#Activism from Exile:

How Exiles Influence Protests Back Home

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Abstract

How do activists in exile mobilize protests back home over the internet? This paper explores how Egyptian exiles used online oppositional content to trigger sizeable domestic anti-regime protests in September 2019. To investigate the phenomenon of how exiles spur protest mobilization, we adapt a framework from the communications literature to differentiate between types of online actors (influencers, amplifiers, and consumers) that facilitate the spread of content over social media. Analyses of large-scale digital trace data from Facebook, Google, Twitter, and YouTube demonstrate that exiles introduced and amplified oppositional content, spreading it to domestic audiences. Additional analyses reveal sub-national correlations between domestic online opposition and protest at a fine-grained level. Our findings suggest that exiles can influence mobilization when they produce online content that serves as a coordination device for those in opposition to the regime. Our investigation provides an important empirical basis for further research into the domestic effects of online transnational actors and the relationship between online and offline dissent.

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Introduction

Exile is an important tool in authoritarian regimes' repressive arsenals. The goal of exile is to demobilize and fracture opposition through the act of physical dislocation, with the ultimate objective of rendering anti-regime actions ineffective (Esberg and Siegel 2023; Miller and Peters 2020; Hassan, Mattingly and Nugent 2022). While scholars have investigated how emigrants contribute to the democratization of home governments through the remittance of economic benefits and political attitudes (Kessler, Rüland and Rother 2009; Pérez-Armendáriz and Crow 2010; Peters and Miller 2018; Ivlevs 2021; Escribà-Folch, Wright and Meseguer 2022), less systematic attention has been paid to whether and how exiles forced to emigrate for punitive political reasons persist in their activism and the effects of this activism on politics back home. In recent history, opposition from diverse populations including Burmese, Cubans, Iranians, Iraqis, Kurds, Libyans, Tamils, Russians, Rwandans, Venezuelans and Zimbabweans have faced exile and continue to mobilize in myriad ways against authoritarian regimes back home from abroad (Betts and Jones 2016; Esberg and Siegel 2023).

While exile has long fascinated the imagination of those interested in transnational politics, less systematic attention has been paid to what exiles do with regards to domestic politics, particularly over the internet. The internet is a remarkable medium through which exiles remain connected with politics back home in the contemporary period (Nedelcu 2019). They can communicate with like-minded activists and citizens and learn about political developments like protests and repression as they happen. As a basis for collective inquiry into the effects of exiles on domestic mobilization, this paper conceptualizes and describes two important and understudied phenomena at the center of exile involvement in domestic politics in the digital age: how exiles spread information over the internet, and how oppositional online content spread correlates with offline behavior. To conceptualize exile influence over the internet, we rely on existing communications literature to differentiate between types of online actors – influencers (who produce original content), amplifiers (who spread that content), and consumers (who digest that content) – that serve as links in the chain through which content spreads (Pintak, Bowe and Albright 2021).

Exiles are likely to be particularly important in oppositional content cascades because of their relative impunity and heightened ability to introduce and amplify content that is critical of the regime. To conceptualize the relationship between online content consumption and offline oppositional behavior, we draw on models of individual protest mobilization from the contentious politics literature. When online content serves as a coordination device for collective action (Ruijgrok 2017) by revealing the prevalence of anti-regime attitudes (Kuran 1991) and providing a logistical focal point around which to mobilize (Schelling 1980; Mehta, Starmer and Sugden 1994; Truex 2019), it can influence protest mobilization.

We describe these phenomena in Egypt, where in September 2019 an anti-regime content cascade culminated in sizeable domestic protests. This event was noteworthy for two reasons. First, the anti-regime content – videos that initially alleged major corruption by current president Abdel Fattah el-Sisi and his regime and that later called for protests on this basis – was introduced to the internet by an Egyptian exile located in Spain. Second, the nation-wide protests occurred in defiance of extremely repressive political conditions and the recent illegality of collective mobilization. To understand how these videos ultimately inspired costly protest, we analyze millions of records of digital trace data from Facebook, Google, Twitter, and YouTube in combination with a dataset of protests compiled in real-time from Arabic-language sources by Daftar Ahwal, spanning the years 2011 to 2020. We find that exiles successfully amplified and spread anti-regime content, creating a cascade and propelling the content into the domestic Egyptian internet sphere. Moreover, the users who *most* amplified the content were primarily Egyptians living abroad. In this way, social media users outside of Egypt played a key role in making the content and related calls for protest cascade, or "go viral." We then turn to the relationship between online and offline mobilization and find evidence suggesting that consumers located in Egypt digested the content and transformed it into offline mobilization. We describe evidence of sub-national correlations between local adoption of online opposition narratives and protest occurrence in Egypt at a fine-grained level. Through descriptive analysis of large-scale cross-platform digital trace data, we document the process by which exiles produced and amplified content that served as a coordination device for costly collective protest behavior—mobilizing already aggrieved and previously mobilized populations to

protest.

By systematically analyzing how exiled activists spread content online to mobilize citizens at home, this work contributes to our understanding of the contemporary relationship between online oppositional content and mobilization on the ground. We offer a transnational extension of the ongoing debate over whether relatively costless online political behavior translates into costly offline political behavior (McCaughey and Ayers 2003; Vaccari 2013; Dennis, Dennis and Finotello 2019). Moreover, by leveraging four different sources of social media data, we improve upon existing studies that typically rely on a single data source to map online mobilization across platforms to better capture how opposition content campaigns start and spread. The paper proceeds as follows. We first discuss how the internet permits exiles to participate in domestic politics and we draw on individual models of protest participation from the contentious politics literature to theorize how online content cascades and consumption relates to offline protest behavior. We then outline a general framework for understanding the process through which exiles contribute to mobilization over the internet by differentiating types of social media users. Next, we provide an overview of Egypt's 2019 protests. We then introduce our data and descriptive methodological approach, and present our results. Finally, we offer conclusions and opportunities for future research.

Exile & the Internet in Authoritarian Regimes

Authoritarian regimes use exile, or coerced migration for punitive political reasons, as part of a repertoire of repression (Hassan, Mattingly and Nugent 2022). The goal is to demobilize activists and fracture the opposition, ultimately rendering anti-regime actions ineffective (Esberg and Siegel 2023). However, many activists do not cease political activity despite physical dislocation from their country. As states increasingly use forced migration as a political weapon against challengers, and continue to engage activists beyond the country's borders through acts of repression, legitimation, and cooptation (Moss 2016; Tsourapas 2021), domestic politics is increasingly contested on an international stage. Exiles use a number of tactics to fight against authoritarian regimes back home, including mobilizing the diaspora

to participate in elections through voting, fundraising, or demonstrating in solidarity (Betts and Jones 2016; Moss 2016; Wellman 2021). In addition, exiles can promote bottom-up regime change by providing financial and logistical support for activists back home. In fact, in 345 revolutionary situations documented between 1900 and 2014, 59 (17.1%) included exile involvement at the onset of competing centers of sovereignty (DeSisto and Nugent 2023). Exiles can also advocate top-down regime-change by lobbying host governments for different kinds of foreign intervention, as demonstrated by the advocacy of Cuban and Iraqi exile communities in the United States (Vanderbush 2009).

In the contemporary period, internet-based information and communication technologies (ICTs) serve as influential channels through which exiles and transnational opposition continue to participate in politics back home and influence its development. Social media in particular allows exiles to maintain and even deepen ties with others in their country of origin. Internet technologies "heighten the agency capability of members of the diasporas who can act transnationally in real time," granting them the opportunity to be "transnational agents of change in the homeland" by creating a "de-territorialized transnational public sphere in which diasporic groups can voice their claims, mobilizing transnationally and effect political change" (Nedelcu 2019, 242-246). As such, the internet serves as a way for those punished with exile for their politics to remain involved in politics back home.

In addition to linking exiles with the domestic political sphere, ICTs play a particularly important role in protest mobilization, particularly in authoritarian regimes. In a highly repressive, 'closed' authoritarian regime, where public space is highly regulated, the internet often remains comparatively less controlled and is thus the most likely space for criticism of the regime and the dissemination of oppositional content (Lynch 2006; Makowsky and Rubin 2013). By oppositional content, we mean any content that is negative from the perspective of the regime, whether it is critical of the regime's policies and behavior or suggests support for an alternative to the regime. Social media sharing functions permit the spread of information among users in a manner that appears pre-vetted, as much of what users see on online platforms is channeled through networks of friends or acquaintances, creating some level of existing social connection, familiarity, and trust (Filippov, Yureskul and Petrov 2020). This is impor-

tant because potential protesters are more likely to trust information about other people's beliefs when it includes an indication that it has been endorsed by other in-group members (Druckman and Lupia 2000). The provision of information through interpersonal networks is all the more important in highly authoritarian contexts like Egypt (Osa 2003). The nature of ICTs' sharing mechanisms may also facilitate the spread of oppositional content quickly and widely, not only among trusted networks but across the broader public. A cascade is defined as the posting of similar content by different users in a short time span. Colloquially, this phenomenon is known as "going viral" (Goode et al. 2015). ICTs permit users to quickly and easily share or engage with content, and mass sharing and engagement results in a content cascade. Speed may be particularly important in authoritarian contexts, where political content may be quickly censored.

