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TURKEY'S DIGITAL NEWS LANDSCAPE

Polarization, Social Media, And Emerging Trends

Baris Kirdemir | EDAM Non Resident Fellow

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INTRODUCTION

Turkey enjoys rising Internet and social media use. The nation's digital media landscape has been rapidly emerging and evolving as online information sources increase in number. In tandem, conventional news outlets continue to decline, suggesting a drastic shift in the country's information environment. The number of digital news sources has registered exponential growth since the last decade. Thus, Turkey remains highly vulnerable to political polarization, disinformation, and social manipulation campaigns in its digital realm.

This study revolves around actors, interests, and political dynamics that shape the Turkish digital media ecosystem. Digital news, disinformation, political polarization, the emergence and performance of alternative news sources, fact-checker organizations, and the overall implications of

the ongoing digitalization for the journalism in Turkey remain at the epicenter of the research effort.

The first section sets the stage by briefly surveying the concepts of polarization, partisanship, how they relate to the policy effectiveness, and what has been discovered by others about Turkey's digital news environment in connection with these phenomena. The second section introduces the overall power and ownership consolidation in the Turkish mainstream media, as well as the use, trust, and engagement metrics for the outlets which are active in the country's digital news landscape. The final chapters present a tailored study of the Turkish information environment during highly important political events. In particular, the analytical output will focus on the dynamics of polarization in online social networks.

Polarization, Partisanship and Turkey's Digital News Environment

Social and political polarization in Turkey has been a core characteristic of the nation's domestic political competition. Socially, politically, and economically, Turkey's internal balance of power has changed multiple times during the last two decades, while polarization has persisted throughout the transformation. The news media has a unique part in the mentioned process, as strong media conglomerates have become the tied members of highly dense political and economic power clusters. Some commentators voice the view that now the new political and economic power structures are in place, the politics of polarization may actually fall in terms of the popular demand for it as well as its effectiveness to sustain electoral success.¹

At the time of writing, the COVID-19 pandemic poses an interesting and still unfolding test case for Turkish politics, information environment, and sociopolitical polarization. Turkish authorities announced the first cases and deaths by March 2020. During the first couple of weeks, both government officials and opposition figures mostly refrained from an intense political confrontation. They approached the pandemic as a national crisis and with a sense of unity. However, the initial signs of such a positive effect of the pandemic quickly dissolved. It was subsequently replaced by frequent attacks between the rival camps of Turkey's domestic political spectrum.²

This process was also evident across the digital news ecosystem and online social networks. The outlets, commentators, and influencers aligned with the government often dismissed the criticism while attacking opposition figures, while both conventional and online outlets that are more aligned with the opposition provided a platform to voice concerns regarding the government actions, growing authoritarianism, diminishing media freedom, and

the transparency of the ongoing crisis management efforts. The effects of the pandemic on Turkish Twittersphere and political discourse are telling as to the way audiences of the major digital news outlets overlap and what other sources of information they endorse or amplify.

Polarization in Turkey is longstanding and structural. Previous studies indicate that its persistence and impact on Turkish society have become even more evident in recent years. According to a survey, which was conducted in November-December 2017, only 29 percent of the participants *"said they would like to be neighbors"* with the supporters of the political party they dislike. *"About half of the respondents supported wiretapping the phones of supporters of the 'other party', and 37 percent said they are against participation of the members of this group in elections."*³⁻⁴

Both conventional and digital news actors play their roles within the given context. Previous studies suggest the existence of "press-party parallelism" and "press-sociopolitical camp parallelism" in Turkey's news media ecosystem.⁵ The bulk of the Turkish news consumers live in echo-chambers, listening only to sources and people within their partisan clusters. Respective behavioral patterns on social media are far from challenging the given partisanship and polarization in general, as most of the Turkish social media users who follow political events and news prefer the sources and people they find similar to their existing partisan attitudes.⁶ The partisanship and low-quality news production across the Turkish digital media landscape contributes to the given problem while strengthening the overarching existence of the confirmation bias among news consumers. Furthermore, within the given context where partisanship seems to prevail, exposure to alternative views may often strengthen the polarization rather than mitigating it.

¹ Can Selcuki, The politics of polarization are losing ground in Turkey, Duvar English, <https://www.duvarenglish.com/columns/2020/01/18/the-politics-of-polarization-are-losing-ground-in-turkey/>, Accessed on March 10, 2020.

² Emre Erdogan, The Impact of the Coronavirus Pandemic on Polarization in Turkey, GMF, 2020, http://www.gmfus.org/publications/impact-coronavirus-pandemic-polarization-turkey#utm_source=Twitter&utm_medium=Social, Accessed on April 10, 2020.

³ Emre Erdogan, Dimensions of Polarization in Turkey, GMF, 2018, <http://www.gmfus.org/publications/dimensions-polarization-turkey>, Accessed on March 10, 2020.

⁴ Dimensions of Polarization in Turkey, Istanbul Bilgi University, 2018, https://goc.bilgi.edu.tr/media/uploads/2018/02/06/dimensions-of-polarizationshortfindings_DNzdZml.pdf, Accessed on March 10, 2020.

⁵ Ugur Cevde Panayirci, Emre Iseri, Eser Sekercioglu, Political agency of news outlets in a polarized media system: Framing the corruption probe in Turkey, European Journal of Communication, Volume: 31, Issue: 5, 551-567, 2016.

⁶ Ibid.

The news cycle in general functions in a similar fashion to critical political thresholds, in which approving or disapproving actions of political actors and government authorities becomes the primary focus, often failing basic factuality, robustness, and comprehensiveness tests for the coverage of important political news.

Not so surprisingly, partisanship and polarization across the Turkish digital news ecosystem are also intertwined with disinformation, fake news, and other categories of falsehoods. Within the scope of our exploratory study, we have observed two distinct factors contributing to the problem. First, across the news ecosystem in Turkey, dismissive partisan content, fake statements attributed to political figures, fake hostilities with other countries, and conspiracies attributed to international actors are not rare. Disinformation most often fits into the partisan context, in which the overall reality is either framed as a fight of a prevailing and rising country against internal and external actors who intend to destroy it, or a complete disaster in which an incompetent government conspires against its citizens. Thus, across online social networks, polarization, toxic comments, personal attacks, and coordinated campaigns target the opposing individuals and political groups. Turkish digital news outlets and influencers are placed in the given ecosystem, in which they are mostly listened to by their respective clusters. The second factor that further strengthens disinformation is a significantly weakened immune system of the digital news environment against falsehoods. Producers, commentators, and followers of the digital news remain attached to their confirmation biases, mostly within the mentioned polarized

system. Whether and how any given piece of information is dismissed, decontextualized, framed, or amplified by the known information actors in this system partly hinges on the partisan leanings.

Research on news media and its connection to the political environment partly includes the process, direction, and extent of agenda-setting within any given environment. In “predominant-party systems”, agenda-setting may take place in various ways, while mostly a political agenda-setting priority is expected given the closed nature of the political system. A recently published academic study examined the described process within Turkey’s political and news media context. Assessing the Twitter activity of both mainstream and alternative news sources, as well as political figures across the political parties, Dogu and Mat investigated the issue salience among the given news content creators and political parties.⁷

In predominant party systems, certain issues are often associated with particular power groups. Two of their findings are particularly important within the scope of our study. The Turkish digital news environment, the outlets with close ties to the political and economic elite, international media outlets, and opposition outlets concentrate on different issues. Besides, the news content generation is mostly preceded by political agenda-setting. News outlets across Turkey’s digital media ecosystem mostly work on what agenda is already set by political entities and state authorities.⁸

⁷ Burak Dogu, Hazim Onur Mat, Who Sets the Agenda? Polarization and Issue Ownership in Turkey’s Political Twittersphere, *International Journal of Communication* 13 (2019), 229-250.

⁸ Ibid.

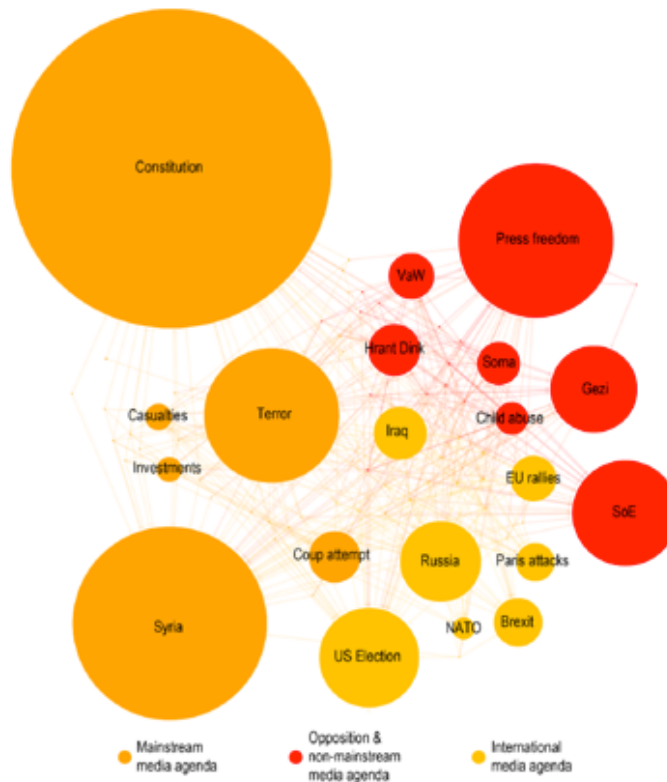


Figure 1: The graph shows a network of prominent agendas of news outlets in Turkey.

Three categories of the news sources are mainstream, opposition and non-mainstream, and international news media. The figure is borrowed from a recent academic paper by Dogu and Mat (2019)⁹

The formation and persistence of polarization on social media have been studied by different scientific disciplines. The problem is primarily attributed to online and offline echo-chambers and “selective exposure to information”.¹⁰ In polarized societies, people prefer to receive information from sources they perceive as politically aligned with themselves or sources that produce information they already tend to find credible. The result of such a collective process is an absolute exclusion of information from outside. The emphasis on echo-chambers led to the assumption that exposure to alternative or opposing views would decrease the level of polarization and encourage more moderate views as well as compromise.

However, some studies later contrasted that view, suggesting that exposure to sources from the opposing camp may actually strengthen the political and social polarization rather than diminishing it. Receiving consistent messaging from the opposing side may create a backfire effect and more polarization between politically engaged liberal and

conservative groups in the US.¹¹ Although there is not yet any closure to the question, one can safely assume that flow of information and opposing views between political camps does not necessarily help to mitigate polarization.

Digital news outlets live in a broader, complex, and dynamic ecosystem which now defines how any sociopolitical system functions in general. This system is closely tied to societal, political, and economic systems at all scales, ranging from social relations at local levels to global financial markets. As recent events once again prove, the online information environment can also have implications for public health and play major roles in how fast and far an epidemic spreads. In both scientific and policy research literature, a large number of papers and thousands of researchers/subject experts regularly focus on the complex and novel relationships between the digital information environment, the use of social media, political polarization, disinformation, and social manipulation in many forms.

⁹ Ibid.

¹⁰ Christopher A. Bail et al., Exposure to opposing views on social media can increase political polarization, PNAS, Volume 115, no.37, 2018.

¹¹ Ibid.

Mutual relationships between such phenomena are mostly bidirectional. That is, combined with human nature and regulatory gaps, the global adoption of social media exacerbated the size, speed, and algorithmic sophistication of disinformation, as it regularly achieves to alter human behavior, beliefs, attitudes, and how they perceive the reality as a whole. Similar relationships also include polarization. Polarization fuels disinformation, as disinformation achieves more depth, reach, and effectiveness in polarized societies where toxic partisanship is already a part of daily life. On the other hand, disinformation often worsens the polarization itself. Ultimately, multi-directional relationships exist between such problem areas and the performance of any given political system.¹² Therefore, at all levels, a good understanding of news production and consumption dynamics has key importance.

Social media and digital news are not completely apart from

conventional media, which adopts online strategies to reach more consumers and achieve greater business performance. News with the largest engagement and readership are often generated by conventional media outlets and disseminated through social media platforms. News on both conventional and social media are intertwined with political culture and “politicians’ behavior”. “Elite polarization” leads to stronger “mass political polarization”. As politics in almost every corner of the world has shown within the last decade, politicians also use social media to disseminate polarizing content on a regular basis.¹³

A recent survey by Tucker et al. detailed what science has so far discovered about the mentioned phenomena, including how digital news is placed within such a broad context. The following figure illustrates the model that outlines the relationships we briefly mentioned above.

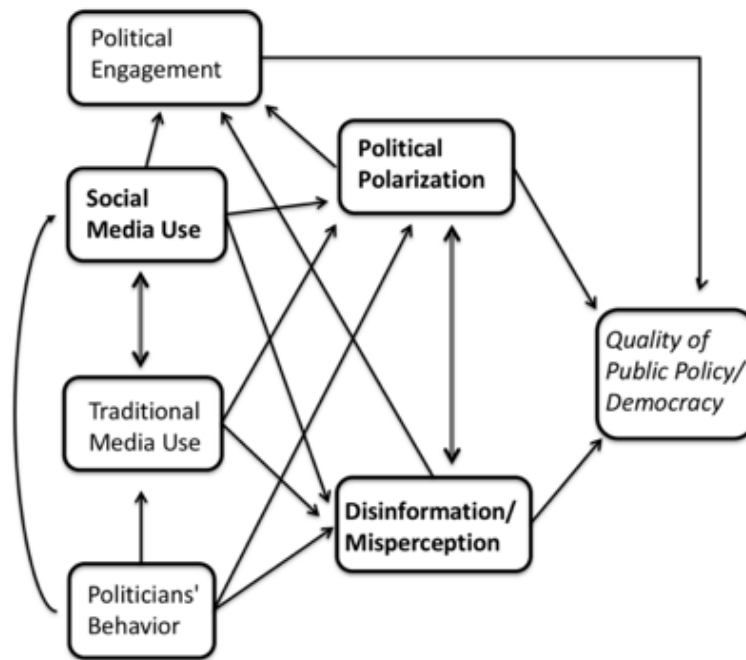


Figure 2: The chart depicting the multidirectional relationships between different factors related to digital news landscape, polarization, and disinformation. The chart is borrowed from Tucker et al (2018).¹⁴

¹² Joshua A. Tucker et al., Social Media, Political Polarization, and Political Disinformation: A Review of the Scientific Literature, Hewlett Foundation, 2018.

¹³ Ibid.

¹⁴ Ibid.

Another interesting relationship occurs between the centralization, fragmentation, and decentralization of the news landscape. In many countries, the ownership of news outlets is consolidated by a small network of big corporations. In Turkey's context, this centralization is accompanied by political and commercial relationships between those business groups and the government. On the other hand, a simultaneous dynamic occurs as alternative news sources emerge primarily within the online information environment, as a collective demand for such sources strengthens over time. Eventually, in Turkey and beyond, fragmentation of news consumption habits and polarization follows.

In Turkey, such a fragmentation tends to manifest itself in trust levels for major news media. The Reuters Institute Digital News Report in 2019 included the trust ratings for major Turkish outlets. The ratings among consistent users of any given outlet tend to be higher than the ratings among the overall population. For example, according to the report, A Haber and Sabah receive low levels of trust by the larger population of respondents, while the ratings are significantly higher among their viewers and readers.¹⁵ That difference between overall and user-originated trust levels also exist for other outlets, indicating fragmented or polarized news consumption habits largely.

