The Politics of Social Media Manipulation

Edited by Richard Rogers
and Sabine Niederer

The Politics of
Social Media Manipulation

The Politics of
Social Media Manipulation

Edited by
Richard Rogers
and Sabine Niederer

Table of Contents

List of figures and tables

Tables

1   The politics of social media manipulation

Richard Rogers and Sabine Niederer

Abstract

This chapter gives an overview of the contemporary scholarship surrounding 'fake news'. It discusses how the term has been deployed politically as a barb against the free press when publishing inconvenient truths since the mid-nineteenth century. It also addresses how such notions have been used in reaction to novel publishing practices, including to the current social media platforms. More generally, the scholarship could be divided into waves, whereby the first related to the definitional issues and the production side, whilst the second has been concerned with its consumption, including the question of persuasion. There is additionally interest in solutions, including the critique of the idea that automation effectively addresses the problems. It concludes with research strategies for the study of the pervasiveness of problematic information across the internet.

Keywords: fake news, junk news, disinformation, clickbait, hyperpartisan, post-truth

Introduction: Influence campaigning in political spaces online and the question of persuasion

In reviewing the scholarship surrounding so-called fake news, one would out of necessity make a distinction between the dominant work on the art of influence campaigning and computational propaganda online and the consequences to date for its consumers, but also the few findings, often journalistic, in the relatively understudied case of the Dutch political space online, both on the web as well as in social media. Much work has

been undertaken on the influence of Russian (and Russian-style) influence campaigning in the US, and the presence or absence thereof during elections in Germany, France, Sweden and elsewhere. With respect to the Netherlands, the case studies have been reserved to the early Russian influence campaigning around the downing of the MH17 Malaysian airliner (beginning in 2014) and the suicide bombings in the Brussels airport and metro (2016), discovered through the use of Twitter data sets of Russian trolls, or influence campaigners. Other work has been performed on the existence of home-grown troll networks that are at times 'pro-Russian' but do not seem to have had foreign input.

Crucially, in the studies and journalistic treatments to date it is increasingly remarked that there has been a shift in Russian disinformation campaigning from inflaming conflict with the West to stirring it within the West. It is also argued that disinformation could be said to be 'Russifying', i.e., the borrowing of so-called Russian techniques by domestic actors. The campaigning, whether foreign or domestic, does more than create narratives that divide; it also employs computational means to inflate and amplify them through bot work, fake following, astroturfing, the creation of front groups and other artificial publicity tactics.

It is also argued that more attention ought to be paid to the rise of extreme and divisive media on social media platforms, where the point is often made that great emphasis is being placed on foreign disinformation when by comparison it performs poorly in European news spheres. The growth of 'hyperpartisan' news and commentary also may be viewed as an alternative fact or knowledge infrastructure, contributing to discussions of a post-truth condition and the contention that established institutions are under threat.

It is of equal importance to examine the critique on persuasion, or the extent to which the influence campaigning strategies, artificiality and hyperpartisan sources have discernible impacts on their consumers, especially the voters. They appear to be minimal. Indeed, there is a small, but growing literature critiquing transfer models, also known as hypodermic needle or magic bullet theories which themselves could be considered part and parcel of the fake news hype and fascinations with so-called psyops activities such as in the Cambridge Analytica case.[1] Transfer models do

---

1   The Cambridge Analytica case or scandal refers to the illegitimate use of over 80 million Facebook users' information to develop micro-targeted advertising (Cadwalladr and Graham-Harrison, 2018). It prompted US Congressional and UK Parliamentary investigations, and also led to Facebook's tightening its data access for academics and public scrutiny more generally (Bruns et al., 2018).

not take into account the active filtering of media users or phatic sharing, it is argued, whereby one circulates dubious media more to connect with others or for amusement than to pass along substantive information. Such models also would discount hardened attitude, and studies finding that campaigns generally have minimal effects.

As for the measures to be taken, the literature both describes and occasionally questions fact-checking and media literacy efforts because of the assumption that corrected information would assuage knowledge deficits, for attitudes often remain the same. Nonetheless, among the policy recommendations most frequently put forward are bolstering media literacy initiatives, together with flagging questionable content, manually and automatically, for further scrutiny. Social media platforms are facing regulation and are asked to address extreme content and create public archives.