While mobilization by exiles may be a relatively understudied phenomenon, existing literature provides an important theoretical basis for how the introduction and cascade of oppositional content on the internet facilitates offline protests. In line with individual models of protest mobilization, internet content cascades can serve as a coordination device for those in opposition to the regime and does so in two complementary ways. First, theories of contentious politics have long recognized the critical role of mass preference revelation in mobilizing protest. Models of individual decision-making with regards to protest participation indicate that people weigh the potential benefits from openly protesting against potential risks (Granovetter 1973; Siegel 2009; Campbell 2013). Evidence that indicates others support an opposition position, and thus are likely to participate in protests or support them in other ways, increases an individual's propensity to participate in protest (Kuran 1991). The way in which users publicly engage with oppositional content on the internet reveals information about mass preferences by signaling support or endorsement of it to others. On the internet, engagement can including liking content, reposting it, or interacting with it in other ways (such as opening a link). Engagement with online political content may be of more consequence than, for example, engagement with consumer products. In democratic regimes, there is significant debate about whether online political behavior, which is relatively costless, translates into offline political behavior, or is a form of "slacktivism" (McCaughey and

Ayers 2003; Vaccari 2013; Dennis, Dennis and Finotello 2019). However, online political behavior is much costlier in authoritarian contexts. Engaging with oppositional content online can and does result in real-world punishments like arrest, harassment and censure by authorities (Pan and Siegel 2020). Thus, there is good reason for an observer to believe that a user who publicly engages with oppositional content online in these contexts in a meaningful way is signaling that they are more likely to participate in other costly political behavior. In an authoritarian context, an oppositional content cascade on the internet publicly indicates that many agree with that content and an oppositional stance, revealing the extent of others' opposition and lowering the individual costs of collection action.

Second, the cascade of oppositional content serves as a focal point around which aggrieved individuals can mobilize together. Focal points are important for protest mobilization and are defined as circumstances that serve as natural conduits for coordination of opposition into collective action (Schelling 1980; Mehta, Starmer and Sugden 1994). Focal points can take on the form of a predictable calendar, like holidays, elections, or other regularly scheduled events, around which activists can focus their efforts and mobilize collectively (Truex 2019). Other focal points around which coordination and collective action occur arise on less regular and predictable schedules. The internet can organically create focal points around content cascade campaigns that serve as coordination devices for opposition and collective action (Ruijgrok 2017). In an authoritarian context, an oppositional content cascade not only lowers the perceived costs of collection action by revealing the the prevalence of anti-regime attitudes, as outlined above, but also reveals to disparate individuals and communities that wish to pursue collective action when and where to protest.

How Exiles Influence Protest through ICTs

To understand how exiles contribute to domestic protests, we are interested in the process through which the oppositional content necessary for protest mobilization is introduced, amplified, and consumer over the internet. We follow Benkler, Faris and Roberts (2018, 45) in seeking an understanding of the "entire ecosystem" through which oppositional content travels: "the outlets and influencers who

form networks, the structure of the networks, and the flow of information in networks."

The communications literature differentiates between three main types of social media users that contribute to the flow of content within a network of users. First, *influencers* are those users who "'seed' the content that then cascades… as it is shared by other users" (Pintak, Bowe and Albright 2021, 5). Influencers create original content such as ideas, members, or hashtags and have been referred to as "idea starters" (Tinati et al. 2012). This type of user tends to be centered in a network and is highly active in introducing new, original content. Second, *amplifiers* are those users who "perform the main work of dissemination" (Pintak, Bowe and Albright 2021, 5); Tinati et al. (2012) call these users the "firehose of knowledge." Amplifiers engage with the content created by influencers at a high level. They do this in several ways; on Twitter, this includes "retweeting or replying to others who mention or reply to a candidate's accounts," "tagging or adding a candidate's handle to threads on which they were not included," and "replying to or retweeting the candidates themselves" (Pintak, Bowe and Albright 2021, 5). This type of user is measured by a high level of engagement with content; they tend to retweet a large amount of content and replace to a large number of conversations in addition to beginning conversations by tagging other users. Third and finally, *consumers* are those users who observe online content. Many of these users may be considered "lurkers;" they read or watch content without publicly engaging with it (Sun, Rau and Ma 2014). Some may like content but do not formally engage beyond that. The important role that consumers play is in viewing the content created by influencers and then spread by amplifiers.

Exiles are uniquely situated to play the role of influencers. Due to the controlling and repressive nature of authoritarian regimes that tend to exile activists, often "the only viable space for opposition politics may be outside the territory and jurisdiction of that state" (Betts and Jones 2016, 1). As a result, those located abroad can act with significantly more (though likely not total) impunity beyond the borders of their country (Moss 2016; Tsourapas 2021; Dukalskis et al. 2022), and have greater freedom to produce and spread the kind of content that is critical of the regime and central to opposition mobilization. Exiles may also behave as amplifiers, spreading content through their networks and perhaps serving as a link between international and domestic networks. While exiles may also be consumers of oppositional con-

tent, domestic users are the most important consumers for the translation of online oppositional content into protest mobilization through the mobilization of real-world networks (Pierskalla 2010; Hussain and Howard 2013; Nugent and Berman 2018).

Egypt's September 2019 Protests: Context and Timeline

Egypt's September 2019 protests are a case in which exiles abroad appear to have contributed to the mobilization of dissent in their home country through ICTs. In 2019, President Abdel Fattah al-Sisi governed Egypt in a staunchly authoritarian manner and had rendered meaningful political opposition all but nonexistent. Al-Sisi came to power through a July 2013 coup that overthrew elected president Mohamed Morsi of the Muslim Brotherhood's Freedom and Justice Party. He won the presidential election in 2014 and re-election in 2018 with 97 percent of the vote in typical authoritarian elections marred by low turnout, vote buying, and voter intimidation as well as a state media campaign to support al-Sisi's candidacy. After reaching the constitutional limit of two four-year terms, al-Sisi pushed through amendments in a tightly controlled April 2019 referendum that permit him to remain in power through at least 2030. Additional amendments undermined the independence of the judiciary and legalized the military's role in civilian governance.

Since the 2013 coup, the Sisi regime has put its full weight behind decimating Egypt's once vibrant domestic activist community. The regime has jailed well over 100,000 people, the vast majority for various forms of political and social activism, in 22 newly constructed prisons. Countless others have been disappeared, their fates unknown to their families and lawyers (Ziada and Eid 2016). Prior to the beginning of voting in the 2018 presidential election, the Sisi regime obeyed "few boundaries on its untamed repression of all forms of dissent," detaining and silencing vocal opposition Figures (Human Rights Watch 2018). It has simultaneously forced a significant number of Egyptian activists into official or self-imposed exile in Europe, North America, Asia, and elsewhere in the Middle East. According to available international migration data, the number of Egyptians permanently relocating abroad grew exponentially in the aftermath of the uprising. The demographics of this population have shifted over time. An initial wave

of migration immediately following the uprising saw pro-Mubarak business people and regime members leave the country in fear of retribution. Hundreds of Coptic Christians, Egypt's largest minority group, also left to escape Islamist rule, increased sectarianism, and the economic instability following the revolution. A second wave of migrants included Brotherhood leaders, members, and supporters who left the country due to safety concerns immediately following the 2013 coup. The third and most recent wave of Egyptian migration is comprised of activists who fought for political democracy and social liberalization before and after the uprising (Dunne and Hamzawy 2019). This group has left in large numbers since 2014, when the Sisi regime focused its repression on this community.

The government also began heavily regulating protests in late 2013. A decree issued shortly after the coup gave police greater leeway to ban and forcibly disperse gatherings of 10 or more people, prohibited protests at places of worship, and required protest organizers to inform authorities of their plans at least three days in advance. In addition, the decree granted the Ministry of the Interior the ability to ban, postpone, or relocate protests with a court's approval. Thousands have since been arrested under this law, and it was cited in a July 2018 court decision sentencing 75 protesters to death for their participation in a 2013 demonstration against the overthrow of Morsi. We note the highly repressive nature of the Sisi regime, particularly towards opposition and protest, to underscore the unusual nature of the September 2019 protests. According to contentious event data from Daftar Ahwal (discussed in more detail in the following section), 228 political protests occurred out of a total of 508 events in 2019. September 2019 and October 2019 constituted a very active period for political protests, with a total of 49 recorded events.

The primary influencer behind the protests was Mohamed Ali, an Egyptian living in self-imposed exile in Spain. Ali had worked as a construction contractor on Egyptian army contracts for fifteen years and also worked as an actor in Egyptian cinema. In early September 2019, Ali recorded and published a series of videos on his YouTube channel detailing economic mismanagement of the Sisi regime, which he claimed to have witnessed firsthand. He accused al-Sisi of corruption in government contracts and wasting billions of dollars on vanity real estate projects. Ali also called out Major Generals Kamel al-Wazir and Essam al-Kholy by name; both had held leadership positions in the Armed Forces' Engineering Au-

thority, which oversees major national construction projects. Ali further publicized the videos by posting links to a newly-created Twitter account (@MohamedSecrets) and using a series of anti-Sisi hashtags on Twitter and Facebook.

After the first week of videos, President al-Sisi responded directly to Ali on September 15 at the Eighth National Young Conference, rumored to have been hastily organized as a platform for the president to respond to the accusations (Mada Masr 2019*b*). Al-Sisi refuted accusations of corruption, relying on regime talking points about threats to national security and the sacrifices necessary for building a strong Egyptian state to justify costly expenditures. In the hours after the conference, Ali released additional videos and expanded his accusations to "more of an open political confrontation:" there was a shift in tone and topic, from "the personal account of a contractor who worked with the government to that of a political opponent speaking his mind to an audience" (Said and Mamdouh 2019). Other activists soon joined the cause. Ali posted a video criticizing the effectiveness and human rights abuses caused by the state's counterinsurgency campaign in North Sinai, and subsequently posted two videos from Mosaad Abu Fagr, a longtime Sinai activist, who expanded on the accusations. Ali also posted a video from Ahmed Sarhan, a former army officer and lawyer, asking for the release of lawyer Mohamed Hamdy Younes, who had been arrested after announcing he would request the public prosecutor to investigate Ali's now viral claims. A flood of unverified videos, featuring both masked and unmasked individuals claiming to be former army and intelligent officers, substantiated many of Ali's claims, and he reposted them to his social media accounts.

