned from its recommendation system (Twitter Inc., 2022b). Many of these categories are political, for instance, "state-affiliated media content." Twitter's own definition reads as follows: "State-affiliated media is defined as outlets where the state exercises control over editorial content through financial resources, direct or indirect political pressures, and/or control over production and distribution. [...] State-financed media organizations with editorial independence, like the BBC in the UK or NPR in the US for example, are not defined as state-affiliated media for the purposes of this policy" (Twitter Inc., 2022c). This definition is clearly ambiguous. Especially "direct or indirect political pressures" and "editorial independence" should not be confused with a "legal" definition. Even the Ukrainian state media Suspilne News (@suspilne_news), which is fully state-controlled is not labeled as state-affiliated. Furthermore, content based on information from "hacks" is also banned from the recommendation system (Twitter Inc., 2022b). Again, a "hack" is not a clear definition and it is not clear why information obtained through a hack should necessarily be "undesirable" for the public sphere. Nevertheless, it is precise enough to ban politically relevant content like information from WikiLeaks or the story about Hunter Biden's laptop. Many tweets are also taken out of the algorithmic acclamation machine because they are labeled as misinformation. "We define misleading content ('misinformation') as claims that have been confirmed to be false by external, subject-matter experts or include information that is shared in a deceptive or confusing manner. Misleading content that falls under any of the policies above may be subject to one or more of the actions below. This content is identified through a combination of human review and technology, and through partnerships with global third-party experts" (Twitter Inc., 2022c). Everything about this definition is political: the idea of false and right, the choice of external experts, and the vague notion of deception or confusion. Any content that is labeled as misinformation by Twitter staff relying on Twitter's own and non-public algorithms may—or may not—be blocked or shadow-banned or just slightly decreased in its outreach. Such political intervention by social media platforms is similar to that for fake news but it adds a different spin. Historically, the idea of forcing content moderation on social media platforms was pushed by Governments—especially the German Government with the Network Enforcement Act (Netzwerkdurchsetzungsgesetz) (Gorwa, 2021)—to regulate social media and to diminish hate speech and other forms of communication that were seen as a violation of the law. In the last years, social media platforms have adapted to this political pressure and created their own tools and policies to ban content. In the political sphere, this has meant that social media platforms are now the gatekeepers of acclamation.

3. An empirical analysis of social media as acclamation

We use this theoretical account to investigate the link between acclamation and social media as a matter of empirical data analysis. We present a case study of three US (former and current) presidents on Twitter—Barack Obama, Donald Trump, and Joe Biden—to show how the transfer from political theory to computational social science could be done. We follow the structure of social media as networks, communication, and platforms, and focus on Twitter as the most relevant online channel for political communication.

3.1. Materials and methods

For this case study, we use data from Twitter. One of the strongest signals of acclamation when it comes to social media networks, such as Twitter, is the question, who follows whom.

Unfortunately, Twitter does not provide data on the development of Twitter followers over time via its API. But for the accounts of Donald Trump (@realDonaldTrump) and Joe Biden (@JoeBiden), we find data gathered daily (Factbase, 2023). The time spans cover October 2007 to December 2022 for Biden and May 2009 to June 2020 for Trump. We use this data to apply a very basic time-series analysis to see how the patterns of acclamation change when the candidate becomes the actual president.

Twitter provides many channels for acclamation in the sphere of communication. From the Academic Twitter API, we collected all the tweets of Barack Obama (@BarackObama) and Joe Biden (@JoeBiden). Because Trump was banned by Twitter, we cannot access his data via the API so we have taken archived data from the platform Kaggle (2023), which leads to a slightly different data structure. These data are used to display the development of likes, retweets, quotes, and replies by the presidents over time.

To estimate the effect of algorithmic recommendation on Twitter (social media platforms and acclamation), we compare two simple statistical models: We know that the algorithms of the platforms are doing their share to shape acclamation. Although Twitter has published some important information about their algorithm—which we will discuss later—there is no real transparency on how these algorithms work in detail, so it is complicated to estimate their effects. But we can approach this question with a simple calculation. If we take the number of daily likes as a proxy for acclamation, we can build models to predict this response variable. From the data we have already introduced, the number of daily likes is—to some extent—a function of the number of tweets sent on this day as well as the number of followers, because the more people follow an account, the higher the probability that someone sees and likes the tweet. We can model this as a straightforward linear regression:

$$Y = b_0 + b_1 x_1 + b_2 x_2 + e$$

with Y = number of daily likes, x_1 = number of daily tweets, x_2 = number of followers on this day, the coefficients b_0 (intercept), b_1, and b_2 and e = the unexplained error terms. Now we assume, that the algorithms of Twitter will reward any kind of interaction so that the tweet is shown to more people, eventually starting a cascade of new interactions (and likes). We can integrate this effect into our model by adding a term for the squared number of followers. Every follower will have a higher probability to react to a tweet and the algorithms might recommend it to new users. Our second model, therefore, is a quadratic regression:

$$Y = b_0 + b_1 x_1 + b_2 x_2 + b_3 {x_2}^2 + e$$

The comparison of these two models gives us an idea of the effect of the algorithmic recommendation: We see how much of the variance in the data is explained by the first model. The remaining unexplained variance must be caused by something else, like the context or the quality of the tweets or any kind of algorithmic interference. The comparison with the second model shows how much additional variance is explained if we assume that every follower will affect likes via their interactions with the tweet. Of course, this is just a vague proxy of the effect of algorithmic recommendation.

Especially because Twitter timelines are very dynamic, if a user gets more active (i.e., average number of tweets is increasing), then the user might get more followers and thereby more likes over time. This effect could be addressed with another proxy: We integrate transaction terms in the first model, where the product of daily tweets and followers is added as an independent variable which leads to:

$$Y = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_1 * x_2 + e$$

But this model will probably take up some of the effects from the algorithmic recommendation as well because more tweets might lead to more impressions in others' timelines and thereby to more followers. Which means we have co-linearity among our predictors. Nevertheless, the comparison of the models leads to useful insights. While a comparison of model 1 with model 2 can be interpreted as the estimation of the upper boundary of algorithmic effects (everything not explained is said to be caused by recommendation), a comparison of model 2 and model 3 shows an estimate for lower boundary (the amount of the difference in the variance of model 1 and model 2 could be explained by "organic growth").

