# Online repression and tactical evasion: evidence from the 2020 Day of Anger protests in Egypt

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# Online repression and tactical evasion: evidence from the 2020 Day of Anger protests in Egypt

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**ABSTRACT**
Following the 2011 Arab Spring, autocrats have sought to limit citizens' ability to publicize offline protests over social media. In this article, we explore how users adjust to these restrictions. To do so, we analyse 33 million tweets sent from Egypt during the "Day of Anger" protests in September 2020. We find evidence of online tactical evasion in a highly repressive context. Compared to neutral users, regime opponents are more likely to issue calls for offline protests using new or dedicated accounts that contain no personal information. Users are also more likely to delete tweets calling for mobilization ex-post in a bid to conceal their activism. We find weaker evidence suggesting that regime opponents try to evade laws targeting critical accounts with over 5000 followers. The findings illustrate how activists in autocracies use social media to mobilize street-level contention while attempting to mitigate the risk of state repression.

## Introduction

Over the past decade, a body of research has documented efforts by authoritarian regimes to curtail users' ability to coordinate and publicize opposition over social media. In addition to legal restrictions regulating online speech, scholars have chronicled how regimes block social media, filter critical websites, and subject opponents to online harassment and offline repression.[1] What is less well understood is how citizens in autocracies can respond to these developments. Protestors and opposition forces are often able to adopt tactics that mitigate the risk of state repression;[2] however, we know very little about how this travels to the digital realm. This question is especially salient given research that stresses the important role played by the internet in giving voice to opposition activists in autocracies.[3] Several studies have pointed to a positive relationship between social media usage and protest participation during the 2011 Arab uprisings.[4] This, despite attempts by regimes to censor the internet both before and during the

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uprisings.[5] We also know from more recent cases of digital activism in Southeast Asia,[6] Saudi Arabia,[7] and Turkey[8] that users continue to defy local autocrats by using public social media platforms to mobilize on- and offline contention.

In this article, we add to this body of scholarship by exploring *how* regime opponents issue public online calls for protest in authoritarian regimes. Building on insights from research on contentious politics and collective protest, we posit that even in very repressive contexts, opponents are able to exploit features of the online environment that allow them to sidestep government measures aimed at curtailing users' ability to issue calls for protest over public social media platforms. In this, we contribute to an emerging body of scholarship that explains how the internet has reconfigured the opportunities for repression, mobilization, and oppositional politics in autocracies.[9]

To test for the possibilities of online tactical evasion, we examine how Egyptians mobilized opposition to the Sisi regime over Twitter during the "Day of Anger" protests in September 2020, which saw offline protests break out in governorates across the country. Egypt presents an important test case for the possibilities of online tactical evasion in very repressive settings. Despite being an early exemplar of the power of social media in facilitating mass protest during the 2011 Arab Spring,[10] a military coup in 2013 against the Muslim Brotherhood's Muhammad Mursi brought an elliptical return to authoritarianism.[11] This has seen a massive crackdown against the country's political opposition and the passing of restrictive laws aimed at stopping Egyptians from using social media to mobilize offline protest.

As our results show, during the "Day of Anger" mobilizations, Egyptians aimed to get protest hashtags calling for street-level mobilization to trend, while evading detection. Regime opponents used new, dedicated, and anonymous accounts to promote protest-related hashtags and messages. They were also more likely to delete anti-regime posts after protest had demobilized, thus obscuring their digital trail and hindering the authorities' ability to trace them. We find weaker evidence that regime opponents look to evade laws that allow the Egyptian security apparatus to block and prosecute users with over 5000 followers.

Taken together, the article shows how public social media platforms remain an important tool for activists to voice discontent and call for protest in authoritarian settings. More precisely, by illustrating how opponents adjust to the limits of a regime's online presence, our study deepens our understanding of why digital repression in autocracies appears to be only partially successful.[12] At the same time, while evasion tactics allow activists to make public their calls for protest – for example, by getting hashtags to trend – the use of new and anonymous accounts likely limits the credibility of the protestors' messages. Even creative tactics, this suggests, have their limits.

## Online repression and tactical evasion

The internet and social media have revolutionized how citizens engage in politics.[13] In autocracies, these new forms of connectivity have transformed the possibilities for protest by reducing the costs of coordinating contention and making public anti-regime opposition.[14] Several studies have established a positive relationship between social media use and protest participation during the 2011 Arab uprisings.[15] In consequence, the internet has now become a key part of the "action repertoire"[16] available to citizens to launch collective protest and voice discontent. This type of "connective action"[17] is especially attractive in very repressive settings as it is less risky than

street-level activism, and can be highly visible if large numbers of users participate. Here, there is good reason to think that young, tech-savvy activists play an important role in orchestrating such online calls for protest, as well as participating in any resulting street-level mobilization.[18]

In a bid to deny these online spaces to regime opponents, autocratic regimes have sought to monitor and repress forms of digital activism taking place on third party platforms, e.g. Twitter, Facebook, and Telegram. This speaks to the dynamic and processual nature of contentious politics in which innovations by protestors are met with countermeasures by incumbents, forcing activists to either adapt or demobilize.[19] The precise nature of these countermeasures varies by context, but can include filters and technical attacks to disrupt the free flow of information,[20] the harassment and arrest of online activists,[21] and the flooding of social media with pro-regime content to suppress critical voices.[22] Authoritarian regimes often combine these tactics and employ them arbitrarily in a bid to increase uncertainty and fear among opposition actors.[23]

If we have an increasingly sophisticated understanding of the different digital control and online repression strategies used by autocrats, much less is known about the consequences of such repressive digital environments for online behaviour – and how citizens can be resilient to such practices.[24] This, despite several studies suggesting that online repression can lead to forms of digital "backlash."[25] Using Twitter data, Boxell and Steiner-Threlkeld find that the introduction of a social media tax in Uganda led to a significant decrease in active users, but also an increase in tweets calling for protest.[26] Pan and Siegel find that arresting online activists in Saudi Arabia led to less critical posts from the arrestees' accounts, but higher levels of opposition from their followers.[27] Dal and Nisbet analyse survey data from Turkey suggesting that users still share anti-regime content, in spite of attempts to clamp down on free expression online.[28] Finally, several studies have charted how activists used social media to issues calls for protests during the Arab uprising in Tunisia, despite the fact that the Tunisian online sphere was heavily controlled and surveilled in 2010.[29]