After al-Sisi responded on September 15, Ali began including calls for protest and instructions for coordination and mobilization in his videos. The first protests began on Friday, September 20 (Mada Masr 2019*a*). They were described as "scattered" but were reported in at least 8 cities. The largest protests occurred in Cairo, Alexandria, and Suez. The police responded by beating and tear gassing protesters, and arrested at least 274 people. Larger protests continued on September 21. The following Friday September 27 saw the largest protests. Ali had called for a million man march on this date, labeling the day "Salvation Friday" (*Guma'at al-Khalas*). The regime responded to protests in two ways. First, the regime punished

those who participated in protests by arresting 4,321 individuals in connection with the protests, as documented by the Egyptian Commission for Rights and Freedoms.[1] The state also flooded major squares with police following the much larger September 27 "Salvation Friday" protests. Second, the regime punished the instigators by exploiting Twitter's reporting mechanism to lock and suspend the accounts of those who were critical of the Egyptian government and who publicized content introduced by Ali. Up to 150 accounts owned by Egyptians and the Egyptian diaspora were suspended, and an investigative report documented that many of these suspensions were without cause per the terms of Twitter's user agreement (Eskandar 2019). While Twitter later reinstated most of these accounts and apologized, these online voices were temporarily silenced. As for Ali, his late September videos voiced fears and accusations of being targeted by Egyptian agents in Spain. His account was suspended a number of times but eventually reinstated, and he also created an additional account (@moaliofficial_) in November 2019. It appears that the highly repressive response from the regime undermined Ali's influence; in January 2020, he announced that he would be stepping back from politics after his calls for major protests on the ninth anniversary of the 2011 uprising failed to materialize (Al Jazeera 2020), though he remains involved in exile circles and publicly critical of the regime.

Method and Data

The goal of our paper is descriptive inference—to document when, how, and in what ways exiles mobilize dissent—as well as the degree to which this correlates with offline collective action in their home countries. While political science continues to develop a framework for how to theorize and analyze the causal relationship between online and offline political behavior, we do not have an established understanding of how exiles participate in domestic politics generally and more specifically over the internet. This is an important question in contemporary politics as regimes increasingly use coerced migration to exile political opposition, and exiled opposition push back on territorial delineations of national politics,

[1] Available in Arabic at https://docs.google.com/spreadsheets/d/1UTE2iQN8sXdXTZMikgfk5NoAL_W9VszPFt74g45p4-I/edit#gid=182794428.

often using online tools (Farrell 2012; Shain 2010; Conduit 2020). In addition, there is a high prevalence of exile involvement in domestic politics when we explicitly look for it (Geddes, Wright and Frantz 2014; DeSisto and Nugent 2023), but it remains under-documented and under-theorized. We therefore need to collect systematic descriptive evidence of how exiles interact with domestic actors, in order to build theory and develop testable hypotheses that will ultimately enable future research to assess the causal effects and mechanisms by which exiles shape domestic politics. We situate the events of September 2019 in Egypt within a set of cases in which exile is used by a regime and those exiles do (or do not) exert influence over domestic politics over the internet, and believe that our analyses provide a basis for understanding this larger group of cases. We are primarily concerned documenting what happened in this particular instance, rather than comparing our case to a specific or theoretical counterfactual scenario, whether that be a case of mobilization that did not involve exiles, or one in which the introduction of oppositional content by exiles did not cascade or result in mobilization (Gerring 2006).

To describe how the oppositional content introduced and amplified by exiles mobilized protests, we conduct a number of complementary text and network analyses of large scale digital data. We begin by documenting the introduction of anti-regime content from an exile influencer abroad, its spread by amplifiers through online networks, and its cascade as certain videos and hashtags went viral. We pay attention to important nodes within Egyptian activist online networks to understand how content spreads. To lend additional credence to our claim, we disaggregate both online activities and protests at a fine-grained sub-national level to assess whether and how online dissent is correlated with the occurrence of offline protest.

We rely on several sources of data to analyze the 2019 events in Egypt. Our online data sources include data from public Facebook pages as well from Google Trends, Twitter, and YouTube. Our offline data source is protest data with details on the nature, location, and outcomes of contention political events collected in real-time. Our online data sources enable us to measure cross-platform online mobilization in real-time, and to document how a content cascade happens simultaneously across multiple platforms. Google Trends and YouTube data provide us with private measures of interest in Ali's con-

tent, while Facebook and Twitter data provide metrics of public interactions with the content as well as public criticisms of the regime and discussions of protest. Our offline data enable us to measure correlations between online activity and offline protest at a fine-grained sub-national level. For the purposes of our analysis, we limit the data from September 2019 to November 2019, one month before and after the protest period of interest. A summary of the datasets we use in our analyses is presented in Table 1 and described in more detail below.

Table 1: Summary of Online Data Sources

Platform	Collection	Dates	Data	N
Facebook	Crowdtangle	Sept-Nov 2019	All public Arabic language posts referencing Mo Ali Secrets	42K posts
Twitter	Streaming API	Oct 2016-Nov 2019	Real-time collection of tweets referencing Egypt and Egyptian politics	130M tweets
Twitter	Academic API	Sept-Nov 2019	Historical collection of tweets mentioning Mo Ali's account	337K tweets
Youtube	Youtube API	Sept-Nov 2019	All Mo Ali Secrets Videos and associated metadata	592 videos
Google Trends	gtrendsR	Sept-Nov 2019	Global and Egypt-specific search data for Mo Ali Secrets (in Arabic)	daily relative measures

Facebook Data

Facebook is the most popular social media platform in Egypt with 90% of Egyptian Internet users using the platform as of 2019 (Dennis et al. 2019). Actors across Egypt's political spectrum have public Facebook pages and groups, including liberal activists, media outlets, military generals, popular clerics, and prominent members of the Muslim Brotherhood. Facebook data therefore allows us to compare how everyday Egyptian Facebook users engage with these diverse actors over time. We use the Crowdtangle API to collect public Facebook page data from all Arabic language Facebook posts that referenced Mohamed Ali Secrets between September 1, 2019 and November 1, 2019. CrowdTangle is a social media analytics platform owned by Facebook that tracks public posts on Facebook made by public accounts or groups as well as public interactions (likes, reactions, comments, shares, upvotes) to these posts. Crowdtangle tracks 99% of public posts from pages with over 100,000 likes, as well as a large number of pages with smaller followings. This makes it ideal for measuring engagement with posts over time as posts from more popular pages receive more engagement. It does not include paid ads unless those ads began as organic, non-paid posts that were subsequently boosted using Facebook's advertising tools. CrowdTangle

also does not track posts made visible only to specific groups of followers.[2]

Google Trends Data

Google is the most popular search engine in Egypt, with 97% of Internet searches conducted using Google.[3] Because individuals conducting Google searches are generally alone, and there is no obvious record of their activity, they are more likely to express socially and politically taboo thoughts in their searches than they might in more public forums (Conti and Sobiesk 2007; Stephens-Davidowitz 2014, 2017). This makes Google search data an informative measure of private interest in sensitive online activity. We used the Google Trends API and the *gtrends* R package to collect Arabic language search data for Mohamed Ali Secrets (*Asrar Mohamed Ali*). We collected global search data as well as search data from inside Egypt between September 1, 2019 and November 1, 2019 in order to compare private interest in Ali inside and outside of Egypt. We also used the location features of Google Trends to evaluate where search interest was most prevalent both inside Egypt and globally.

Twitter Data

On average, Egyptian Twitter users produce 151 million tweets each month (Salem 2017). Although Facebook and Whatsapp are more popular communication channels than Twitter in Egypt (Mourtada 2016), Twitter is particularly conducive to political discussions because users follow accounts based on particular topics and tend to focus on sharing content of mutual interest, rather than reciprocal social interaction (Halpern, Valenzuela and Katz 2017; Smith, Fischer and Yongjian 2012). Twitter has facilitated the creation of flexible networks of political communication outside of traditional civil society and media centers (Jensen and Jorba 2012; Tufekci and Wilson 2012). In Egypt, it evolved from a tool initially used by educated youth and activists to a platform for diverse individuals including students, blue collar workers, and even the elderly (El-Khalili 2013). We collected two different types of Twitter data. We began with a dataset of approximately 130 million tweets related to Egypt or Egyptian politics containing the Arabic keywords "Egypt," "Sisi," "Morsi," "Muslim Brotherhood,", "coup," "protest," "revolution,"

[2] See `https://help.crowdtangle.com/en/articles/1140930-what-is-crowdtangle-tracking` for an overview of what data is included through the API.

[3] See `https://gs.statcounter.com/search-engine-market-share/all/egypt`.

and "military rule," collected in real-time (i.e., as they were produced) using the Streaming API. The advantage of this approach to data collection is that tweets that may subsequently have been deleted are included in our dataset. However, this dataset may not include all engagement with Ali if those tweets did not happen to contain the keywords used to collect our real-time collection. We therefore also collected a dataset of all tweets mentioning or retweeting Ali between September 1, 2019 and November 1, 2019 using the Academic Twitter API. This dataset contained 377,311 tweets in total. It is possible, however, that some tweets mentioning or retweeting Ali may have been deleted and therefore are excluded from our dataset. These Twitter datasets together enable us to measure both the network structure and content of user interactions over time. We can also use our real-time Twitter dataset to measure activists' account suspensions.

YouTube Data

YouTube is an extremely popular platform in Egypt, with 40% of all Egyptians and 77% of Egyptian millennials watching YouTube every day in Egypt (Hamdan and Hundal 2019; Google Impact Report 2019). We used YouTube's API and the *tuber* R package to collect all 47 videos posted to Ali's Arabic-language YouTube channel *Mohamed Ali Secrets* (*Asrar Mohamed Ali* in Arabic) [4] between September 1 and November 1 2019. This gave us access to view counts, a form of private engagement with the video, as well as likes and dislikes, a form of public engagement.

Protest Data

To measure offline mobilization, we rely on protest data from Daftar Ahwal, a Cairo-based open-source data collection institute.[5] Recent research suggests that in-country and in-language protest data sources are much more accurate for the MENA region than those compiled using English-language sources (Clarke 2021). The data documents daily protests by protest type, enabling us to restrict our analysis to political protests from September 1, 2019 to November 1, 2019. Combining offline and online data enables us to examine the relationship between online and offline mobilization in the period under study.

[4] Ali's YouTube Channel is available at `https://www.youtube.com/channel/UC3gAvye86mrC9YzNYhQ3gAw`.
[5] See `https://daftarahwal.com/`.

