Special Data Feature

# Peace Research

Journal of Peace Research 1–9 © The Author(s) 2022 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/00223433221092815 journals.sagepub.com/home/jpr

**\$**SAGE

# Introducing the Online Political Influence Efforts dataset

Diego A Martin ®

Economics Department, Purdue University

Jacob N Shapiro D

School of Public and International Affairs, Princeton University

Julia G Ilhardt

School of Public and International Affairs, Princeton University

#### Abstract

This article introduces a dataset on the covert use of social media to influence politics by promoting propaganda, advocating controversial viewpoints, and spreading disinformation. Influence efforts (IEs) are defined as: (i) coordinated campaigns by a state, or the ruling party in an autocracy, to impact one or more specific aspects of politics at home or in another state, (ii) through media channels, including social media, by (iii) producing content designed to appear indigenous to the target state. Our data draw on more than 1,000 media reports and 500 research articles/ reports to identify IEs, track their progress, and classify their features. The data cover 78 foreign influence efforts (FIEs) and 25 domestic influence efforts (DIEs) – in which governments targeted their own citizens – against 51 different countries from 2011 through early 2021. The Influence Effort dataset measures covert information campaigns by state actors, facilitating research on contemporary statecraft.

#### Keywords

disinformation, foreign influence, political influence operation, social media

#### Introduction

Information and communications technologies have increased productivity, wages, and demand for capital (Acemoglu & Autor, 2011). They have also changed the way people communicate about politics and access information on a wide range of topics (Weidmann, 2015; Lelkes, Sood & Iyengar, 2017; Joseph & Poznansky, 2018). Social media, for example, revolutionizes communication between leaders and voters by enabling direct politician-to-voter communications outside the structure of traditional speeches and press conferences (Ott, 2017). During the 2016 US presidential election, social media platforms were more widely viewed than traditional editorial media and were central to the campaigns of both Democratic candidate Hillary Clinton and Republican candidate Donald Trump (Enli,

2017). Multiple state actors have used social media to influence politics at home and abroad by promoting propaganda, interfering in public discourse, and disseminating disinformation (Golovchenko et al., 2020).

This article describes a new dataset on state-initiated influence efforts (IEs) which builds on and extends the previously released data in Martin, Shapiro & Nedashkovskaya (2019). Foreign influence efforts (FIEs) are defined as: (i) coordinated campaigns by one state to impact one or more specific aspects of politics in another state, (ii) through media channels, including social media, by (iii) producing content designed to appear indigenous to the target state. Domestic influence efforts (DIEs) are defined

as: (i) coordinated campaigns by a state to impact one or more specific aspects of domestic politics, (ii) through media channels, including social media, by (iii) producing content designed to appear as though it is created by normal users. To be included in the dataset, an IE must meet all three criteria.

Our data draw on more than 1,000 media reports and 500 research articles/reports to identify IEs, track their progress, and classify their features. We identified 78 FIEs and 25 DIEs in 51 targeted countries from 2011 through early 2021.<sup>1</sup>

Fully 64% of FIEs were conducted by Russia; Saudi Arabia and United Arab Emirates account for most of the remainder. In five FIE cases, sources did not provide sufficient evidence to determine the origin of the campaign. The 25 DIEs were conducted by 23 different countries, 11 of which (48%) are democracies.<sup>2</sup> We examined 74 other information operations which met some, but not all of our inclusion criteria (e.g. they involved efforts to manipulate but lacked deception as to the national origin of the information).<sup>3</sup>

# Motivation and related literature

The Russian-operated influence campaign targeting the 2016 US presidential election brought a new, technologically driven approach to political interference to the center of public discourse. The IE dataset systematically measures such state-sponsored operations. By documenting the transformation of influence campaigns over time and identifying shifts in tactics, strategies, and platforms, this dataset elucidates how various governments have used social media manipulation and disinformation to advance their policy agendas. To the best of our knowledge, the Influence Effort dataset is the first to provide a detailed analysis of all known interference campaigns perpetrated by state actors since 2011. While it is possible there have been campaigns during that period which remain undetected to date, documenting the known operations can enable a range of useful analyses.

The closest work to ours is the Australian Strategic Policy Institute's (ASPI) review of foreign influence efforts targeting elections in democratic countries (Hanson et al., 2019). Examining 97 elections and 31 referendums from 2016 through 2019, the authors find evidence of foreign interference in 20 countries' elections.

Following a similar media-driven approach to ours, Bradshaw & Howard (2018) report on domestically produced propaganda. They code 48 cases where political parties or governments use social media to manipulate public opinion.<sup>4</sup>

Woolley & Howard (2017) take a different approach in their study of computational propaganda. They examine both purely domestic influence campaigns and those targeting foreign countries using data from seven different social media platforms collected during political elections between 2015 and 2017 in the United States, Russia, China, and six other countries.