As will be discussed in the following sections, likes may be a good proxy for acclamation, but it is not the only one. The data that are available also entails information about retweets and quotes, which could be seen as alternative proxies for acclamation. To investigate if the selection of the dependent variable has a relevant effect on our results, we perform correlation analysis. As long as the possible dependent variables are highly correlated, the results will not change much.

Finally, to make it easier to compare the effects of the independent variables, we scale all of them in a way that they have mean 0 and standard deviation 1 values. This does not change the results but adds another level for the interpretation: While the unscaled data tells us how many likes are gained by one additional tweet per day and one additional follower, the scaled data allows us to compare the importance of daily tweets and followers.

3.2. The presidents' glory on Twitter

3.2.1. Social media networks and the presidents

As previously discussed, one of the strongest signals of acclamation when it comes to social media networks such as Twitter is the question, who follows whom. Unfortunately, Twitter does not provide data on the development of Twitter followers over time via its API. But for the accounts of Donald Trump (@realDonaldTrump) and Joe Biden (@JoeBiden), we find data gathered daily (Factbase, 2023). Unfortunately, the same data for Barack Obama is missing.

Figures 1, 2 show the development of Twitter followers of Trump and Biden. The dashed lines mark the period of their presidency (starting from the date of inauguration).

It comes as no surprise that the popularity of these accounts rose dramatically after they started their campaign for the presidency. Of course, this development cannot be fully reduced to the cultural technique of acclamation. Many users might just follow these accounts to get information from a relevant politician. Nevertheless, this phenomenon cannot be explained without

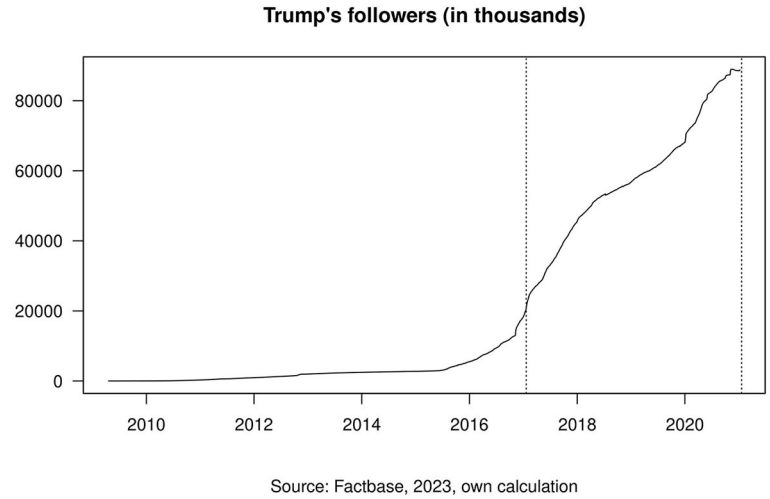

FIGURE 1
Trump's followers.

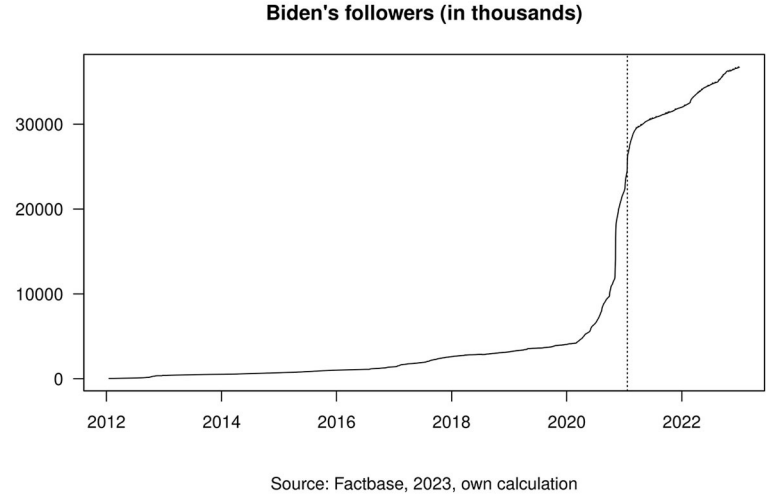

FIGURE 2
Biden's followers.

reference to acclamation, because Twitter is designed in a way that the act of following is transferred in a number everybody sees when looking at the accounts. In addition, the rise of followers continues very steeply during the whole period of the presidency. Finally, it is to be noted that this "army of followers" is not a result of the activity of the two presidents within the network: Biden has just 47 friends (i.e., the accounts that he follows). The anticipated political power—and not interaction with other accounts—is leading to the structure of hubs in small-world networks.

3.2.2. Social media communication and the presidents

As discussed above, Twitter provides many channels for acclamation in the sphere of communication. From the Academic Twitter API, we collected all the tweets of Barack Obama (@BarackObama) and Joe Biden (@JoeBiden). Because Trump was banned by Twitter, we cannot access his data via the API so we have taken archived data from the platform Kaggle (2023), which leads to a slightly different data structure. For Obama and Biden, we can calculate for each day the number of tweets (sent by the account), number of retweets, number of replies, number of likes, and number of quotes. Figures 3, 4 show this data for Obama and Biden. All plots are transferred to a log scale, taking into consideration the typical log-normal distribution of social media content. The periods of the presidency are marked again with dashed lines. For Obama (Figure 3), we see that the periods of presidency clearly divide the data. He was most active on Twitter when he was running for the second time as president and his activity went down substantially when Trump took over the office. Retweets and replies—which are signs of acclamation—were on a very high level during his second period in office. As Hegelich and Shahrezaye (2015) have shown, replies might be linked to negative acclamation as well. The most direct form of acclamation, likes, shows a very interesting pattern. During his time in power, Obama's daily likes grew exponentially (linear on the log scale). Staying in