Results

In this section, we present our descriptive results in two parts. First, we describe how content cascades, disaggregating by type of social media user beginning with the influencer, proceeding to the amplifiers, and then discussing consumers. We analyze our different data sources to provide a more comprehensive account of how oppositional content was introduced, spread, cascaded, and consumed over different types of ICTs and across international and domestic internet spaces. Second, we present the results of a number of analyses to uncover whether content consumption was correlated with protest activity. To do so, we disaggregate digital and protest data to analyze whether online dissent correlates with offline protest at the local level.

How Content Cascades: From Exile to Egypt

We begin with our main influencer, Ali. In this case, we know which individual, and which account, is responsible with introducing oppositional content. He posted his first video on September 9th, and then published between 1 and 7 videos per day for a total of 47 videos for the period under study, demonstrated in the top panel of Figure 1. Ali publicized the videos he posted by tweeting links on the Twitter account (@MohamedSecrets) he created the same day as his first video. The bottom left panel of Figure 1 demonstrates that Ali began the period with very few tweets; recall that he created the account on the day he published his first video. By November 1, however, he had produced nearly 6,000 tweets including original content, reposting of others' content, and exchanges with other users. Twitter data also demonstrates that Ali's influencer status increased over time as the content he produced went viral online. As a new Twitter account, he began the period under study with relatively few followers. By September 27, the day of Salvation Friday protests, he had roughly 250,000 followers, demonstrated in the bottom right panel of Figure 1. Ali's account was briefly suspended on September 23, 2019 following the first outbreak of protests. This caused the drop in followers displayed in the lower right panel. Despite his brief suspension, Ali's general rise in followers cemented his influencer status.

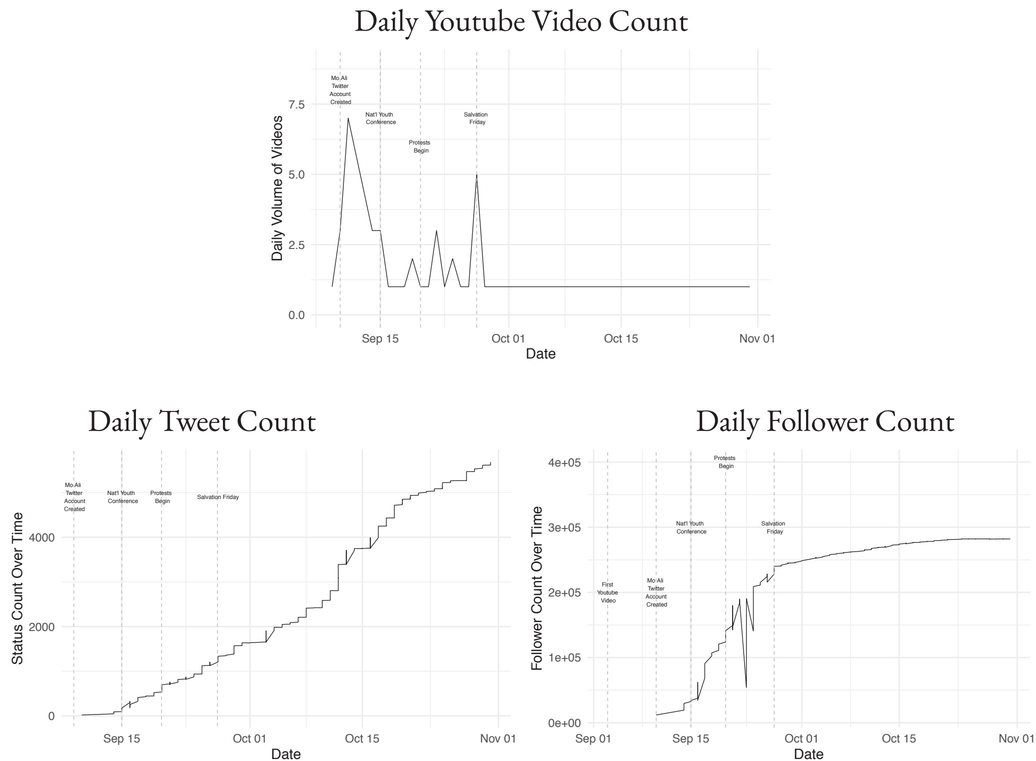

Figure 1: Daily Count of Youtube Videos, Tweets, and Twitter Followers (September-November 2019)

To identify amplifiers, we begin by analyzing daily engagement with Ali on Twitter inside and outside of Egypt. Our dataset of all tweets mentioning or retweeting the @mohamedsecrets Twitter account enables us to capture the behavior of amplifiers through public engagement with Ali over time. Recall that engagement refers to interacting with online content, and on Twitter includes retweeting or replying to it. Figure 2 demonstrates that accounts located within Egypt mention and retweet Ali at higher rates than accounts outside of Egypt across the entire period under study. We observe particularly high levels of engagement surrounding Sisi's response to Ali at the National Conference on September 15, the start of the first major protests on September 20, and during Salvation Friday on September 27.

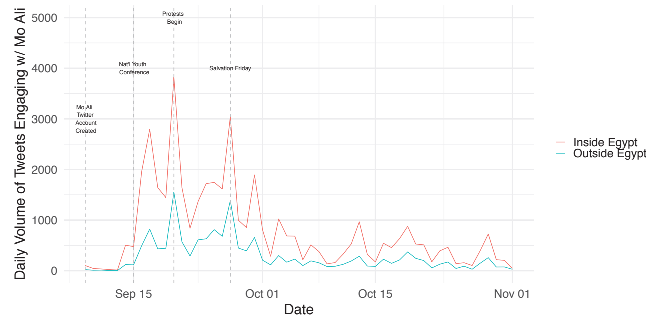

Figure 2: Daily Engagement with Ali on Twitter (September-November 2019)

To understand who is amplifying Ali's content on Twitter both inside and outside of Egypt, we build an engagement network with the @mohamedsecrets Twitter account, displayed in Figure 3. These network graphs show the top 100 Twitter accounts that most amplified Ali's tweets through reetweets and mentions. We manually coded these top 100 nodes by probing the accounts' content and identifying (A) account location, (B) user nationality, and (C) user type (see appendix for additional information). Nodes are sized by how often they receive a mention or retweet in the network. A number of interesting trends emerge from disaggregating Ali's top amplifiers in these ways. We see that although the majority of the accounts that frequently amplify Ali are located outside of Egypt (A), the majority of these Twitter users are Egyptian (B). Most of these Egyptians who reside outside of Egypt live in Turkey, Qatar, and the United Kingdom, known locations of concentrated Egyptian exile populations (Dunne and Hamzawy 2019) This suggests that although overall engagement with Ali on Twitter is higher inside of Egypt, the users that engage with Ali most regularly are located outside of Egypt. Turning to actor types (C), we see that many of the accounts that frequently engage Ali's content are media outlets, including several independent Egyptian news sources now operating out of Turkey, followed by members of the entertainment industry including actors and directors, and copycat accounts (accounts with similar names to @mohamedsecrets that are not Ali's official account). Given that Ali also had a career as an actor, it is perhaps unsurprising that he received a great deal of engagement from colleagues in the entertainment industry. Other top amplifiers include activists, politicians, and academics, largely living in exile.

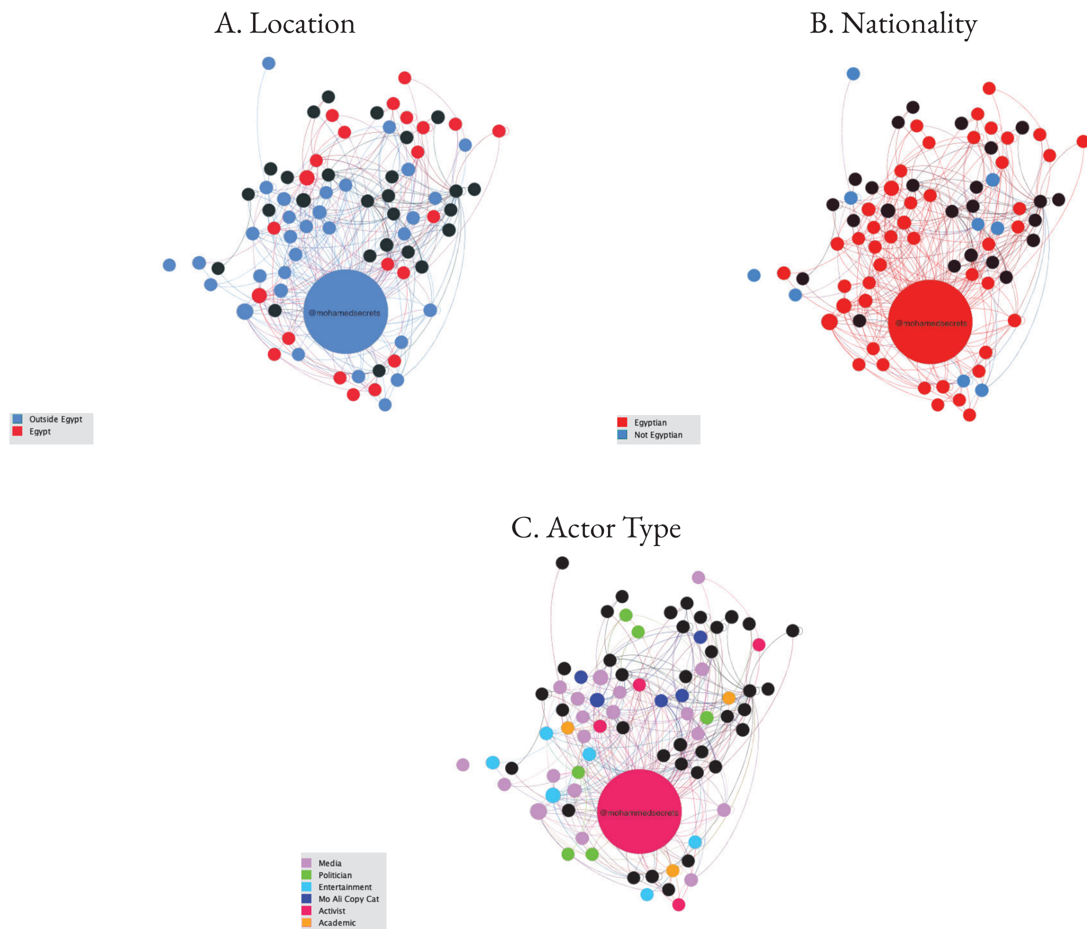

Figure 3: Most Frequent Twitter Engagers of Ali's Content (September-November 2019)