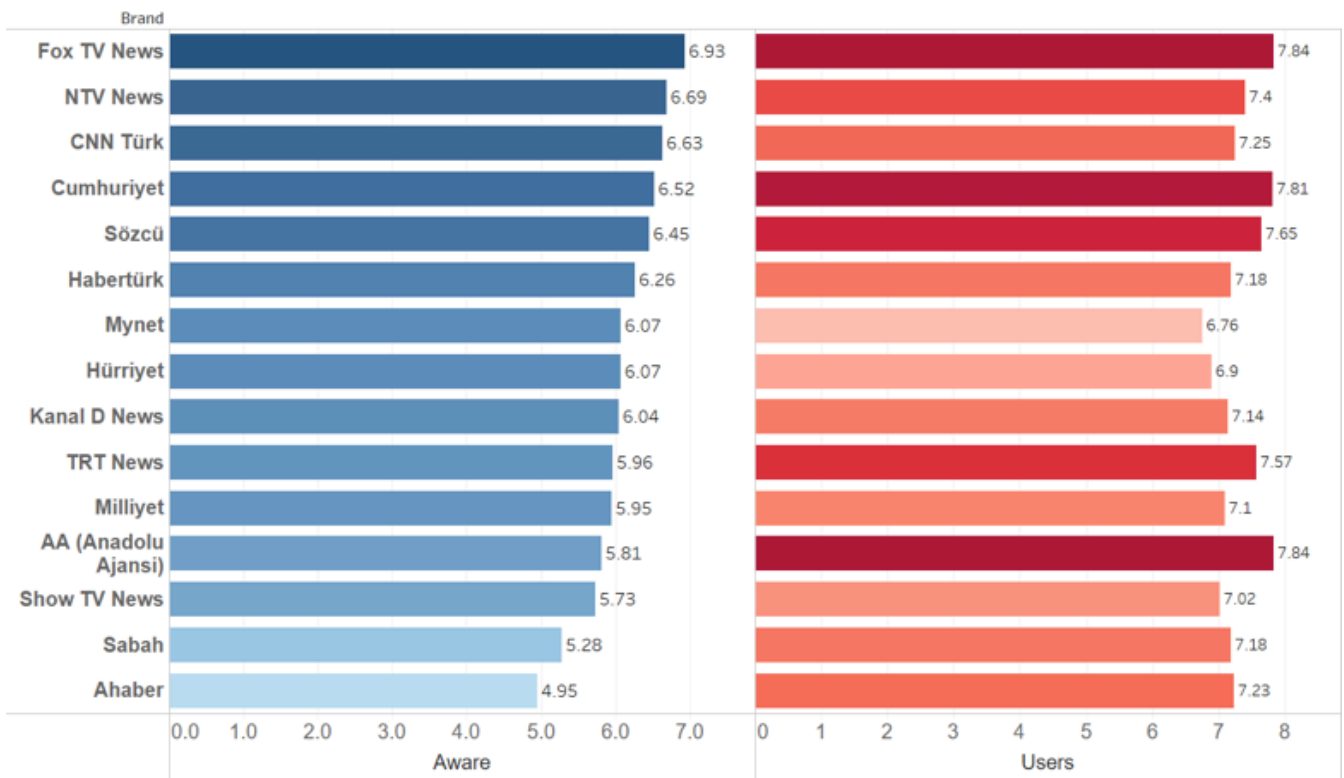


Figure 3: Trust ratings for major news sources in Turkey. The ratings differ between the larger population and regular consumers. Data were retrieved from the Reuters Institute Digital News Report (2019).¹⁶

Over time, the fragmentation of news media, blended with hyperpartisanship, trust deficits, and political polarization leads to a broader fragmentation of society in which large groups of people believe in different realities. As emotions also play a huge role in such a fragmentation, both digital news media and society as a whole suffers from a weakened

immunity against social manipulation attacks originated in domestic or foreign sources and often disseminated on social media. In Turkey, the frequency of digital news media involving, amplifying, and even creating conspiracy theories, fake news, or simple falsehoods is significantly high due to the combination of factors mentioned above.

¹⁵ Digital News Report 2019, Reuters Institute for the Study of Journalism, 2019.

¹⁶ Ibid.

Digital News Outlets in Turkey

Turkey is one of the top countries in the rankings of internet penetration and social media usage. Despite the concentration of news media sources by a few powerful groups as well as legal and political restrictions, social media is regularly used for political communication, often representing a population that is almost equally distributed into different opinion groups.

Within the last decade, Turkey has experienced many crises, conflicts, elections, and other significant domestic and foreign policy events. Turkey's political agenda will maintain its dynamic characteristics in the future. The growing use of social media as a source of news and also as a platform to conduct political communication takes place in an online ecosystem in which digital news outlets interact with followers, influencers, large groups who regularly engage with the news, political entities, and state authorities. The following sections will briefly explore how these interactions take place by identifying digital news outlets, their online presence, and how their immediate networks online evolve during key events and when the demand for news is supposedly very high.

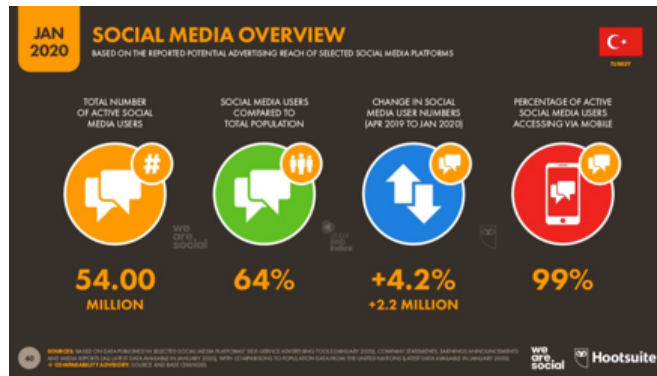
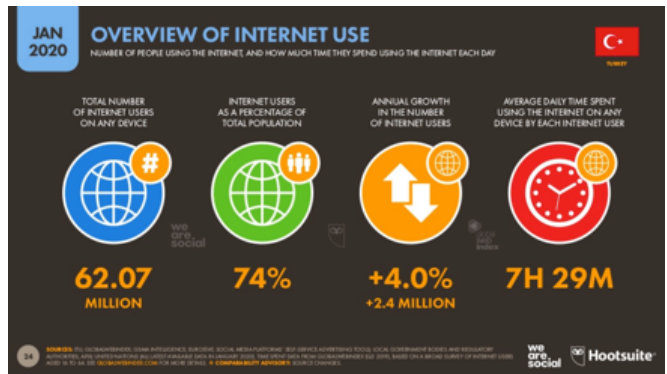
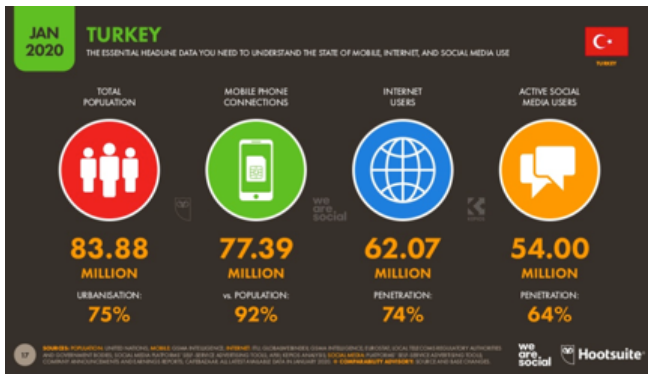
We are Social and Hootsuite annually publish a Global Digital Overview report, detailing the primary descriptive statistics about the use of the internet, social media, e-commerce

applications, and mobile devices at the global scale, supported by country-specific data and reports. The latest edition of the report, Digital 2020,¹⁷ was recently published, including a detailed presentation of Turkey-specific data aggregated from multiple sources. Accordingly, Turkey enjoys an internet penetration rate of 74 percent, which corresponds to more than 62 million people. Social media is used by 64 percent of the population, approximately 54 million people. Remarkably, Turkey recorded a 4 percent growth in internet usage within the last year, despite its high penetration rate already in place. Similarly, the growth of social media usage was 4 percent, while 99 percent of users regularly access the platforms via their mobile phones.¹⁸

The figures reported by We are Social support the notion that the Turkish population increasingly use social media and mobile phones to follow the news, digest the ongoing political conversation, and engage with the content they follow through views, shares, likes, or direct expression of opinion through multiple platforms. YouTube, Facebook, Twitter, and Instagram are major social media platforms for news consumption. Besides, the use of closed platforms and chat applications such as WhatsApp also increases during important events and crisis moments, as the recent COVID-19 pandemic becomes the latest example of such digital behavioral patterns.

¹⁷ Digital 2020 Global Digital Overview, We are Social, <https://www.slideshare.net/DataReportal/digital-2020-global-digital-overview-january-2020-v01-226017535>, Accessed on March 20, 2020.

¹⁸ Digital 2020 Turkey, We are Social, 2020, <https://www.slideshare.net/DataReportal/digital-2020-turkey-january-2020-v01>, Accessed on March 20, 2020.



Figures 4, 5, 6: Digital 2020 report by We are Social highlights the Internet and Social Media usage rates in Turkey.¹⁹

The following sections will identify the major outlets with the highest number of followers and online attraction rates, and briefly describe the overall ownership distribution across the mainstream and a few non-mainstream news media. Other sections will briefly review what has been documented by some prominent institutions in the field in recent years, including survey results and relevant ratings of the digital

news sources. After comparing those with overall social media engagement rates and top digital news outlets in the last 12 months, the rest of the paper will document two case studies we conducted for this study, how political conversation takes place during crisis events in Turkey, and whether echo-chamber formation, polarization, and a fragmented news environment are evident on social media.

¹⁹ Ibid.

Business Group	Media Outlets	Other Major Business Activities (List is not exhaustive)
Demiroren Group → Demiroren Media	<p>Print media: Hurriyet, Milliyet, Posta, Fanatik, Hurriyet Daily News, Milliyet Sanat</p> <p>TV and Radio Broadcasting: Kanal D, CNN Turk, TEVE 2, Dream TV, Dream Turk, D-Smart, Radyo D, CNN Turk Radyo, Euro D</p> <p>Digital Media: milliyet.tr, hurriyet.com.tr, posta.com.tr, fanatik.com.tr, gazetevatan.com, Big Para, Hurriyet Aile, hurriyet.de, Hurriyet TV, mahmure.com, Milliyet TV, Molatik, Pembener, Skoror, Spor Arena, Uzmanpara, Medyanet, milliyetemlak.com, digitalcasemedia.com</p> <p>News Agency: Demiroren New Agency</p>	<p>Energy,</p> <p>Industry/Manufacturing (Heavy Metal Industry)</p> <p>Real Estate and Shopping Malls,</p> <p>Tourism, Education, Port Management, Construction</p>
Dogus Group → Dogus Media Group	<p>TV and Radio Broadcasting: NTV, Star, EuroStar, NTV Radyo, KralFM, KralPop Radyo,</p> <p>Digital: PuhuTV, NTV, ntvspor.net, Kral, Pozitif,</p>	<p>Automotive, Construction, Real Estate, Port Management (GalataPort), Shopping Malls, Energy</p>
Ciner Group → Ciner Yayın Holding	<p>TV and Radio Broadcasting: HaberTurk, Bloomberg HT, Show, Show Turk, Show Max, HaberTurk Radyo, Bloomberg HT Radyo</p> <p>Digital: HaberTurk, Bloomberg HT, HT Business, HT Hayat,</p>	<p>Energy, Mining, Construction, Insurance, Port Management, Transportation, Tourism</p>
TurkMedya	<p>Print: Aksam, Gunes, Star</p> <p>TV and Radio: 24TV, TV360, TV4, Alem FM, Lig Radyo,</p> <p>Digital: Aksam, Gunes, Star, Lig Radyo, 24TV,</p>	
Kalyon Group → Turkuvaz Medya Grubu	<p>TV and Radio: ATV, A2, AHaber, AHaber Radyo, ASpor, ASpor Radyo, APara, ANews, ATVAvrupa, MinikaGo, Minika Cocuk, Radyo Turkuvaz,</p> <p>Print: Sabah, Takvim, FotoMac, Daily Sabah, Yeni Asir, Fikriyat, Sabah Avrupa, Sabah USA, Abone Turkuvaz</p> <p>Digital: Sabah, Takvim, ATV, AHaber, Turkuvaz Radyolar</p>	<p>Construction, Investment, Real Estate, Energy, Retail</p>
Albayrak Group	<p>Print: Yeni Safak,</p> <p>TV: TVNET</p> <p>Digital: Yeni Safak, TVNET,</p>	<p>Construction, Defense, Tractors and Engines, Casting, Paper production, Textile, On-vehicle Equipment, Sugar production, Transportation, Waste Management, Port Management, Media Distribution, Advertising</p>
Ihlas Holding → Ihlas Media Holding	<p>Print: Turkiye</p> <p>TV and Radio: TGRT, TGRT FM, TGRT Belgesel,</p> <p>News Agency: Ihlas Haber Ajansi (IHA)</p>	<p>Construction, Real Estate, Manufacturing, Retail, Health, Education</p>
Hayat Gorsel Yayıncılık	<p>TV and Radio: Kanal 7, Radyo7, Ulke TV, Kanal 7 Avrupa,</p> <p>Digital: haber7.com, izle7.com</p>	
Estetik Yayıncılık	<p>Print: Sozcu</p> <p>Digital: sozcu.com.tr, korkusuz.com.tr,</p>	
Cumhuriyet Vakfi (Foundation) → Yeniğün Haber Ajansı Basın ve Yayıncılık	<p>Print: Cumhuriyet</p> <p>Digital: cumhuriyet.com.tr</p>	
Yenicag Gazetecilik ve Matbaacılık	<p>Print: Yenicag Gazetesi</p> <p>Digital: yenicaggazetesi.com.tr</p>	

Table 1: Ownership of major news outlets in Turkey, and other sectors large media corporations operate in. Data: Websites of corporations, business groups, and media outlets. Data was also cross-checked with Media Ownership Monitor Turkey Report, produced and published by Reporters without Borders.

Within the last two decades, the ownership of the mainstream media outlets in Turkey has become highly concentrated in a network of large business groups. Turkey’s largest media corporations are part of conglomerates that are highly active in other critical sectors and they regularly participate in government-led development projects. Almost all of these news media organizations also operate several digital outlets. They receive high engagement rates on social media, adding to high levels of daily website traffic. On the other hand, among the most engaged and read digital news sources are also relatively smaller outlets. As our case studies in the following sections also highlight, such news sources include Sozcu, Yenicag Gazetesi, Birgun, Gazeteduvar.com.tr, tele1.com.tr, T24, and ensonhaber.com. A significant number of such outlets attract readers and followers from audiences that often express criticism towards government policies.

The number of foreign news media outlets, including websites, radio stations, and their accompanying presence on social media has also increased in recent years.²⁰ Deutsche Welle Turkish joined BBC Turkish and Euronews Turkish as a European outlet operating in the Turkish information environment. Sputnik Turkish attracts readership

and social media followers from different sides of Turkey’s political spectrum, and it is often very active in terms of content production and social media engagement metrics during key events and crises. Sputnik Turkish is known to receive a significant number of followers to its coverage of international affairs and security issues, including NATO-related news, defense deals, and the ongoing war in Syria in particular. Other outlets include Independent Turkish²¹ (run by Saudi Research and Marketing Group (SRMG)), Chinese outlet CRI Turk, and Haber Global which is operated by Azerbaijani Global Media Group.

The number of alternative news sources increased in recent years. Alternative outlets use a diverse set of revenue generation methods to sustain their operations, ranging from direct to advertisements, use of major online ad services, accepting donations, sponsorships, and international grants. Some of the alternative outlets built loyal communities of viewers and followers on social media platforms and their websites. The following table was retrieved from a recent academic study (Karlidag and Bulut 2019) that surveyed alternative revenue generation mechanisms adopted by Turkish digital news outlets.

Source of Revenue	Description
Advertisement	<i>“Direct-serving ads and Google etc. private ads served through intermediaries”</i>
Donations	<i>“Users can donate”</i>
External Funds / Project Grants	<i>“Funds and projects provided by the EU and nongovernmental organizations”</i>
Paid Archive and Content Subscription	<i>“Archive access for subscribers”</i>
Official Ads	<i>“Official advertisements revenue achieved from the state institutions”</i>
Party or NGO Organ	<i>“Directly linked to a political party or civil society organization”</i>
Sponsorship	<i>“Those who accept sponsorship support”</i>

Table 2: Primary revenue generation methods used by alternative digital news media in Turkey.²²

²⁰ <https://www.middleeasteye.net/news/turkeys-media-landscape-shaken-major-foreign-players>

²¹ Access to Independent Turkish edition was recently suspended by government decision as a retaliation against Saudi Arabia banning access to Turkish Anadolu Agency

²² Serpil Karlidag, Selda Bulut, New Media Income Sources and Digital Media in Turkey: Business Models, Issues and Suggestions, Erciyes İletişim Dergisi, Volume: 6 No. 1, 2019.

Reuters Institute for the Study of Journalism publishes detailed annual reports about the digital news trends, both at global and country-specific levels. The Digital News Report 2019 edition includes the results of an online survey conducted by YouGov, measuring the popularity and trust ratings of TV, radio, print, and online news sources. The charts below highlight two metrics, comparing the use of news sources within the last week and the last three days

by the respondents of the survey. As the figures show, Fox TV news segments, popular among the critics of the government, continue to be the most viewed among **TV, radio, and print** sources. The majority of outlets in the top list belong to the largest media groups.²³ On the other hand, Fox TV news segments, Sozcu, and Cumhuriyet are mostly associated with the opposition within the Turkish political spectrum. TRT is a public broadcaster.

