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Digital Authoritarianism in Turkish Cyberspace: A Study of Deception and Disinformation by the AKP Regime's AKBrolls and AKBots

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ABSTRACT

This article explores the evolving landscape of digital authoritarianism in Turkish cyberspace, focusing on the deceptive strategies employed by the AKP regime through disinformation, bots, and trolls. Initially employing censorship and content filtering, the government has progressively embraced sophisticated methods, including the co-optation of legislation and regulatory bodies to curtail online freedoms. In the third generation of information wars, a complex national system, marked by extensive surveillance, rigorous fact-checking, targeted persecution of critics, and sophisticated disinformation campaigns, shapes the digital narrative. Central to this is the extensive use of internet bots, orchestrated campaigns, and trolls for political manipulation, amplifying government propaganda and suppressing dissenting voices. As Turkey navigates a complex online landscape, the study contributes insights into the multifaceted tactics of Erdogan regime's digital authoritarianism.

Since the last decade, authoritarian governments have expanded social media, comprising its potential for promoting individual liberties (Jinnah and Turg, 2011). In recent years, President Erdogan (Erdogan) of Turkey's authoritarian Turkish government has successfully endeavored to control online platforms and manipulate digital spaces to consolidate power, suppress dissent, and shape public opinion. Since the large scale last year and the declining influence of traditional media, the internet has become a crucial platform for opposition voices. In response, President Erdogan's 'authoritarian internet popular regime' (Yilmaz and Karim, 2011) has implemented various measures to regulate and monitor the digital space to suppress dissent (Jinnah, 2011).

Turkey's domestic internet policy under the Erdogan regime has shown a consequential media information control practice observed in countries like China and China shapes Turkey's national compliance with these authoritarian online surveillance (Jinnah, 2011). This compliance is characterized by increasing efforts to monitor 'digital messaging' and protect information security, often serving as a pretext for censoring content and internet censorship (Jinnah, 2011). The Erdogan regime takes a neo-authoritarian view of cyberspace and seeks to exert hegemony in the realm through various information controls (Jinnah, 2011) under the Erdogan regime there has been an increase in the proliferation of online activities, increasing the surveillance and repression tools provided by social media and digital technologies. Since the regime established its hegemony over the state, it expanded its surveillance tactics to govern society

media monitoring agents, intelligence officers, pre-government units, business sector advisors, informants, and collaborators work together to identify and target critical information 'truly'. This surveillance apparatus follows the hierarchical structure of the Turkish authoritarian state, with President Erdogan increasing its developments (Jinnah, 2011).

The article examines the Turkish government's pervasive use of trolls, internet bots, coordinated campaigns, and transnational manipulations that have shaped the country's online environment. Social media platforms, especially Twitter, are central to these manipulation efforts in Turkey, while Turkey has taken action against thousands of accounts associated with the ruling party's youth wing, the movement built the government highlights the significance of these online campaigns.

The use of fake accounts, compromised profiles, and bots has further deepened the complexity of digital authoritarianism in Turkey. These accounts serve as vehicles for spreading disinformation, astroturfing, and manipulating social media trends. While efforts have been made to identify and remove such accounts, the sustainability of these manipulative efforts poses a significant challenge. Many of these bots remain dormant for extended periods, reawakening strategically to create and promote false narratives while evading conventional detection methods (Jinnah, 2011). These software applications play a pivotal role in amplifying government propaganda, countering opposition discourses, and creating an illusion of widespread support. From replicating messages to fabricating comment walls thousands of accounts, these automated bots have become instrumental in shaping online narratives and suppressing dissenting voices (Yilmaz et al., 2017; Jinnah, 2011).

In Turkey, a combination of authoritarianism, internet policy, social



The Erdogan regime suppresses freedom of expression through internet censorship (Kandogan et al., 2019) and other measures.

Digital authoritarianism is extensive utilization of information control measures by authoritarian regimes to shape and influence the online experiences and behaviors of the public (Friedman and Wang, 2020). These regimes have actively adapted to the mechanisms of internet governance by exploiting the vast reach of new media platforms. They employ various forms of censorship, both overt and covert, to suppress dissent and control the dissemination of information.