In addition to those who were most engaged with Ali, we also explore users who were most influential in amplifying his tweets. To do so, we first identify users at the "core" of the Twitter network mentioning Ali, those who are most connected to other users in the network, k-core decomposition. The k-core of a network is the maximal subnetwork in which every node has at least degree k. In our case, degree relates to the number of mentions made or received. The k-core decomposition is a recursive approach that progressively trims the least connected nodes in a network (i.e. those with lower degree) in order to identify the most central ones (Barberá et al. 2015). Figure 4 presents the results of our analysis, with the most connected or influential amplifiers located in core 18, and the least connected or peripheral amplifiers located in core 1. We find that amplifiers are generally split fairly evenly inside and outside of

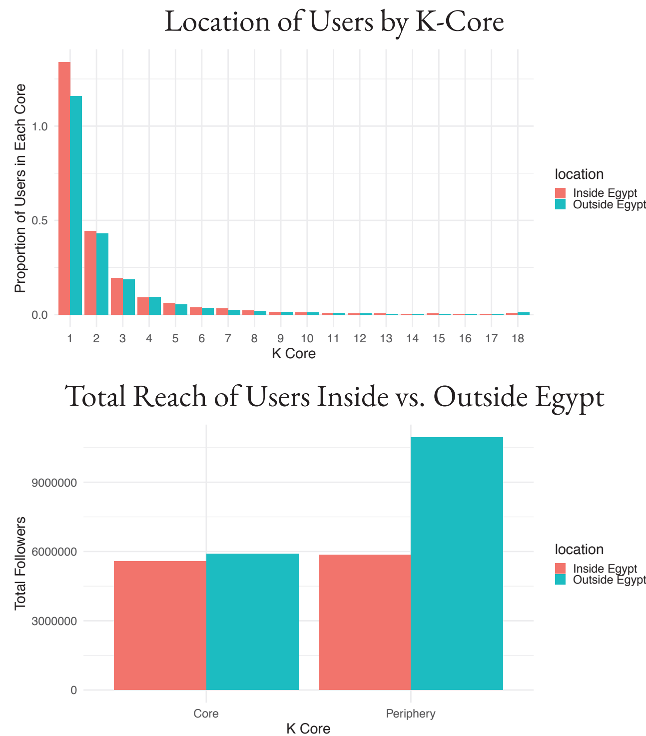

Figure 4: Core vs. Peripheral Amplifiers of Ali

Egypt, with the peripheral amplifiers (in core 1) somewhat more likely to be located inside of Egypt. This shows the important role that actors located outside of Egypt played in amplifying Ali's tweets. Beyond measuring users' position in the network, we can also evaluate their reach by accounting for how many followers they had at the time they were amplifying Ali. Notably, comparing users at the core of the network to users at the periphery, we see that users located outside of Egypt had slightly larger reach at the core and much larger reach at the periphery, reaching almost twice as many Twitter users at the periphery.

K-core decomposition also enables us to identify the users that were at the core of the network who had the largest reach. For the purposes of not identifying particular activists or individuals who might be vulnerable to regime prosecution, we do not reference these accounts by name but describe their affiliations more generally, with the exception of very well known individuals in exile who publicly identify themselves as such. Examining the 42 users at the core of the network who had over 10,000

followers, the most influential amplifiers in terms of both connectedness and reach, we see that 30 of them were exiles and 12 were located inside of Egypt. 14 of these 42 most influential actors were Muslim Brotherhood supporters or affiliates, largely in exile. 10 of the top 42 most influential accounts were affiliated with January 25 revolution activists and accounts, and 8 were journalists.

Examining the timing of these influential actors' tweets provides further insight into their influence. The first influential accounts to amplify Ali on September 9th included 3 Muslim Brotherhood accounts and 3 January 25 revolution activists or accounts. From September 10 to September 13, in the "pre-viral" period, journalists from Qatari-based news outlet *Al-Jazeera* as well as the independent opposition media *El-Sharq* amplified Ali. On September 14th and 15th, as engagement with Ali began to grow, he was amplified by the main account of *El-Sharq TV*, a Brotherhood cleric in exile, and some January 25th revolution activist accounts. Ali's tweets began to go viral on September 16th following the National Youth conference. At this time, Ayman Nour, former Egyptian presidential candidate, current head of *El-Sharq TV*, and a member of the opposition known for cooperation with a number of groups across the political spectrum, first amplified Ali. These accounts, joined by other influential activist accounts, continued to tweet in the pre-protest period and throughout the protests. Identifying early influential amplifiers provides important insight into how Muslim Brotherhood supporters and January 25th revolutionary activists—in addition to journalists—located inside and outside of Egypt together helped amplify Ali's messages and Youtube videos.

Turning to our dataset of tweets about Egyptian politics collected in real-time, we examine the degree to which we observe online calls for protest and mobilization of anti-regime sentiment inside and outside of Egypt in response to Ali's content. Figure 5 demonstrates that Twitter users both inside and outside Egypt call for protest and publicly express anti-regime sentiments at very similar times. Calls for protests increase in the lead-up to the first protests on September 20 and 21 and peak both inside and outside of Egypt on Salvation Friday, the day of largest protests. We see that anti-regime rhetoric peaks in the lead-up to the first large scale protests and then declines afterwards, with another small peak inside of Egypt surrounding the Salvation Friday protests.

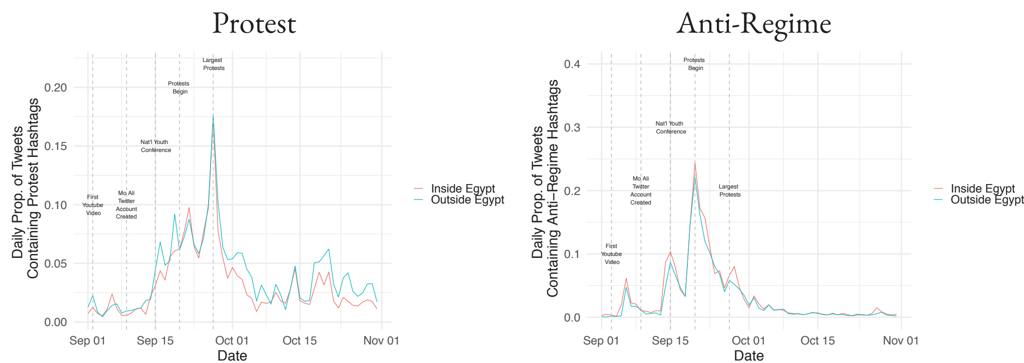

Figure 5: Daily Proportion of Tweets Referencing Dissent (September-November 2019)

Finally, we turn to the behavior of online content consumers. We begin with daily engagement with Ali's Youtube videos, displayed in Figure 6. Ali's 47 videos received 3,387,835 total views between September 1 and November 1, 2019, sometimes reaching as many as 500,000 views in one day. Regarding likes and dislikes, we see that Ali's videos received 128,128 likes and just 6,398 dislikes in this period. This provides suggestive evidence that most viewers of these videos were more likely to express support of Ali's content than disagreement. Across both private and public engagement metrics, we see a increased levels of engagement after the release of the first videos, as well as in the lead-up to and during protest activities on September 20, 21, and 27. We also observe a spike in engagement with the videos in mid-October after the protests have died down, when Ali released a video entitled "The second part of my response to the wizards that led Egypt in a cunning manner," issuing broad encouragement to Egyptians to continue to protest and mobilize against the Egyptian regime. Due to the nature of the YouTube data, we are unable to disentangle whether these viewers were inside or outside of Egypt.

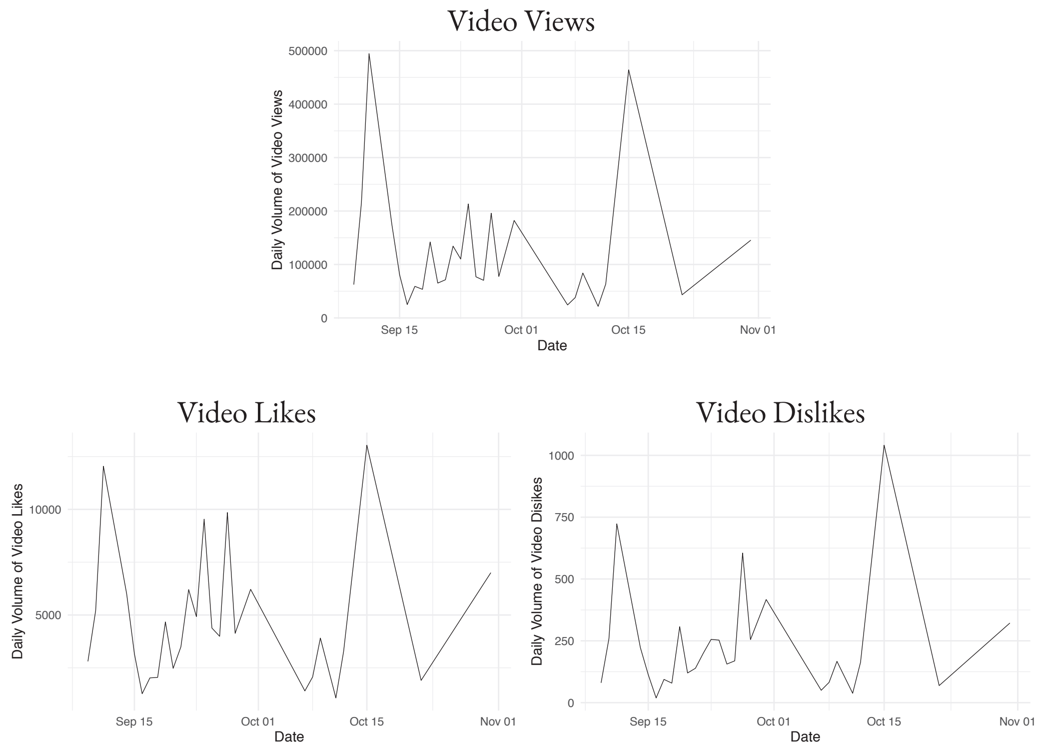

Figure 6: Daily Volume of Engagement with YouTube Videos (September-November 2019)

Data from public Facebook pages provides additional insights into engagement with and consumption of online content, by offering engagement metadata as well as impressions data to ascertain how frequently Facebook users inside and outside of Egypt interacted with or saw content referencing Mo Ali. While most public engagement with posts referencing Mo Ali came from outside of Egypt in the period leading up to the protest, the daily number of private views (impressions) of Mo Ali were higher inside of Egypt in the pre-protest period.