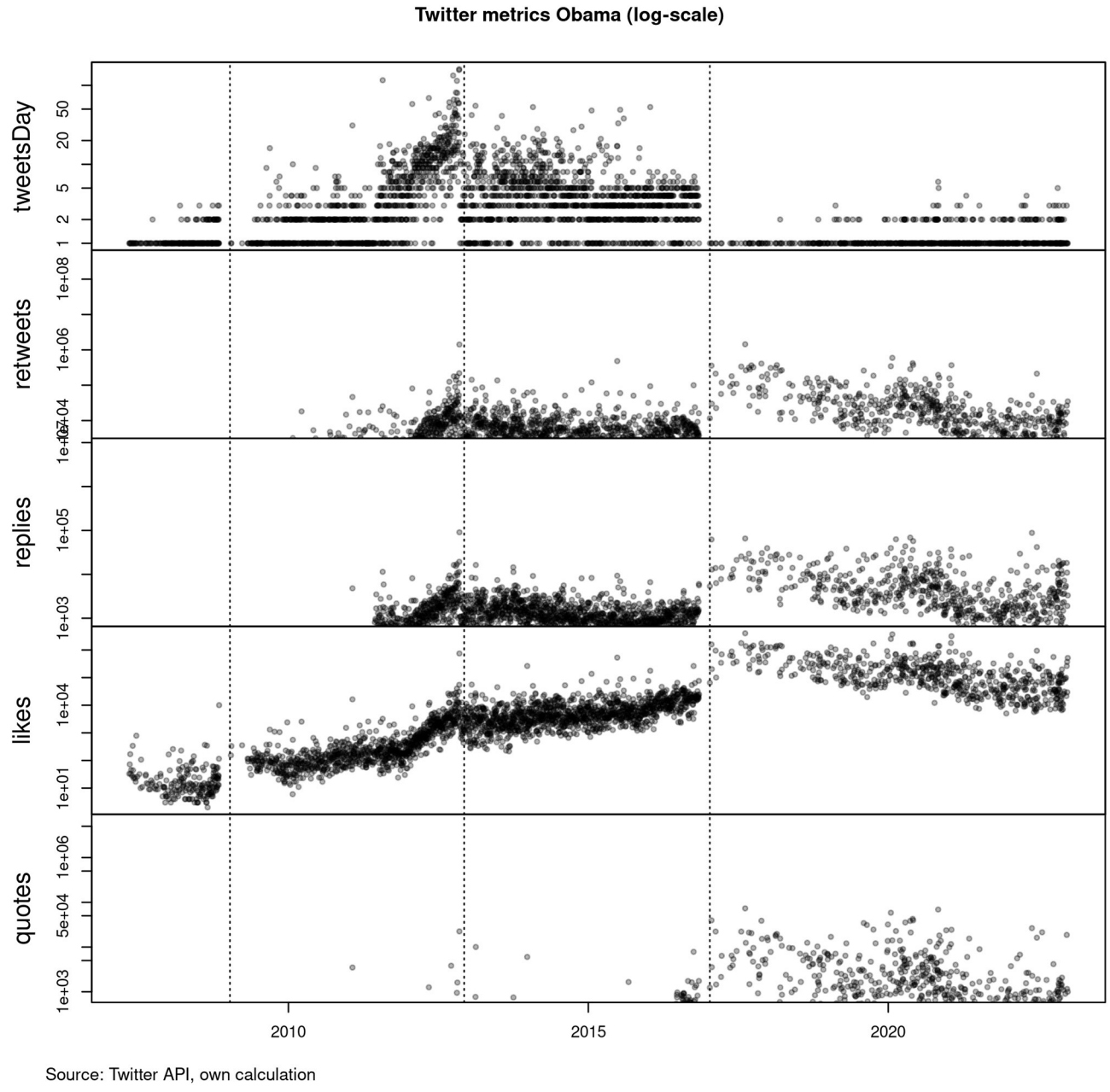

FIGURE 3
Twitter metrics: Obama.

power seems to have a positive effect on the number of acclamation actions of "the people" (which here is of course only the virtual crowd on Twitter). For Obama, we can also see what happens to acclamation after his time as president. Despite being less active, he reaches in all categories a new—and constant—level of acclamation. This shows that all the likes and retweets are not linked to his actual political importance and the political information his account provides. Instead, it seems that he has reached a new level of glory. As discussed above, this can be connected to the concept of the empty thrown: "The apparatus of glory finds its perfect cipher in the majesty of the empty throne. Its purpose is to capture within the governmental machine that unthinkable inoperativity—making it its internal motor—that constitutes the ultimate mystery of divinity" (Agamben, 2011, p. 245). The moment Obama steps down from the throne and becomes a normal person again, worshiping his Twitter account becomes a powerful reminiscence of the divine leadership the crowd is expecting from their king—and which many think the then-new president (Trump) is not worthy of.

If we look at the same data for Biden, the picture is quite different (Figure 4). Biden was most successful in gaining acclamation when he served as the vice president to Obama. All indicators clearly dropped when he took over office himself. Even the likes go down to a level he already reached without being in power. Biden is, thus, not a president of glory.

For Trump, the situation looks different again (Figure 5). Some aspects are similar to Obama: Especially we find an—lower but