Other articles have studied the risks associated with influence campaigns by focusing on countries and political events. Shao et al. (2017) analyzed fake news in the 2016 US presidential elections, Keller & Klinger (2019) studied German parties before the 2017 electoral campaigns, and Bastos & Mercea (2019) uncovered a major network influencing the Brexit campaign in the United Kingdom. For China, Russia, and Venezuela, Alizadeh et al. (2020) built a method to detect content that is part of an influence operation on Twitter and Reddit.

# Influence Effort database

As defined above, IEs are coordinated campaigns by state actors to impact politics through media channels with the intention to appear as normal activity, that is, for FIEs using accounts designed to appear indigenous to the targeted country. During the 2016 US elections, for example, Russian trolls defamed Hillary Clinton and attempted to sabotage her campaign (Mueller, 2019). A federal grand jury indicted a team of 14 Russians working for the Internet Research Agency (IRA) and attempting to interfere in the US election (Mueller, 2019). This case obviously meets all three IE criteria. A state (Russia) used social media (e.g. Facebook and Twitter) to influence politics (discrediting Hillary Clinton) by posing as Americans.

A key challenge in counting social activities like IEs which lack clear boundaries is determining where one IE stops and another starts. We define an IE as an attacker-target-political goal triple. For example, the Russian campaign to polarize US politics (Howard et al., 2019) was distinct from the one intended to discredit conservative critics of President Trump (Poulsen & Ackerman,

<sup>&</sup>lt;sup>1</sup> The current dataset can be downloaded here https://www.dropbox.com/s/327c0jpgf4uh8yy/IE\_database\_2021AUG.xlsx?dl=0.

<sup>&</sup>lt;sup>2</sup> Defined as having an average Polity IV score of 5 or higher from 2010 to 2018.

<sup>&</sup>lt;sup>3</sup> Limited information on these cases can be found here https://www.dropbox.com/s/w8bttgy2jou0b4v/No\_IE\_database\_2021AUG.xlsx?dl=0.

<sup>&</sup>lt;sup>4</sup> Up through 2018, our dataset includes six IE cases not covered in Bradshaw & Howard (2018).

2018). Counting IEs in this manner provides baseline information about who is doing what to whom and offers high-level context for the growing literature about disinformation campaigns.

We divide IEs into foreign influence efforts (FIEs) and domestic influence efforts (DIEs). In an FIE, the content is designed to look as though it is produced in the targeted country. For example, beginning in 2018, Russian actors operated fake Facebook accounts in Libya with the goal of amplifying local support for the Libyan National Army (Grossman, Bush & DiResta, 2019). Russian social media pages masqueraded as authentic Libyan outlets, and the Russian network established a physical Libyan newspaper to promote content consistent with the foreign policy initiatives of the Kremlin (Grossman, Ramali & DiResta, 2020).

In DIEs, government actors try to make content resemble the activity of normal citizens – the analogue of producing content intended to appear indigenous to the target state. This is distinct from common government propaganda in which the state provides information in its own name.

The distinction between normal politics and a DIE involves two elements. First, to be a DIE the effort must involve content 'designed to appear as though it is produced by common users'. Government manipulation of existing media does not meet this criterion, but creation of fake social media accounts or the creation of new media that pretend to be independent from the state would.

Second, to be a DIE the campaign must use state resources. For example, leading up to the 2017 Mexican gubernatorial elections, the Governor of the State of Mexico paid various fake media outlets to promote content in favor of politicians from the ruling Institutional Revolutionary Party (Barragán, 2017).

Because the line between party and state is ambiguous in some settings, we consider this second criterion of using state resources to be met when either (a) the activities are reported as being done by the government with state resources, or (b) they are executed by the ruling party/coalition (holding executive power) of a state in which one of the following conditions holds for the majority of years in which the DIE was active (or for the most recent available year in the Polity IV data): (i) the country is an anocracy or an autocracy, or (ii) constraints on the ruling party's ability to leverage state power for electoral purposes are weak or non-existent. For example, the Communist

Party of Cuba maintained a network of Cubans paid to operate fake social media accounts (González, 2019). Even though the campaign was reported as being run by the Communist Party, as opposed to the government, we consider this to be a DIE as the country is an autocracy.

To sum up, we collect data on FIEs and DIEs operated by countries across the political spectrum, from democracies to autocracies.