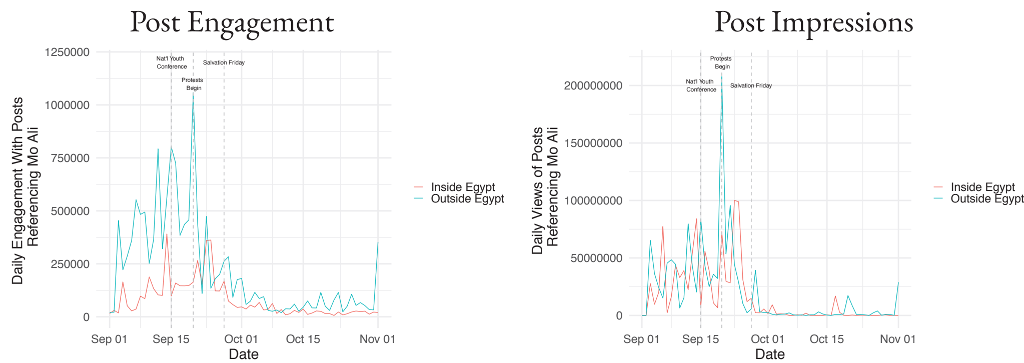

Figure 7: Daily Volume of Engagement and Impressions of Facebook Posts (September-November 2019)

Beyond direct engagement and impressions, Google search data enables us to develop a more comprehensive measure of private interest in Ali and consumption of the content he produced throughout the period under study – and to distinguish between both inside and outside of Egypt. Figure 8 displays the relative search volume for Mohamed Ali Secrets from September 1 to November 1, 2019 both inside Egypt and globally. First we observe that search interest inside Egypt and globally follow similar patterns followed similar trends to that of the behavior of amplifiers, beginning to gain traction after Ali released his first video, rising in the lead-up to the first major protests on September 20, and peaking shortly after. Ali received more global attention outside of Egypt on Salvation Friday, the largest protests in the period under study. This is perhaps due to an uptick in global media attention in this period. Turning to an analysis of location metadata within Egypt, we see that the greatest relative interest in Ali was concentrated in the Red Sea Governorate, followed by Port Said, Qena, Damietta, and Cairo.

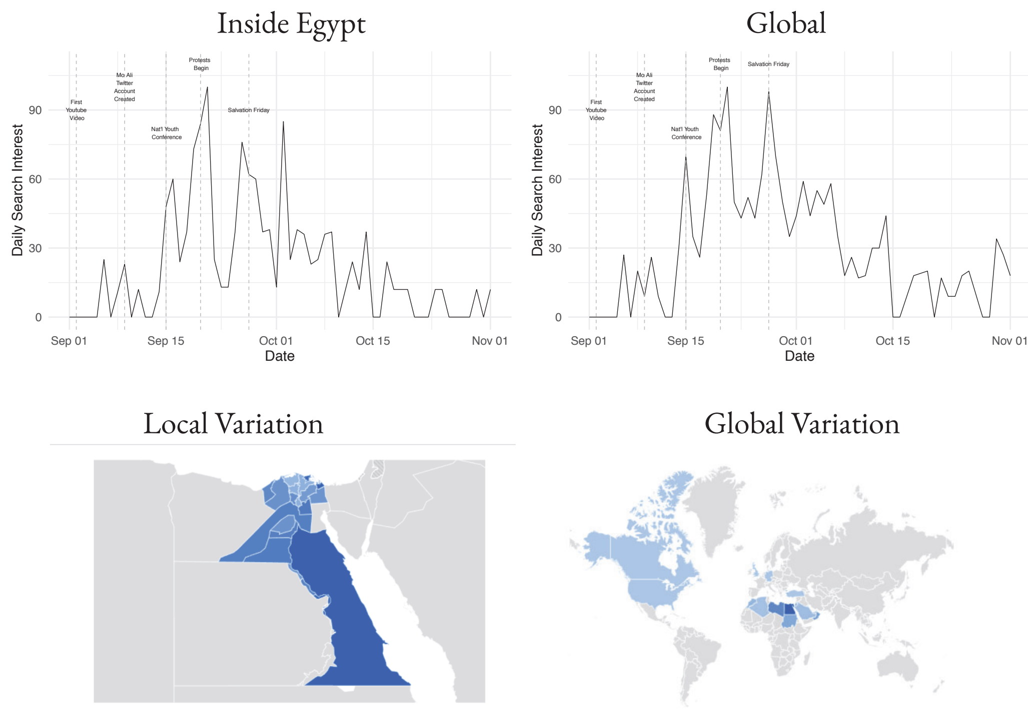

Figure 8: Daily Relative Search Interest (September-November 2019)

How Cascades Mobilize: From Content Consumption to Protest

To assess the relationship between online activity and offline protests, we conduct a number of additional analyses. First, Figure 9 superimposes the proportion of tweets containing protest hashtags on the daily count of protests in the period under study. We see that the first peak increased discussion of protest in the lead-up to the first protests, peaking slightly after. The largest peak in discussion of protests begins in the days leading up to Salvation Friday, the largest protests, which Ali explicitly called for in his videos, encouraging Egyptians to use the Salvation Friday hashtag. These patterns look very similar using Facebook posts referencing Mo Ali. This is a first suggestion that there is a correlation between online and offline dissent.

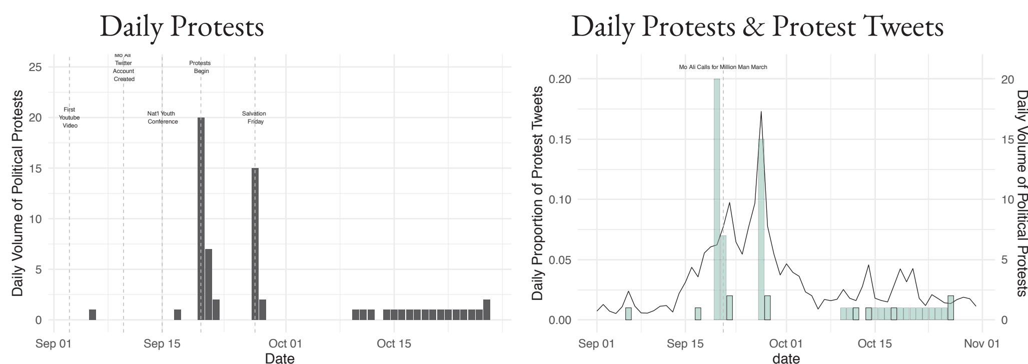

Figure 9: Online and Offline Protest Mobilization (September-November 2019)

Second, we analyze the content of Ali's videos. As noted above, there are two main models for thinking about online content: general opposition and coordination. To understand whether Ali's content provided oppositional information or whether it served as a coordination device, we hired Egyptian research assistants to watch each video and code transcripts of the videos to indicate whether they contained general oppositional information or coordination and logistical information (see appendix for coding instructions).

Figure 10 shows the daily volume of these videos disaggregated by opposition and coordination content over time. Ali's initial videos contained purely oppositional content criticising the Sisi regime. Recall that after President al-Sisi refuted Ali's claims at the National Youth Conference on September 15, 2019, Ali began including calls for protest and instructions for coordination and mobilization in his videos. These calls for protest and coordination continued through the beginning of the protest period and ramped up around Salvation Friday, the largest protests of the period.

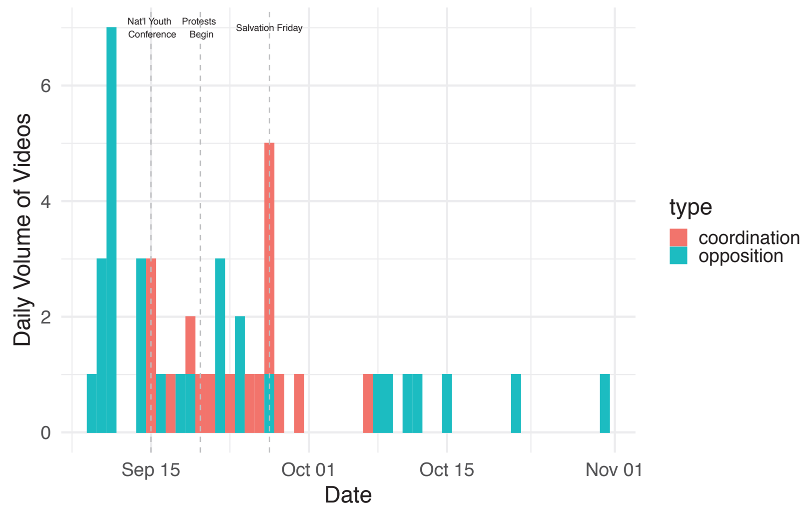

Figure 10: Content of Youtube Videos (September-November 2019)

In addition, sub-national consumption of Ali's content correlated with where protests occurred. As we noted in the previous section, the greatest relative interest in Ali was concentrated in the Egypt's Red Sea Governorate, followed by Port Said, Qena, Damietta, and Cairo, displayed in Figure 8. With the exception of the Red Sea Governorate, these governorates saw between 3 and 11 political protests in the period under study, displayed in table 1 in the appendix, reported to be some of the largest protests according to news coverage.[6]