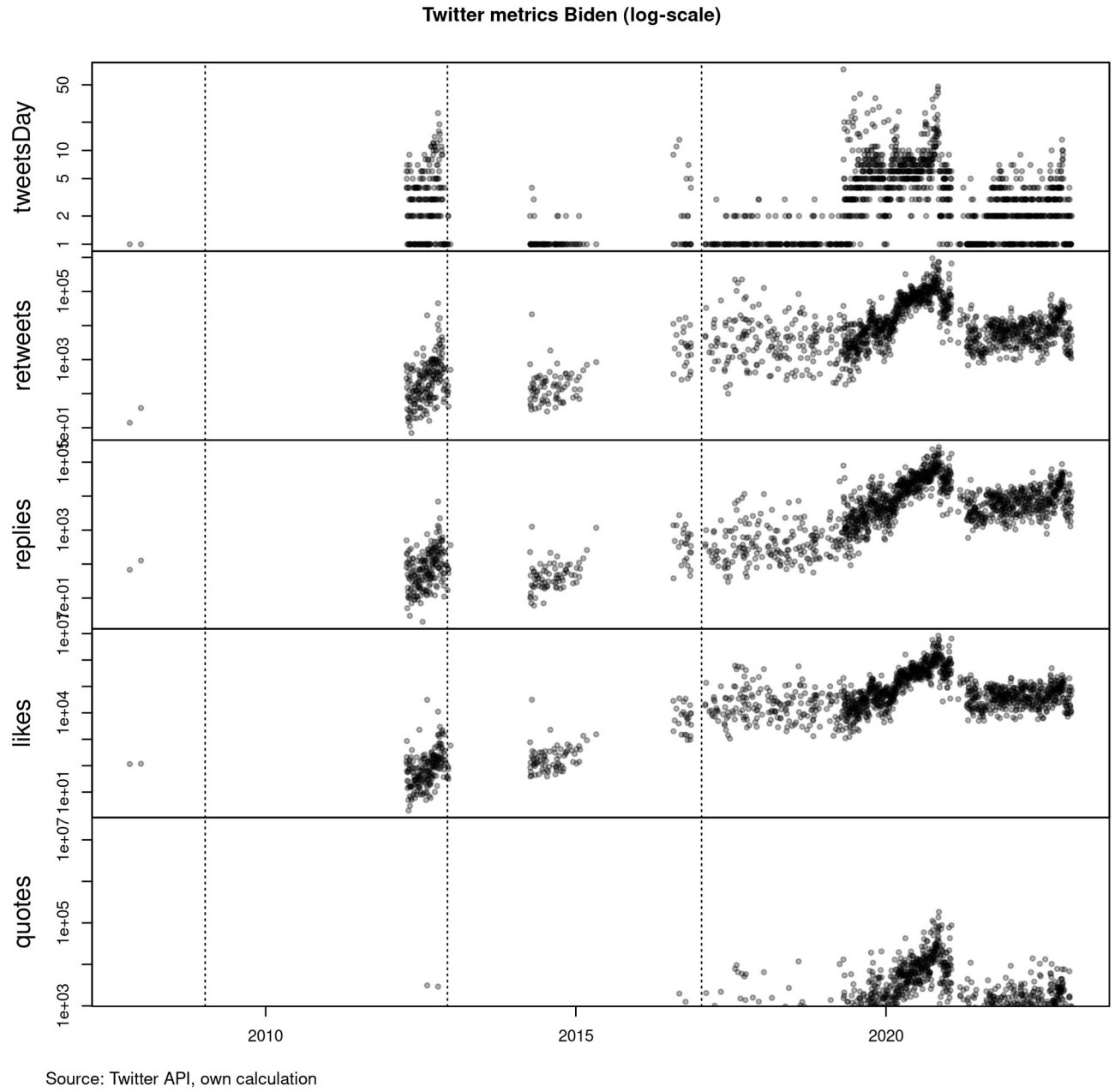

FIGURE 4
Twitter metrics: Biden.

still—exponential increase in likes during his presidency. For Trump, the same pattern applies to retweets, as well. He had the most active account of all three, although his activities on Twitter went down a little when he was in office. It seems clear that Trump knows how to organize acclamation and it is not unlikely that we would have seen a similar effect as we saw with Obama for the time after his presidency, had he not been banned by Twitter.

3.3. Social media platforms and the presidents

Our first model for Biden (see Table 1) provides 1,272 observations (319 missing observations eliminated), using the number of likes as the dependent variable. The findings of the model fit for the OLS linear regression we performed were as follows:

- $F\,(2.1269) = 160.32, p = 0.00$
- $R^2 = 0.20$
- Adj. $R^2 = 0.20$

We see that both tweets per day (tweetsDay) and the number of followers (follower) have a significant effect on the number of likes. Both effects are positive but the effect size is not easy to interpret because of disparity in the scales involved: One tweet results in ca. 50.000 likes on average but one additional follower is—of course—just increasing the average number of likes with a very

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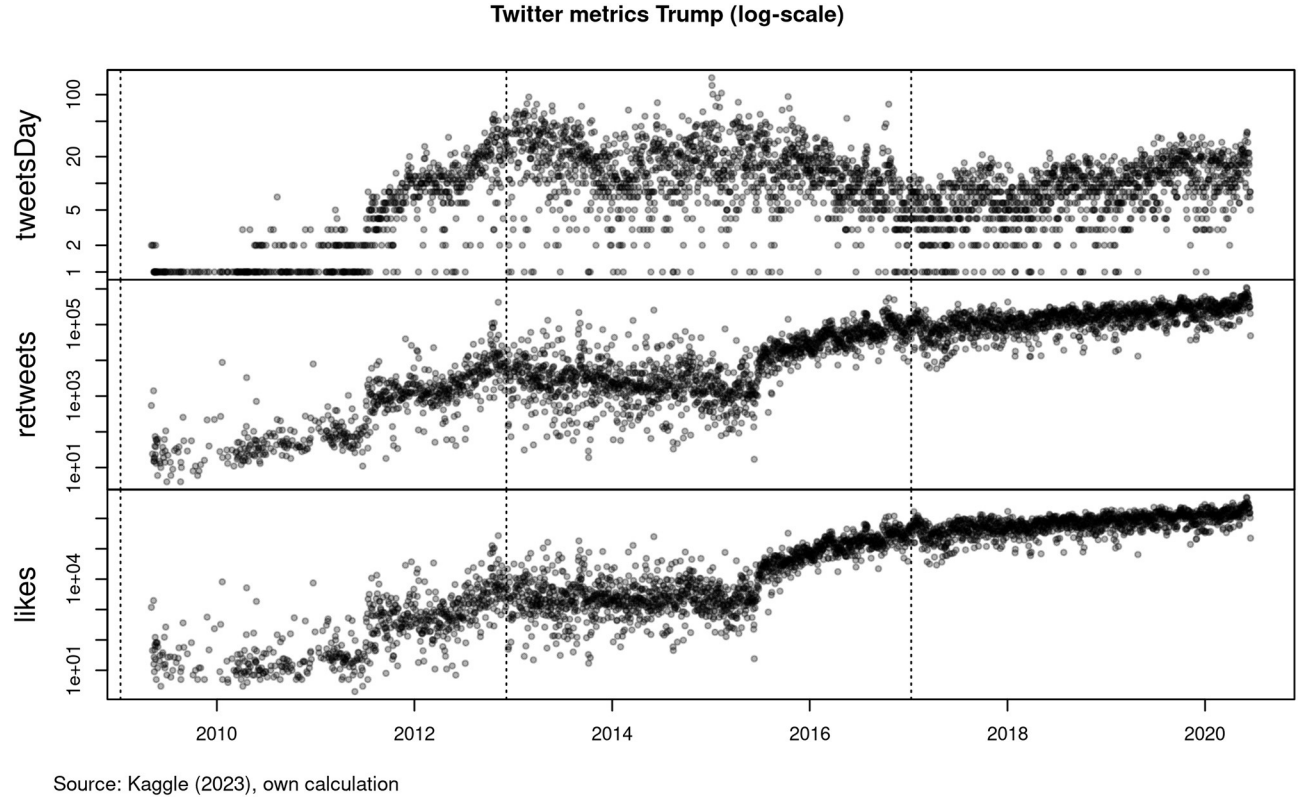

FIGURE 5
Twitter metrics: Trump.