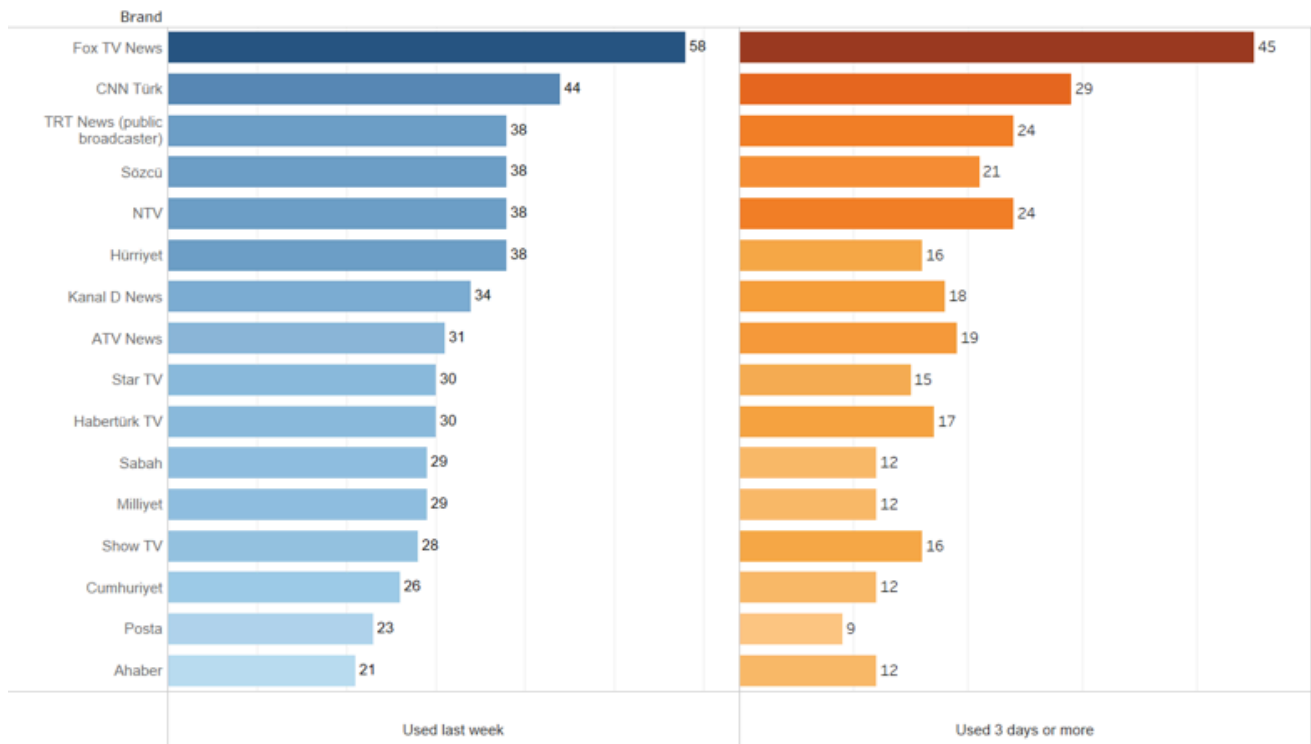


Figure 7: The chart highlights the popular TV, Radio, and print brands in Turkey, as shown by the results of an online survey conducted by YouGov in 2019. Data were retrieved from the Reuters Institute Digital News Report.

²³ Digital News Report, Reuters Institute for the Study of Journalism, 2019, <http://www.digitalnewsreport.org/survey/2019/turkey-2019/>, Accessed on March 10, 2020.

²⁴ Ibid.

According to the Reuters Institute’s report, among top online news sources, Sozcu and Cumhuriyet are the only opposition outlets, while once again most of the digital sources with high ratings belong to large media groups or openly lean

towards pro-government publication strategies. The report claims that although several alternative platforms and news outlets have emerged online, their reach remains limited.²⁴

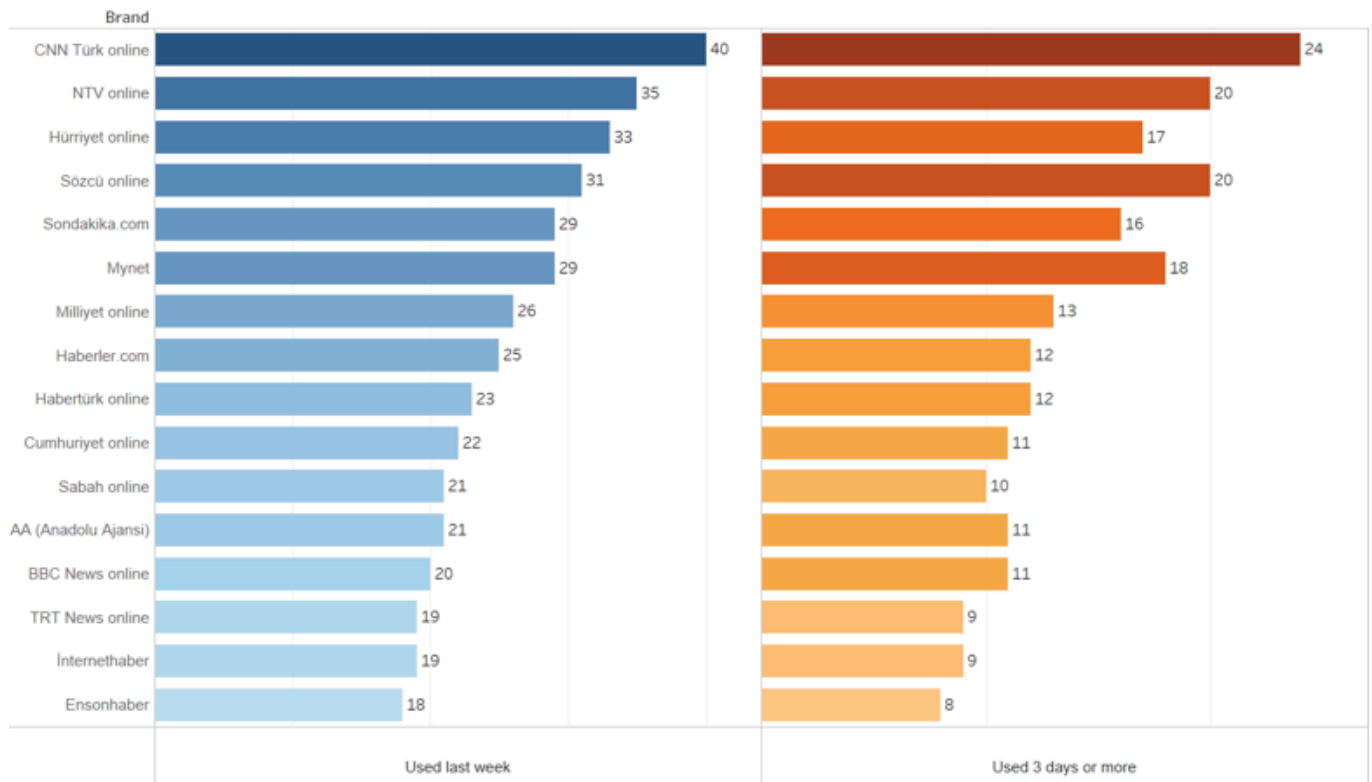


Figure 8: The popularity of online news outlets in Turkey, according to a YouGov survey highlighted by the Reuters Institute Digital News Report in 2019.²⁵

As this paper documents in the following sections, the patterns presented by the Reuters Institute’s report seem to be altered during major political events and crisis moments, at least on social media. Although we limit our measurements to social media and the conversation on Twitter, overall engagement and influence analyses indicate a more fragmented picture in terms of how much and how widely news sources’ content is shared and endorsed, depending on the context and characteristics of the political subject that is debated.

Data also suggests that there are inconsistencies between the highest web traffic rates and engagement levels of digital news sources in Turkey. We assume several reasons for the differences in the metrics. Digital news sources publish different types of content to boost their traffic rates,

and the popularity of content categories differ across the entire list of digital news outlets. This is especially true when the traffic data consists of overall website visits regardless of the significance and the particularities of the content viewed. Therefore, basic traffic rates do not usually offer any valuable insight into which news sources are most popular, followed, endorsed, or promoted during the political or social debates with high levels of significance. That being said, to explore the overall website traffic rates as well as their engagement ratings on social media we retrieved the relevant data from three different commercial sources. We used Amazon’s Alexa²⁶ platform and SimilarWeb²⁷ tool to retrieve the list of news media sites with the highest web traffic numbers. We then used BuzzSumo, a commercial service provider for digital research and content generation, to retrieve the most active digital news media sources that also attract high

²⁵ Ibid.

²⁶ Alexa.com.

²⁷ Similarweb.com.

levels of social media engagement. BuzzSumo²⁸ calculates the engagement rates by aggregating “the likes, comments, and shares attributed to an article”.²⁹

Metric	
ensonhaber.com	5
hurriyet.com.tr	6
milliyet.com.tr	12
sozcu.com.tr	13
aksam.com.tr	14
yeniakit.com.tr	16
yenisafak.com	23
sabah.com.tr	25
haberturk.com	26
tele1.com.tr	29
haber7.com	36
haberler.com	40
ntv.com.tr	43
cnnturk.com	50
milligazete.com.tr	63
karar.com	68
aa.com.tr	73
ahaber.com.tr	84
sondakika.com	85
haberglobal.com.tr	87
takvim.com.tr	91
timeturk.com	106
sputniknews.com	111
internethaber.com	119
t24.com.tr	143

Table 3: Top website traffic ratings of Turkish news outlets as retrieved from Alexa. The numbers show the website’s overall rank among most visited websites in Turkey.

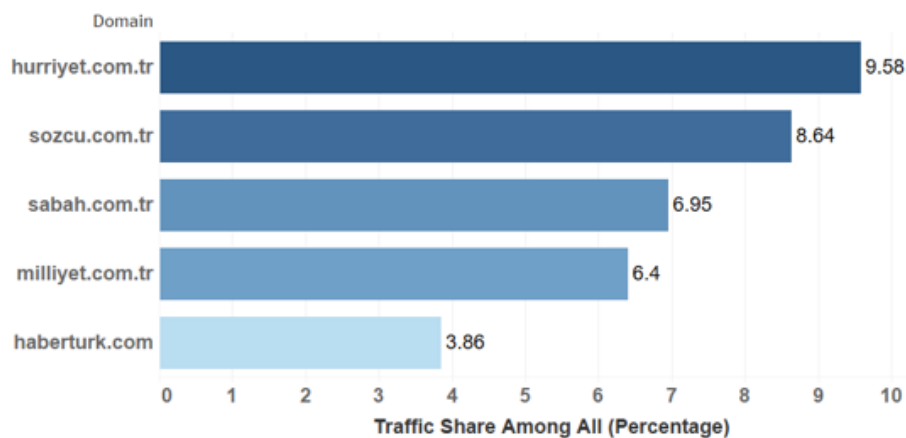


Figure 9: Top 5 digital news media outlets in Turkey in terms of their traffic share, as retrieved from the SimilarWeb platform.

²⁸ Buzzsumo.com

²⁹ BuzzSumo, What is a Facebook Engagement, 2020, <https://help.buzzsumo.com/en/articles/1964658-what-is-a-facebook-engagement>, and BuzzSumo, “What is a share?”, 2020, <https://help.buzzsumo.com/en/articles/1964656-what-is-a-share>, Accessed on April 15, 2020.

Despite some differences, the top list of most visited news websites has some commonalities. The top five list retrieved from SimilarWeb is also visible in the list provided by Alexa, though with slightly different rankings. However, adopting a more focused approach and taking engagement rates into account, the popularity ratings may differ significantly from the overall web traffic rankings. Data combining the number of news articles published online and overall engagement rates offer a better insight into which digital news content, which topics, and what events attract more engagement (views, likes, comments, shares) on social media. Therefore, we added the overall number of articles from an extensive

list of news sites to our analysis, using BuzzSumo search tool. As the following figure shows, engagement rates for Turkish digital news pieces peak at certain times. A closer look reveals that high significance political events and crises affect the engagement rates significantly. In addition, data clearly shows the impact of the COVID-19 pandemic on the Turkish digital news environment, as the numbers increase starting from March 2020. Other important events with higher article and engagement numbers include Turkey's involvement in the Syrian conflict, natural disasters, and election campaigns.

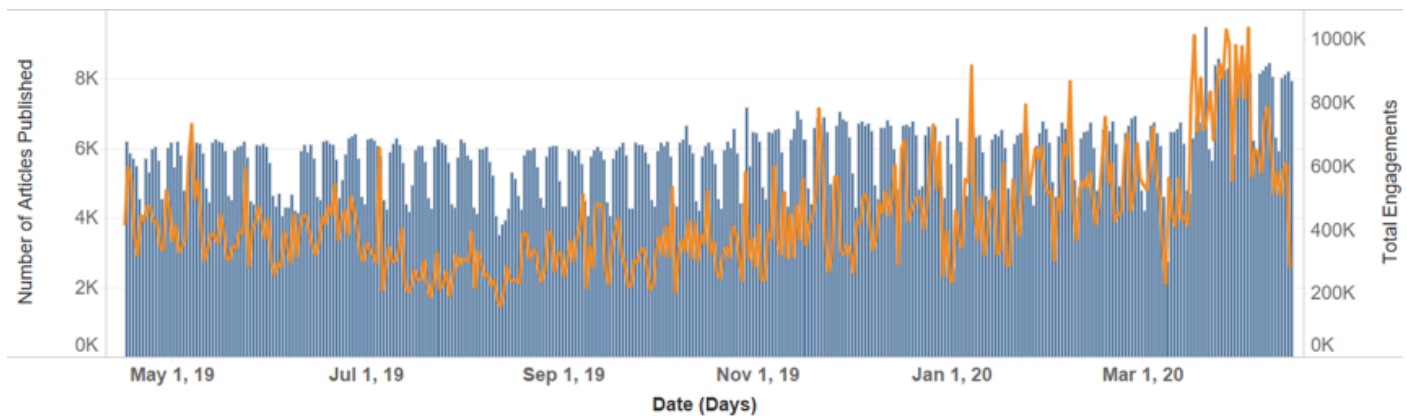


Figure 10: The daily number of articles published by Turkish digital news outlets and daily social media engagement rates within the last year. Blue bars represent the daily article numbers, while the orange line represents the engagement rates on social media. Data for this chart were retrieved from BuzzSumo.

Interestingly enough, the rankings of the most engaged digital news sources differ from what the web traffic data indicated above. Accordingly, from April 2019 to April 2020, the most engaged outlets are depicted by the following figure. The content by Sozcu attracted most of the comments, likes, shares, and views on Facebook and Twitter, followed by another opposition outlet, Birgun. One of the most significant metrics in the given ranking belongs to Sputnik's Turkish service, as it produced the third most

engaged set of news content within the given timeframe. Events in Syria, Turkey-Russia relations, defense deals, NATO-related events are commonly known topics of the content by Sputnik. In addition, it is also known as one of the few outlets that attract readership from both sides of the political spectrum in Turkey. Except for TRT Haber and memurlar.net, most of the outlets in the list are critical towards the government policies.³⁰

³⁰ To note, for both web traffic ratings and engagement rates, authenticity of the metrics would be subject to further analyses, as fake traffic and social media engagement are known to be generated by online information actors across the internet and with different motivations.