To further examine the relationship between oppositional content and protest, we examine local variation at the governorate-level in online anti-regime mobilization and offline protests. We measure anti-regime mobilization discourse as any mention of Ali, the hashtags he created, and related calls for protest, as a percentage of total number of tweets in a day. Expert human validation of a random sample of 1,000 of these tweets demonstrate that 84% of tweets containing these keywords express explicitly anti-regime sentiment, 9.4% contained neutral references or reporting on Mo Ali and the protests, 6% of the tweets expressed pro-regime sentiment, opposing Mo Ali protests, and .06% of tweets in our sample were

[6] For example, see https://www.nytimes.com/2019/09/22/world/middleeast/egypts-protests-sisi-mohamed-ali.html, https://www.independent.co.uk/news/world/africa/egypt-protest-latest-president-sisi-united-nations-a9115736.html, and https://www.aljazeera.com/news/2019/9/27/protests-break-out-across-egypt-demanding-el-sisis-resignation.

irrelevant.[7]

Anti-Regime Translated Tweet Examples

- #Enough_Sisi We hope that the second spark of the Egyptian revolution will spark and triumph. Democracy must be achieved even if the journey takes a long time. #Mohamed_Ali
- #Leave_O_Sisi, a demonstration against #Sisi #Military_rule #Leave_Sisi #Enough_Sisi #Going_Friday_to_the_square #Tahrir_Square #Sisi_Nakba [Catastrophe]_Egypt #Go_down_you_are_for_one [protest hashtag]
- O God, #Mohammad_Ali will be the next president of #Egypt #Enough_Sisi

Pro-Regime Translated Tweet Examples

- #Thank_You_Egyptian_Intelligence_Services #Mo_Ali_Is_A_Traitor_To_His_Homeland #Long_Live_Egypt [pro-Sisi hashtag]
- Campaign to boycott the Mo Ali hashtags and Brotherhood pages. It is forbidden to respond to any Brotherhood page. It is forbidden to post a hashtag against the country. Any tweet you write, write the hashtag to support Egypt, and unify the hashtags
- #We're_all_with_Sisi #Thank_God_for_safety_O_President #Our_mandate_to_Sisi_again # We're_with_you_President #No_to_chaos #Thanks_Egyptian_people_army_police #Mo_Ali_Is_A_Traitor_To_His_Homeland

We subset our analysis to tweets that both contain anti-regime mobilization discourse and mention an Egyptian governorate, suggesting calls for local mobilization. These tweets primarily adapt protest hashtags initially produced by Ali to call for local protests, for example, "The people of Suez say #Enough_Sisi, #Going_Friday_to_the_square." We find a much higher volume of local anti-regime mobilization tweets

[7] See Figure A1.

in governorates that experienced protests. This discrepancy begins in the pre-protest period, which shows almost no local discussion of anti-regime mobilization in governorates that did not subsequently experience protests. We note that these dynamics are not driven only by highly-populous governorates. Discussions of local mobilization begin to spike right before protests begin at higher levels in governorates that experienced protests, ultimately reaching many times the volume of tweets that we observe in non-protest governorates. Figure A2 demonstrates these patterns disaggregated across governorates.

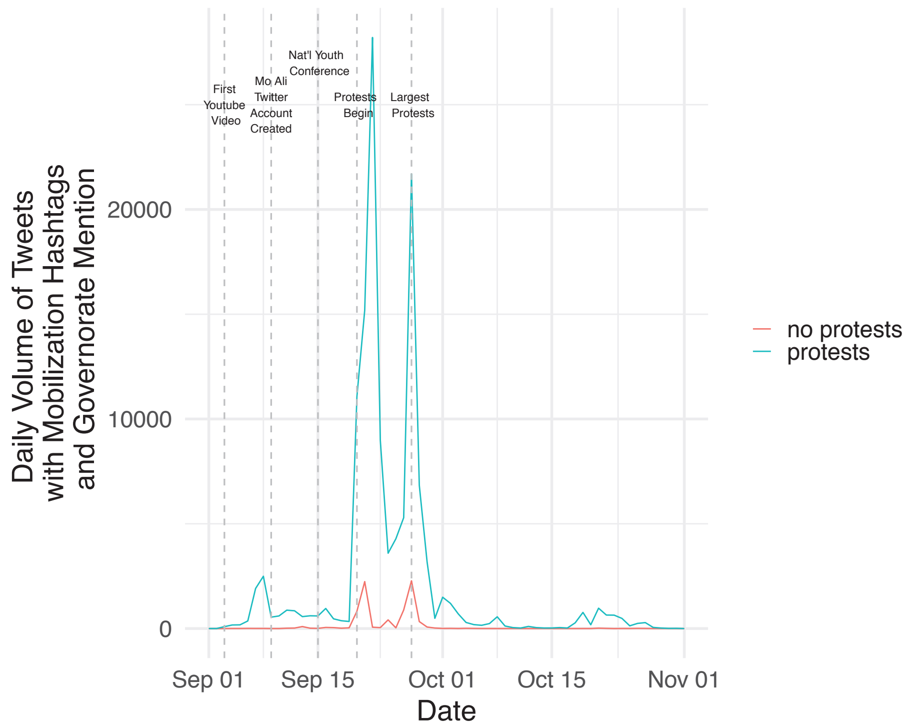

Figure 11: Volume of tweets calling for local mobilization in protest vs. non-protest governorates (September-November 2019)

Finally we examine the degree to which Ali's videos mobilized new opposition or re-activated individuals who had been involved in online activism during earlier periods or protest in Egypt. We find that 79% of individuals who frequently amplified calls for protest on Twitter in September 2019 had also called for protests previously between October 2016 and August 2019.[8] This suggests that the most active

[8] Our real-time collection of tweets referencing Egyptian political topics was started in October 2016.

participants in online opposition during the September 2019 protests were being re-mobilized, rather than mobilizing for the first time in response to Mo Ali's videos. Individuals who were re-mobilized also had approximately 7 times as many followers as individuals who participated in protest discourse for the first time in September 2019. This suggests that Mo Ali's oppositional content was primarily amplified by individuals who had previous online protest experience and were relatively more influential on Twitter.

Disaggregating our data by 2019 protest and analyzing previous protest behavior sheds light on additional components of the relationship between local content consumption and protest. Daftar Ahwal data measuring political protests between 2011 and 2020 demonstrate that districts[9] in which protests were recorded between September and November 2019 (n = 21) were more likely to have previously witnessed protest than those districts in which protests were not recorded between September and November 2019 (n = 330), demonstrated in Figure 12. While there are certainly previous protests recorded in districts without protest between September and November 2019, it is at a much lower frequency than in districts in which protests did occur in late 2019. Thus, districts with protests in 2019 are protest hotspots, and exiles were successful in initiating protest among populations where significant opposition to the regime was previously ruminating. There was more latent demand for the oppositional content introduced and amplified by exiles, and thus higher observable consumption of it, in these areas.

[9] Districts, Egypt's second-level administrative division below the governorate, are akin to American counties and serves as census tracts. Egypt's 27 governorates are divided into 343 inhabited districts, according to the country's 2006 census. Rural districts are called markaz (pl. marākiz) and urban districts are called qism (pl. aqsām). Districts witnessing political protests during the period under study recorded between 1 and 4 events.

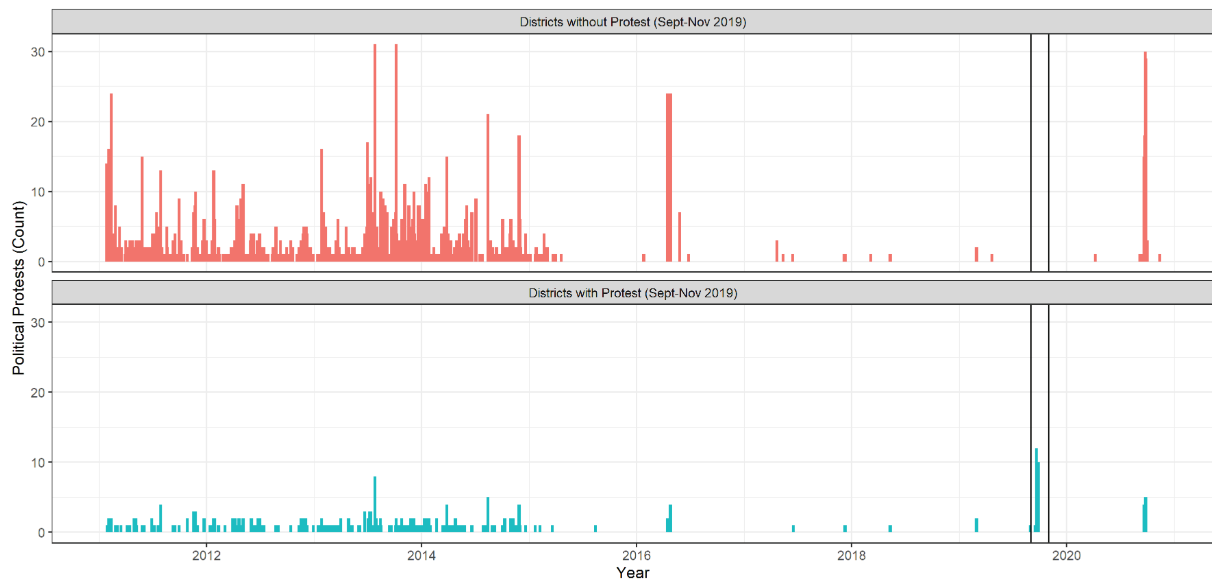

Figure 12: Previous Protest in Districts With and Without Protest in September 2019

Discussion

Our results describe how content was introduced by Ali, amplified by a combination of social media users inside and outside of Egypt (with heavy engagement from the latter group), and then consumed and adapted at higher rates by users in locations within Egypt where protests subsequently occurred. In this section, we discuss two important components of our results: why specific characteristics of Ali made him a particularly effective influencer and how the specific characteristics of amplifiers in our study may also have contributed to the rapid and vast spread of Ali's content. The combination of the specific characteristics of Ali and of his amplifiers may, in turn, have made this content particularly influential in mobilizing protest. In addition, we discuss what our fine-grained results on local content consumption and protest tell us about how online dissent translates into offline dissent by solving coordination problems. Our discussion section serves as the basis for developing insights from our specific case into generalizable and falsifiable hypotheses (Gerring 2012).