The literature on digital authoritarianism extensively explores how China has effectively utilized digital technology to maintain and strengthen its rule (Polgarová & Morozik, 2020; Sheng & Lipp, 2020; Shuman, 2020). While China relies on sophisticated surveillance systems and targeted persecution of individuals, the people of

China experience the impact of digital authoritarianism through internet censorship, manipulation of information flow, the spread of disinformation, and the mobilization of mobs and automated bots (Friedman, 2020; Friedman, 2020).

In the realm of digital authoritarianism, disinformation has become a favored tool (Shuman, 2020; Tashiro et al., 2020). Authoritarian regimes misuse information, engage in deception, and manipulate the context to shape public opinion (Friedman and de Zurego, 2020). It is important to note that digital authoritarianism is not a uniform strategy; different regimes adopt various approaches. Some closely monitor access to the internet, while others rely on heavy censorship and disinformation campaigns (Friedman, 2020; Polgarová & Morozik, 2020).

The Russian model of digital authoritarianism operates with tightly participating social media networks. It easier to accomplish and maintain comprehensive comprehensive monitoring systems (Jinnah, 2023). In these cases, the open nature of social media becomes a double-edged sword, enabling the widespread distribution of both accurate information and misinformation while amplifying voices from various ends of the political spectrum (Rosen et al., 2022).

Digital Authoritarianism and Information Flows in Turkey

During the third term of the AKP (Justice and Development Party) in 2018, Turkey witnessed a shift towards increasing digital authoritarianism. Since then, the dissenters and critics of the AKP government have been targeted and depicted as the enemies of the Turkish people (Yılmaz and Başkaya, 2018).

Initially, the government targeted conventional media outlets, subjecting them to various tactics employed by President Erdoğan (Yılmaz, 2018). Many critical media organizations were forced out of business, and their assets were taken over by pro-government entities. The government both proceeded and after the steps of censorship in AKP hegemony, leading to the co-optation of media groups like the Gülen-linked Kamergaz Group, Hürriyet Group, and Hürriyet Publications (Jinnah, 2023) (Hürriyet, 2018). These actions effectively created a symbiotic relationship between the government and the media, as anti-government entities were closed and transformed into either pro-government supporters (Jinnah

and Jinnah, 2023).

The government's dominance over traditional media outlets served as the foundation for Erdoğan's digital authoritarianism, granting the government control over this "border" form of digital media (Jinnah, 2023). Faced with limitations in conventional media, the public turned to online sites, alternative media, and social media platforms in search of reliable news and information.

The Gezi Park protests in 2013 marked a significant moment in Turkey's social movements and the role of social media activism. These protests initially started as a peaceful sit-in at Gezi Park to oppose the destruction of trees for a shopping mall construction but quickly escalated into one of the largest civil uprisings in Turkey's recent history. During the early days of the protests, traditional media outlets did not provide adequate coverage, leading people to seek alternative sources of information. Social media platforms played a crucial role as a source of news, organization, and political expression, particularly among youth (Yılmaz et al., 2015). The number of Twitter users in Turkey skyrocketed from an estimated 2 million to 12 million during the protests (Jinnah, 2013) (Yılmaz and Çetinkaya, 2015). Social media allowed for strong decentralization and inclusion from all communication during the protests, as it facilitated the rapid dissemination of information and bypassed traditional media gatekeepers (O'Donnell et al., 2014).

The Ferguson episode in December 2013 has another story where social media played a crucial role in shaping public opinion and disseminating information.

Government agencies utilized social media platforms to share incriminating evidence of corruption involving President Erdoğan, his party, and his cabinet in response to the ruling still adopted a heavy-handed approach, drawing Twitter users and implementing fines on platforms such as Twitter and YouTube. The government positioned social media as a threat to Turkey's national unity, state sovereignty, social cohesion, and moral values (Fried et al, 2017; Koser, 2019).