One aspect of the literature review relevant to empirical work concerns the methods employed to demarcate political space online for the subsequent study of the scope and impact of problematic content, junk news and computational propaganda – to use some of the terms for the larger phenomenon under study. Under consideration here are largely mixed (quanti-quali) techniques and digital methods from media studies and data journalism. These provide distinctive political space demarcation strategies for the web as well as social media per platform as well as approaches for cross-platform analysis. They query engines and platforms, measure significant political stories (in terms of engagement) and determine construals of dubiousness through news criticism, categorizing significantly engaged-with stories into genres such as disinformation, conspiracy, clickbait, hyperpartisan and (automated) amplification. While often practiced on a story level, the determination of dubiousness also may be made through source criticism, according to the extent to which publishers' output repeatedly accords with junk news definitions, discussed in the next section. It is also worth studying how signal-based or algorithmic determinations of problematic content comport with qualitative methods that are based on source (provenance) criticism.

Fake news, junk news and computational propaganda

Historically, fake news proclamations could be thought of as linked to particular novel publishing practices both 'when old media were new' but also nowadays through social media platforms (Marvin, 1988; Gitelman, 2006). The term 'canard', meaning unfounded rumour or story, refers to

the contents printed in the French broadsheets of the eighteenth century; 'scandal sheets' are the British term for the same era of publishing (Darnton, 2010). In the U.S., in particular, 'fake news' as a term recently experienced a revival and travelled internationally, in the numerous senses in which it has been deployed historically: 'news satire, news parody, fabrication, manipulation, advertising, and propaganda' (Tandoc et al., 2018: 137). As directed towards contemporary social media platforms, the charge of fake news and similar terms often has been uttered as a lament after the introduction of new media technologies, where there are concomitant calls for new journalistic standards, as witnessed with the competing tabloids and their sensationalist, yellow journalism in the late 1890s and into World War I as well as the radio and newswire in the 1920s (Opper, 1894; Lippmann, 1922; McQueen, 2018).

With the rise of corporate public relations, the blurring of the distinction between the editorial and the advertisement sent over the wire or into the airwaves prompted the use of the moniker, 'news fakers' (McKernon, 1925; Lazer et al., 2018). Similarly, the contents of the early, unedited web, populated by self-publishers, and later the blogosphere, were often described as 'too fresh to be true', given the speed of news production and the potential for those looking for a scoop to convert unsubstantiated rumour into news (Hall, 2001; Rogers, 2005). More recently, the notion would be routinely deployed by satirical news sources such as *Saturday Night Live!* in the US (Day and Thompson, 2012); in fact, *The Daily Show*, the progressive comedy news program, described itself proudly as a 'fake news program' (Newman, 2010; Harsin, 2018). Parody, it should be recalled, was behind the origination of the most circulated 'fake news' story during the US presidential campaigns of 2015-2016, 'Pope Francis Shocks World, Endorses Donald Trump for President' (Allcott and Gentzkow, 2017). While many definitions concentrate on the falseness of content, they may have the 'trappings of news' through the use of the news apparatus, including the style, formats and containers employed (Laquintano and Vee, 2017; Grinberg et al., 2019). Indeed, narrower definitions take as their point of departure how the sources 'falsely claim to be news organizations,' though they may well look the part (Tucker et al., 2018: 3).

Fake news also has been deployed politically as a barb against the free press when publishing inconvenient truths, or speaking 'truth to power' (Cary, 1955; Darnton, 2017). Since the mid-nineteenth century, labelling the news media generally and disagreeable reporting specifically as the product of *der Lügenpresse* or the lying press is a discrediting ploy or even communication strategy, still practiced today by far-right social movements as Pegida in Germany, chanting at street rallies *Lügenpresse, halt*

die Fresse (lying press, shut your mouth) (Beiler and Kiesler, 2018). It was the German *Unwort des Jahres* (notorious word of the year) in 2014, in the competition organized by TU Darmstadt. Fake news is also a label, used in highly conservative political circles in the US, for particular news sources, notably CNN, MSNBC, *The New York Times*, and *The Washington Post*; the designation is similar, albeit perhaps more extreme, to past portrayals of the agenda-setting 'elite media' in contrast to conservative upstarts as *Fox News* (Marwick, 2018; Tripodi, 2018; Peck, 2019). In this respect, one could call the current situation just the latest fake news scare, or even moral panic (Brennen, 2017; Morozov, 2017).

When discussing the phenomenon in relation to social media and other online sources, researchers at the computational propaganda project at the Oxford Internet Institute (OII) often offer the umbrella term 'junk news', defined as 'extremist, sensationalist, conspiratorial, masked commentary' (Howard et al., 2017, 1). Other catch-all's include 'problematic information', 'information disorders' and 'false news' (Jack, 2017; Wardle and Derakhshan, 2017). Apart from sensationalist, conspiratorial and masked – features that have been a part of fake news ontologies for centuries – the OII definition emphasizes another element, extremist, which cuts to the heart of contemporary concern for the phenomenon when studied not only as a practice of media and public opinion manipulation but also a trigger for societal unrest.