#### What is not an IE?

We classify as No IE those operations which involve some but not all of our inclusion criteria. We do not, for example, include traditional propaganda (e.g. political information provided by country X about country Y in ways which do not seek to mask its origin) or advertising campaigns.

We also exclude disinformation campaigns which are not linked to political goals. For example, in 2020 the Chinese company Huawei engaged in social media manipulation around corporate goals related to 5G acceptance, with no clear evidence of government involvement or oversight (Satariano, 2020).

Importantly, IEs may involve promoting true content as well as false or misleading information. Deception in our definition is about the origin of the content, as opposed to its veracity. Not all IEs involve misinformation, and not all campaigns to promote misinformation meet our criteria. Misinformation campaigns carried out by known state propaganda outfits (e.g. the various RT networks) are not included in our data as they do not include an effort to appear organic to the target country.

Many cases are also excluded because they lack any effort to appear indigenous to the target state. For example, in 2020, then-President Donald Trump posted disinformation about the Chinese creation and propagation of COVID-19 on Twitter. Because President Trump made no effort to conceal his identity, this case did not constitute an IE (Haman, 2020).

Overall, we analyzed 74 cases through 2020 in which an actor engaged in operations that did not meet all our criteria, including 15 distinct propaganda campaigns which lacked social media manipulation or any effort to make the content appear organic to the target country.

# Construction of the dataset

The database was built in three steps following standard practices for constructing event data from media sources:

<sup>&</sup>lt;sup>5</sup> Condition (i) holds for countries with a Polity score of +5 or lower in the Polity IV database. Condition (ii) is satisfied by countries with (a) an executive constraints score (XCONST) equal to 1, 2 or 3 and (b) a competitiveness of participation score (PARCOMP) equal to 1, 2 or 3, both in the Polity IV database (Marshall & Jaggers, 2020).

Develop a coding schema. Our data structure was designed to reflect the decisions made by the attacking countries at several levels. Actor captures the types of entities involved in the campaign. Strategy is the broad method taken to advance the political goal. Approach records the measurable things done to advance the strategy. Tactic records concrete actions that people or organizations take as part of an IE.

Online appendix A presents the final codebook with a detailed description of the criteria for each category and examples.<sup>6</sup>

- Identify candidate influence efforts. Each year we examine news stories and other sources pertaining to influence efforts, including:
  - Public reports of influence-operation takedowns by social media platforms, which often cover multiple languages and countries.
  - ii. Peer reviewed research articles as well as reports by various groups researching influence operations, including the Atlantic Council's Digital Forensic Research Lab (DFRL), Cardiff University's Open Source Analytics Research (OSCAR) Development Centre, the German Marshall Fund's Alliance for Securing Democracy (ASD), Oxford University's Computational Propaganda Project, New York University's Center for Social Media and Politics (CSMAP), the Stanford Internet Observatory, and Graphika.
  - iii. Reporting on misinformation and related topics from high-reliability media such as BBC News, the *New York Times*, the *Wall Street Journal*, and the *Washington Post*, as well as similar sources in Arabic, French, Spanish, and Russian.

We develop a list of possible IEs from these sources and classify the campaigns as an IE or not using evidence from as many reliable sources as possible.<sup>7</sup>

3. Code values for IEs. All cases were reviewed by one of the authors as well as two student research assistants (RAs) – one who did the original coding and a second student who had not previously worked on the case. We assign RAs to regions or countries depending on their language expertise and background. This country-specific understanding helped in many cases to disentangle IEs from traditional propaganda.

#### Measurement error

As with any event data derived primarily from media sources, the IE dataset may not measure the true population for several reasons. First, case counts may fluctuate according to media interest. We address this bias by utilizing academic and independent research beyond journalistic coverage, as well as primary reporting of account removals as announced by social media companies. Facebook and Twitter, for example, regularly publish notes describing the removal of coordinated inauthentic behavior linked to specific governments. While the data will not over-count due to high media interests – as we are counting IEs, not the number of stories about IEs – our data cannot capture IEs which are not reported on.

Second, the fact that the most prominent organizations working on this issue report in English and are based in the USA, UK, and EU may lead to better coverage of IEs targeting Western nations. To address this, our researchers searched for additional evidence in Arabic, French, Portuguese, Russian, and Spanish. We note that English sources frequently include analyses of non-English inauthentic social media content.

Third, Facebook and Twitter may be overrepresented relative to other social media platforms (e.g. Reddit, WeChat, and Line) because they are particularly active in moderating inauthentic content. This may in turn make it easier to identify IEs targeting the countries where these platforms focus their content moderation efforts. We note that cases in Asia, Russia, and areas dominated by alternative social media platforms are covered in reports from private companies, think tanks, and research articles (e.g. Zhuang, 2018), though it is impossible to know how comprehensive such reporting is.