How do activists and citizens use public social media platforms to issue calls for protest in spite of autocrats' attempts to increase the risks associated with doing so? We suspect that some users tactically adjust to restrictions in the online sphere, just as street-level protestors adapt to offline repression. In his seminal work on the civil rights movement, McAdam shows how activists developed new tactics in a chess-like fashion, as they responded to the repressive measures of southern segregationists.[30] So too, Francisco, finds that opposition forces are often able to sustain street-level activism in the aftermath of massacres by switching to less risky tactics.[31] Similarly, Ketchley shows how protestors in Egypt adapted to harsh repression by adjusting the timings, locations, and forms of their protest.[32] Also relevant is Pearlman's analysis of movement formation in Syria. As she argues, activists responded to harsh repression by forming "unsocial social networks" – "deliberately pieced together so that people do not know who else is involved."[33] Along similar lines, Fu chronicles how Chinese activists increasingly adopt atomized forms of protest due to the risks associated with public collective action. Here, activists stimulate "mobilization without the masses" – coordinating offline action such that government officials face opposition from individuals rather than groups, thus avoiding regime sensitives related to public examples of organized opposition.[34] In very repressive contexts, protestors can also re-purpose the practices of everyday life in a bid to communicate their opposition. Examples

include turning on lights at pre-specified times, banging pots and pans, as well as collective singing and chanting.[35]

Against this backdrop, we expect that activists in autocratic regimes adapt to repressive digital environments in a process that we call "online tactical evasion." By this, we mean tactics that are designed to make reprisals by state authorities or other pro-regime actors less likely, while also allowing opponents to continue to use public online spaces to publicize and coordinate protest. Here, we hypothesize and empirically test for the adoption of three forms of online evasion. One obvious tactic is for social media users to call for protest and publicize discontent using new or dedicated accounts that withhold personally identifying information. The incentive for doing so is straightforward. While autocratic regimes often pass legislation rendering the use of fictitious identities or accounts illegal,[36] they often lack the technical capacity to identify users' true identities when using third party platforms hosted in Western democracies.[37] As well as ensuring their anonymity, the creation of such accounts increases the reach of any protest campaign by helping opposition activists to safely elevate certain anti-regime hashtags by making them "trend" in a given context. By doing so, opponents are able to generate domestic and international attention far beyond users' follower bases.[38] These types of signals are often key to getting bystanders to join campaigns in low information environments, by making public the level of opposition to the regime.[39]

We also expect that users will try to evade potential punishments by deleting critical posts or accounts after protest has demobilized. The deletion of tweets is especially attractive for less "disposable" accounts, i.e. those with higher follower counts. Users may also put their accounts into private mode, thus restricting who can view their posts. Again, the incentives for this form of behaviour are obvious. In a number of publicised cases, autocratic regimes and their supporters have used social media to identify protest participants and opposition activists after the fact.[40] For example, following the Green Movement in Iran in 2009, the authorities arrested a number of activists after tracing them through their social media postings after protest had demobilized.[41] In China, social media users have been traced through their online activities and persecuted for posting anti-regime content.[42] Even when regimes lack the technical capabilities for massive online surveillance, users have incentives to delete their content. For instance, in Egypt, it is commonplace for individuals to be stopped at police checkpoints and forced to show the contents of their social media accounts in front of a police officer.[43]

Finally, authoritarian regimes sometimes pass social media laws that allow them to block or prosecute social media users with large online followings. In both Egypt and Ethiopia, for example, autocrats have passed laws giving the authorities an array of powers against users with more than 5000 follows.[44] The rationale for these laws is seemingly to stop influential accounts from spreading news of anti-regime contention to large audiences. It follows that activists may thus try to stay below this threshold, or otherwise adjust their content after they cross the 5000 follower limit, in a bid to avoid repercussions.

## Protest and online tactical evasion in Egypt

To test for the occurrence of online tactical evasion during protest episodes, we focus on Egypt during the 2020 September "Day of Anger" protests. We understand Egypt to

be a low-residual, "typical case"[45] of high social media usage, a recent history of sustained protest, and resurgent authoritarianism and repression.[46] The Sisi regime is particularly concerned with regulating the online sphere, with social media users at significant risk of being arrested or prosecuted for engaging in online activism.

Figure 1 shows monthly time series data for political arrests, offline protests, and a prominent anti-regime hashtag used by Egyptian Twitter users in the period 2011–2020. Vertical dashed x-lines mark key episodes in recent Egyptian political history. The years between 2011 and 2014 saw sustained protest followed by marked demobilization, attributable to the effects of massive political repression in the aftermath of the July 2013 coup.[47] In total, there are records for 125,766 political arrests in the post-coup period. Scrutinizing the temporal patterning of those arrests, the regime launched a campaign of sustained repression beginning in July 2013 and that continued through to the presidential elections in March 2018.[48] In the post-March 2018 period, arrests became more reactive, occurring principally in response to episodes of protest. It was also during this latter period that we see the emergence of prominent anti-regime hashtags, illustrated by a worldwide monthly count of the Arabic hashtag "#Sisi leave," which became widely adopted following the 2018 presidential elections,
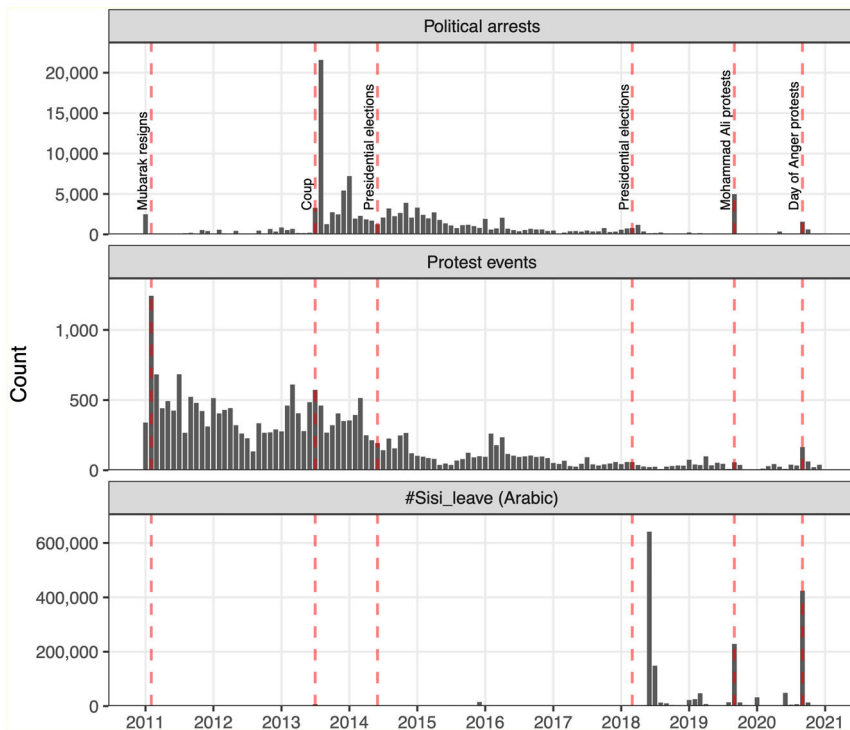


Figure 1. Political arrests, offline and online contention.

Note: The protest event catalog was collected by the Open Data Tank Initiative e.V and contains records for 21,713 protests hand-coded from Arabic-language news and social media sources. The arrest data is an updated version of the WikiThawra dataset sourced from court records, local news reports, and social media postings (https://opendatatank.org/; https://wikithawra.word-press.com). The historical Twitter data was retrieved using the Twitter academic API (Barrie and Chun-ting Ho, "academictwitteR").

and that has since reappeared episodically, often coinciding with outbreaks of offline protest.