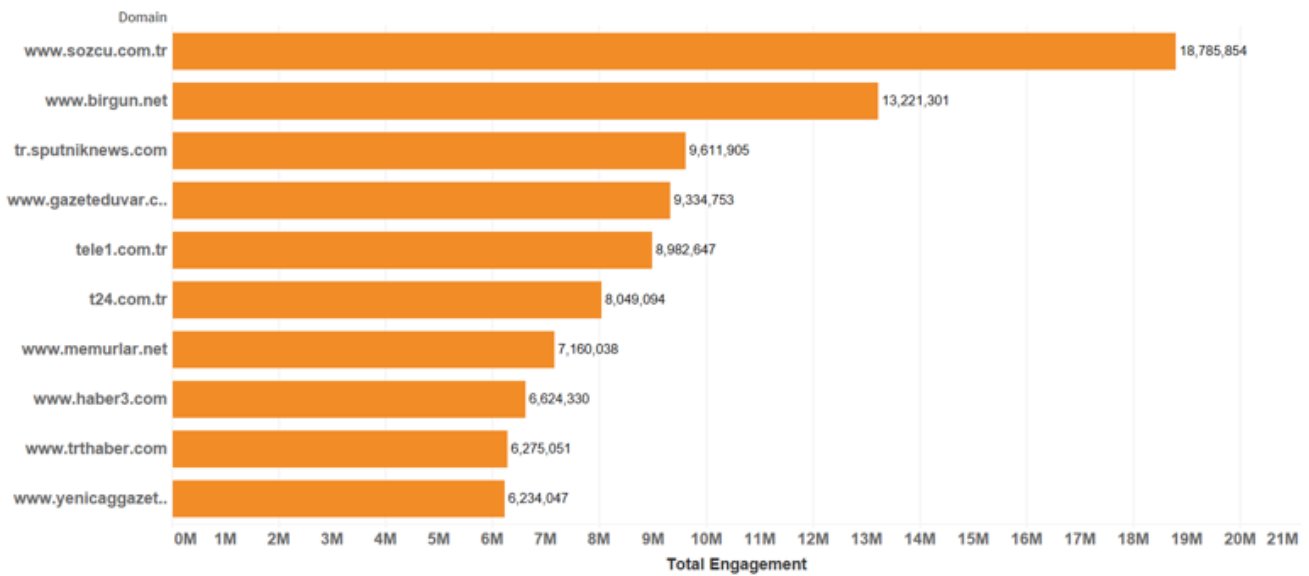


Figure 11: Turkish digital news outlets with the highest social media engagement rates between April 2019 and April 2020. Data were retrieved from BuzzSumo.

To this point, this paper presented descriptive information about the structure, popularity, and engagement levels of the actors in the Turkish digital news landscape. The online information environment is a complex and dynamic structure, especially at times of important political events,

debates, conflicts, and crises that directly impact the quality and trajectory of political systems. Therefore, the following sections will further the analysis by looking into two such cases, and how Turkey’s digital news outlets are positioned in online social networks.

Political Debates, Polarization, and (Almost Perfect) Echo-Chambers: Turkey’s Digital News Outlets on Social Media

Turkey’s political agenda and news coverage are frequently set by ongoing domestic political transformations, foreign policy crises, its involvement in regional conflicts, and a continual referenda-like characteristic of opinion dynamics. Therefore, Turkey’s political conversation and news coverage are often overwhelmed with partisanship and polarization. This section presents the analysis of online political conversations and digital news outlets during two recent events that led to high levels of news production and social media engagement. The first case is Turkey’s military incursion in Idlib, Syria, and the events following the airstrike on February 27, 2020, that caused 34 Turkish casualties. The second case study is the COVID-19 pandemic and the political conversation around the actions taken by the Turkish government.

For both cases, we have collected a large amount of data from Twitter and used a set of computational methods to uncover the relationships and conversational networks

during the events. To repeat, the primary questions include whether polarization and echo-chambers are evident during the highly significant events on social media and whether Turkish digital news outlets can achieve high influence and betweenness scores, attracting engagement from different sides of the accompanying political debates. This analysis focuses on target audiences, whether or how they overlap, and whether other features are revealed as a result of their behavior. The following list briefly describes the methods and data that was used. Subsequent parts of our methodology will be described as we further present the analysis.

Methods and Data:

- This analysis uses two primary data sources. For the retrieval of issue-specific article numbers and engagement levels within the given timeframes, BuzzSumo search and analysis functions were utilized.
- For the rest of the analysis, we used Twitter data.

During the course of events, we collected slightly more than 30 million tweets by using Twitter API (Application Programming Interface).

- To answer the questions outlined above, we applied several social network analysis and text analytics methods to the Twitter data we collected, in addition to other exploratory toolkits we employed during the study. In particular, to analyze and visualize the overall

conversational network, we adopted a slightly modified version of what is known as “co-citation network analysis”.³¹

- To analyze the unstructured text data, we added descriptive topic modeling and Latent Dirichlet Allocation techniques that have been used in relevant fields and applications.

³⁰ For a brief description: <https://en.wikipedia.org/wiki/Co-citation>.

CASE STUDY 1:

Attack on Turkish Troops in Idlib, Syria, Turkey's Military Operation, and International Talks Context

On February 27, 2020, an airstrike targeted Turkish troops operating in Syria's northwestern province Idlib, causing 34 casualties. Turkish Armed Forces have been active in the area to counter the ongoing movements of the forces loyal to the Syrian regime, partially to prevent another big refugee movement from the region into its territory. Over a million Syrian refugees had been displaced near the Turkish-Syrian border since December 2019, when the regime forces concentrated their attacks on the province and civilian areas. Military movements of the Syrian regime forces were also supported by the Russian military.

The attack caused a peak in the tensions and was followed by an intensification of the Turkish military campaign. On March 5, Turkey's President Erdogan and the Turkish delegation met their Russian counterparts in Moscow. As a result of the talks, Ankara and Moscow agreed to a ceasefire and conducting joint patrols in defined areas, aiming at easing the tensions. During the given timeframe, Turkey also had talks with other international actors, including the United States, European Union, and other members of the NATO alliance. One of the most important developments during the course of events was Turkey's decision to open its western borders for refugees to cross to Europe, expressing the dissatisfaction with its allies in the West, and a continual burden caused by the refugee problem.

Turkish digital news outlets overwhelmingly focused on the

crisis for a few weeks following the attack. The initial shock and mourning were quickly replaced by domestic political skirmishes mostly revolving around Turkey's Syria policy, the military strategy, and President Erdogan's statements.

This section first uses the retrieved data from BuzzSumo to explore the news production and overall engagement rates. Furthermore, a dataset of around 10 million tweets is used for the analysis of online social networks.

Turkey's involvement in the Syrian conflict and subsequent military operations, its roles in NATO, relations with Russia, and the S-400 air and missile defense systems deal have long been important topics attracting high levels of news coverage and engagement online. The following figure shows the numbers of relevant articles and their engagement rates between April 2019 and April 2020. To retrieve the data, we used an extensive list of active digital news domains to limit the number of articles to relevant news sources and to avoid more generic sources such as youtube.com. As the chart shows, the Turkish digital news environment increased its focus on the mentioned subjects periodically, mostly depending on the high importance events. In particular, the arrival of S-400 systems in the summer of 2019, Turkey's military operation in northeastern Syria, and the recent crisis in Idlib caused the largest number of article production and social media engagement.

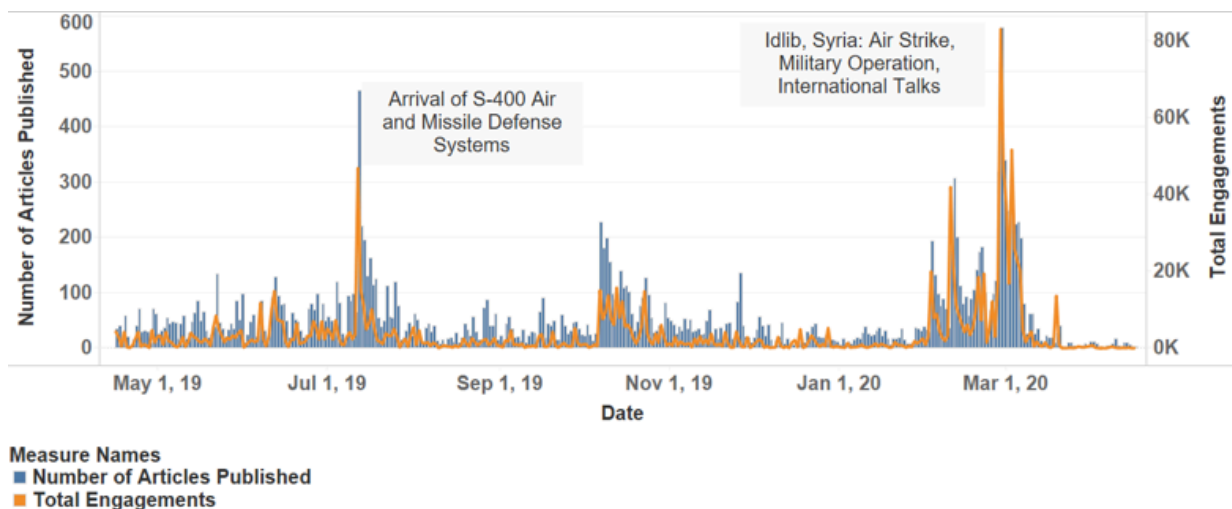


Figure 12: Daily article numbers and social media engagement regarding Turkey's involvement in Syria, relations with Russia, and its place in NATO. Blue bars represent the article numbers, while the orange line shows the engagement rates. Data were retrieved from BuzzSumo.

The next chart limits the data to the timeframe between February and April. The highest number of articles were produced on February 28, the next day of the attack on Turkish troops. The news production regarding the crisis remained somewhat high during the first week of March

before decreasing in the following days. Turkey's domestic news cycle mostly focused on the COVID-19 pandemic and its spread in Turkey after March 11. As the chart also shows, the coverage of and attention to Syria-related news remained very low for the rest of the month.

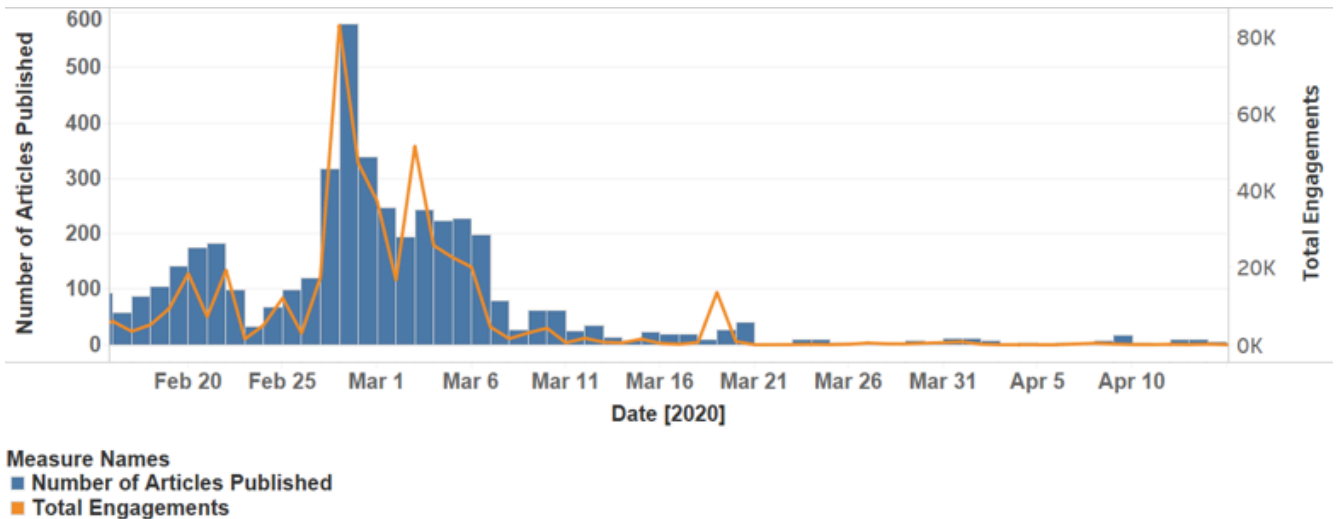


Figure 13: Daily article numbers and social media engagement regarding Syria, Russia, NATO, and Turkey between February and April 2020. Data were retrieved from BuzzSumo.

Finally, the next figure shows the top 10 digital news domains with the highest engagement rates on social media, starting from February 27, the day of the airstrike. Yeni Safak received most of the engagements, while Sputnik Turkish was second on the ranking. Two of the top three outlets in terms of total engagement number on Facebook and Twitter are foreign outlets, as BBC Turkish service received the third-largest

number of engagements. HalkTV, Sozcu, and Tele1 are the outlets associated with domestic political opposition, while Yeni Safak and Star usually receive viewership from conservative and nationalist segments of the Turkish society. The following sections will explore whether the given engagement numbers are supported by the network measures and key actors analysis.

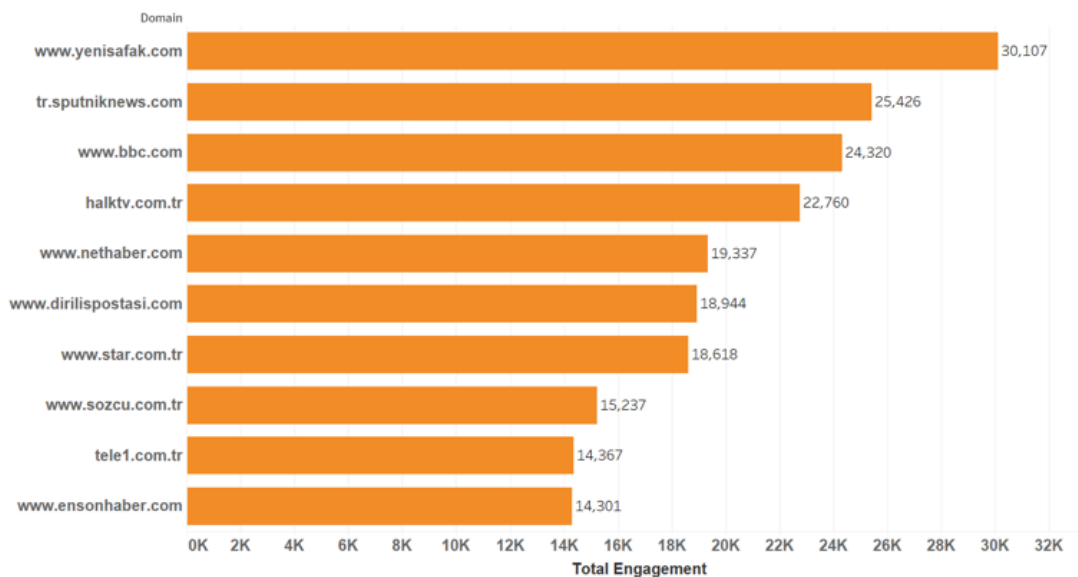


Figure 14: The digital news outlets with the highest engagement rates for their coverage of the crisis between February 27 and March 11. Data were retrieved from BuzzSumo.

Analysis of Twitter Data

A Technical Note on the Methods Used: Social Network Analysis and Co-Retweeted Networks:

Network analysis has long been used to discover latent and complex relationships in both natural and social sciences. Social network analysis employs statistics, mathematical models, and computational methods to understand social networks, in which actors are represented as nodes and the relationships between them are represented as the links. With the rise of social computing and computational sciences within the last decade, the interdisciplinary field of social network analysis has grown at significant levels. Combined with the rich social media data and other methodological toolkits such as natural language processing and machine learning, social network analysis improves the understanding of complex political, social, and informational relationships in the systems that include many actors.

In this study, we use basic network measures such as the Eigenvector Centrality, Betweenness Centrality, Modularity,

and Key Actors analysis. Centrality measures are used to measure how influential or important the actors are in terms of the information flow in a given network. Modularity is used to detect distinct communities, while **Key Actors** analysis combines these techniques to identify the most influential actors overall.

A co-retweeted network consists of Twitter accounts that are tweeted by common users. In our case, for example, if both BBC Turkish and Hurriyet are retweeted by the same account, we may assume a relationship between those, as they are endorsed by a common audience. For clarity, we assume that if two accounts are co-retweeted by at least 50 different users, they are connected.