TABLE 1 OLS—Biden.

	Linear model	Quadratic model	Interaction model
(Intercept)	−44690.34	−386451.77***	92355.39***
	(27372.89)	(32105.72)	(27429.92)
Tweets day	50072.59***	38212.31***	7247.88
	(2813.34)	(2643.64)	(4077.01)
Follower	0.00*	0.11***	−0.01***
	(0.00)	(0.01)	(0.00)
Follower 2		−0.00***	
		(0.00)	
Tweets day: follower			0.01***
			(0.00)
N	1,272	1,272	1,272
R2	0.20	0.35	0.31

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

small positive number close to zero. For Biden, this simple model explains already 20% of the variance in the data (R^2).

The quadratic model is a bit surprising (Table 1) returning the following values after fitting the model:

- $F\,(3.1268) = 223.84$, $p = 0.00$
- $R^2 = 0.35$
- Adj. $R^2 = 0.34$

The R^2 rises to 35%. Therefore, for Biden, the influence of the Twitter algorithms seems to be quite strong and could explain up to 15% of the variance. But the effect of the quadratic term (follower2) is negative. With more followers, the number of likes, therefore, decreases exponentially! Instead of triggering a cascade of additional interactions, the followers of Biden seem to decrease his visibility.

Our third model with interaction terms for daily tweets and followers (Table 1) shows that the adjusted R^2 rises to 30%. This means that the effect we saw in model 2 could also be explained in parts by the organic growth of followers caused by more activity. Still, the quadratic model explains 5% more of the variance which gives us the lower boundary of the effect that could be linked to algorithmic recommendation. When combined with the interaction term, the pure number of followers has again a negative effect on likes while the estimate of the transaction term is positive. This is in line with our interpretation that Biden gains followers but the new followers are less likely to engage in acclamation with likes.

After scaling the dependent variables in the models, we can compare the effects (Figure 6). Due to scaling, the effect of followers in model 3 appears now as a positive number, but this is only due to the new mean and should not be confused with a change of the effect. What we can see here is that the quadratic number of followers has the strongest effect in all models and the effect is negative. This strengthens our argument that the Twitter algorithm does not work in favor of Biden's acclamation measured in likes.

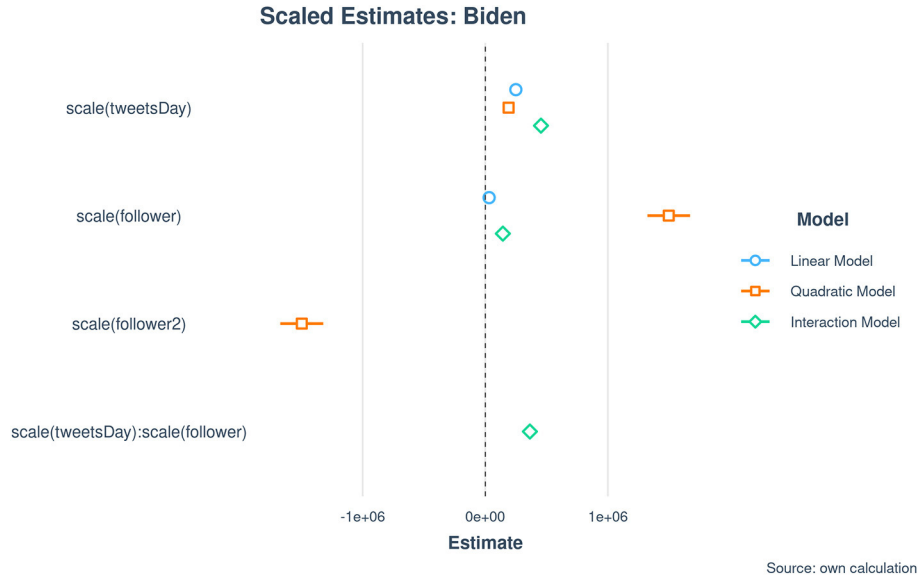

FIGURE 6
Scaled estimates: Biden.