The authorities in Egypt have also launched a campaign of censorship, intimidation, and repression targeting online spaces. In 2020, at least 549 websites were blocked in Egypt after hosting content perceived as being critical of the regime – and the government has increasingly sought to regulate social media content.[49] These efforts culminated in 2018 in the passing of the Press and Information Regulation Law, which gives the regime far-reaching powers to censor news media and block content on the internet. As a result, in 2020 Egypt was ranked 166 from 180 in the Press Freedom Index compiled by Reporters Without Borders.[50] Article 19 of the Press and Information Regulation Law designates social media accounts or blogs with more than 5000 followers as legally equivalent to news outlets, making them subject to the same strict regulations that are imposed on Egypt's print and television media.[51] This law gives the Egyptian authorities the power to block users' accounts and impose stiff financial penalties (up to $14,000) for posting critical content.[52] Egyptians can also be prosecuted for using pseudonyms on social media.[53] These legal instruments have been used to arrest a number of bloggers and prominent online personalities.[54]

In spite of this extremely repressive environment, Egyptians have continued to launch both on- and offline protest. In September 2020, this saw marches and demonstrations break out in governorates across the country. These were timed to mark the one-year anniversary of a protest episode in 2019 sparked by Mohammad Ali, a former military contractor who accused the Sisi regime of embezzling public funds. Figure 2
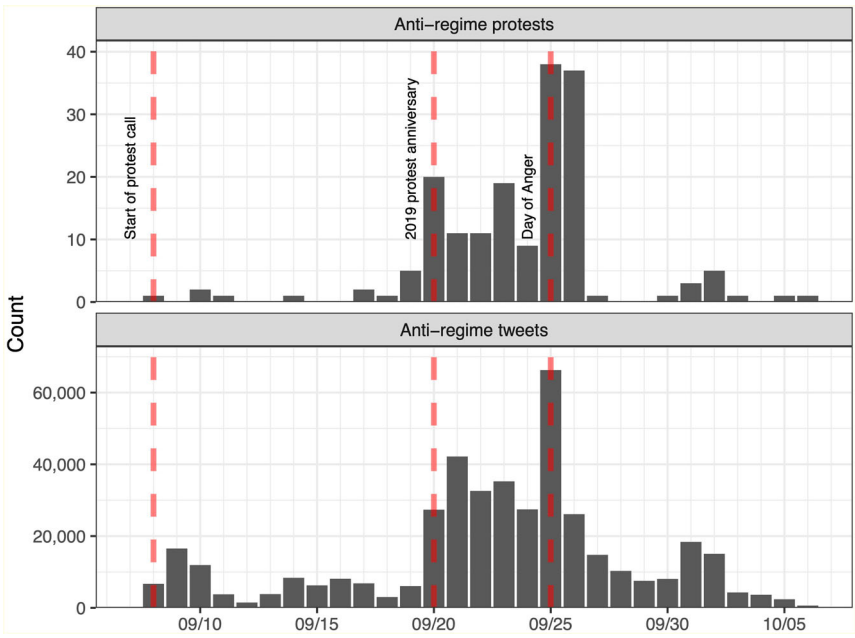


**Figure 2.** Off- and online contention in September 2020.
Note: The protest data is from the same catalog collected by the Open Data Tank Initiative e.V. Anti-regime tweets retrieved by the authors.
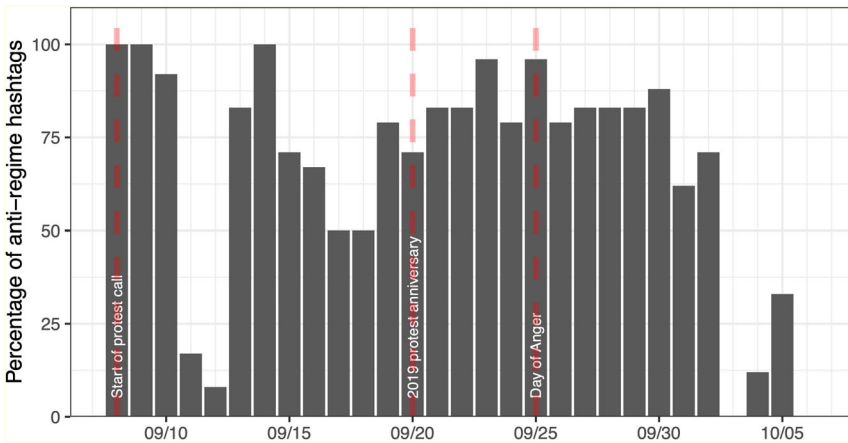
**Figure 3.** Percentage of hours with at least one anti-regime hashtag trending in the top 5 hashtags per day during our analysis period.

Note: Data retrieved from getdaytrends.com.

shows daily interval data for anti-regime protests and tweets during this period. On 8 September 2020, anti-regime social media accounts in Egypt started an online campaign calling for protest on 20 September. This coincided with public anger at planning laws requiring Egyptians living in informal residential areas to pay fines to legalize their homes, or risk seeing them demolished. During this period, activists made their opposition visible by getting anti-regime hashtags to trend in Egypt. Figure 3 shows the share of hours in which at least one anti-regime hashtag was visible in the top 5 trending hashtags in Egypt per day. After Egyptians initially took to the streets, online activists drew on the repertoire of protest pioneered during the 25 January Revolution and called for a follow-up, "Day of Anger" protest on Friday, 25 September.[55] Protestors continued to hold marches and demonstrations the following day, only to then demobilize in the face of state repression.[56]

## Data and empirical strategy

For our purposes, this episode of offline protest is well suited for analysing online tactical evasion in a highly repressive regime. As the protests were called for in advance, we were able to collect Twitter data live by connecting to the platform's REST API every 15 minutes between 8 September and 6 October 2020 and then archiving the most recent 18,000 tweets, quoted retweets, and retweets.[57] We confine attention to tweets sent from users who record that they are located in Egypt in their account information, or geo-tag their tweets to Egypt. This allows us to gather most of the tweets sent by Egyptian Twitter users during our analysis period. Crucially, this also allows us to compare the behaviour of anti-regime users to a baseline of neutral users during a period of heightened offline contention. While Graham et al. show that self-reported country location for Twitter users is generally reliable,[58] accounts may have withheld their country location to stay anonymous, which we examine in Appendix Section G through a sample of global tweets.[59] In Appendix Section E we also carry out several analyses to rule out the widespread use of automated bots. Of course, this

does not mean that users did not coordinate nor that activists used only one account to promote the campaign's message.