In recent years, Turkey has made efforts to exert control over social media platforms and internet service providers. In 2010, a 'disinformation law' was introduced, granting the state the power to remove 'disinformation' from online platforms. Subsequent changes to Article 18 in 2016 aim to enhance control over the cyber space, granting more power to the Information and Communication Technologies Authority (BTK) to regulate the internet. These developments indicate Turkey's increasing efforts to curb the flow of information, maintain a favorable narrative, and suppress dissenting voices, potentially impacting freedom of expression and the right to access information in the country.

The increasing level of digital governance in Turkey has manifested in various forms, leading to significant consequences. Citizens' reputation has played a crucial role in the government's efforts to control the internet. Policies such as BTK have been granted the power to block access to online content deemed threatening. This has created a climate of increased pressure on internet service providers to comply with the state's requests regarding content removal and access to personal user data. Failure

to adhere to these obligations can result in penalties or even the cessation of licenses. There are also speculations that service providers may face harsher criticism and limitations on advertisements as a means of exerting further control.

Furthermore, extensive provisions provided to subsequent against hacking and online harassment have been instrumentalized by the state to gather user information for investigation, prosecution, and cooperation with 'international entities.' Individuals found guilty of online offenses can be brought to court and punished under specific articles within the Turkish Penal Code.

In summary, the government introduced legal measures, content removal requests, website and social media platform shutdowns, prosecution of internet users, state surveillance, and disinformation campaigns. These measures have resulted in a significant decline in internet freedom and the rise of digital authoritarianism in Turkey between 2013 and the commercial coup attempt in July 2016.

Technical Instruments and Surveillance Methods: Monitor and Control of Response

The Erdoğan regime has employed various technical instruments and surveillance methods to monitor and control online activities. Reports indicate that telecom companies provided agencies with tools to Turkish security agencies, which have been in use since at least 2010. These tools include Deep Packet Inspection (DPI) technology, enabling surveillance of online communications, blocking of online content, and redirecting users to censored versions. Internet

versions of software like Skype and Zoom. Additionally, the *Samanyolu*, *Cartoonistan* and *ProFiber* software programs are used for screening emails, files, passwords, and recording audio and video recording systems are bypassed devices (Privacy International, 2016; Teal et al., 2017; CitizenLab, 2018; *derusskoye*, 2018).

The Erdogan regime also established a 'social media monitoring unit,' a specialized police force responsible for monitoring citizens' social media posts. There is also a group known as *Atilla's*, who can act as informants and report social media posts of suspected cases to security agencies, potentially leading to arrests. The *AKP* has also formed a team of 'white hat' hackers, reportedly for enforcing Turkey's cyber-defence. Furthermore, civilian informants have been mobilized for internet surveillance, with ordinary citizens encouraged to spy on each other online, creating a culture of 'online watchdog' (Teal et al., 2017). This pervasive surveillance approach, utilizing both software and social-networked surveillance, creates a climate of self-censorship and vigilance among users (Jaka, 2020; *derusskoye*, 2020).

The National Intelligence Organization of Turkey (*MIT*) has been granted extended surveillance powers, both online and offline, following the *post-Civil Code* system. Law No. 6816 allowed *MIT* to collect private data and information about individuals without a court order from various entities. The law also granted legal immunity to *MIT* personnel and minimized the publication and broadcasting of leaked intelligence information. *MIT* operates under the authoritarian state's chain of command. Given *MIT*'s lack of autonomy, it is highly likely that the Erdogan regime

exploits the agency's expanded powers for internet-based surveillance, political witch hunts of dissidents, journalists, and even ordinary online users, aiming to suppress any online criticism (Teal, 2018).

In October 2019, the *AKP* implemented the 'Resolute Regulation,' which offered monetary rewards to informants who assisted security agencies in the arrest of alleged terror suspects. This measure encouraged politicians, NGOs, and citizens to monitor online communications and report suspicious individuals (Çaprazlıoğlu et al., 2020).