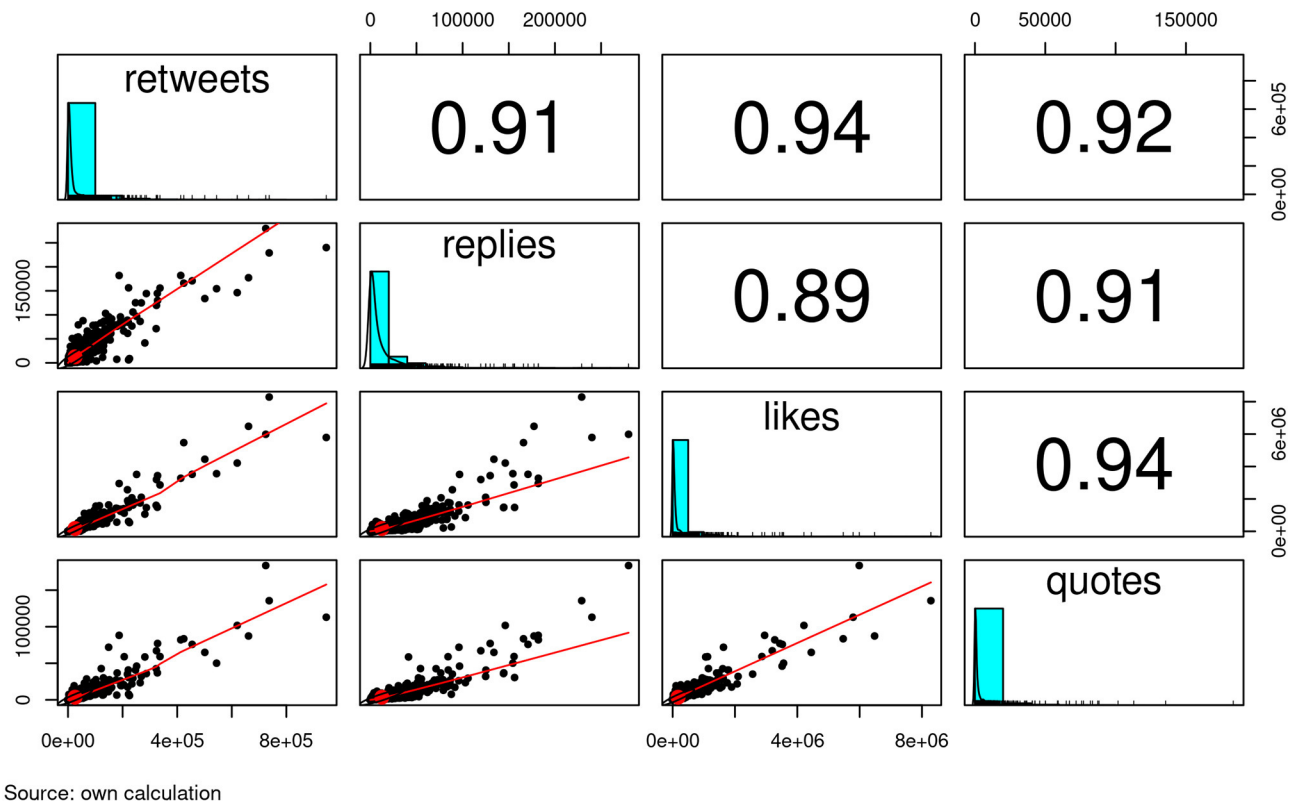

FIGURE 7
Correlation matrix: Biden.

Other available proxies for acclamation are the number of retweets, number of replies, and number of quotes. These variables are highly correlated with likes (Pearson's product–moment correlation from 0.89 to 0.94, see Figure 7). Unsurprisingly, the results, therefore, would not change much if other indicators of acclamation had been chosen.

TABLE 2 OLS—Trump.

	Linear model	Quadratic model	Interaction model
(Intercept)	−271257.72***	−151967.99***	64312.49***
	(15923.74)	(21177.13)	(12346.65)
Tweets day	15173.32***	12553.93***	−3730.87***
	(721.26)	(775.42)	(599.98)
Follower	0.02***	0.01***	0.00***
	(0.00)	(0.00)	(0.00)
Follower 2		0.00***	
		(0.00)	
Tweets day: follower			0.00***
			(0.00)
N	2,063	2,063	2,063
R2	0.68	0.69	0.86

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$.

An explanation could be that Biden is not able to reach hyperactive users (Papakyriakopoulos et al., 2020a). For our analysis of acclamation, this means that the problems for Biden to organize acclamation that we have already seen on the level of social media communication get amplified by the Twitter algorithms. He is gaining acclamation in the form of followers due to the glory of the office, but he is not able to transfer this effect to the level of individual messages and likes.

We have a slightly different result for Trump (Table 2). The OLS linear regression returned the following values with a total of 2,063 observations (1,246 missing observations deleted) with our dependent variable being the number of likes:

- $F\,(2.2060) = 2166.06$, $p = 0.00$
- $R^2 = 0.68$
- Adj. $R^2 = 0.68$

The simple model already explains 68% of the variance. This shows that Trump's likes are to a good extent a function of his followers. He gains fewer likes with each tweet than Biden, but 50 additional followers raise the average number of likes by 1 (Est. 0.02).

However, the second model does not significantly alter these findings (Table 2).

- $F\,(3.2059) = 1515.80$, $p = 0.00$
- $R^2 = 0.69$
- Adj. $R^2 = 0.69$

The quadratic effect of followers is now positive, but the new model only explains 1% more of the variance ($R^2 = 0.69$). Like for Biden, Twitter algorithms do not seem to work much in favor of Trump either.

This result gets even stronger when we look at the third model with interaction terms (Table 2). The R^2 rises to 0.86. A model simulating organic growth of likes based on the interaction between the user activity (daily tweets) and the number of followers explains 86% of the variance in the data. Trump is, therefore, not relying on the algorithmic recommendation system.

When we look at the effect sizes in the standardized model (Figure 8), we see that in model 3 (interaction term) that the effect of the number of tweets gets much stronger than in the other models. This can be seen as another hint that Trump has an organic growth pattern where activity (tweets per day) leads to more followers leading to more likes.

For Trump, we only have data on likes and retweets and not on quotes and shares. But the correlation between likes and retweets is so strong (Pearson's product–moment correlation 0.98) that the results—again—are not changing significantly when taking retweets as a response variable (Figure 9).

These results are surprising but they make a lot of sense when we take a closer look at how the Twitter algorithm works. Twitter has published a description of some details of the algorithm (Twitter Inc., 2023, see Hegelich, 2023b for a detailed analysis). In a nutshell, Twitter makes two kinds of recommendations: Tweets from users that the user is following (in-network source) and tweets from other accounts (our-of-network source). For the in-network, the probability of a user interacting with a tweet is most relevant. In the case of Biden, it seems that users are not really engaging with his tweets. This in turn leads to an overall lower probability for his followers to interact which means his tweets are not necessarily shown to all his followers. The out-of-network part works similarly but there is an important difference: Twitter applies a filter that they are calling "social proof": "Exclude Out-of-Network Tweets without a second-degree connection to the Tweet as a quality safeguard. In other words, ensure someone you follow engaged with the Tweet or follows the Tweet's author" (Twitter Inc., 2023). Biden is gaining followers but we assume that there are not so many links between these followers. Therefore, Biden does not show up so often in the timeline of people who are not following him.

Trump has a different network. Many of his followers are very active and this leads to high visibility in the in-network. But why does Trump not profit from out-of-network recommendations? Given that Trump's tweets have been very controversial and resulted in debates on Twitter, social proof should be in favor of him. But social proof is not the only filter: We have discussed above that Twitter makes amplification in its recommendation system highly dependent on political distinctions such as "misinformation." The data on Trump's tweets (Factbase, 2023) shows that 472 tweets of Trump have been flagged by Twitter. This could partially explain the marginal effect these algorithms have on the acclamation of Trump's tweets. But this is probably only the tip of the iceberg: the recent revelations on algorithmic amplification of political messaging, after Elon Musk took over Twitter, have made it clear that, under the previous leadership, Twitter actively rated down messages from conservative candidates and applied regulations on Trump that seemed to go even beyond its general internal rules (Taibbi, 2023). It seems that, when it comes to acclamation, Twitter as a social media platform has to be seen as a partisan actor on its own.