To identify anti-regime tweets, we populated a list of Arabic-language anti-regime hashtags.[60] To create this list, we began by checking the top daily trending hashtags in Egypt.[61] We then searched for hashtags that commonly co-occurred with ones that we had already identified as anti-regime in nature. Note that we exclude ambiguous hashtags, e.g. the Arabic- and English-language equivalents of #Egypt or #Sisi, as these could be used by both anti- and pro-regime users. We also collected pro-regime hashtags to arrive at a sample of neutral tweets. These hashtags are associated with 425,456 anti-regime tweets (around 85% of which are retweets) – out of almost 33 million tweets sent during our analysis period.[62] As we discuss in Appendix Section A, these hashtags were chosen to publicize protest and call for street-level mobilization to overthrow the Sisi regime – and many seem to be associated with the Muslim Brotherhood.

Naturally, we are concerned that focusing on hashtags will misclassify some anti-regime tweets as neutral. To empirically verify this, we hand-coded a random sample of 1000 ostensibly neutral tweets sent during our analysis period. Scrutinizing the text of each tweet, we found four anti-regime tweets related to the Day of Anger protests. Scaling up, this suggests that around 0.4% of all neutral tweets are, in fact, anti-regime tweets. Interestingly, all of these misclassified anti-regime tweets used hashtags, of which two were unambiguously anti-regime in nature. We discuss the implications of this measurement error for our analyses below.

To see if Egyptian activists engage in different types of online tactical evasion, we conduct the empirical tests summarized in Table 1.[63] We begin by exploring whether activists use new or dedicated social media accounts to promote offline protest campaigns. To do so, we examine the proportion of anti-regime tweets sent by accounts with followers close to zero and the proportion of anti-regime tweets sent by these accounts. The rationale for these tests is that new and dedicated anti-regime accounts should, on average, have fewer followers, and will tend to primarily share anti-regime content. We also look at the creation dates of anti-regime accounts on the assumption that dedicated protest accounts are more likely to be created following the initial call for mobilization. We are also interested in anonymity. To operationalize this, we compare the rate at which new anti-regime accounts include a forename and surname in their Twitter profiles, as compared to new neutral accounts. To test whether activists look to conceal their behaviour after offline protest has demobilized, we explore the deletion and protection rate

**Table 1.** Empirical tests.

| Question | Test |
| --- | --- |
| As compared to neutral users and tweets: | |
| 1. Do activists use new anonymous and/or dedicated accounts? | Proportion of anti-regime tweets close to zero followers, proportion of anti-regime tweets sent by anti-regime users, creation date of anti-regime users, inclusion of forename and surname in profile |
| 2. Do activists hide or delete accounts or posts after protest has demobilized? | Deletion/protection rate of anti-regime users, deletion rate of anti-regime tweets |
| 3. Do activists stay under the 5000 follower threshold? | Proportion of anti-regime tweets below the threshold, proportion of anti-regime accounts staying below the threshold |

of anti-regime accounts, as well as whether they delete critical posts as compared to neutral accounts and tweets. Finally, we explore whether activists adjust the content of their tweets to the 5000 follower threshold specified in the Press and Information Regulation Law. To test for this, we first check for sorting effects below the 5000 follower threshold, i.e. a higher proportion of anti-regime tweets just below the threshold. We then explore the proportion of anti-regime users who stayed below the threshold five months after the protests ended when compared to a sample of neutral users.

## Analysis

### Do opponents use anonymous, new or dedicated accounts?

To investigate whether activists use different types of accounts to mobilize online, we examine the number of followers each anti-regime account has, what content these users post, when their accounts were created, and the inclusion of personal identifying information in their Twitter profiles. Figure 4 shows the proportion of anti-regime posts depending on the number of followers.[64] This displays the result of a generalized additive model and suggests that the share of anti-regime tweets as a proportion of all tweets is approximately three times higher for users with follower counts close to zero, as compared to users with 1000 followers. Since dedicated accounts should – on average – have fewer followers, this provides some preliminary evidence that opponents of the Sisi regime use dedicated Twitter accounts to call for anti-regime contention.

We can also investigate the share of anti-regime tweets sent by anti-regime users, selecting into users that shared at least one anti-regime tweet.[65] If accounts with a small number of followers are more likely to be dedicated accounts, then the proportion of anti-regime tweets should be higher for accounts with a smaller number of followers. As per Figure 5, this indeed seems to be the case, as accounts with follower counts close to zero almost exclusively posted anti-regime tweets – and this proportion decreases precipitously as the number of followers increases, before reaching its lowest point at around 3000 followers.[66]
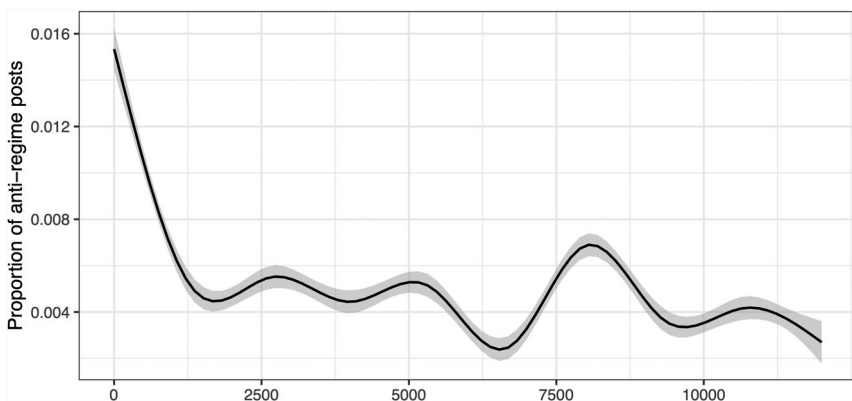


Figure 4. Proportion of anti-regime tweets by the number of followers relative to overall tweets.
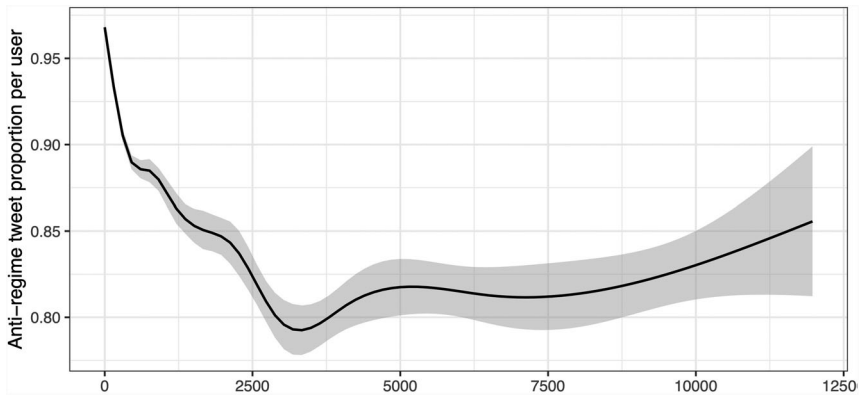
**Figure 5.** Proportion of anti-regime tweets by anti-regime user.

Note: Accounts that posted anti- and pro-regime posts were disregarded. We took the number of followers at the beginning of the study period.