The co-retweeted network analysis provides a clearer picture of overall relationships, as the commonality and connections of audience-led endorsements are key to visualize polarization and to locate digital news outlets within the overall environment.³²

Twitter Conversations Between February 27 and March 11

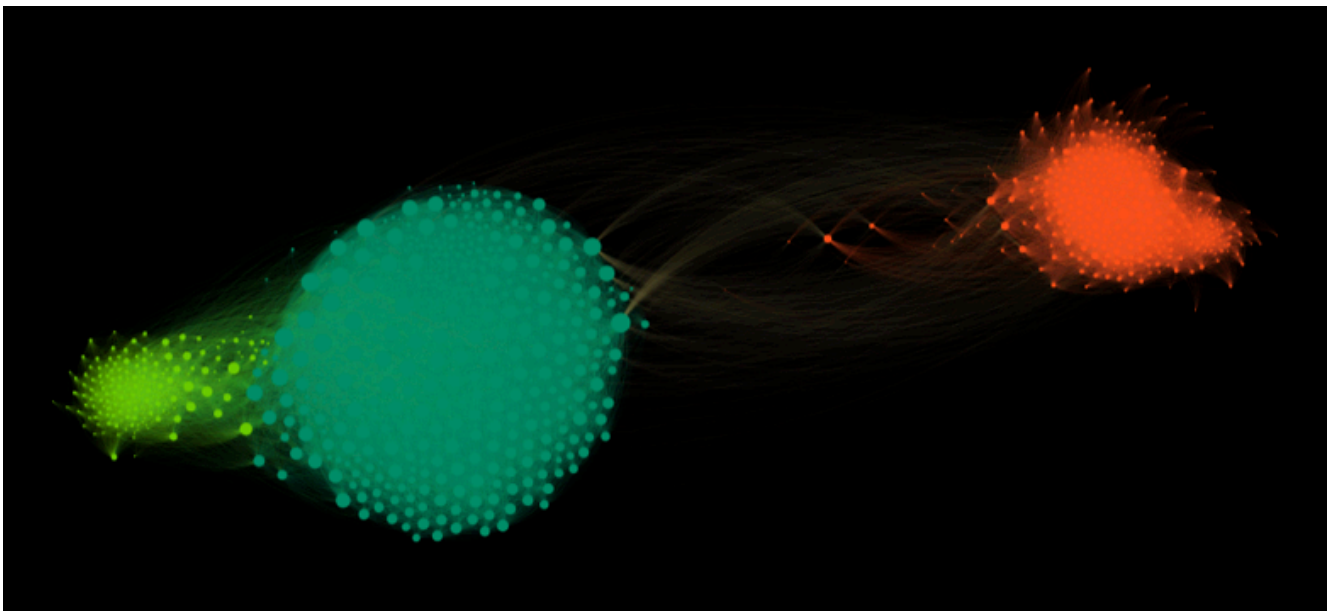


Figure 15: The Co-Retweeted Network that relates to the crisis between February 27 and March 11. Circles represent Twitter users, while lines show the connections between them. A connection exists between two users if they are co-retweeted by a common user at least 50 times (50 different users). Colors represent different clusters/communities in the network, as they are densely connected within and loosely connected to other communities.³³

³² Samantha Finn, Eni Mustafaraj, and Panagiotis T. Metaxas, The Co-Retweeted Network and its Applications for Measuring the Perceived Political Polarization, 2014.

³³ The network was generated by extracting the most retweeted 10,000 accounts.

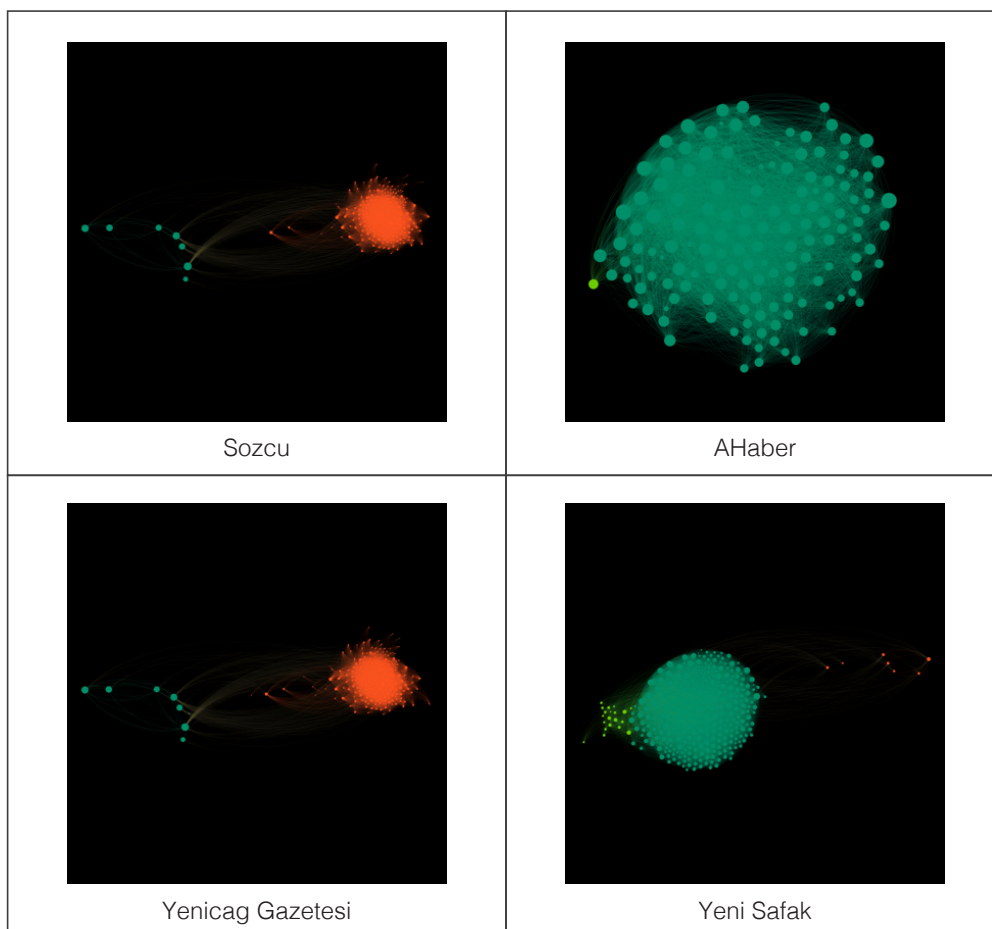
The network visualization above clearly shows the polarization during the given timeframe and relevant Twitter conversation about the ongoing crisis. The green nodes and their extremely dense cluster consist of users endorsing the government's Syria policy, talking about the ongoing military operation in a supportive fashion towards Turkish troops, and expressing criticism towards the opposition parties. On the contrary, the orange cluster, which is also very dense, consists of opposition figures, outlets, influencers, and other users who are very critical of the Syria policy. As the following analysis also shows, they also blame the government for incompetence.

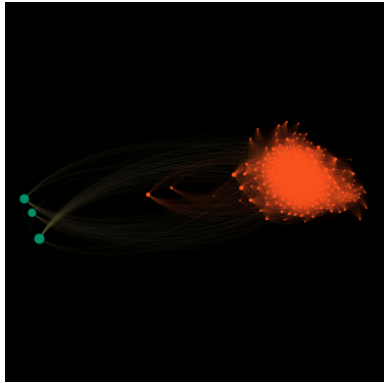
The graph depicts a striking picture of the polarization in Turkish online political conversations and the formation of echo-chambers. As a co-retweeted network, the clusters in the graph are followed and endorsed by mostly distinct

audiences, unwilling to receive alternative information or to engage in a mutual conversation with the other side of the spectrum. The graph also indicates the existence of distinct agendas in both of the clusters.

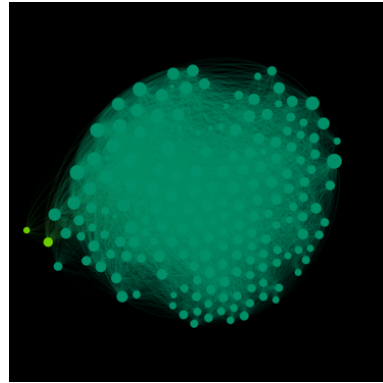
In the next step, this section explores where digital news outlets are actually located. Were Turkey's digital news outlets able to be followed or endorsed by different communities? Or are they part of certain clusters with no connections to the audience of the opposing side?

The following set of charts shows the "ego-networks" of selected popular digital news outlets (their official Twitter accounts). The ego-network extracts the immediate neighbors and neighbors of neighbors for a certain user, resulting in a clear representation of their audience in the context of this study.

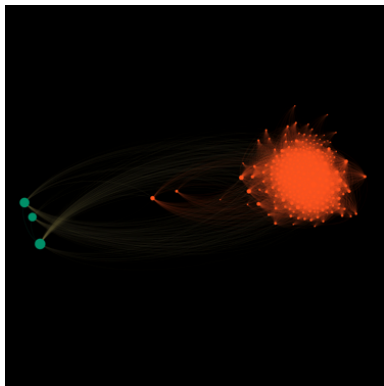




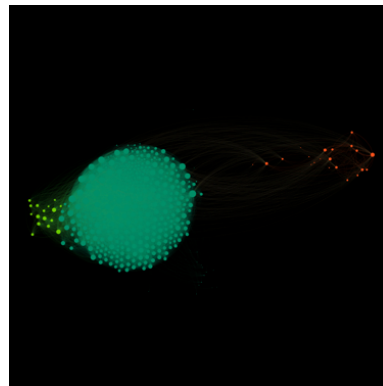
Birgun Gazetesi



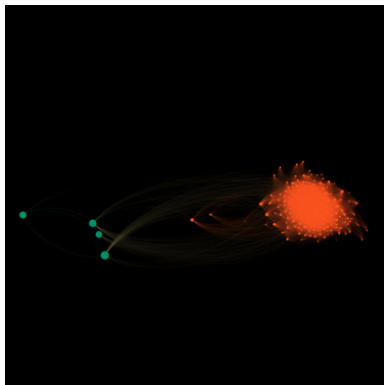
Sabah



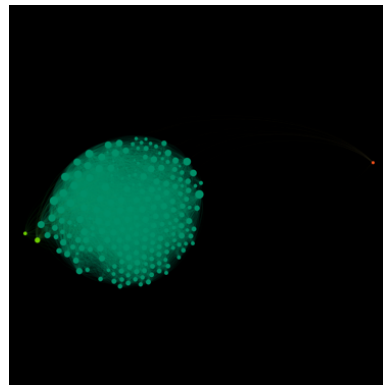
Tele1.com.tr



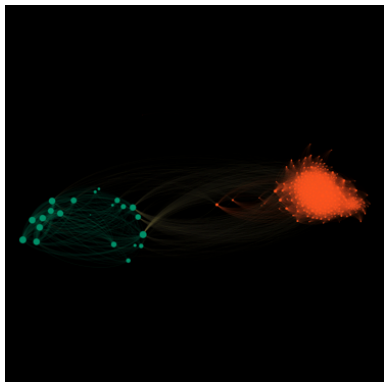
Anadolu Agency



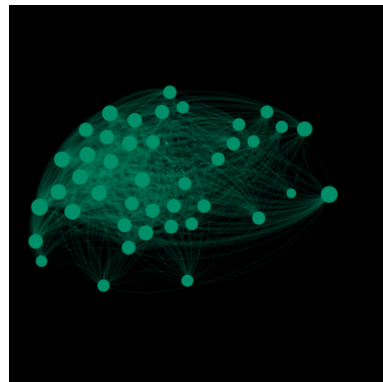
T24.com.tr



TRT Haber



Euronews Turkish



CNN Turk

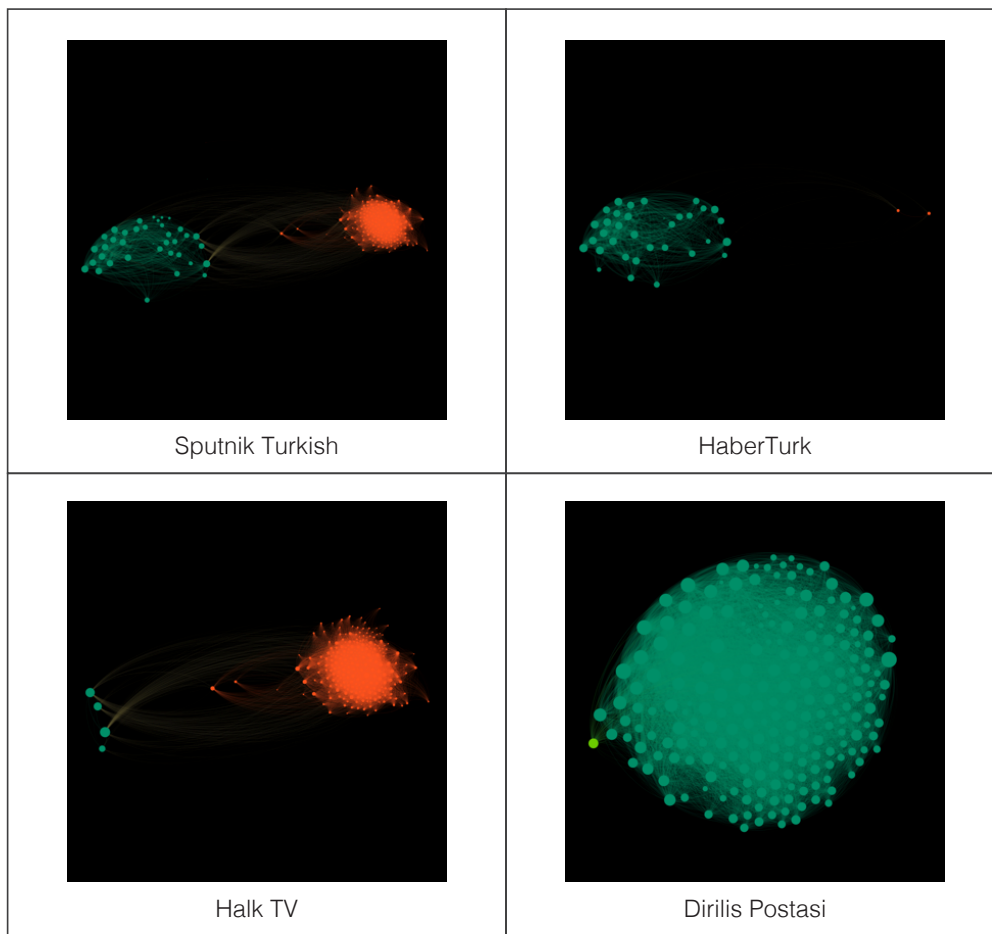


Figure 16: The Ego-Networks of Turkish digital news outlets within the overall network. The visuals show whether official Twitter accounts of the given outlets were co-retweeted with other users in the network, and their respective communities.

As the networks depicted above show, most of the major digital news outlets remain in their respective clusters/echo-chambers to different extents. Almost all of the pro-government sources had either zero or very low levels of reach to the users from the opposing cluster. Although to a more limited extent, the same was true for outlets followed by the opposition audiences. Semi-official Anadolu Agency had more connections with the opposition cluster. Remarkably, Euronews Turkish and Sputnik Turkish achieved most of the inter-community reach in the network, as two major foreign news outlets operating in a Turkish news environment.

The results of the network analysis above indicate significant challenges for the Turkish news media and policymakers. During a key national security crisis and military incursion into foreign territory, and when the stakes are too high at a national scale, Turkey's online information environment consists of a few big and highly polarized communities. Such a polarization leads to further vulnerabilities to manipulative and hostile information operations. Sputnik's reach to large audiences during the overall Twitter chatter, when Turkey's

national interests and the safety of its troops are challenged by Russian forces on the ground, should be noted as an important event by Turkish authorities. That being said, the overall polarization and trust deficits between the polarized clusters provide a unique opportunity for any outlet that has the longstanding experience of state-led information operations in foreign environments. Therefore, this paper suggests that domestic partisanship, which includes most of the Turkish digital news media, can become a major national security threat given the frequency of such events in Turkey's imminent neighborhood. Turkey needs a sound strategy to ease the extreme polarization.

The following chart depicts the importance of Turkish digital news outlets within the Twitter network this paper analyzed. The left side (y-axis) of the chart shows the Eigenvector centrality measure, with a basic description, calculating the importance of any actor in terms of how many other important actors it connects to. The other axis shows another measure that calculates the betweenness of the actors, that is, how important a certain actor is in terms of the flow of information

within the network and actors who are not directly connected. Therefore, the actors which are placed to the right are more influential in terms of intercommunity and intracommunity connections. The actors closer to the top, on the other hand, are the most endorsed users.

Key actors analysis once again shows Euronews Turkish and Sputnik Turkish with high betweenness centrality points. Anadolu agency is particularly influential in both measures. This is probably due to frequent coverage of the conflict events on the ground and international talks.