4. Discussion

Computational social sciences and technology studies can both profit a great deal from a closer connection to political theory. In

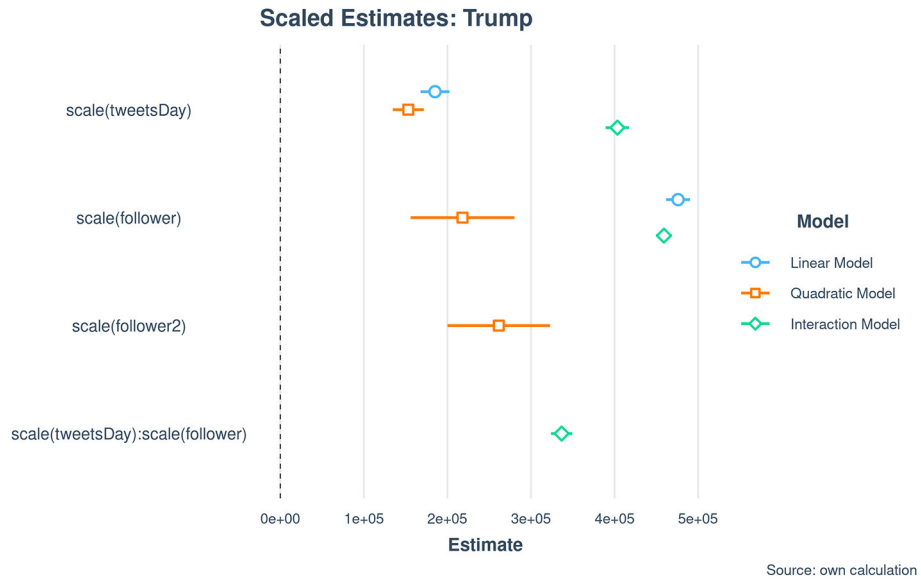

FIGURE 8
Scaled estimates: Trump.

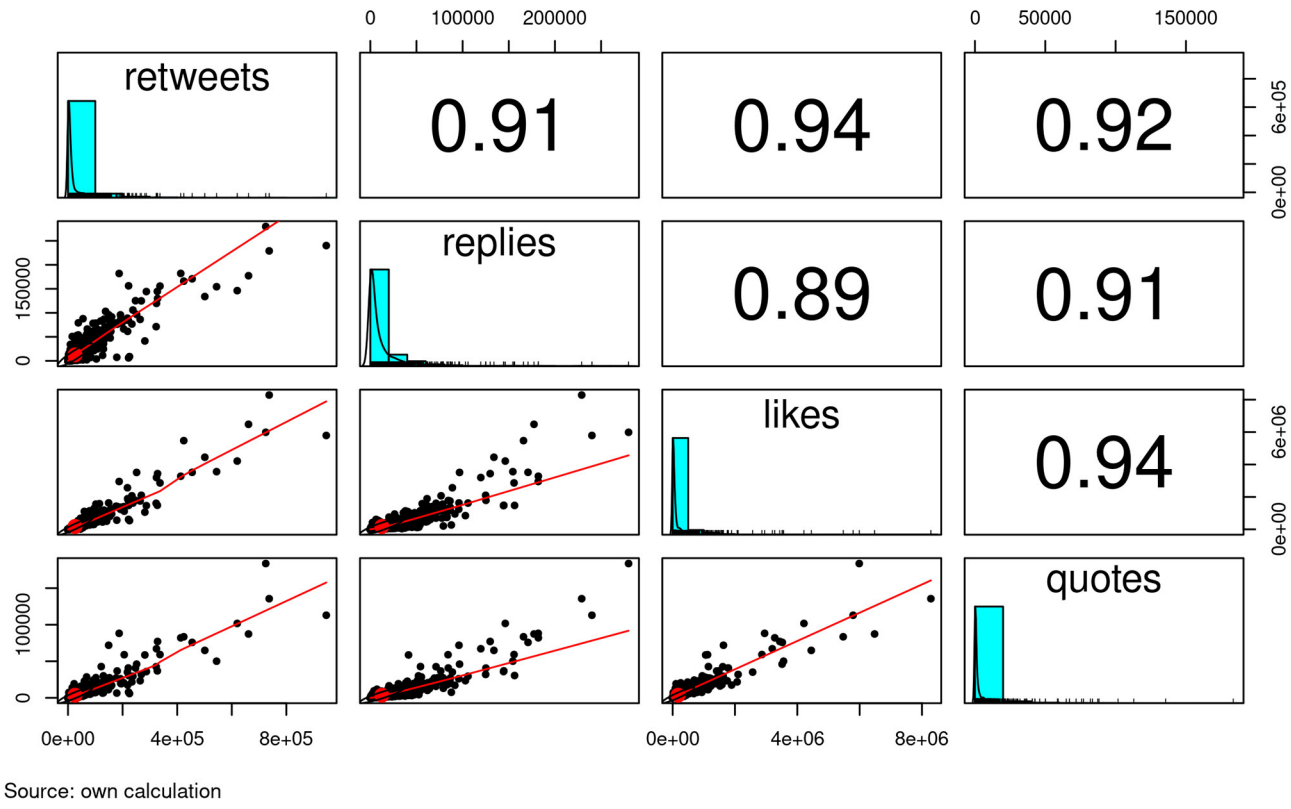

FIGURE 9
Correlation matrix: Trump.

this study, we use tools from political data science to link ideas from political theory to empirical research using social media data. Our findings emphasize the continued relevance of the idea of acclamation (Kantorowicz, 1946; Schmitt, 2008; Peterson, 2011), especially as theorized by Agamben (2011) and applied to social media by Dean (2017). We corroborate and extend the idea of

social media as acclamation and its relevance to the current political discourse. We present a theoretical analysis for each of the three constituent parts of social media and do an empirical analysis using the methodological toolkit of computational social science.

This approach presented a number of general challenges and limitations. First, our analysis is focused on political communication but social media is of course much more. The idea of acclamation cannot be transferred, without major adjustments, to other subareas such as private communication. Second, the concept of acclamation has been developed by a number of political philosophers over time (Kantorowicz, 1946; Schmitt, 2008; Agamben, 2011; Peterson, 2011). Disentangling its elements that have otherwise been developed, solely, for philosophical deliberation, sometimes necessitates an explorative approach. Much as likes, followers, retweets, etc., are useful proxies for acclamation, not all theoretical aspects of acclamation can be operationalized this way. Third, the approach is limited by the quality and availability of data. The data provided by social media platforms are limited and do not always fulfill the needs of such a project. For instance, Twitter API does not provide longitudinal data on the increase in the number of followers over time, and while we managed to aggregate some of the required, but not directly available, data from outside sources, such sources are not always available. Fourth, the algorithms that govern many crucial aspects of social media would influence the effects of acclamation and are completely or partly opaque. We can only indirectly estimate their influence on acclamation.