We can also explore the creation date of anti-regime accounts using neutral accounts as a baseline. Figure 6 suggests that approximately 50% of anti-regime accounts were created in 2019 or 2020. Zooming into the weeks leading up to the "Day of Anger" protests (the bottom panel), we find that around 12.3% of anti-regime accounts were opened during September 2020. Two-sample Kolmogorov–Smirnov tests suggest that the rate of opening new accounts for anti-regime and neutral users during this period is statistically significantly different ($p < .001$). Viewed across a longer time series (the middle panel), we see that a large number of anti-regime accounts posting during the 2020 "Day of Anger" episode were created during the earlier September 2019 mobilization. These trends support our expectation that activists create new accounts to promote anti-regime mobilization during periods of offline contention.

Finally, we can also examine whether anti-regime users deliberately withhold personal information in their account profiles, thus ensuring their anonymity. To do this, we follow Ross and Cappos[67] and take a random sample of 1000 anti-regime accounts created in September 2020 and compare them to a random sample of 1000 neutral accounts opened during the same period. We then code a dummy variable for whether an account includes both a forename and a surname in the user's account name, Twitter handle, or bio. Figure 7 shows the marginal probability of accounts containing that information as a function of whether the account is either an anti-regime or neutral user. The results are clear: anti-regime users were 11.2% more likely ($p < .001$) to post from accounts without a forename and surname, when compared to neutral users. Of course, this test cannot account for pseudonyms. It seems reasonable to assume that the use of pseudonyms is greater amongst anti-regime users, and so the true rate of not including personally identifying information is likely to be even higher for anti-regime accounts.

## Do opponents hide or delete tweets and accounts?

To investigate whether anti-regime users deleted their accounts or changed their profile to private mode after the protests had demobilized, we checked whether their accounts had been either suspended, protected, or deleted in January 2021.[68]
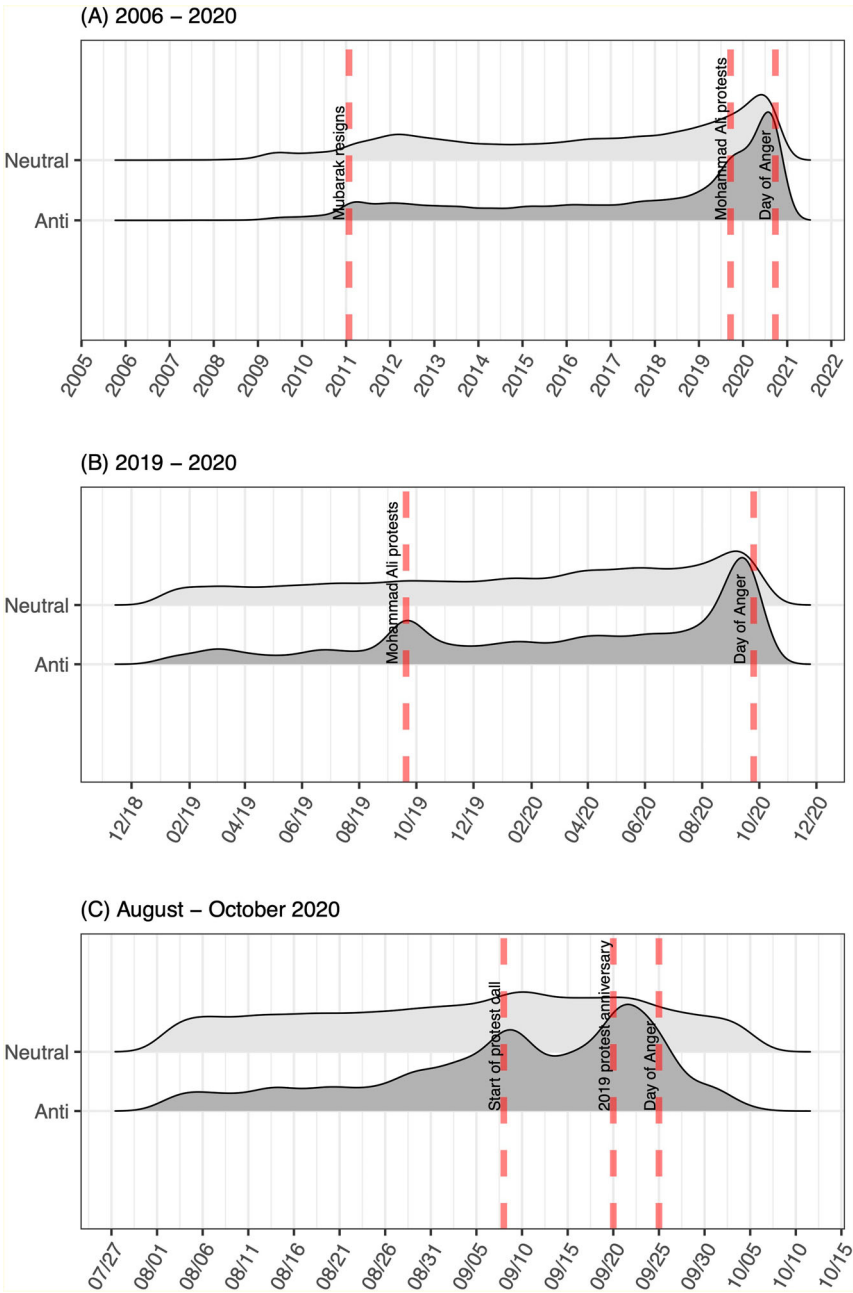
**Figure 6.** Account creation dates.

Note: Kolmogorov–Smirnov D statistics 0.171 (2006–2020), 0.142 (2019–2020), 0.147 (August–October 2020). All D statistics significant at p < .001.
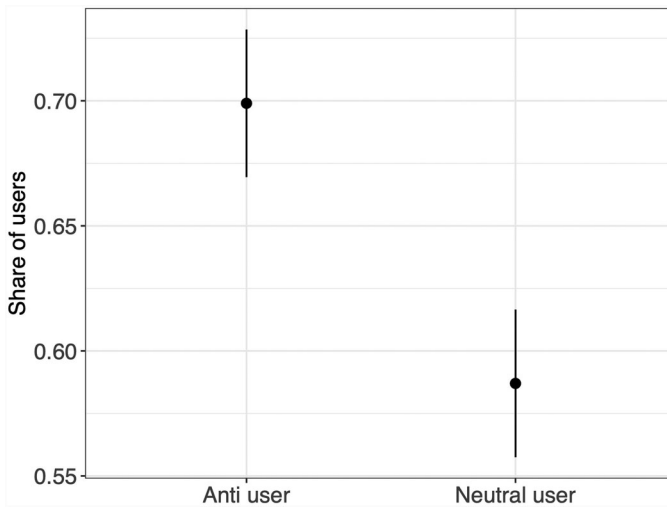
**Figure 7.** Share of users without forename and surname.

Note: 95% confidence intervals are displayed.