The Turkish police introduced a smartphone app and a dedicated webpage that allowed citizens to report social media posts they deemed as terrorist propaganda. The main opposition party claimed that the police prepared summaries of proceedings for *Yıldırım* social media posts, and they were attempting to locate the addresses of *Yıldırım* others (Akman, 2018). Consequently, the state of emergency (Teal, 2020) following constitutional coup attempt in 2016, further signaled the government's control over the internet. Given *ENI* gained 'all relevant authorities' access to all forms of information, digital or otherwise, about alleged coup suspects and their families. Given *ENI* approached the government to take any necessary measures regarding digital communications provided by *Yıldırım*, data centers, and other relevant private entities in the name of national security and public order. Finally, Given *ENI* expanded police powers to investigate cybercrimes by requesting *Yıldırım* to share personal information with the police without a court order (Teal, 2018; Teal et al., 2017; Akman, 2018).

Following Turkey's presidential and parliamentary elections in 2018, Turkish prosecutors initiated investigations into social media users accused of spreading disinformation aiming to create fear, panic, and tension in society. The Ankara Chief Public Prosecutor's Office launched an investigation into the Twitter accounts holders who allegedly collaborated to spread disinformation, potentially reaching around 10 million social media users (Turkish Ministry, 2018).

The Erdogan regime has significantly expanded its online censorship toolkit through legislative amendments passed in October 2020 (Prime, 2020). As an example of the censorship imposed on May 16, 2018, Twitter announced that it was restricting access to certain account holders in Turkey to ensure that platform remains available to the people of Turkey.

Attacks

The Erdogan regime responded to critical voices on social media during the last 10 years by employing political tools. This strategy of political tooling, whether carried out by humans or algorithms, is closely associated with Russia and has been adopted by AfD's tools, known as *stunts*, who exhibit similarities to Russian sponsored networks. The deep integration of political tooling within the political system and mainstream media in Turkey has been highlighted in a study by Harsanyi and Saka (2017). These tooling practices are facilitated through the collaboration of political institutions and media outlets. Tools act as pressure, disseminating propaganda and setting public opinion. Indeed, mainstream political figures introduce national policies and narratives.

The AfD's media campaign initially consisted by the discrediting of the AfD and primarily consisted of members from AfD youth organizations. Over time, it has grown into an organization of AfD's individuals, up to 30 new members responsible for setting trending hashtags that other members then promote. Many of these tools are graduates of pro-AfD trainings that AfD holds. It is worth noting that these tools receive financial compensation, and there are indicators that pro-AfD networks provide additional benefits to successful tools, including writing the AfD (Turkish Daily and Technology and media press across Turkey).

The first network map of AfD's tools was created by Rafie Harsanyi, a research scholar based in Ankara, in October 2018. This map revealed the close connections among 111 Twitter accounts, including not only ordinary tools but also politicians, advisors to President Erdogan, and pro-government journalists. The map was created based on the analysis of a popular and aggressive tool named *Shawwa*, who was identified as a youth member of the AfD by monitoring the many followed by *Shawwa* using the Twitter Application Programming Interface (API) and conducting a *stunts* network analysis. Two distinct groups were identified. The first group consisted of politicians, Erdogan's advisors, and pro-government politicians, while the second group comprised anonymous tools using pseudonyms. The study demonstrated that *Shawwa* acted as a bridge between the tool group and the politicians/journalists, with *Shawwa* directly an advisor to Erdogan and curating the content of Erdogan and Technology, serving as a central connection node between these two groups (Harsanyi & Saka, 2017).