At the same time, we show that new approaches can be developed to sidestep some of these limitations. A full understanding of political acclamation on social media would require more theoretical and methodological innovation. We see our analysis as a first step toward a promising subject that could benefit from a range of additional investigations in both political philosophy and social media research. For instance, a range of politically relevant aspects of social media such as hyper-active users, echo chambers, polarization, fake news, and hate speech could use independent reanalysis through the lens of the acclamation. As we argued earlier, many of these aspects, which have hitherto been understood as defects of the platforms, can instead be understood from a new perspective: that they are, at least partially, the effects of the cultural practice of acclamation and should be understood as functional features of social media in practice. We have to leave behind looking at the political effects of social media through the lens of these "defects" and the efforts to fix them piecemeal. This interpretation has important implications as it suggests that social media is not something that could be "fixed" to foster a deliberative political discourse but should instead be seen as a means of power and biopolitics serving "the dark side" of modern democracies.

In linking social media to acclamation, we opened a political discussion about its consequences for democratic politics that needs to be examined more closely. Agamben describes acclamation as a form of power linked to biopolitics. Negri (2008) argued that the blind spot in Agamben's theory is the lack of the subject: "We wait for Agamben at an important critical crossing: let him say finally who is the subject that suffers, lives, dies, resurrects, is the winner in this struggle for liberation and where (if it still there) this subject of the theological-political is". In parts, the answer is already given in the concept of acclamation. Here, the crowd appears as a subject that is supporting the political power exercised using social media (by its private owners like Musk or by its hyper-connected users like Trump or Obama) and thereby over the *homo sacer*—the person who can be killed by anybody but cannot be sacrificed to the gods. Such a virtual (and non-democratic) crowd on social media can be used as justification for authoritarian politics. The reader not familiar with the works of Agamben might find the language overdrawn but it is worded so to maintain the discussion in consonance with Agamben's way of thinking (see, for example, Agamben, 1995) and to recapitulate which in greater detail is beyond the scope of this article. One striking example of the relevance of this thought is hate speech. All social media platforms have to deal with the fact that, in the virtual space, everybody is already the *homo sacer*. Slandering, threatening, and blackmailing are common practices on social media, and examples of death threats—even though many of them are quickly removed by the platforms—are so numerous that it is hard to consider social media discourse as being free of domination even in principle. In addition, the platforms themselves decide over the virtual existence of all the users because they claim the right to delete accounts based on political (and partisan) judgments. It certainly does not bode well for the health of democratic politics that political leaders are willing and able to organize acclamation on a platform (such as Twitter under Musk) with a routinely hate-filled discourse and rules that are arbitrarily set by its private unaccountable owners.

In an era, where governments around the world are ceding increasing amounts of power and political ground to large tech companies and ultra-rich individuals, our analysis of social media as acclamation provides a fresh perspective on how this power is being turned into political power. Elon Musk and his behavior following the takeover of Twitter highlights the utility of the perspective of acclamation. Musk seems to have an extraordinary gut feeling for the symbolic language of glory and acclamation. He uses a picture of himself in Roman armor, which reminds us of Agamben's interpretation of the military dress of the emperor: "Under no circumstances could the magistrate enter Rome in military dress, having rather to *sumere togam* before crossing the frontier. So, the fact that the emperor would wear his purple *paludamentum* in the city did not so much indicate the factual predominance of the army but mainly signaled a lack of determination of the formal difference between consular power and proconsular power, pomerium and territory, the laws of peace and the laws of war" (Agamben, 2011, p. 177). Musk represents himself as the emperor who can declare something akin to a state of emergency for Twitter governance, where laws of peace and laws of war cannot be differentiated. And this is exactly what he does with acclamation. For instance, the re-installation of Donald Trump's Twitter account was not based on a review (or change) of Twitter's internal rules. Instead, Musk made a poll and asked the users if he should: "Reinstate former President Trump" (Musk, 2022). A total of 15 million users took part in the poll and a majority of 51.8% said "yes." This poll should not be confused with a democratic election. It is acclamation in its purest form—the crowd shouts and the emperor uses this tumult as justification of his decision. Furthermore, in parallel to Agamben's ideas, Musk replied to his

own poll with the tweet, "Vox Populi, Vox Dei" (Musk, 2022), which makes him the executor of the will of God as expressed in the doxology.

Because acclamation is a practice of biopolitics, it would be naive to look for the government to regulate this form of power. So, coming back to the question Negri (2008) has raised, the only subject that can end acclamation is the crowd. But the difficulty here is that simple negation will not do the job. Negative acclamation still sticks to the logic of doxology. Jung (2019, p. 217) cites the claim: "The silence of the people is the lesson of kings" to describe that negative acclamation might signal the emperor that "the people" are not supporting him, but this does not overcome the relationship of domination. To do so, the crowd would have to understand that the throne is *de facto* empty. There is nothing to be worshiped, the kingdom of glory is a myth. Murphy (2020) has put this in very clear words when he writes, "The congregation is (passively) called, but without the (passive) receipt and acceptance of the call, there is no one to fulfill the doxology and the urgic glorification. The audience is (passively) called, but without the (passive) receipt and acceptance of their call, there is no one to assent (fulfill) the securitizing move. In both cases, we find a routinization of amen and assent that covers the substantial and significant activity under a shroud of mundane drama. However, were the congregation to refuse to participate in the urgic glorification of doxology—to follow Agamben's work—the emptiness of the earthly throne would become obvious. Similarly, were the audience to refuse to grant assent to the securitizing move—as studies of these sorts of failures demonstrate—the insufficiency of a rejected securitizing actor becomes just as clear." The position that emerges from examining political acclamation on social media, therefore, is to argue against the political relevance of social media. Instead of reforming or restarting these platforms (Dhawan et al., 2022), we ought to work toward a larger political discourse that systematically denies glory to all leaders.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

SH developed the idea, wrote the main parts of the article, and was in charge of the empirical data analysis. SD contributed several ideas and wrote parts of the article. HS contributed several ideas and supported the data analysis. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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