Fourth, there is insufficient information on some possible IEs to understand the strategy, approach, tactics, platforms, and so on. As an example of such a borderline case, in late 2021 prosecutors in Austria announced that then-Chancellor Sebastian Kurz was 'suspected of using government funds to secure favourable media coverage' (Euronews, 2021), leading to his resignation. As of this

<sup>&</sup>lt;sup>6</sup> The Online appendix is here https://www.dropbox.com/s/dqk871ixslhqqlf/Online\_Appendix\_IE\_database\_Dec2021.pdf?dl=0. We provide more details on specific variables in section 3.4.

<sup>&</sup>lt;sup>7</sup> For a full listing of news articles used to develop the data see https://docs.google.com/spreadsheets/d/1bpUvqWwi2bTi0ucMm60ER-DJGu6HMbim/. For research articles and reports see https://docs.google.com/spreadsheets/d/1bujDPusa5jiwNUPa4Wnj1R2fyJDIDkP2/.

writing, there is no evidence that Kurz's manipulation effort included the production of content pretending to be from Austrian citizens, nor did it involve the creation of fake media outlets trying to pose as independent media. The absence of such evidence means that while this was clearly an attempt to shape politics in an illegitimate manner, it did not meet the inclusion criteria for our data.

Given these issues, our data surely represent a lower bound on the number of IEs in the world since 2011. Like other datasets which rest on media reporting (e.g. ACLED, BAAD, GTD, SCAD, and UCDP), our data tell us about some unknowable combination of actual activity and journalistic coverage. We recommend users treat the IE dataset as a compilation of information on discovered state-run influence efforts, not as representing the full universe of such activity.

We continue updating the IE database annually and encourage people to contact us when campaigns meeting our inclusion criteria are not in the published data.

#### Variables in IE database

Each IE is identified according to attacking country, targeted country, and political goal, which is a broad description of the objective of the effort.

During the review process we classify each case into one of six broad categories: (1) Discredit, when the campaign aims mainly to defame a politician, political party, government, dissidents, political protesters, etc.; (2) Hinder, when the campaign aims to distort the relationship between a state and the international community; (3) Polarize, when the campaign amplifies content on both sides of one or more political issues; (4) Spread, when the campaign propagates misinformation in order to sow fear and discord; (5) Support, when the campaign aims to promote politicians, policies, or movements; (6) Influence, when the campaign aims to shift political discussion in a specific direction. We include an event description elaborating on the nuances of each case.

When a campaign appears to have multiple political goals, we select the most prominent aim of the campaign based on the reporting. For instance, the Russian campaign to influence Libyan politics in 2018 supported specific politicians, sought to disrupt democratic forums, and established inauthentic news outlets (Grossman, Ramali & DiResta, 2020). This case was categorized as

Influence given that the overarching goal appeared to be to shift Libyan politics in favor of Russian interests.

IEs are assigned a series of 0/1 variables for the presence or not of overarching actors, strategies, approaches, tactics, and platforms.<sup>9</sup>

We identify seven main kinds of actors: fake grass-roots organizations (known as 'astroturf'), companies, cyber espionage groups, governments, intelligence or military agencies, real NGOs, and wealthy individuals. We also allow for unknown actors in cases where the sources do not provide enough information to unmask one of the entities behind the case.

'Strategy' is defined as the broad method taken to achieve the IE's apparent political goal. Strategies include: defamation (discrediting particular individuals); persuasion (shifting political views in an identifiable direction); polarization (persuasion on both sides of an issue); agenda shifting; and undermining the credibility or reputation of political institutions.

'Approach' is defined as the actions taken to achieve strategies. We identify amplification (promoting specific content, whether real or fake), creation (designing an entirely new narrative around a set of facts), and distortion (creating false information about objectively verifiable facts).

'Tactics' identify the concrete actions that actors can take to pursue an approach. Included tactics are the use of bots (automated social media accounts), fake accounts operated by real people, hashtag hijacking (used to amplify propaganda), stealing personal information online, trolls (creating large volumes of content disseminated manually), and other tactics such as TV programming.

Finally, the dataset also codes each IE according to the use of various platforms (Facebook, Twitter, etc.) and an open-ended field for topics (economy, race, religion, etc.).

We also provide a complementary lightly annotated bibliography of the references containing research about online propaganda, influence operations, and media consumption of voters.<sup>11</sup>

<sup>&</sup>lt;sup>8</sup> For an analysis of this problem with mainstream conflict event data see von Borzyskowski & Wahman (2021) which analyzes biases in election violence data coded from media reporting.