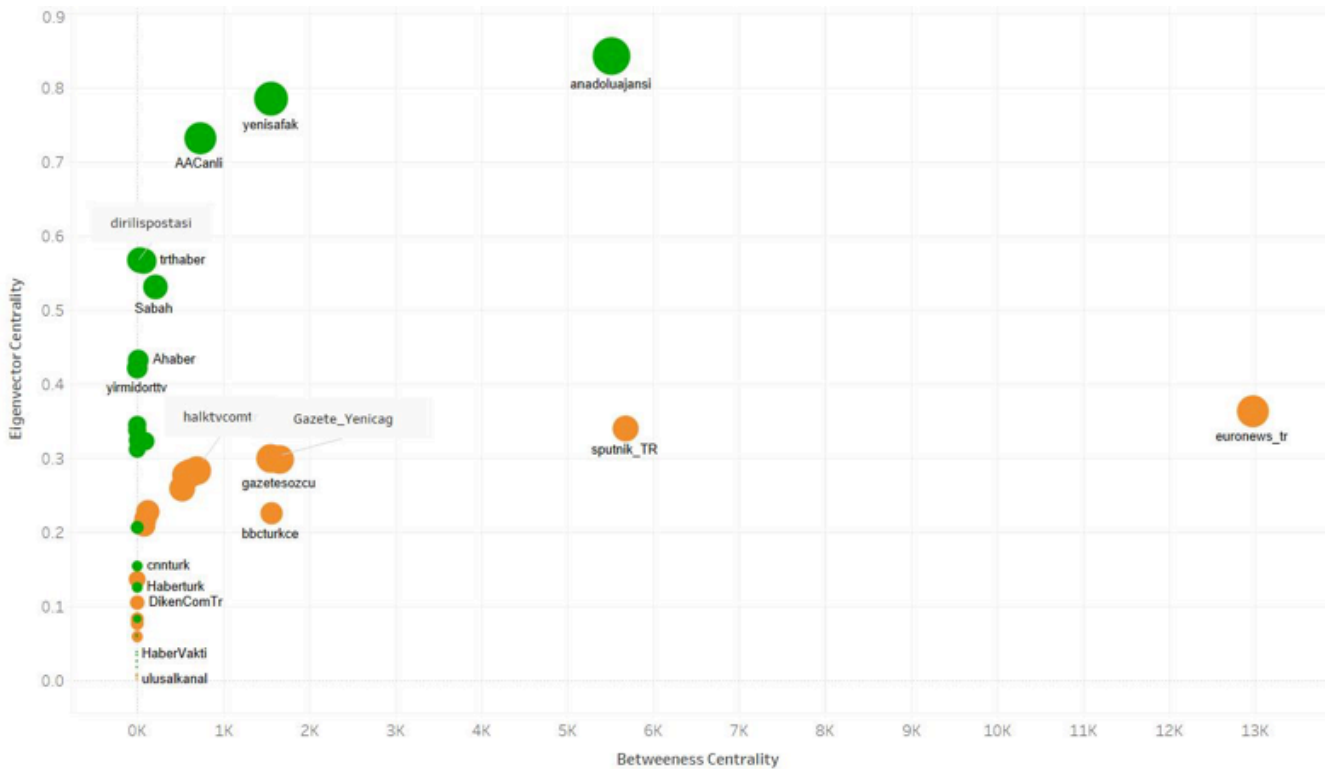


Figure 17: Key Actors Analysis of the news outlets' Twitter accounts. The circles show each official news outlet account. The colors show their respective clusters (supportive of the government, opposition), the size of the circles represent their Eigenvector centrality as also shown by their location from bottom to top. The accounts to the right are more central in terms of their betweenness (importance for the information flow between different communities or disconnected nodes)

To better understand and analyze the issue salience, most endorsed topics, and the overall categorization of content within the respective clusters, this paper applies a few exploratory methods for text analytics. First, the correlations between the most retweeted hashtags are explored to see which issues are prioritized by the communities. Second, topic modeling methods are used to analyze whether two polarized camps talked about distinct or similar topics during the crisis.

Within the pro-government cluster, one of the most distinctive groups of highly correlated hashtags is

posted in English. A large number of hashtags, such as #aleppo, #Syria, #HTS, #SMO (Syrian National Army), #Seraqip, and #OperationSpringsShield is correlated and retweeted frequently. This indicates that Twitter accounts that followed and retweeted the news outlets in the first cluster (green, supportive of the government) joined the international conversation regarding the events on the battlefield. Other distinctive sets of hashtags mostly express support for the government figures and the military. Hashtags such as #OrduMilletOmuzOmuz, #Bismillah, #WeAreAllTurkishSoldiers, #mehmetciginyanindayiz, #TurkeyisnotAlone also have a nationalistic tone.

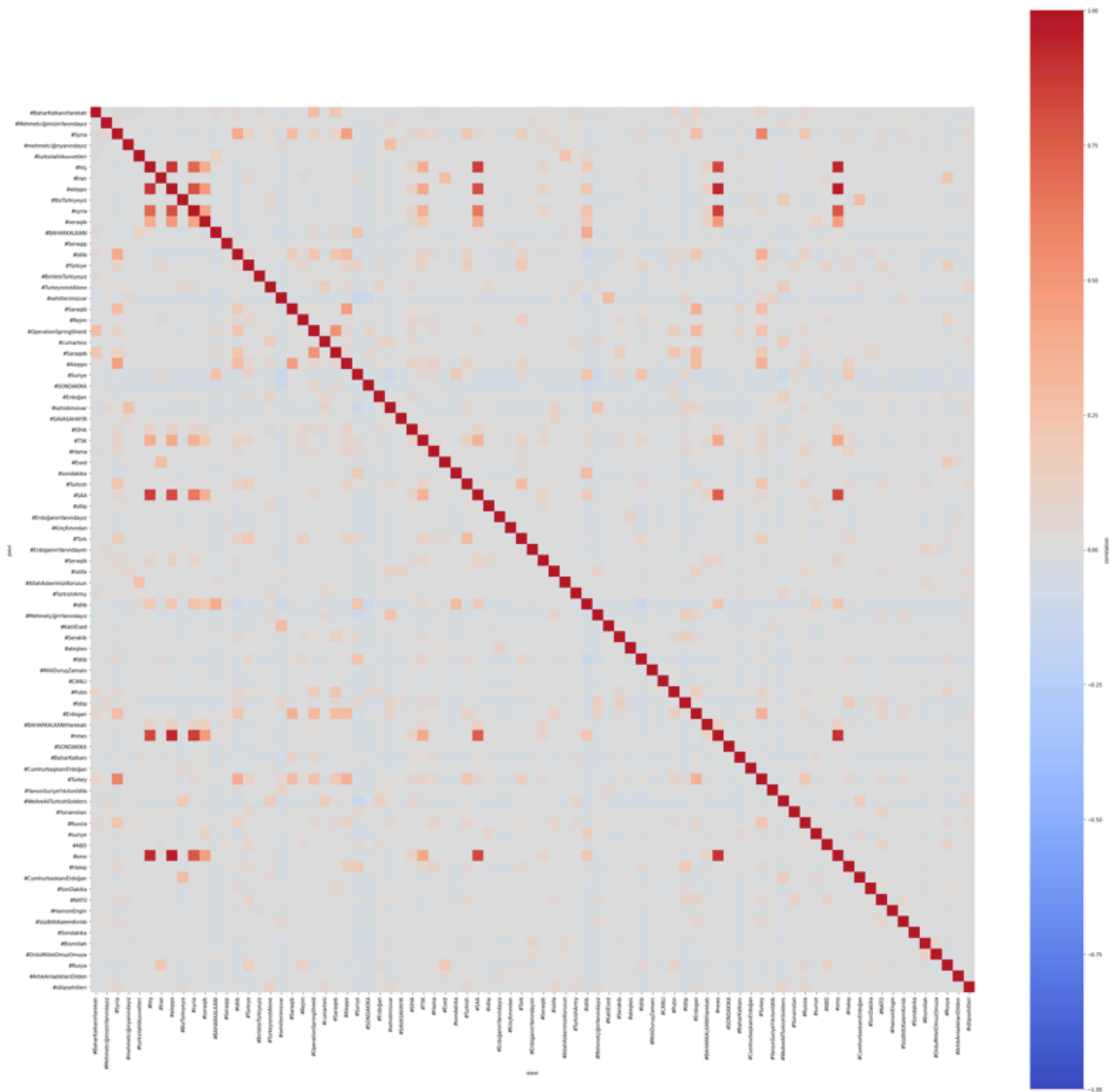


Figure 18: The correlation matrix of the hashtags retweeted in the first cluster (supportive of the government, conservative, nationalist)

In the opposition cluster, some of the correlated hashtags overlap with the first cluster, while others indicate a distinctive agenda. For example, the correlated hashtags in the second group also include #WeAreAllTurkishSoldiers, #idlipsehitleri, and some others that express support for the troops. On the other hand, the most distinctive pair of hashtags in this group are #SavasaHayir and #suriyelileriistemiyoruz (No War and we don't want Syrians), #sehidimizvar and #istifa (we have martyrs and resign), #Erdogan and #istifa (Erdogan and resign), and similar hashtags that express

protesting behavior towards the government policies. In general, the news coverage by the digital outlets in both of the clusters resonates with what the hashtags correlations show. During the events, a cluster of news producers and their respective communities focused on the nationalistic and pro-government representation of the events, while the entities in the other group mostly focused on the perceived policy failures.

The topic modeling of the Tweets by each cluster

reveals similar results. The common topics in both of the communities included President Erdogan's meeting with Russian President Putin and the subsequent announcement of the ceasefire. The pro-government cluster mostly focused on the statements by the Turkish Defense Ministry and the casualties inflicted on forces of the Syrian regime, as well as Turkish drone strikes in Idlib. The opposition cluster, on the other hand, distinctively focused on the lack of air support for the troops during the attack on February 27, statements from Russian authorities, President Erdogan's rhetoric (opposition cluster perceives it as dismissive of the losses and the safety of troops), domestic opposition to Turkey's military presence in Syria, and opposition to the refugee policy.

To conclude the section, the analysis of the relevant Twitter activity between February 27 and March 11, 2020, as well as the publication and engagement trends highlights the extremely polarized characteristics of the online information environment in Turkey. Especially, during the key crisis events, the two major political segments of Turkish society seem to be represented across social media. Turkish news media is far from offering a bridging mechanism that would facilitate the flow of factual and unbiased information between the political poles. Several major foreign outlets, including Euronews Turkish, Sputnik Turkish, and BBC Turkish services can attract followers from most communities. Finally, Anadolu Agency was a major source of news regarding the events during the crisis.

COVID-19 Pandemic, Social Media, and Turkish Digital News Media

Similar to many other countries, the COVID-19 pandemic altered the news cycle in Turkey. The Ministry of Health announced the first case on March 10, 2020, and the first recorded death on March 17. Two weeks later, the Minister of Health Fahretting Koca announced the spread of the epidemic to all provinces in Turkey. Turkish government adopted a gradually intensifying strategy for its countermeasures, starting with the closure of international borders as well as schools and other public gathering places, and shifting to generalized restrictions for traveling, and limited lockdowns. Political parties and the news cycle adopted a moderate and less partisan approach in the initial days of the COVID-19 spread in Turkey, mostly focusing on the preventive measures, support for health workers, and social support for vulnerable population groups. However, political discourse rapidly evolved into a more polarized environment over the weeks. The opposition parties frequently expressed dissatisfaction with the government response. The lack of

a large-scale lockdown was questioned by the opposition parties and influential figures in the press, often with a reference to inefficient management of the Turkish economy as an underlying cause. The government sources attacked the opposition in return, blaming them for polarizing the society at a time of the global pandemic.

A particular key moment arrived when the Interior Ministry announced a lockdown in 31 provinces on April 10, at around 10 PM, which would start at midnight and stay in place over the weekend. Following the public backlash for causing panic buying and jeopardizing the control of the epidemic, the Interior Minister announced his resignation on April 12, which was refused by President Erdogan hours later. In addition, the government's actions to centralize the social and economic assistance campaigns and punitive measures against the news media were other significant political topics.

News Production and Social Media Engagement Metrics

Turkey's digital news media started to cover the COVID-19 epidemic in late January, as the news originating from China began to highlight the extent of the imminent global crisis. In March, the global spread and first cases in Turkey

completely altered the news environment, boosting the overall news production rates and also the metrics of views, likes, comments, and shares on social media.

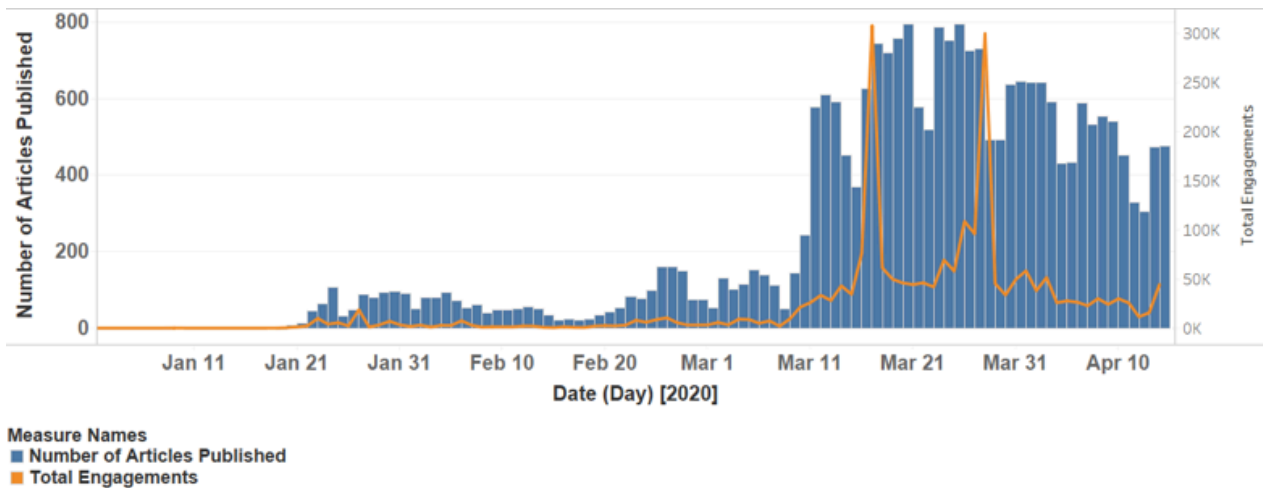


Figure 19: Daily number of relevant articles and engagement rates between January 1 and April 14, 2020, during the COVID-19 pandemic. Blue bars represent the number of articles published, while the orange line represents the engagement by social media users. (likes, shares, comments, for the article links) Data were retrieved from BuzzSumo.

Until April 14, the most engaged digital news outlets were as listed on the graph below. Sozcu and Yenicag, two outlets that attract viewership from those who are critical towards the government, received the largest number of social media engagements. They were followed by NTV,

TV100.com, Gazeteduvar.com.tr, Milliyet, ensonhaber.com, Hurriyet, tele1.com.tr, and Sabah. Repeatedly, the social media data show a significant difference between the power distribution in the corporate media environment and the levels of engagement the alternative news sources receive.