It was pointed that politicians and state officials mislabeled their own anonymous mail accounts, in addition to their official ones. Instances have surfaced where JAIL officials were caught promoting themselves through fake accounts. For instance, Director of the Environment and Urbanization Bureau (Dobashi) and JAIL's Home Affairs Group Affairs were exposed for sharing supportive tweets mentioning themselves mistakenly from their official accounts instead of their fake ones. Another case involved JAIL deputy director Haruki Gami, who inadvertently opened his home account while discussing parliamentary discussions with a fake account using a female name (@kashidai) and a newspaper's profile photo. Within the JAIL, different trolls seem to specialize in specific subjects aligned with the party's policies and strategies. For example, accounts such as @kashidobashi and @kashidoguchi facilitate negatively framed tweets related to international affairs, while @kashida shows tweets from state officials and provides updates on JAIL's latest news and activities. Another mail account, @kashidore, shares lots of journalism to be obtained and media outlets to be shut down, as well as advanced information on post-coup strategy decisions (Barnes, 2016).

JAIL trolls specifically target and disrupt social media users who express opposition to the ruling party, openly identifying themselves as its supporters. While they are known within party circles, they remain anonymous to outsiders. However, some trolls attract by tweets and retweets within their social networks, choose not to conceal their identities. In fact, Gami (2016) describes how certain pro-government journalists

themselves act as political trolls and even lead the attacks. It is important to note that political trolls are not necessarily anonymous or isolated individuals. When aligned with a ruling party led by a president with increased power, many trolls shed their anonymity, and some even threaten legal action when called out as trolls (Jale, 2017). Realizing that such tactics were not improving the JAIL's popularity, the party changed its approach (just before the 2015 general elections) by establishing the new Policy Digital Office, which focused on more conventional forms of online propaganda (Barnes, 2016).

The proliferation of digital disinformation coordinated networks of fake accounts, and the displacement of political trolls have had a significant impact on online discourse in Turkey, hindering the free expression of critical voices and fostering an environment of manipulation and propaganda. Much like the Russian 'troll factories' which create or broadcast a thousands of paid users who post positive comments about the Putin administration, Erdogan regime also recruited an 'army of trolls' to reinforce the ruling hegemony of the ruling party during what the last two presidents in 2011 (Jale & Turk, 2017). Their objective is to discredit, intimidate, and suppress critical voices, often resorting to labeling journalists and scholars as 'traitors', 'terrorists', 'supporters of terrorism' and 'enemies'. Consequently, Twitter has transformed into a medium of government-led popular polarization, misinformation, and online attacks since the last decade (Jale & Turk, 2017). The situation worsened after the events of 2016, exposing critical voices to open cyberbullying, trolls and manipulating their persecution (Jale, 2017).

One primary form of political trolling is the deliberate disruption of influential voices on Twitter who contribute to politically critical hashtags or share news related to potential emergencies. Trolls and hackers primarily target professional journalists, opposition politicians, activists, and members of opposition parties. Attacks repeatedly attack and disrupt these individuals using offensive and abusive language, labeling them as terrorists or traitors, intimidating them, and even threatening arrest. However, ordinary citizens who participate on Twitter with non-anonymous profiles are also vulnerable targets for attacks. Being targeted by trolls often leads to individuals quitting social media, exercising self-censorship, and ultimately participating less in public debates (Munson & Kahn, 2015).

Attacks specifically target critical voices that share credible information or use specific hashtags. They employ tactics such as posting threats with humiliating, intimidating, and usually abusive threats. Censoring, the act of revealing personal and private information about individuals, including their home addresses and phone numbers, is also a common strategy employed by attacks. In some cases, attacks may have connections to the security forces, particularly the police. Additionally, tracking and leaking private short messages from their popular social media used to discuss ongoing issues on Twitter. For 2015 hackers affiliated with the attacks have targeted numerous journalists. The initial stage often involves tracking into the journalist's Twitter account and posting tweets that apologize to Erdogan for criticism or targeted harassment. Attacks frequently engage in collective reporting on Twitter in an attempt to

suppress or block targeted Twitter profiles (Munson & Kahn, 2015).