<sup>&</sup>lt;sup>9</sup> Figure A-1 in the Online appendix shows the relational structure of the tables in the IE database.

Our coding criterion for 'government' actor refers to whether politicians were specifically implicated in a given IE. In many cases – particularly those involving the Russian Internet Research Agency – influence efforts were traced back to a company or PR firm known to be operating on behalf of the government.

<sup>&</sup>lt;sup>11</sup> The following link https://docs.google.com/spreadsheets/d/1bujDPusa5jiwNUPa4Wnj1R2fyJDIDkP2/ provides the annotated bibliography updated in August 2021. This resource will be periodically updated.

Table I. Summary statistics

	Fr	Frequency		Frequency		
Variable	FIE	DIE	Variable	FIE	DIE	
First sighting			Last sighting			
2011	1	2	2011	0	0	
2012	0	5	2012	0	1	
2013	4	1	2013	0	0	
2014	9	1	2014	0	0	
2015	13	4	2015	1	1	
2016	16	0	2016	5	0	
2017	18	6	2017	11	1	
2018	16	4	2018	20	1	
2019	3	4	2019	17	7	
2020	3	3	2020	30	19	

	Mean			Mean	
Variable	FIE	DIE	Variable	FIE	DIE
Actor			Platform		
Astroturf	0.10	0.10	Email	0.10	0.00
Company	0.54	0.27	Facebook	0.79	0.93
Cyber espionage group	0.07	0.07	Fake websites	0.13	0.10
Government	0.32	0.67	Google	0.13	0.07
Intelligence/Military agency	0.25	0.57	Instagram	0.39	0.53
Media organization	0.39	0.23	Line	0.01	0.00
Real NGO	0.02	0.00	News outlets	0.54	0.27
Wealthy individual	0.13	0.03	Other media	0.26	0.10
Unknown	0.20	0.00	Reddit	0.08	0.00
Strategy			Twitter WhatsApp	0.87	0.73
Defame	0.71	0.97	Wikipedia	0.06	0.27
Persuade	0.77	0.93	YouTube	0.02	0.03
Polarize	0.13	0.00	TouTube	0.30	0.13
Shift agenda	0.11	0.07	Tactic		
Undermine institutions	0.19	0.03	Bot	0.50	0.47
4 1			Fake account	0.77	0.93
Approach	0.00	0.00	Hashtag hijacking	0.25	0.47
Amplify	0.89	0.90	Other tactics	0.26	0.07
Create Distort	0.92	0.93	Steal information	0.14	0.20
Distort	0.77	0.77	Troll	0.82	0.67

Influence efforts (IEs) are defined as coordinated campaigns by one state to impact politics in another state (or the same state for DIE) through media channels, including social media, in a manner which involves producing content that appears indigenous to the target state. There are 78 FIEs and 25 DIEs; the total number of IEs is 103. The categories are not mutually exclusive.

#### Trends in influence efforts

The 103 IEs since 2011 targeted at least 51 different countries. Of the 78 FIEs in the database, 21% targeted the USA; 18% multiple countries at the same time; 8% Great Britain; and others located primarily in Europe and Africa. Of the 25 DIEs, two targeted Russia and two China, with countries in Asia, Africa, Europe, and Latin America each being targeted by one DIE.

In 14 cases, there is not a single targeted country. The FIE aimed at discrediting Syria Civil Defense (a.k.a. the

White Helmets), for example, involved apparently independent activity from cities around the world (Jindia, Graphika & The Syria Campaign, 2017). We recorded 'multiple' targeted countries in this case because the effort targeted many liberal democratic states whose governments supported the White Helmets.

Influence efforts have engaged several different types of actors, platforms, strategies, approaches, and tactics, as illustrated in Table I, which presents summary statistics of the dataset. Online appendix B presents the results for each variable in the dataset and the principal changes in 2020.

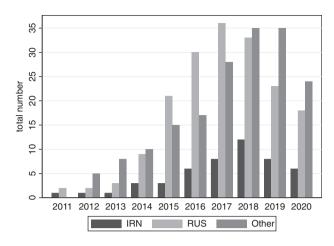


Figure 1. Ongoing year of influence efforts

The category *other* includes China, Cuba, Ecuador, Egypt, Honduras, Indonesia, Mexico, Malta, Myanmar, Pakistan, Puerto Rico, Saudi Arabia, Sudan, Tajikistan, Turkey, United Arab Emirates, Venezuela, Zimbabwe, and Unknown.