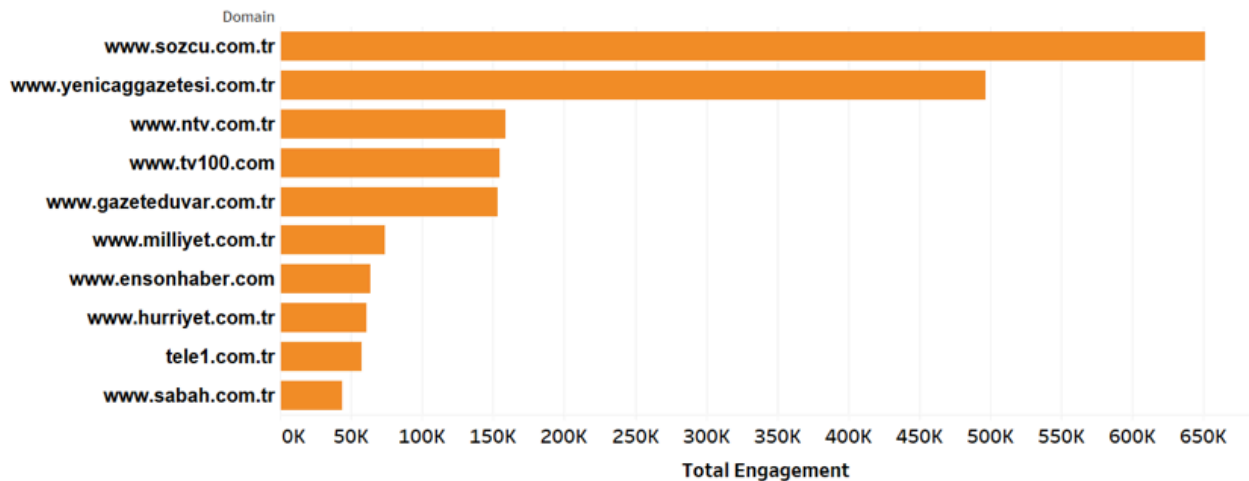


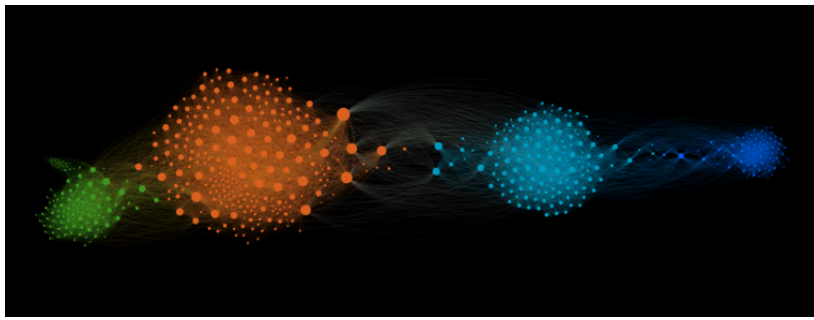
Figure 20: Social media engagements for the top 10 digital news outlets. Data were retrieved from BuzzSumo

COVID-19 “Conversation” on Turkish Twitter and Digital News Media: Evolution and Resilience of a Polarized Network

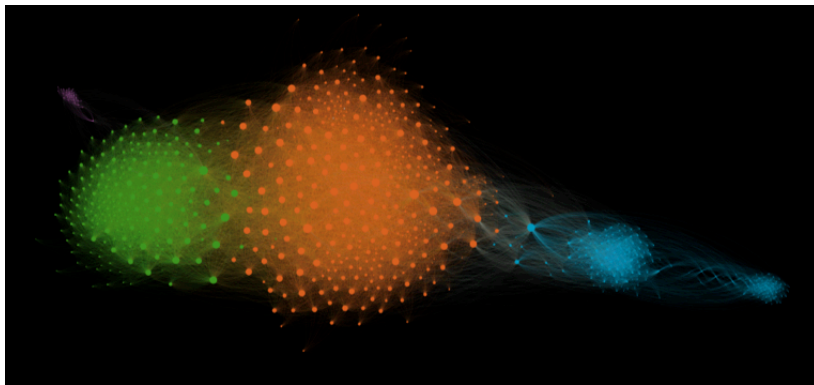
The analysis in this section uses the Twitter data ranging from March 11, 2020 (the day after the announcement of the first confirmed COVID-19 case in Turkey) to April 14. The total number of collected tweets was more than 20 million. As the timeframe of the data is larger than the previous case and the co-retweeted network seems to be dynamic, the analysis first partitions the network data to four subsequent epochs, each consisting of equal timeframes. The evolution of networks and further analyses highlight the importance of political events and overall discourse on the network

movements. Due to the characteristics of the COVID-19 crisis, the clusters interact in more dynamic ways than in other cases. Furthermore, the network includes additional clusters this time.

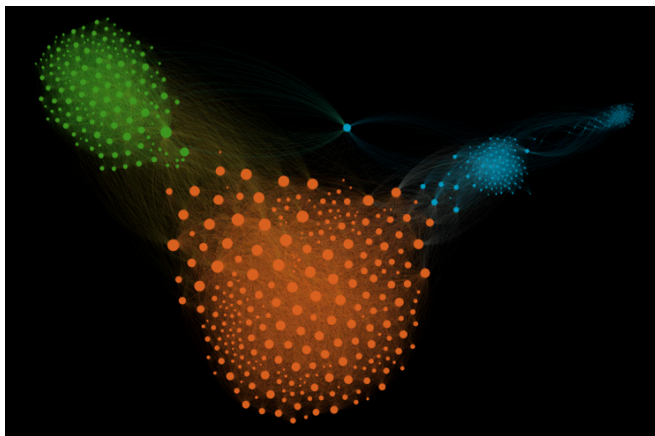
The consistent characteristics of Twitter conversations and the ego-networks of digital news outlets' Twitter accounts include very dense structures within the respective communities and a persistent repulsion between the two core groups, as also seen in the previous case.



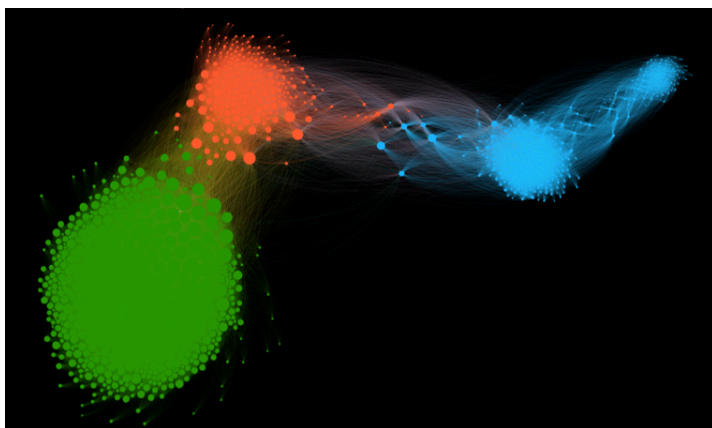
Epoch 1



Epoch 2



Epoch 3



Epoch 4

Figure 21: Co-retweeted networks of the COVID-19 chatter on Turkish Twittersphere. The circles represent the nodes and the lines between them represent their connections. Sizes of the nodes represent their Eigenvector Centrality, a specific measurement for the level of importance/influence within the network. Colors represent different clusters. Blue nodes include government officials, major mainstream digital news outlets, influencers, and other accounts who are supportive of the government. Orange nodes are mostly critical of government policies. Green nodes belong to a dynamic cluster of Twitter accounts who are hostile to the government and strengthen their coordination to promote certain political agendas, including the release of prisoners who were convicted following the failed coup attempt in 2016.

In addition to the persistent presence of two core clusters, more clusters emerged during the COVID-19 conversation in the Turkish Twittersphere. In the graphs above the blue cluster consists of government officials, mainstream news media, influencers, and other accounts who are supportive of the government policies. The orange cluster includes most of the accounts that are consistently critical towards government policies across different timeframes. The green cluster seems to grow in a coordinated way. It grows and moves over time mostly in a coordinated manner, promoting specific political agendas including the release of prisoners who were convicted by Turkish courts after the failed coup attempt in 2016. Throughout the four epochs depicted in the visuals above, green nodes had very limited connection to the pro-government cluster and they are co-retweeted with the accounts in the opposition cluster in limited amounts. Therefore, the newly emerged cluster also consists of very dense ingroup connections and limited interaction with the rest of the network, focusing on specific agendas.

A particularly important turn of events occurred during the fourth epoch when the Turkish government announced a

first-time weekend-long lockdown for 31 provinces, followed by the brief confusion about the resignation of the Interior Minister at the weekend. During these events, the size and the activity of the blue (pro-government) cluster increased significantly, indicating the efforts to support the Interior Minister and government's policy positions in general.

Most importantly, the polarized structure between the core groups persists. Despite the unique characteristics of the ongoing crisis, the audience overlap of the two communities remained limited. However, the reach of some mainstream news outlets grew to include the opposing community, as shown by the graphs below. In particular, Sozcu, Hurriyet, and NTV enjoyed some connections to communities outside, as they were also co-retweeted with accounts in the opposing group. Hurriyet is located right at the center between the two camps. In fact, the community detection algorithm used for this analysis located Hurriyet's Twitter account within the second cluster, thanks to its connections with the accounts in that group. Following visualizations of network outlets' ego-networks highlight such inter-community connections.

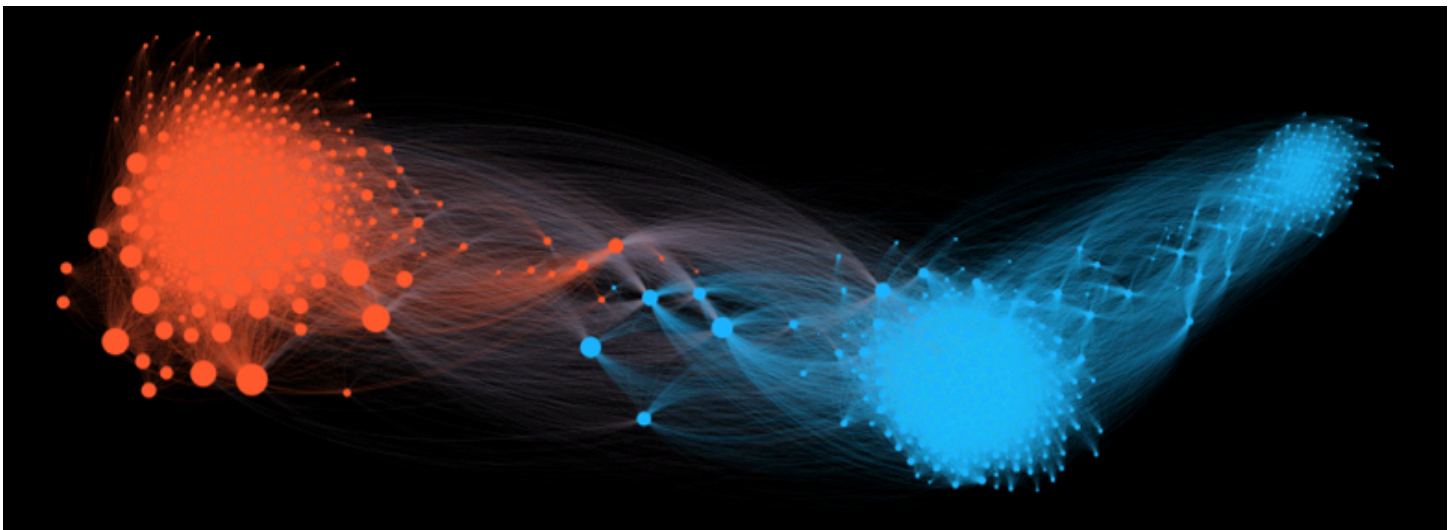


Figure 22: The Co-Retweeted Network of two core clusters during the latest epoch of Turkish Twitter conversation about the COVID-19 health crisis. Network features are similar to what was described for the previous graph above.

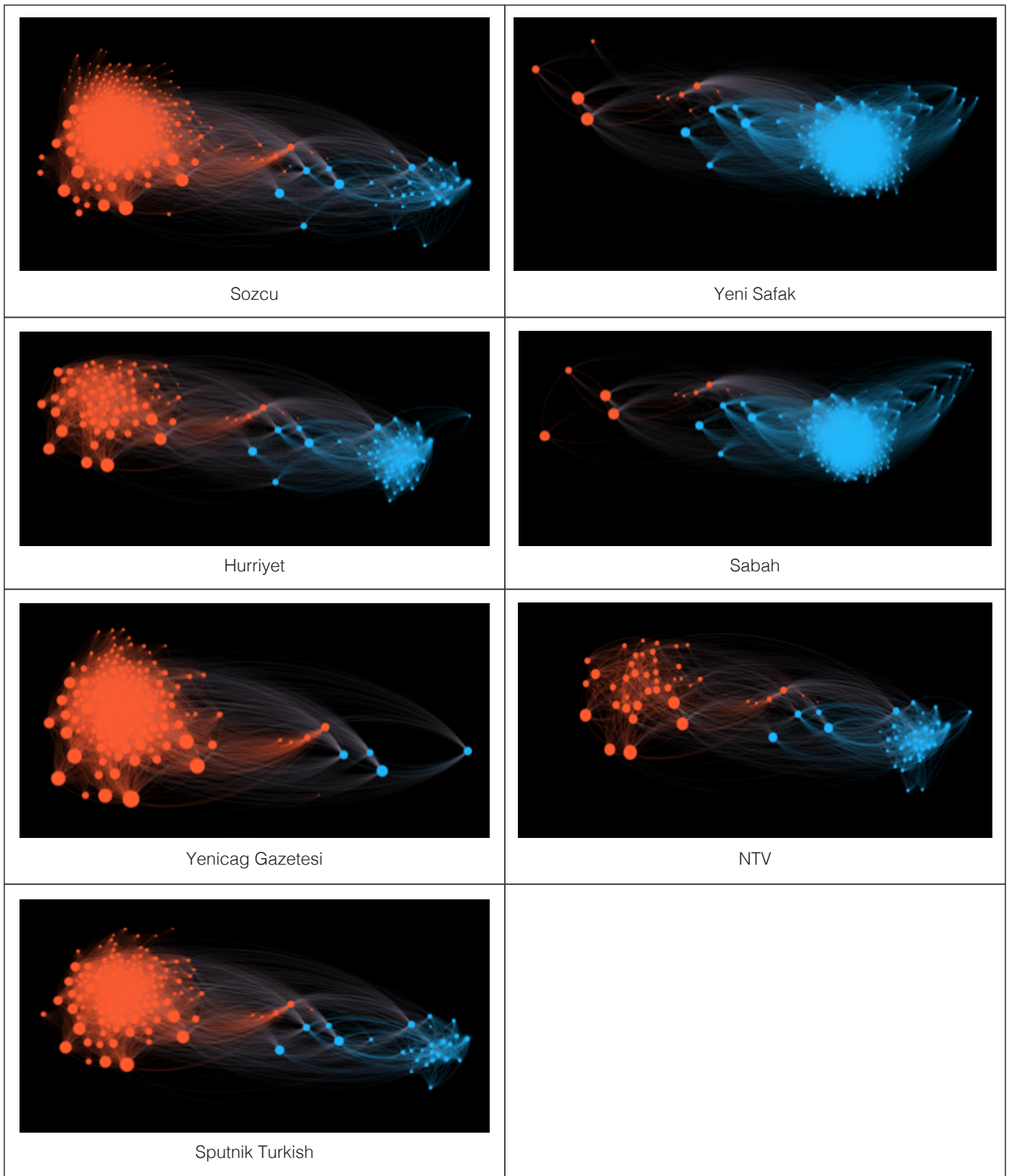


Figure 23: Ego-networks of selected digital news outlets' Twitter accounts.

Finally, the key actors analysis of the digital news outlets (Twitter accounts) below highlights a significant dynamic that took place during the first month of the COVID-19 crisis in Turkey. Both in terms of betweenness and amount of connections to other important users, the accounts belonging to the cluster that is mostly critical of government policies outpaces the accounts in the first group. For better readability, the graph's horizontal axis is drawn at a logarithmic scale, meaning a much higher betweenness centrality score for Sozcu in comparison with others. Other digital news media accounts with high importance points include T24, Birgun, Cumhuriyet, and Tele1.com.tr. In particular, EuroNews Turkish outlet scored higher centrality

points than many other accounts. This repeats what was also seen in the first case study presented above.

To note, a future investigation should probably include additional accounts that are associated with the listed outlets, including the columnists, commentators, and well-known reporters who often attract large numbers of followers and engagement to their postings during important events. Also, smaller clusters in the co-retweeted network indicate the presence of the trolling and automated bot communities that boost the main groups they connect to. Future studies would include a comparison of the measurements with and without the presence of such accounts in the network.

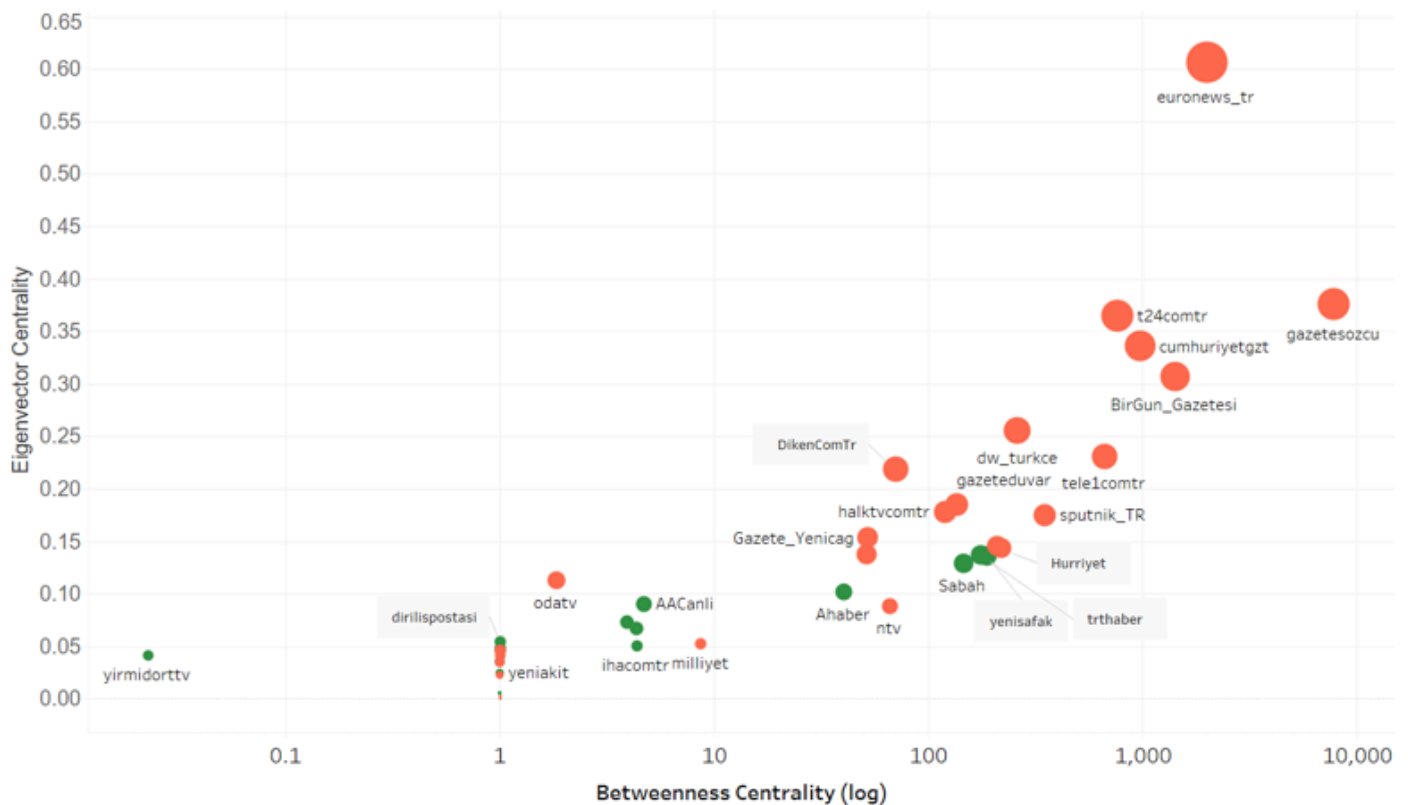


Figure 24 Key Actors Analysis for digital news outlets' Twitter accounts. Colors represent the respective clusters of the listed accounts.