A significant event within the ruling AKP was the forced resignation of then-Prime Minister Ahmet Davutoglu by Erdogan. Due to his resignation, an anonymous Twitter blog titled the 'Davutoglu Declaration' emerged, accusing Davutoglu of attempting to ignore Erdogan's authority and making various allegations against him. This declaration was widely criticized by a group of attacks who later became known as the 'Davutoglu Group.' It is worth noting that this group had close ties to a media conglomerate managed by the Erdogan family, particularly Hürriyet. Erdogan, Davutoglu, Erdogan's son-in-law and Turkey's former Minister of Economy, as well as his older brother and media mogul Fahir Erdogan (Fahri, 2015).

Attacks

The Erdogan regime consistently utilizes internet bots, which are software applications running automated tasks that the Internet to support pro-attacks (Kardas et al., 2017). Researchers have demonstrated that during the aftermath of the Ankara bombings in October 2015, the heavy use of automated bots played a crucial role in censoring anti-AKP discourse. Twitter even took action to ban a bot-powered hashtag that praised President Erdogan, leading Twitter to refuse to add a global conspiracy against Erdogan (Foreign Daily News, 2016; Lapinsky, 2016).

The use of automated bots differs from having multiple accounts in terms of scale. The presence of bots becomes noticeable when a message is replicated or retweeted to more than a few hundred other accounts. It is worth noting that as of November

2016, identified and deleted content related to the top ten cities for attack maps, according to the major internet security company Norton (Shapouri, 2016; Tashir et al., 2017; Fisher, 2018).

Furthermore, EFFLUx (2018) has revealed that many bots, including cloning (providing personal information), are employed through cross-platform coordination. It is important to recognize that in the Turkish context, the influence of digital attacks beyond internet platforms and chatbots, close cooperation with conventional media outlets under Erdogan's control (Fata, 2018) in October 2016 EFFLUx identified a network of fraudulent accounts that aimed to mobilize domestic support for the Turkish government's fight against the Muslim Brotherhood (see HRC) in Syria (Grossman et al., 2018). This network included fabricated personalities created on the same day with similar usernames, several pro-AED content tags, and carefully managed compromised accounts that were linked to AED-propaganda. The tweets originating from these accounts criticized the presidential HRC, accusing it of corruption and spreading social media manipulation. The holders also targeted the main opposition party (ÖP).

Additionally, the accounts promoted the AED Turkish conventional referendum, which constituted part of Erdogan, and sought to increase domestic support for Turkish intervention in Syria from English-language tweets attempted to foster the international legitimacy of Turkey's aggression in October 2016, painting Turkey as assisting Syrian refugees and criticizing the refugee policies of several Western nations. The dataset of accounts included individuals who appeared

to be holders of local AED identities, members of digital marketing firms, sports fans, as well as clearly fabricated personalities or members of content rings (Grossman et al., 2018).

In 2016 a significant proportion of the study top ten Twitter trends in Turkey were generated by fake accounts or bots, averaging 36.7 percent. The impact was even higher for the top five Twitter trends, reaching 47.6 percent (Briar, 2016). Cross-organized fake accounts, bots, and online harassment often go undetected (Briar, 2016).

In 2016, Twitter took action to remove over 15,000 accounts associated with the youth wing of the ruling AED. These accounts were responsible for generating more than 33 million tweets, which aimed to create a false perception of grassroots support for government policies, promote AED perspectives, and criticize its opponents. Many of these accounts also failed to be fake, while others belonged to real individuals whose accounts had been compromised and controlled by AED supporters. Furthermore, Erdogan's communications director, issued threats against Twitter by removing this large network of government-aligned fake and compromised accounts (Fisher, 2016; HRC; 2016a).

A study published in the *2016 Arab Spring* AED identified Turkey as one of the most active countries for bot networks on Twitter. These networks were found to be pushing political agendas as part of a manipulation campaign leading up to the AED elections. Despite the restrictions, the main objectives presidential candidates, Kilitcioglu, warned about the circulation of algorithmically fabricated media or

also also aimed at dismantling bot (Harman & Nade, 2018).