# Actors and timing

The first DIE in our data began in 2011, when protests in Russia catalyzed the creation of a pro-Kremlin trolling force. The Russian government sought to 'rein in the Internet' through the tracking and manipulation of social media and have continued to use this tactic in the years since (Nimmo & Toler, 2018). The first FIE in our data began in 2011 when Russian trolls launched a campaign to discredit US operations in Syria (Barojan, 2018). Fully 76% of the FIEs started between 2015 and 2018. The DIEs were more spread out, though 54% started between 2015 and 2018. FIE attacks last for an average of 4.7 years, while DIEs last 5.9 years on average.

The most common actors involved in executing IEs are private companies (52% in FIEs and 27% in DIEs), media organizations (40% in FIEs and 31% in DIEs), governments (27% in FIEs and 73% in DIEs), and intelligence or military agencies (58% in FIEs and 26% in DIEs). Media reporting was insufficiently detailed to clearly identify the responsible actors in one-fourth of FIEs, but we could find at least one actor in all DIEs.

# Attacking countries

Russia has been the main country using FIEs to date, as Figure 1 shows. In 2019 and 2020, Russia was the only country initiating new FIEs, though at a lower rate than in previous years (other countries did continue existing campaigns). China, Georgia, Thailand, and Tajikistan initiated new DIEs in 2019. At its peak in 2017, we estimate that Russia was engaged in 35 distinct campaigns around the world. The initiation of new

campaigns also peaked globally in 2017 with 18 new FIEs and six new DIEs.

These findings are similar to Vilmer et al. (2018). By using a broader definition that includes propaganda (i.e., where one country directly attacks another using official media as opposed to campaigns which pretend to be organic to the targeted country), the authors report that European authorities attribute 80% of influence efforts to Russia, with the remaining 20% coming from China, Iran, and ISIS, a non-state actor.

The Russian government has long interfered on Russian social media networks to divert attention away from the country's social and economic problems (Richter, 2011). We suspect that this prior experience served as the basis for initiating campaigns around the world, as others have noted. Watts (2017), for example, argues that Soviet Active Measures strategies and tactics have been reborn and updated for the modern Russian regime and the digital age.

China has not been as active as Russia in conducting FIEs, perhaps because their citizens do not commonly use platforms such as Twitter and Facebook. Consistent with that interpretation, there have been campaigns targeting Chinese communities in Australia using Line and WeChat. However, a growing body of literature examines China's efforts to influence the Chinese diaspora abroad (Wallis et al., 2020).

Iranian trolls have followed a similar mix of strategies to the Russians, though no evidence has come to light of an Iranian company running operations as the Internet Research Agency did for Russia (Nimmo, 2018).

Online appendix C provides summaries of each of the foreign and domestic influence efforts included in the final database.

#### Conclusion

We collect data on all foreign influence efforts (FIEs) and domestic influence efforts (DIEs) identified in the media since 2011. While Russia has been the most active user of this new form of statecraft, other countries are following suit. China, Iran, Saudi Arabia, and UAE have adopted the approach, though none are yet as prolific in deploying similar tactics beyond their own borders. Even a few democratic states have adapted these techniques, though only at small scale and, except for France, only domestically so far.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> The United States has in the past deployed campaigns that would qualify as FIE, but not since 2011. The US effort to create progovernment/anti-insurgency media in Iraq from 2007 to 2011, for example, would have met our inclusion criteria as it produced video

The fact that reporting from social media, expert blogs, working papers, and articles may not be comprehensive means that our database represents the lower bound for the number of IEs in the world. Campaigns targeting countries where platform content moderation is poor and media coverage lacking could be still hidden from the public view. Western democracies may therefore be overrepresented as targets of IEs relative to their actual share. Nevertheless, they provide an important window into broad trends in the use of this new tool of statecraft.

Overall, our data through 2020 suggest that while the use of online influence efforts domestically continues to spread, the increase in the number of cross-border campaigns has stopped. Russia continues to target many countries, and China is targeting diaspora populations in several places. But at least through 2020, few other countries have adopted online influence campaigns as a major tool of statecraft, even though all those engaging in domestic influence efforts clearly have the capacity to do so.

We hope this analysis and data will provide useful background for those studying these trends. Our underlying data and accompanying reports will be updated regularly.

# Replication data

The dataset, codebook, and do-files for the empirical analysis in this article, along with the Online appendix, are available at https://www.prio.org/jpr/datasets/. All analyses were conducted using Stata.

# Acknowledgments

We are grateful to a range of colleagues including Roland Adorjani, Laura Courchesne, Nick Feamster, Andy Guess, Hans Klein, Meysam Alizadeh, Brendan Stewart, and Alicia Wanless for helpful comments and feedback. Will Lowe provided invaluable advice on data structure and data entry. Jordan Allen, Nicola Bariletto, Arya Goel, Danielle Hull, Janette Lu, Imane Mabrouk, Matthew Merrigan, Justinas Mickus, Brendan O'Hara, Jan Oledan, Kamila Radjabova, Jacob Rob, Nina Sheridan, Joe Shipley, Jack Tait, Kamya Yadav, and Luca Zanotti provided excellent research assistance.