This paper combined social media analytics, trend analysis, network analysis, and text analytics approaches to map Turkish digital news media within the context of online conversations that take place during critical events and crises. Twitter data, consisting of more than 30 million tweets and retweets, were utilized to apply our analysis to two case studies: recent escalation of the Syrian conflict and the spread of COVID-19 pandemic in Turkey.

As mentioned above, the analysis of co-retweeted networks drew connections between pairs of accounts when at least 50 different users co-retweeted them. The connections become stronger when the number of co-retweeting users increases. This way, we explored how divergent the audiences of online news outlets are with regard to their information consumption and endorsement preferences. Both of the case studies proved the extreme political polarization in Turkey's online information environment. Two major, very big, very dense, and extremely polarized clusters took the center stage in Turkish Twittersphere. These two clusters, consisting of government/pro-government sources and opposition sources respectively, also represent echo-chamber formation and fragmentation in the Turkish sociopolitical landscape. Most of the time, audiences of these two clusters either ignore the "other side", or engage with it in confrontational ways. Results of the hashtag correlation analysis and topic modeling show the contrasting agendas of the two core communities.

Besides, ego-networks of news outlets' Twitter accounts

Conclusion and Policy Implications

This paper explored the landscape of digital news outlets in Turkey, their presence and location in online social networks, their participation in political polarization, and their comparative influence/importance on social media during highly significant political events. The analyses presented in the previous sections utilized what was found by previous studies in the field used aggregated web and social media data acquired from commercial service providers, and a large dataset that includes more than 30 million tweets. To better answer the primary questions we outlined, the study relied on a set of methods that were proven to be effective in other contexts by others in the previous years. In particular, the network analysis of the social media data offers several novel findings of how political polarization unfolds across Turkish speaking social media, and how much digital news

represent preferences of their audiences by retrieving which other information sources they mostly use and endorse. In both cases, most of the Turkish digital outlets³⁴ are placed in one of the polarized clusters, and they do not reach the other side's audiences.

That being said, the analyses above documented some minor but significant differences between the two cases this paper explored. In the aftermath of the attack on Turkish troops in Syria's northwestern province Idlib, major digital news outlets remained in their respective clusters and their agendas differed. On the other hand, during the COVID-19 case, some mainstream outlets were co-retweeted with accounts from the opposing cluster more frequently than the previous case. This may be due to the increased interest in facts, official statements, and expert opinion during the pandemic, leading to limited diversification of information sources.

The combination of ego-network analysis and key actors analysis revealed a few other important findings. Euronews Turkish and Sputnik Turkish outlets consistently reached consumers from both clusters and had high betweenness scores, due to their intermediary roles between the disconnected entities and hubs in the network. Besides, the centrality scores of the news outlets' accounts differed during the two cases. In particular, the outlets that are placed in the second cluster (alternative, opposition) achieved significantly higher points during the COVID-19 case.

media belongs to certain clusters in a polarized setting.

Turkey's online information environment, especially within the context of political discourse, remains extremely polarized. This limits the overlap of audiences that regularly follow their preferred news sources on the Internet. As the analyses above suggest, clusters of these audiences on social media remain inward-looking and they seem to filter out most of the information originating from alternative sources. Moreover, even exposure to information from other sources does not help with the mitigation of the problem, as alternative voices are frequently depicted in hyperpartisan, hostile, and toxic manners.

The continual sense of crisis management, perceived

existential threats that allegedly originate from both domestic and foreign sources, and high levels of emotiveness exacerbate the political polarization online. In addition, Turkey's news cycle continually resembles a referendum-like environment where the confidence for the political parties and their commitment to the national interests are always questioned by opposing groups. Studies repeatedly proved the polarizing effect of referenda and election seasons. Thus, Turkey's political climate presumably boosts online polarization. Besides, intra-party disagreements are known to have lessening effects for polarization. In Turkey, intra-party competition rarely takes place before the public eye, while rhetorical hostility towards other parties is persistent.

Turkey's digital news outlets operate within a hyperpartisan environment, and many of them participate in the efforts to exploit or strengthen it. As described in the relevant sections of this paper, the extreme polarization and lack of trust generate specific vulnerabilities during the events that are highly important for Turkey's national security. In particular, the social media data presented above indicates Turkey's

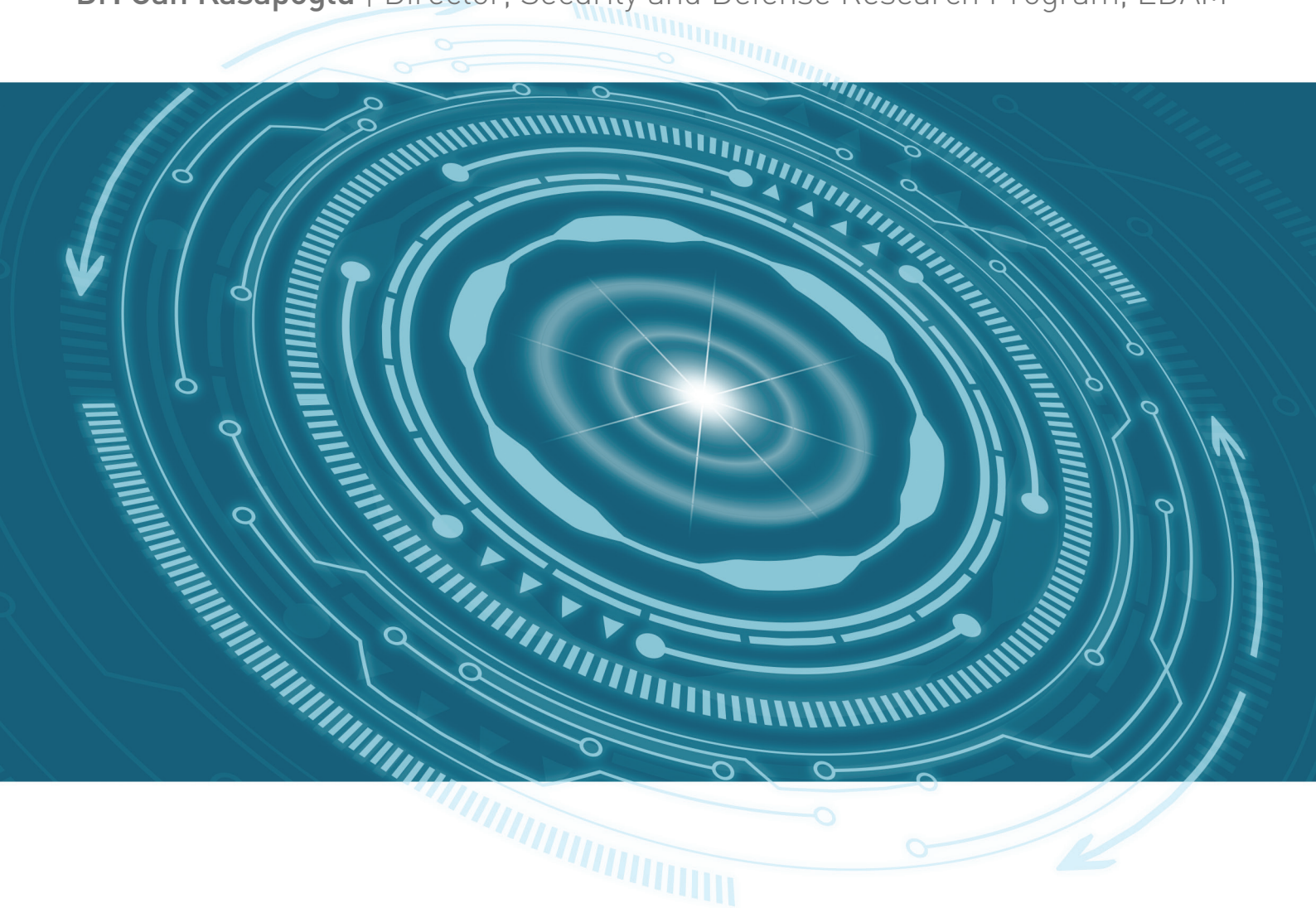
weakness against state-led hostile influence campaigns. Turkish decision-makers' approach should evolve into a more comprehensive understanding regarding this matter, rather than relying on a closed and biased news media ecosystem that seems to be suffering from trust deficits and worsening the problem anyway.

Despite the overwhelming power they consolidate, Turkey's news media giants are not necessarily the winners on social media. Especially, the COVID-19 pandemic led alternative digital news media to expand their foothold across the online communities, despite the persisting polarized nature of the online conversations in general.

As mentioned before, Turkey's internet and social media penetration rates are growing and this trend is likely to continue in the foreseeable future. The growing digitalization will also lead to increased exposure to online news sources. Therefore, sooner or later, Turkey will need a sound strategy to promote and sustain a healthier, more competent, and more diverse digital news landscape.

DISCUSSION PAPER

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Backgrounder

Current writings portray information as ‘the world’s ‘most contested geopolitical resource’ and data as the ‘new oil’. Data-driven social media is an active tool of political warfare and information operations¹. The novel calculus in the cyber-space directly influences elections and public opinion. As ‘data-driven innovation’ is manifesting a new outlook in international affairs, information power has already become a key aspect of state capacity².

If current techno-informational trends are to continue in the coming years, more advanced algorithms and widespread applications, as well as more daily functions in the information technology domain, will link together people’s and nations’ lives. These strong interactions, taking place in the virtual space, can even reach a critical mass that the Westphalian societal design of sovereignty over a certain territory and international law can be, gradually, replaced by an emerging order built on the unprecedentedly high transfer rate of knowledge³. Such a strategic landscape will attach additional value to information operations as a critical tool of statecraft.

A good information and psychological operational design, when addressed to the correct audience, can alter a society’s – or a portion of the society’s – behaviors and attitudes over years, in case the campaign pays attention to cultural, linguistic, and historical attributes of the target⁴. After all, psychological warfare, be it in the medieval age or today’s complex information technology domain, remains a struggle of political symbols, emotions, and perceptions.

Against the backdrop of the abovementioned issues, Turkey sets a pretty interesting case. For one, it has a very large volume of internet and social media usage. According to 2019 stats, out of 82 million population, the nation has some 52 million social media and 59 million internet users. Besides, between the ages of 25 and 34, more than 90% of the segment are internet users⁵. Thus, Turkey’s information landscape is of utmost analytical interest given the country’s digital interconnectedness, along with its high geopolitical and political-military value.

Brief Assessment of the Report Entitled ‘Turkey’s Digital News Landscape: Polarization, Social Media, and Emerging Trends’ by Barış Kırdemir

As highlighted by the referred research, Turkish society’s fault lines have generally brought about political polarization for long time. This sociological fact is a permanent feature of Turkish society and politics. Yet, the Turks’ information environment is changing rapidly. Turkey is fast opening-up to the horizons of social media and digital outlets. This change is manifesting the birth of a new, online political communications reality for the nation.

Notably, the referred study portrays a two-way concept for the Turkish information environment’s plague with polarization. In the first place, being a polarized society, the Turks prefer

receiving inputs from their politically aligned news outlets. This fact leads to echo-chambers. In the meantime, as the echo-chambers become more pronounced, exposure to opposing outlets encourages more partisanship and sharper views, rather than moderate compromises – albeit, inter-communal reach levels are low for indigenous outlets in Turkey’s specific case –.

The paper subject to examination is centered on a large dataset – some 30 million tweets – which constitutes its main strength. Among the studies’ findings is that the Turkish information landscape, along with the nation’s troublesome

¹ For a detailed assessment, see: Eric Rosenbach and Katherine Mansted, *The Geopolitics of Information*, Harvard Kennedy School Belfer Center, 2019.

² Ibid.

³ William, R. Gerry et.al. ‘Information Warfare in an Information Age’, *JFQ*, No: 85, 2017, pp. 22-29.

⁴ Frank, L. Jones. *Information: The Psychological Instrument*, in *Guide to National Security Policy and Strategy*, J. Boone Bartholomees, Jr. [ed], 2004, pp.216-217.

⁵ Hurriyet, [https://www.hurriyet.com.tr/teknoloji/turkiyede-gunluk-sosyal-medya-kullanimi-ortalama-2-saat-46-dakika-41409445#:~:text=T%C3%BCrkiye'de%20ise%2052%20milyon,75%2C3'e%20y%C3%BCKseldi.](https://www.hurriyet.com.tr/teknoloji/turkiyede-gunluk-sosyal-medya-kullanimi-ortalama-2-saat-46-dakika-41409445#:~:text=T%C3%BCrkiye'de%20ise%2052%20milyon,75%2C3'e%20y%C3%BCKseldi.,), Accessed on: June 08, 2020.

polarization across domestic political spectrum, showcases clusters of polarized social media networks coupled with clusters of polarized audiences.

Likewise, the results suggest that categorical Turkish political segments prefer following aligned news sources on the internet. Clusters in these specific audiences and drastic polarization feed into each other, bringing about vicious informational and semantic cycles in Turkey's internet environment. One interesting finding was that intra-party rivalries rarely manifest on the internet and digital platforms.

When it comes to national security issues, the study's findings showcased Turkey's alarming fragility against hostile influence campaigns. In this sense, one last point by the referred paper, which deserves attention as a national

Conclusion

The findings of Barış Kirdemir's study showed that Turkey remains highly vulnerable to information operations. In the 21st century, this shortcoming should be taken as seriously as any strategic or military setback.

Turkey's growing polarization is manifested in its social media environment, coupled with high trolling and false news activity. Married to Turkish society's broad internet use, while such an outlook could mark short-term political gains for some parties, in the long-run, it will inevitably lead to grave shortfalls in national capacity.

security consideration, is the digital positioning of major news outlets in social media. The findings showcased low level of reach to opposing clusters. According to Kirdemir, such an imbalance can exacerbate grave security problems by undermining a society's informational-immunity in case of a hostile information campaign by a foreign entity. This already troublesome panorama is multiplied by the fact that Sputnik Turkish enjoys a very good level of inter-community reach among Turkish social media users.

Given the clash of Turkish and Russian strategic interests in many corners of the world, be it the Caucasus, Syria, or Libya, and also given that Turkey is a key NATO country with vital geostrategic importance to the Alliance, Russia can find many loopholes to exploit in Turkey's information landscape.

Overall, in addition to its present national security documents, Turkey needs an across-the-spectrum national information reform and strategy to guide its 'infosphere' in the cyberspace. Turkey's political parties and camps may find it easier to polarize the voting bases and to pursue the same pattern in digital spaces. However, at the higher strategic and grand strategic levels, Turkey's elite should grasp the reality about cluster-based polarization's setbacks against hostile intentions, especially for countries like Turkey with high geopolitical significance and large numbers of internet & social media use.



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TURKEY'S DIGITAL NEWS LANDSCAPE

Polarization, Social Media, And Emerging Trends

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