With respect to the growing anxiety over fake news as harbinger of unrest, one may refer to the distinctions made between a variety of information disorders, as well as the coinage of new terminology that captures excitable, Internet-related media and speech (Wardle, 2018). First, disinformation and misinformation are both false, but the latter is unintentionally so, whilst the former is fashioned for the purposes of intentional disruption and causing harm. A third term, 'mal-information' (a neologism), seemingly borrowed from malware or malicious software categorizations, has been introduced to describe accurate information released for the purposes of harassment such as doxing, or publishing private details (Wardle and Derakhshan, 2017).

These are the tools for the so-called 'weaponization' of social media platforms to foment discord through seeding the news and public opinion with divisive content. Indeed, 'extreme speech' is a term that has been offered as a nuancing of the hate speech discourse as it is applied to online toxicity. It is meant to capture a form of charged language and cultural conflict that stops short of hate, and has emerged with social media, defined as 'vitriolic exchange on Internet-enabled media' (Pohjonen and Udupa, 2017: 1173). Its rise has prompted social media companies as Facebook, Twitter and

Alphabet (owners of YouTube) to expand their content reviewer pools as well as widen their internal mandates to identify and remove more than violence, pornography and hate (Gillespie, 2018). Google also installed a feedback system for its web search to report inappropriate autosuggestions, after reports of queries for the 'holocaust' autocompleting with 'is a hoax' (Solon and Levin, 2016; Hern, 2017).

As with new media technologies of old, social media platforms currently are said to enable the 'supercharging' or the acceleration of the spread of fake news (Bounegru et al., 2018). Two terms have been used to capture the web and subsequently social media as accelerationist media: clickbait and computational propaganda. Clickbait connotes titillating and sensational content and is formulaic in its presentation, often containing numbered lists (sometimes referred to as a 'listicle') as well as a cliff-hanger or 'information gap' that sparks curiosity, e.g., 'twenty things you should not do when visiting Japan'. Facebook, in seeking to identify and downgrade clickbait in its news feed, defines it as 'a posted link with a headline that encourages people to click to see more, without telling them much information about what they will see' (O'Donovan, 2018). Generally social media companies seek to operationalize substantive definitions into computational signals. Thus, to Facebook, brief attention (or short 'time-on-site') is a signal of clickbait, for readers, having been lured in to the 'junk food of content consumption', are subsequently dissatisfied with the low-quality content, and leave the page quickly (DeAmicis, 2014). Clickbait, often innocuous, can be combined with divisive content (Burger and Schenk, 2019). 'Extreme clickbait' was a part of the story behind the allegedly apolitical Macedonian teens based in Veles, who used 'spammy techniques' in optimizing pro-Trump sites to make money, in the run-up to the US presidential elections of 2016 (Silverman and Alexander, 2016). Follow-up reporting has sought to debunk that narrative, finding that the clickbait campaign was orchestrated by political operatives (Wendling, 2018; Silverman et al., 2018).

Computational propaganda, the second term, refers to 'the assemblage of social media, autonomous agents and algorithms tasked with the manipulation of opinion' (Neudert, 2017: 3). The breadth of the definition is intended to capture the bots that amplify content, the advertising platforms that enable micro-targeting and personalization of influence messaging, and the click farms that inflate the follower counts and engagement scores, granting posts higher 'vanity metrics' and thus greater symbolic power through fake support (Rogers, 2018a). For computational propaganda, bots increase the spread or reach of the posts and inflate their metric counts

(Woolley and Howard, 2016). 'Low-credibility content' is spread disproportionately by 'social bots,' which refer to bots or autonomous agents tasked with influencing discussion and public opinion; such a finding has led to calls for curtailing their use (Shoa et al., 2018). As a part of the 'assemblage' of actors and software practicing computational propaganda, the work of software-assisted, political operatives has come under scrutiny, especially in the run-up to elections. Sock puppets, assuming the false identity of a grassroots organizer or a concerned individual, create and circulate political content, organize events and mobilize audiences, making interventions in the physical world through hashtags, internet memes and Facebook events (Mina, 2019). 'Front groups' or even faux 'hashtag publics' also mobilize followings and organize demonstrations (see Table 1.1); one notorious case concerned an anti-Islam protest and counter-protest in Houston, Texas, in 2016, where both groups were mobilized by Russian campaigners operating under the names of the Blacktivists and the Heart of Texas, respectively (Shane, 2018).