# Funding

This work was possible thanks to generous funding from the Bertelsmann Foundation and Microsoft. All errors are our own.

clips and TV shows intended to appear as organic Iraqi content (Kennedy, 2016).

#### ORCID iDs

Diego A Martin https://orcid.org/0000-0003-0895-5074 Jacob N Shapiro https://orcid.org/0000-0002-7484-229X

# References

Acemoglu, Daron & David Autor (2011) Skills, tasks and technologies: Implications for employment and earnings. *Handbook of Labor Economics* 4(16082): 1043–1171.

Alizadeh, Meysam; Jacob N Shapiro, Cody Buntain & Joshua A Tucker (2020) Content-based features predict social media influence operations. *Science Advances* 6(30): eabb5824.

Barojan, Donara (2018) SyriaHoax part two: Kremlin targets white helmets. *Medium* 20 (February) (https://medium.com/dfrlab/syriahoax-part-two-kremlin-targets-white-helmets-c6ab692d4a21).

Barragán, Daniela (2017) Eruviel le da millones a 'sitios digitales', 'agencias', muros de Facebook y 'revistas' fantasma [Eruviel gives millions to 'digital sites', 'agencies', Facebook walls and ghost 'magazines']. *Sin Embargo* 28 (July) (https://www.sinembargo.mx/28-07-2017/3269866).

Bastos, Marco T & Dan Mercea (2019) The Brexit botnet and user-generated hyperpartisan news. *Social Science Computer Review* 37(1): 38–54.

Bradshaw, Samantha & Philip N Howard (2018) The global organization of social media disinformation campaigns. *Journal of International Affairs* 71(1.5): 23–32.

Enli, Gunn (2017) Twitter as arena for the authentic outsider: Exploring the social media campaigns of Trump and Clinton in the 2016 US presidential election. *European Journal of Communication* 32(1): 50–61.

Euronews (2021) Sebastian Kurz: Austria leader allegedly used public cash for positive media coverage. *Euronews, AFP, AP* 7 (October) (https://www.euronews.com/2021/10/06/aus tria-s-kurz-accused-of-using-public-money-to-fund-positive-media-coverage).

Golovchenko, Yevgeniy; Cody Buntain, Gregory Eady, Megan A Brown & Joshua A Tucker (2020) Cross-platform state propaganda: Russian trolls on Twitter and YouTube during the 2016 US presidential election. *International Journal of Press/Politics* 25(3): 357–389.

González, Orlando (2019) 'Ciberclarias', un ejército que invade las redes sociales con cuentas falsas ['Ciberclarias', an army that invades social networks with fake accounts]. *Cubanet* 21 (May) (https://www.cubanet.org/destacados/ciberclarias-un-ejercito-que-invade-las-redes-sociales-con-cuentas-falsas/).

Grossman, Shelby; Daniel Bush & Renée DiResta (2019) Evidence of Russia-linked influence operations in Africa. *Stanford Internet Observatory*. Technical report (https://fsi.stanford.edu/publication/evidence-russia-linked-influence-operations-africa).

Grossman, Shelby; Khadeja Ramali & Renée DiResta (2020) Blurring the lines of media authenticity: Prigozhin-linked

group funding Libyan broadcast media. *Stanford Internet Observatory*. Technical report (https://fsi.stanford.edu/news/libya-prigozhin).