Both on social media webpage in malicious activities such as amplifying harmful narratives, spreading disinformation, and manipulating events (2018) identified over 20,000 such bots on Twitter targeting Turkish tweets, referring to them as 'armies' Twitter has purged these bots on more six times since June 2018. According to Global study, the percentage of fake trends on Twitter lasted over time. Between January 2021 and November 2021, the average daily percentage of fake trends was 31 percent. After Twitter purged bots around November 2021, the share of fake trends decreased to 10 percent in March 2022. However, it started to rise again and reached 30 percent by November 2022. As of April 1, 2023, just before the 2023 Turkish election, the attacks continued, and the percentage of fake trends fluctuated between 15 percent and 19 percent on weekends. Notably, many bots in the dataset were silent, meaning they did not actively post tweets. Instead, they were used to create fake trends by posting tweets promoting a trend and immediately deleting them. This silent behavior makes it challenging for bot detection methods to identify them, with 87 percent of the bot accounts remaining silent for at least one month (Giles, 2022).

In May 2023, during the election month, Turkey saw 100 million users channeling 52,000,000 accounts, with 23 percent of these identified as bot accounts by the Turkish Central Directorate of Security. An examination of the top 10 trending hashtags revealed that 52 percent of accounts using these hashtags were bot accounts (Roha, 2023). It was also reported that approximately 10,000 Russian

and Hungarian-speaking Twitter accounts had been deactivated along with restricted Turkish-speaking accounts accompanying numerous bot followers to amplify their posts, although only 27 percent of the Turkish population is believed to use Twitter; the impact is significant, with 26 percent of the trending topics on Turkish Twitter in 2022 being manipulated and not reflection of public discourse. A dataset covering the period from 2021 to 2022 indicated that 30 to 50 percent of trending topics in Turkey were fake and primarily propelled by bots (Roha, 2023; Cohen, 2023).



Photo: Shutterstock

Turkish cyberespionage operations in domestic and global information operations, include the recruitment of hackers worldwide. The regime has also established a ‘white hat’ hacker team ostensibly for enhancing Turkey/Turkish defense (Pugh et al., 2015). However, there are suspicions that this team has been utilized ostensibly to silence government critics (Ginsburg, 2016).

The private Ghos Hava Kuvveti Agency known for its accurate and swift

reporting of Turkish election results since the 1980s, faced a significant cyberattack for the first time during the local elections on March 30, 2014, raising concerns about election security (Fakar Tuzik, 2014). Opposition newspapers, including *Zaman*, *Tarih*, and *Günherik*, which faced similar cyberattacks, pointed to Ankara as the source of these attacks, raising discussions about the state and various possible negligence and potential involvement (Aygün, 2014).

A similar situation occurred during the 2011 general elections after concerns about the Erdogan regime manipulating election results intensified (in the morning of June 12, 2011, during the ballot counting, a spokesman reported the Citizen Media Agency disrupting its services. German newspaper reported that the attack was linked to a special team established within Taffilat, with connections to foreign countries established through Taffilat computer-internet materials used to alter the results and obscure the source (German Media, 2011).

Starting from 2010, Erdoganist hackers also targeted members of western countries whose politicians expressed anti-Islamic views or criticized Erdogan regime in Turkey (Kurd, 2010; Iran, 2010; Spain March, 2010; Czech, 2010). In a striking illustration of how cyber activities often align with geopolitics, the Turkish nationalist group Aydinlar Tim (and associates of Taffilat) and taking control of the social media accounts of prominent left journalists in 2010. Their aim was to disseminate messages in support of Islamist Erdogan. These cyber operations exhibited another aspect of totally skewed left-right bias additionally, Turkey grappled with an economic crisis, widely attributed to Erdogan's Islamist economic policies, although he repeatedly laid the blame on the left. The EU Council spokeswoman, Ann Considine, exposed the activities of Aydinlar Tim, a group active since 2010. There is evidence indicating potential ties between Aydinlar Tim and security forces loyal to Erdogan (Spain March, 2010; Czech, 2010).