Interestingly, we find few differences between anti-regime and neutral users with 90% of neutral and 91% of anti-regime users still available in January 2021. In Appendix Section B, we report the results of a multinomial logistic regression where we test a categorical outcome with account statuses coded as available (baseline), deleted, protected, suspended, or unknown. The results suggest that anti-regime users are actually less likely to delete or protect their accounts when compared to neutral users, presumably because other forms of tactical evasion make deletion of a useful protest resource unnecessary.[69]

To explore whether users deleted tweets in the period following the September 2020 protests, we retrieved information on whether our downloaded tweets were still available in January 2021. We then follow two empirical strategies. First, we analyse the likelihood of a tweet being deleted using a sample of both anti-regime and neutral tweets. In a second analysis, we select into anti-regime users and explain why some tweets are more likely to be deleted than others. To examine the tweet deletion rate, we use our information on account availability to exclude tweets posted by unavailable accounts, thus reducing the number of potential false positives, i.e. tweets or accounts that were deleted by Twitter rather than a user.[70] Of course, it is not possible to completely rule out false positives. However, if we assume no systematic differences between anti-regime and neutral tweets, this potential measurement error should not bias the inferential results. As per Mubarak et al., we believe that this assumption is reasonable.[71] As they show, Arabic-language tweets flagged and deleted by Twitter relating to sports, politics, and a residual category called "other," follow very similar distributions. We further reduce the likelihood of false positives by restricting our main analyses to original tweets and quoted retweets. By this, we ensure that it is the user who deleted the tweet and filter out dedicated accounts that only retweeted anti-regime messages. For those accounts, tactical evasion via ex-post deletion should be less relevant since they are more likely to be anonymous or dedicated accounts, or both.[72]

At the aggregate level, around 15% of anti-regime and 7–8% of neutral tweets, depending on the sample, were deleted. That is to say, the deletion rate for anti-regime posts was twice that of neutral posts. Table 2 reports the results of our statistical models. The unit of analysis is a tweet and the dependent variable is coded as "1" if that tweet was subsequently deleted. Model 1 is a multilevel linear probability model with user-level and date-level random intercepts. User-specific controls account for plausible confounding. Model 2 selects into anti-regime users. Here, we add date and user fixed effects, confining attention to variation in the deletion rate across different tweet types by anti-regime accounts on the same day. These different modelling strategies take into account unobserved between-user and across-time heterogeneity. Note that these analyses are inevitably conservative as we exclude non-available users and, as noted earlier, the key treatment is measured with error as we classify anti-regime tweets that do not contain hashtags or tweets that use anti-regime hashtags not contained in our sample as neutral tweets. Given the number of observations in our analysis, this measurement error will inevitably attenuate any association towards zero.[73] Despite this, Models 1 and 2 nonetheless suggest that users were significantly more likely to delete anti-regime tweets after the "Day of Anger" protests subsided, as compared to neutral tweets.

### Do opponents stay under the 5000 follower threshold?

Finally, we also investigate whether anti-regime users adjust their behaviour to the Press and Information Regulation Law, and in particular its 5000 follower threshold. To test for this, we look for more anti-regime tweets just below the threshold and if users try to manipulate their follower counts to stay below the threshold. Figure 8 again shows the average proportion of anti-regime posts by the number of followers. This time, the estimations are based on two generalized additive models that are split above and below the 5000 follower threshold. We find a suggestive trend: the proportion of anti-regime tweets increases precipitously as accounts approach the discontinuity, before dropping off sharply once users cross the 5000 follower threshold and so fall within the purview of the Press and Information Regulation Law.

**Table 2.** Random and fixed effects models predicting if users delete a tweet or quoted retweet.

|  | Model 1 | Model 2 |
|---|---|---|
| (Intercept) | 0.22*** (0.00) | |
| Anti-regime tweet | 0.06*** (0.00) | 0.06*** (0.00) |
| Ln(number of followers + 1) | 0.00 (0.00) | |
| Ln(number of statuses + 1) | 0.02*** (0.00) | |
| Sample | Anti and neutral tweets | Anti-regime users |
| Model | User and date random effects | User and date fixed effects |
| Num. obs. | 428,077 | 709,516 |
| Num. groups: User | 11,412 | 11,067 |
| Num. groups: Date | 29 | 29 |
| Var: User (Intercept) | 0.07 | |
| Var: Date (Intercept) | 0.0 | |
| Var: Residual | 0.02 | |
| Mean: User (Intercept) | | 0.10 |
| Mean: Date (Intercept) | | 0.00 |
| SD: User (Intercept) | | 0.27 |
| SD: Date (Intercept) | | 0.01 |

Notes: Standard errors in parentheses. Clustered on the user level for fixed effects models. *p*-Values (two-tailed);
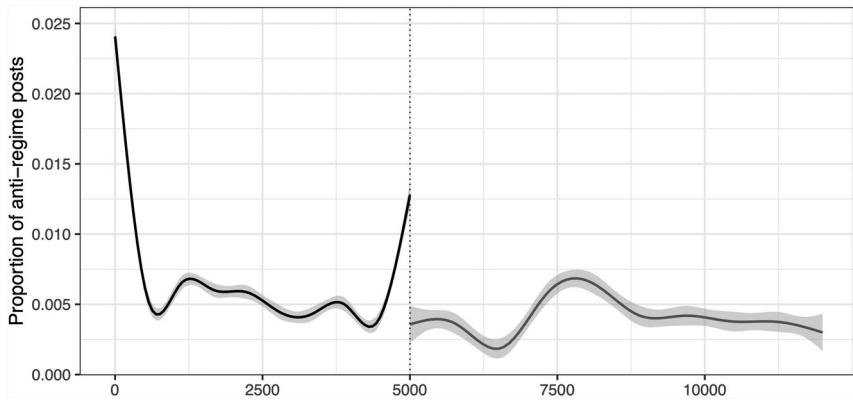*$p < .05$; **$p < .01$; ***$p < .001$.

**Figure 8.** Proportion of anti-regime tweets depending on the number of followers and a breaking point at the 5000 follower threshold.

Scrutinizing this sorting effect suggests that there are approximately four times as many anti-regime posts made by accounts just before the 5000 follower threshold, compared to accounts with follower counts just above the threshold. It thus appears that some anti-regime users behave strategically and either try to stay below the 5000 follower threshold, or else adapt the content of their posts once they cross that threshold. Of course, since the number of users exponentially declines as the number of followers an account has increases, it might be that the observed spike is due to just a few accounts behaving in this way. Sensitivity tests reported in Appendix Section C indeed suggest that the patterns become weaker when removing high-tweeting users located around the threshold. The results are thus likely driven by a small number of high-tweeting, anti-regime users located just below the 5000 follower threshold.