- Haman, Michael (2020) The use of Twitter by state leaders and its impact on the public during the COVID-19 pandemic. *Heliyon* 6(11): e05540.
- Hanson, Fergus; Sarah O'Connor, Mali Walker & Luke Courtois (2019) Hacking democracies: Cataloguing cyber-enabled attacks on elections (https://www.acs.org. au/insightsandpublications/reports-publications/hackingdemocracies.html).
- Howard, Philip N; Bharath Ganesh, Dimitra Liotsiou, John Kelly & Camille François (2019) The IRA, Social Media and Political Polarization in the United States, 2012–2018. Oxford: University of Oxford.
- Jindia, Shilpa; Graphika & The Syria Campaign (2017) Killing the truth: How Russia is fuelling a disinformation campaign to cover up war crimes in Syria. Technical report. The Syria Campaign (https://thesyriacampaign.org/wp-content/uploads/2017/12/KillingtheTruth.pdf).
- Joseph, Michael F & Michael Poznansky (2018) Media technology, covert action, and the politics of exposure. *Journal of Peace Research* 55(3): 320–335.
- Keller, Tobias R & Ulrike Klinger (2019) Social bots in election campaigns: Theoretical, empirical, and methodological implications. *Political Communication* 36(1): 171–189.
- Kennedy, Dominic (2016) Thatcher's PR guru ran Iraq propaganda for Pentagon. *Times* 3 October (https://www.thetimes.co.uk/article/thatcher-s-pr-guru-ran-iraq-propaganda-for-pentagon-lw5zlsfkx).
- Lelkes, Yphtach; Gaurav Sood & Shanto Iyengar (2017) The hostile audience: The effect of access to broadband internet on partisan affect. *American Journal of Political Science* 61(1): 5–20.
- Marshall, Monty G & Keith Jaggers (2020) Polity IV project: Political regime characteristics and transitions. Technical report (https://www.systemicpeace.org/polityproject.html).
- Martin, Diego A; Jacob N Shapiro & Michelle Nedashkovskaya (2019) Recent trends in online foreign influence efforts. *Journal of Information Warfare* 18(3): 15–48.
- Mueller, Robert S (2019) Report on the investigation into Russian interference in the 2016 presidential election. *US Department of Justice*. Pp. 4–8, 14–35.
- Nimmo, Ben (2018) Trolltracker: An Iranian messaging laundromat. *Medium* 29 August (https://medium.com/dfrlab/trolltracker-an-iranian-messaging-laundromat-218c46509193).
- Nimmo, Ben & Aric Toler (2018) The Russians who exposed Russia's trolls. *Medium* 8 March (https://medium.com/dfrlab/the-russians-who-exposed-russias-trolls-72db132e3
- Ott, Brian L (2017) The age of Twitter: Donald J. Trump and the politics of debasement. *Critical Studies in Media Communication* 34(1): 59–68.

- Poulsen, Kevin & Spencer Ackerman (2018) The most shocking moments of the new Russia complaint, from 'Civil War' to 'Fake' Rubio to 'Colored LGBT'. *Daily Beast* 19 (October) (https://www.thedailybeast.com/the-most-shocking-moments-of-the-new-russia-indictment-from-civil-war-to-fake-rubio-to-colored-lgbt).
- Richter, Andrei (2011) The post-Soviet media and communication policy landscape: The case of Russia. *Handbook of Global Media and Communication Policy*: 192–209.
- Satariano, Adam (2020) Inside a pro-Huawei influence campaign. New York Times 29 February (https://www.nytimes.com/2021/01/29/technology/commercial-disinformation-huawei-belgium.html).
- Shao, Chengcheng; Giovanni Luca Ciampaglia, Onur Varol, Alessandro Flammini & Filippo Menczer (2017) The spread of fake news by social bots. arXiv preprint arXiv: 1707.07592 96: 104.
- Vilmer, Jean-Baptiste Jeangène; Alexandre Escorcia, Marine Guillaume & Janaina Herrera (2018) Information manipulation: A challenge for our democracies. Technical report.
- von Borzyskowski, Inken & Michael Wahman (2021) Systematic measurement error in election violence data: Causes and consequences. *British Journal of Political Science* 51(1): 230–252.
- Wallis, Jacob; Tom Uren, Elise Thomas, Albert Zhang, Samantha Hoffman, Lin Li, Alex Pascoe & Danielle Cave (2020) Retweeting through the great firewall. Australian Strategy Policy Insitute. Technical report (https://www.aspi.org.au/report/retweeting-through-great-firewall).
- Watts, Clint (2017) Clint Watts' testimony: Russia's info war on the US Started in 2014. *Daily Beast* 10 April (https://www.thedailybeast.com/clint-watts-testimony-russias-infowar-on-the-us-started-in-2014).
- Weidmann, Nils B (2015) Communication, technology, and political conflict: Introduction to the special issue. *Journal of Peace Research* 52(3): 263–268.
- Woolley, Samuel C & Philip N Howard (2017) Computational propaganda worldwide: Executive summary. Working paper, Oxford University (https://ora.ox.ac.uk/objects/uuid:d6157461-aefd-48ff-a9a9-2d93222a9bfd).
- Zhuang, Maiting (2018) Intergovernmental conflict and censorship: Evidence from China's anti-corruption campaign. SSRN: 3267445.
- JULIA G ILHARDT, School of Public and International Affairs, Princeton University.
- DIEGO A MARTIN, PhD Candidate in Economics, Purdue University.
- JACOB N SHAPIRO, Professor of Politics and International Affairs, Director of the Empirical Studies of Conflict Project, Princeton University.