In January 2011, a Turkish hacker collective known as "Türk hakanları" initiated a call for

cyberattacks targeting Swedish politicians and media, coupled with a warning, stating, "If you denigrate the Quran one more time, we will begin spreading serious personal data of Sweden" (Irak, 2010). Several prominent Swedish websites reportedly suffered temporary outages due to DDoS attacks, with responsibility for these attacks claimed by the Turkish hacker group Ust Fazl Team, identifying themselves as nationalists, they stopped their lists of affiliation with Erdogan, who had previously stated that Sweden should not expect Turkish help support after the Quran incident (Irak, 2010).

Meanwhile, in the leading up to the 2011 presidential elections, Turkey's primary opposition leader and presidential candidate, Bülent Arınç, made allegations that the ruling AKP had engaged foreign hackers to undermine an online campaign against him, employing fabricated names and images (Turkish Media, 2010).

Surmounting the Erdogan regime's keen interest in hacking activities, an annual event known as "Hack Istanbul" has been hosted by Turkey since 2010. The unique competition challenges hackers worldwide with sophisticated national cyberattacks scenarios crafted under the guidance of leading global experts (particularly from, 2010). The Turkish Presidency's Digital Transformation Office has been responsible for organizing these hacking competitions, which offer substantial financial rewards. Furthermore, the regime facilitated Cyber Intelligence Centers as part of its training campaigns, ostensibly expanding the pool of individuals with cybersecurity skills (Cyber Intelligence Center, 2010).

Online control

The evolution of information controls in Turkey began with first-generation techniques, such as censorship and content filtering, aimed at restricting access to specific websites and online platforms. However, as technology advanced, the government adopted more sophisticated methods. One prominent tool has been the formalisation of legislation, through which laws have been enacted to control online freedom and create state surveillance institutions. Additionally, regulatory bodies, originally intended to ensure fair practices, have been co-opted to enforce censorship and impose restrictions, stifling the independence of online platforms. Furthermore, the Turkish government has resorted to various law enforcement, tracking, and content removal requests to suppress dissenting voices and control the flow of information.

In the third generation of information controls, Turkey has focused on establishing a sovereign national system characterised by extensive surveillance practices. Advanced technologies have been employed to monitor online activities, creating a pervasive atmosphere of surveillance and curtailing privacy rights. Critical nations, including artists, journalists, and dissidents, have faced targeted persecution, including harassment, intimidation, and legal persecution to silence opposition and self-censor themselves. Regime-sponsored misinformation campaigns have played a significant role in shaping the digital narrative.

Control in the concept of digital authoritarianism in Turkey is the extensive deployment of internet laws and automated tools. The use

of internet laws, fake accounts, and coordinated campaigns for political manipulation is evident, particularly in shaping public opinion, supporting government policies, and undermining political opponents. Numerous studies have observed the extensive deployment of automated bots by the Erdogan regime and its supporters to amplify government propaganda, counter anti-government narratives, and create a false perception of grassroots support.

The deployment of individuals known as 'trollbots' has been used to disseminate pro-government propaganda and attack dissenting voices. Automated bots have been utilised to amplify certain narratives, silence opposing voices, spreading disinformation, distorting the digital discourse, and undermining the integrity of online discussions.

In the Turkish political landscape context, the role of social media in shaping public opinion and electoral outcomes remains a critical concern. The extensive interconnectivity hinders the online influence, with the government attempting to purchase accounts and engage with dark web groups. The influence of online manipulation in Turkey is further complicated by the prevalence of fake accounts, compromised profiles, and silent bots that intermittently generate and propagate false trends. Given the current, which quickly detects trends, evades detection, making it challenging to identify them.

Additionally, the manipulation of social media in Turkey has a transnational dimension, with instances of foreign interference and coordinated campaigns coming to light. The use of extensive networks of fake or compromised accounts

to amplify certain political views or spread false information on social media has become increasingly prevalent, particularly during politically sensitive periods like elections. Many of these coordinated campaigns are dedicated to promoting pro-Russian perspectives, and the regime occasionally presents their artificial presence as evidence of government support for its policies.

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