First, Ali may have been in a unique position to introduce content that went viral and mobilized

protest, particularly in a political space as contentious and polarized as that of Egypt's. His work as a military contractor meant that his content was detailed, specific, and personal. As such, Ali appeared as an expert who could credibly make corruption accusations of the Sisi regime, or perhaps even as an indication that there was a split within the military given how recently he had worked within the regime. As a result, the content he introduced may have been more influential than had he been less personally exposed to corruption and not witnessed it first hand (Druckman and Lupia 2000; Gilens and Murakawa 2002). In addition, Ali was not visibly involved in politics before September 2019. While some online conversations speculated who might be behind Ali, he was not immediately identifiable as a partisan of any of the major political groups in Egypt, such as the Muslim Brotherhood or non-Islamist opposition parties. Ali was similarly uninvolved in any of the revolutionary and pre-revolutionary youth movements. In one video, Ali said of himself, "I'm not a liberal, I'm not Brotherhood, I'm not a secularist. I'm a working-class guy." In other videos, he told stories of working in his family's shop that emphasized his humble background. Media coverage similarly described him as "blue collar" (Arman 2019). Ali has also previously worked as an actor in Egyptian cinema in addition to his work as a military contractor. He is charismatic and speaks comfortably on camera. One news article described that"he uses his acting skills to endow the scene with an adequate level of suspense and excitement" in his videos People are generally uninterested in politics, and Ali's ability to create content that felt more like entertainment may have been more palatable to consumers (Kim 2021). The perception of reliable content delivered by a credible and trustworthy messenger is important to whether individuals undertake costly behaviors in response to it. In sum, the combination of credibility, lack of a partisan affiliation, blue-collar background, and semi-celebrity status renders Ali a highly effective influencer.

While there would be no content to spread or consume without the initial influencer, amplifiers are hugely important in creating the cascade of content necessary for protest mobilization and expanding the conversation around that content. Once again, Ali's status as a member of the entertainment industry may help explain how quickly his content went viral as a result of who was in his immediate online network. In our network analyses above (Figure 3), we found that the accounts that were highly

engaged with Ali were likely to be owned by individuals in the media or entertainment industry. More specifically, many of these accounts self-identified as part of the independent and largely anti-Sisi media industry centered in Istanbul, Turkey. In the communications literature, this kind of user is labeled an "icon," a specific type of elite user. Icons in the media and entertainment industries concentrate public interest around online conversation and "serve as a bridge between the network and the broader social conversation" (Pintak, Bowe and Albright 2021, 6) Previous research has found that tweets from icons tend to be perceived by consumers as more authoritative, trustworthy, and competent, making them particularly effective in bringing additional users into the conversation (Jin and Phua 2014). That fact that so many icons amplifier Ali's content may have helped it to spread faster and further than had non-icon users amplified it.

Finally, our analysis in the previous section demonstrates that consumption of Ali's content was different at the local level in a manner that correlates with governorate variation in protest. Our findings on local content consumption and protest sheds light on how online dissent translates into offline dissent, suggesting a concrete mechanism through which online oppositional content, as introduced and amplified by exiles, might translates into real-world protest. The locations in which Ali's content was not only consumed but also discussed in public with calls for local action are those districts in which protests occurred. We emphasize this result because it speaks to just how important the consumption and discussion patterns of local communities are in translating online dissent to offline dissent as well as oppositional content into large-scale protests. In addition, we believe that these results demonstrate how online content cascades solve coordination problems, remobilizing previous mobilized areas by revealing the prevalence of anti-regime attitudes and serving as a focal point for those already in opposition and ready to mobilize.

Conclusion

Our study demonstrate that Egyptian exiles abroad were important in both introducing and amplifying oppositional content, and contributed to a content cascade that culminated protests on the

ground back home. More specifically, text and network analysis demonstrates that Ali successfully introduced content that included anti-regime rhetoric and introduced hashtags that called for protests, exiled and domestic users amplified and popularized this content, and the consumption of this content was prevalent among domestic Egyptian social media users both before and during protests. While in aggregate Ali received more online engagement from social media users based in Egypt than those based abroad, the users who most amplified his messages were primarily Egyptians living abroad. In this way, social media users outside of Egypt played a key role in amplifying Ali's calls for protest to "go viral" and ultimately contributed to the mobilization of Egyptians in the streets. This specific case speaks to how online content cascades can serve as a coordination device and contribute to widespread protests in the real world by revealing the prevalence of anti-regime preferences and serving as a focal point around which opposition can focus collective action.

We highlight two main advantages to our empirical approach, using cross-platform data. First, the data clearly demonstrates that the content cascade preceding the September 2019 protests happened at the same time and in complementary ways across multiple platforms. Second, different platforms give us different types of data and measurements of the dynamics of content cascade. In our current analyses, YouTube, Google Trends, and Facebook impressions allow us to measure private interaction with Ali's content, while Twitter, YouTube, and Facebook demonstrate public engagement with it. Twitter captures Ali's growth in popularity over time as he becomes more central to exile and domestic online networks, and allows us to conduct network analysis to measure Ali's influence. By only analyzing data from one platform, we would have missed key parts this process. Future research should continue to use cross-platform approaches to describe online behavior and its relationship to offline events. We encourage scholars studying online politics to think creatively about which online platforms are relevant for their questions and to combine data sources to understand whether processes of online politics are complementary or substitutes.

By systematically describing the process through which exiled activists can use online tools to mobilize citizens at home, we seek to contribute to the collective understanding of online and offline dis-

sent in the digital age. As we noted in our discussion section, our analysis of this important case outlines a number of plausible mechanisms and actors characteristics that should be explored in future research. While we have focused on describing the process through which the production, amplification, and consumption of online oppositional content contributed to protest mobilization, future work should also analyze the behavior of the regime. As noted above, the president himself responded directly to some of Ali's claims at a national conference before protests commenced. In addition, the regime reacted to Ali's online campaign by using Twitter's reporting mechanism to suspend his account (represented by the sharp vertical lines in his follower count in Figure 1) as well as the accounts of at least 150 influential Egyptian activists. The regime also clamped down on real-world protests by arresting over four thousand individuals for their participation and by heavily policing public spaces. Similarly, internet disruption data from NetBlocks, a global internet monitor working at the intersection of digital rights, cyber-security and internet governance,[10] documents a decline in Twitter reachability demonstrated in Figure 13 beginning late in the day on September 22 and continuing through September 23rd (recall that this is before the largest protests on September 27, Salvation Friday). This corresponds with documentation of restriction of access to a variety of social media platforms and news websites including Facebook messenger, social media servers in Egypt by leading providers, and the Arabic versions of BBC Arabic and Al-Hurra in this period (Al Monitor 2019). By acknowledging Ali, repressing protests, and limiting internet access, it is possible the regime legitimated Ali's claims and amplified both the spread of content and the occurrence of protests through a backlash mechanism (Roberts 2020; LeBas and Young 2021).

[10] See `https://netblocks.org/about`.

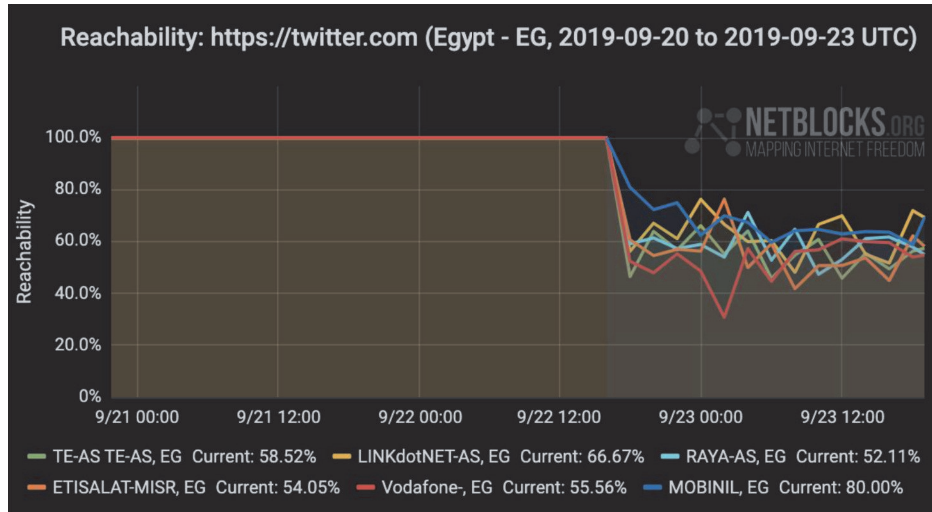

Figure 13: Reachability of Twitter in Egypt (September-November 2019)

Exiles and their political behavior are understudied, and we focus here on describing the "what" of exile activism. Our hope is that future research will help build on our descriptions to answer the "why," putting our results into comparative perspective with other exiled communities to develop a broader framework for the conditions under which exiles engage in domestic mobilization. Not all exiles remain focused on the domestic sphere as a fruitful avenue for change. For example, Esberg and Siegel (2023) find that Venezuelan exiles turned their activism outward; when exiled, they internationalize their social media audiences, are significantly more likely to call for foreign intervention to change politics at home, and significantly less likely to discuss protest mobilization after exile. In contrast, Egyptian exiles explicitly produce content on domestic issues and direct it at individuals back home, facilitated by the significantly less constraining internet environment outside of Egypt. Additional comparative inquiry into what differentiates Egyptian exiles from others – such as variation in expectations about the likelihood of regime change, time horizons for return, or the extent to which their online networks remain rooted in the domestic sphere – might help to explain why some exiles focus their online activity on domestic politics and mobilization and others do not.

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