Do activists actively try to stay below the 5000 follower limit? While Twitter did not provide a dedicated "unfollow" button in 2020, users can try to manipulate their follower counts by blocking (and unblocking) followers.[74] In March 2021, we looked up the follower counts for users who were 200 followers below the threshold at the time of the protests. We assume that users naturally gain followers over time – and that if anti-regime users do try to manipulate their follower counts, this should be visible when compared to neutral users. Table 3 shows the share of accounts that stayed below the 5000 follower threshold. Interestingly, only 40% of the anti-regime users stayed below the threshold compared to a share of 46% of neutral users; however, this difference is not statistically significant at $p < .05$. That growth in follower counts looks broadly similar for both anti-regime and neutral users suggests that most anti-regime accounts do not try to manipulate their follower counts to evade the Press

**Table 3.** Percentage of retrieved accounts with followers between 4800 and 5000 in September 2020 that stayed below the 5000 follower threshold in March 2021.

| Sample | Share |
|---|---|
| Anti-regime user | 40% |
| Neutral user | 46% |

and Information Regulation Law. This is likely due to the weak tools available for users to persuade accounts to unfollow them during our analysis period.[75] It may also be that neutral users gain fewer followers than political accounts over time and/or that some of the neutral accounts also aim to stay under the threshold.

## Discussion and conclusions

During the September 2020 "Day of Anger" protests, Egyptian social media users tweeted and retweeted hundreds of thousands of anti-regime messages calling for offline protest against the Sisi regime. This, despite the very real threat of reprisals from the authorities. In making sense of Egyptians' willingness to engage in high risk online activism, we have argued for greater attention to be paid to the digital repression-mobilization nexus in which activists and opponents attempt to mitigate the threat of repression while continuing to issue calls for protest.

As our results suggest, even in one of the most repressive autocracies in the world, netizens and activists can learn the limits of a regime's online coercive presence and use tactics that allow them to reduce the risk of repression when publicizing calls for offline protest. Drawing on 33 million tweets sent from Egypt during the 2020 "Day of Anger" mobilization, we have found varying levels of empirical support for online tactical evasion. As we have shown, Egyptian anti-regime social media users created new and dedicated accounts to engage in digital activism in the run-up to the protests. These new accounts were also more likely to withhold any personally identifying information. Anti-regime users were also more likely to delete their calls for street-level opposition after offline protest had demobilized, presumably in a bid to hinder the regime's ability to trace them. We find weaker evidence that users tactically adjusted their behaviour in response to targeted social media laws. We find no strong evidence to suggest that this online behaviour is mainly attributable to automated bot accounts. Taken together, these findings help to explain why we still see calls for mobilization and public online contention in highly repressive authoritarian regimes.[76]

One limitation of our study is that it focuses on a single social media platform, albeit one that is known to be widely used to organize protest against authoritarian regimes. Here, we should understand Twitter as one tool in a broader action repertoire, which allows activists to generate widespread domestic and international awareness of off- and online protest. Although we suspect that some of the identified evasion strategies will apply, it is an open question as to whether we see similar dynamics across other social media platforms and messenger services, such as Telegram.[77] Of course, an additional evasion strategy might be to eschew public platforms entirely and instead coordinate solely through private channels. While likely safer, the visibility and mobilizing potential of such a campaign is naturally limited to those core activists with knowledge of those channels. A more likely strategy, which may well apply to our case, sees a blended approach with coordination across both public and private channels. In a recent episode, activists in Myanmar used messenger services to organize and coordinate a hashtag campaign on Twitter that used evasion tactics not dissimilar to those found in the Egyptian case.[78]

We should also reflect on the potential downsides of tactical evasion. As McAdam first identified, while protestors can adapt to repression, this game of move and countermove rarely reaches equilibrium due to the massive resource advantages that state

authorities enjoy.[79] Here, adaptation can keep the flame of struggle alive, but the resulting forms of contention are less likely to inspire others to join.[80] And as Bishara argues, adaptations to repression in the MENA have tended to result in more ephemeral types of protest that struggle to sustain mobilization across time and space.[81] While our study shows that new, anonymous, and dedicated Twitter accounts can get anti-regime hashtags to trend, thus making calls for protest mobilization highly visible, these account characteristics inevitably limit the credibility of the content that they promote. Future research is required to investigate how exactly citizens perceive campaigns derived from such accounts – and how authoritarian governments respond to them, e.g. by discrediting users as fake or as bots. As previously noted, many of the protest calls made during the "Day of Anger" protests were issued by actors ostensibly aligned with the Muslim Brotherhood. This association, coupled with the Sisi regime's strategy to brand the Brothers as terrorists, likely further reduced the appeal of the campaign.[82] This feeds into a broader set of still unresolved questions regarding the mobilizing potential of online calls for protest in contexts where authoritarians have developed potent on- and offline countermeasures.[83]

Against this backdrop, we should be cognizant of autocrats' attempts to ban social media platforms or require users to register using real-names and identification details, as has occurred in China.[84] Here, our findings bring a new perspective to discussions in the Global North that associate the use of new and dedicated anonymous social media accounts to information campaigns or the use of botnets. This has seen calls for social media platforms to require users to register and post under their real identities.[85] Read against the key findings of this article, democratic governments and platforms should be aware that in autocratic contexts, anonymous and dedicated accounts are one of the few tools available to citizens to safely voice and coordinate online opposition against repressive regimes.

## Notes

1. Deibert et al., *Access Denied*; King et al., "Censorship in China"; Hellmeier, "The Dictator's Digital Toolkit"; Lutscher et al., "At Home and Abroad"; and Roberts, *Censored*.
2. McAdam, "Tactical Innovation"; Francisco, "After the Massacre"; Fu, *Mobilizing Without the Masses*; and Ketchley, *Egypt*.
3. E.g. Ruijgrok, "From the Web"; and Weidmann and Rød, *The Internet and Protest*.
4. Breuer and Groshek, "Online Media"; Breuer et al., "Social Media and Protest"; and Steinert-Threlkeld et al., "Online Social Networks."
5. Breuer et al., "Social Media."
6. Sinpeng, "Digital Media."
7. Pan and Siegel, "Saudi Crackdowns."
8. Dal and Nisbet, "To Share?"
9. For a recent review, see Earl et al., "Digital Repression."
10. Brym et al., "Social Media"; Clarke and Kocak, "Launching Revolution"; and Tufekci and Wilson, "Social Media."
11. El-Ghobashy, *Bread and Freedom*; and Ketchley, *Egypt Revolution*.
12. E.g. Earl et al., "Digital Repression"; Roberts, *Censored*; Roberts, "Resilience to Online Censorship"; and Pan and Siegel, "Saudi Crackdowns."
13. Diamond, "Liberation Technology."
14. Breuer et al., "Social Media"; Enikolopov et al., "Social Media"; Little, "Communication Technology and Protest"; Ruijgrok, "From the Web"; Tufekci and Wilson, "Social Media"; Steinert-Threlkeld et al., "Online Social Networks"; and Weidmann and Rød, *The Internet and Protest*.
15. Breuer and Groshek, "Online Media"; Breuer et al., "Social Media"; and Steinert-Threlkeld et al., "Online Social Networks."
16. Van Laer and Van Aelst, "Internet and Social Movement."

17. Bennett and Segerberg, "Logic of Connective Action."
18. E.g. Kadoda and Hale, "Contemporary Youth"; Fakih and Ghazalian, "Did the Arab Spring"; and Sinpeng, "Hashtag Activism."
19. McAdam, "Tactical Innovation"; and McAdam et al., *Dynamics of Contention.*
20. King et al., "Censorship in China"; and Lutscher et al., "At Home and Abroad."
21. MacKinnon, *Consent of the Networked*; and Pan and Siegel, " Saudi Crackdowns."
22. E.g. King et al., "Social Media Posts."
23. Dal and Nisbet, "To Share?"
24. Roberts, "Resilience to Online Censorship."
25. Francisco, "After the Massacre."
26. Boxell and Steinert-Threlkeld, "Taxing Dissent."
27. Pan and Siegel, "Saudi Crackdowns."
28. Dal and Nisbet, "To Share?"
29. Breuer and Groshek, "Online Media"; Breuer et al., "Social Media"; and Ruijgrok, "From the Web."
30. McAdam, "Tactical Innovation."
31. Francisco, "After the Massacre."
32. Ketchley, *Egypt*, ch. 6.
33. Pearlman, "Mobilizing from Scratch."
34. Fu, *Mobilizing Without the Masses.*
35. Ezel Akay, *End Corruption.*
36. E.g. https://afteegypt.org/en/digitalfreedoms-2/2018/09/04/15717afteegypt.html.
37. It is for this reason that autocratic regimes such as Egypt have looked to create their own social media platforms (see https://egyptindependent.com/egypt-launch-social-networkingsite-similar-facebook-minister/).
38. https://medium.com/dfrlab/how-pro-democracy-activists-in-myanmar-keep-theirmovement-alive-with-hashtags-34ff2d3eddf2; Varol et al., "Evolution."
39. Little, "Communication Technology and Protest"; and Kuran, "Now out of Never."
40. MacKinnon, *Consent of the Networked.*
41. https://www.prospectmagazine.co.uk/magazine/why-the-internet-is-failing-irans-activists.
42. https://www.nytimes.com/2021/02/26/business/china-online-censorship.html.
43. https://www.theglobeandmail.com/opinion/article-social-media-inegypt-from-harbinger-of-a-revolution-to-weapon-of/.
44. https://cipesa.org/2020/07/ethiopias-new-hate-speech-and-disinformation-law-weighs-heavily-on-social-media-users-and-internet-intermediaries/.
45. Gerring, "Case Selection."
46. A recent survey found that 13% of Egyptians actively use Twitter, equivalent to over 13 million users. Younger males are more likely to have a Twitter account (see Dennis et al., *Media Use*).
47. Grimm and Harders, "Unpacking the Effects"; and Ketchley, *Egypt.*
48. Ketchley, "Fraud."
49. https://afteegypt.org/en/blocked-websites-list.
50. https://rsf.org/en/rankingtable.
51. https://www.bbc.com/news/world-middle-east-44858547.
52. https://apnews.com/article/1540f1133267485db356db1e58db985b.
53. https://afteegypt.org/en/digitalfreedoms-2/2018/09/04/15717afteegypt.html.
54. https://www.dw.com/en/egypt-targets-activists-in-new-wave-of-arrests/a-53952214; Open Technology Fund, "Digital Authoritarianism in Egypt."
55. See Ketchley and Barrie, "Fridays of Revolution" on the use of Friday protests in Egypt.
56. https://www.middleeasteye.net/news/egypt-protests-sisi-day-rage-thousands.
57. During evening periods there were sometimes more than 18,000 tweets in a 15-minute period. On those occasions, we captured excess tweets using a second or third API connection.
58. Graham et al., "Where in the World."
59. The analysis displays similar patterns as in our main analysis and indicates that the reach of the campaign has been much larger.
60. We did consider using an unsupervised technique, e.g. a topic model, to classify the content of tweets. Ultimately, we choose to focus on hashtags as very short texts such as tweets often violate the distributional assumptions of topic models. The very large number of observations in our sample also makes running such an analysis computationally challenging.

61. In this, we follow previous works on anti-regime campaigns in authoritarian regimes (Barberá et al., "The Critical Periphery"; and Steinert-Threlkeld et al., "Online Social Networks").
62. We discard 5361 tweets (0.02%) that contained both anti- and pro-regime hashtags.
63. In our main analyses, we confine attention to users with up to 12,000 followers (99% of all anti-regime users). We use this threshold as we are especially interested in the use of dedicated accounts, which are assumed to have fewer followers, as well as users around the 5000 follower threshold. This also aids with visualizing our results. In Appendix Section H, we describe the sample of users above 12,000 followers, of which 594 shared anti-regime tweets. Our main results are not altered when including those accounts.
64. Due to computational advantages, we first aggregated the data to the number of followers.
65. We applied the same rules to define pro-regime accounts. The few accounts that posted both, anti- and pro-regime tweets were discarded as we could not easily identify whether they belonged to one or the other camp.
66. Parenthetically, repeating this analysis for pro-regime accounts suggests a comparable, albeit much less pronounced pattern, indicating that some pro-regime users also rely on dedicated accounts to spread their messages (see Figure D.3).
67. Ross and Cappos, "User Anonymity on Twitter."
68. See Appendix Section B for our strategy for identifying these different statuses. Given the very large number of tweets and users, neutral users were chosen from a stratified random sample. Our sampling frame selects tweets sent by accounts created in September 2020 with a similar distribution of followers as compared to the anti-regime tweet sample. For the latter step, we used the Rice algorithm to split the followers distribution of the anti-regime sample into bins.
69. Note that for 2% of anti-regime users we could not determine why their account was unavailable.
70. Excluding all unavailable counts, except for protected accounts, is a more conservative approach since the account status lookup could also exhibit false-positives.
71. Mubarak et al., "Arabic Offensive Language."
72. In Appendix Section F, we run models including retweets that produce statistically similar results.
73. Loken and Gelman, "Measurement Error."
74. Note that since conducting our analysis, Twitter now allows users to remove specific followers.
75. It would be interesting to examine how this translates to other social media platforms, e.g. Facebook, which gives users greater flexibility to control the number of followers and friends.
76. E.g. Breuer et al., "Social Media"; Dal and Nisbet, "To Share?"; Pan and Siegel, "Saudi Crackdowns"; Steinert-Threlkeld et al., "Online Social Networks"; and Sinpeng, "Digital Media."
77. See, for example, Mateo, "All of Belarus."
78. https://medium.com/dfrlab/how-pro-democracy-activists-in-myanmar-keep-theirmovement-alive-with-hashtags-34ff2d3eddf2.
79. McAdam, "Tactical Innovation."
80. Ketchley, *Egypt*; and Ritter and Conrad, "Preventing and Responding."
81. Bishara, "The Generative Power."
82. Siegel, "New Media."
83. Earl et al., "The Digital Repression"; and Roberts, "Resilience to Online Censorship."
84. Fu et al., "Assessing Censorship."
85. Levush, "Government Responses."

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## Data availability statement

Due to the sensitive data used in this paper, we anonymized all information that could be used to identify specific tweets or users. Aggregated replication data can be obtained via request; see supplementary material for more details.

## Disclosure statement

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