A related term for disingenuous content insertion for political ends is astroturfing. It is the artificial seeding of newspapers and other content providers with political (or corporate) advertising disguised as genuine citizen concern. Such content is a different category than sponsored political content, where there are regulations that mandate labelling it as 'paid for by' a particular candidate or campaign (Vaidhyanathan, 2017). Nonetheless there have been calls to have 'masked' political content unmasked and marked as sponsored, however much in the case of a pro-Brexit group, Britain's Future, investigative journalists were long not able to unearth the funding source, despite the transparency of its being labelled.

Particular forms of native social media advertising have prompted the calls for further public scrutiny of political ads, and also perhaps an expansion of the definition of such. 'Dark posts' (aka 'promoted posts') on Facebook refer to micro-targeted advertisements, without a referral page anchoring the content for further investigation (Bump, 2017). Used by political operatives, including foreign influence campaigners, in the US in 2014-2017 and beyond, such campaigning tactics assemble 'keyword publics' algorithmically by querying the Facebook advertising platform for words such as 'second amendment' or other pro-gun terminology and sending advertisements to the news feeds of the tens or hundreds of thousands of those users determined to have such an interest (Angwin et al., 2017). These publics are targeted not so much because they are persuadable voters but rather to have them circulate and amplify messaging.

Table 1.1   Overview of 2016 fake rallies planned and promoted, as listed in the US indictment of 13 Russian nationals concerning foreign election interference

2016 fake rallies planned and promoted		
Date	*Fake rally*	*Location*
25 June	March for Trump	New York
9 July	Support Hillary. Save American Muslims	Washington, D.C.
23 July	Down with Hillary	New York
20 Aug.	Florida goes Trump	Several Florida cities
2 Oct.	Miners for Trump	Several Pennsylvania cities
12 Nov.	Show your support for President-Elect Donald Trump	New York
12 Nov.	Trump is NOT my president	New York
19 Nov.	Charlotte against Trump	Charlotte, N.C.

Source: Parlapiano and Lee (2018)

Apart from particular social media advertising products such as dark posts, other formats have been identified as energizing publics with divisive messages. 'Image macros', also known as memes, are photos with two lines of text, one opening and one closing line, that are a popular format for political messaging on Facebook and have been among the most shared and otherwise most engaged-with content on the platform (Renner, 2017). Indeed, in the data analysis of the most shared posts of the 'fake' (or astroturfing) activist group pages set up by the Russian Internet Research Agency (Blacktivists, United Muslims of America, Being Patriotic, Heart of Texas, Secured Borders and LGBT United), the image macros and other meme material scored particularly well (Chen, 2015; Albright, 2017; Timberg, 2017).

Russian influence campaigning, Russification and the 'hyperpartisan' style

'Dark globalization' is a term put forward by the historian Timothy Snyder to refer to how knowledge of western societal problems provides opportunities to influence campaigners from abroad, or Russia in particular (2018). In the US Snyder refers to the complex of race, gerrymandering and the electoral college, and the capacity to target voters in specific geographical areas (such as counties in 'swing states') with divisive political messaging that amplify or provide 'oxygen' to viewpoints. There have been detailed analyses of the Russian influence campaign of 2014-2017 commissioned by the US Congress,

both of which benefited from data provided by Facebook, Twitter and Alphabet (Google) that previously had not been made available for research (Howard et al., 2018; New Knowledge, 2018). They are a part of a litany of literature that has appeared since the commissioning by governments to study the 'tactics' of the influence campaigners as well as the contemporary art of propaganda and the development of counter-narratives more generally. These studies also have led to recommendations concerning how to combat the effects.

The study by the cybersecurity firm, New Knowledge, emphasizes the collective cognitive dissonance that effective propaganda achieves, introducing (and popularizing) language from intelligence and counterintelligence work (2018). Among the goals of the propagandists is to create 'a wilderness of mirrors', originally a phrase from a T.S. Eliot poem but mobilized by the intelligence community (Holzman, 2008). It refers to an environment where truth (and its establishment) are no longer self-evident (Groll, 2018).

To achieve that goal, New Knowledge argues, one particular tactic is the creation of a similarly termed 'media mirage,' or 'interlinked information ecosystems designed to immerse and surround targeted audiences' (2018: 42). They are enveloped in an 'information cacophony', where stories from the press are repurposed, and given another author ('blacktivists'), interpretation and tone. Here is one example, taken from an original newspaper story about how an '11-Year-Old Texas Boy Invents Device to Prevent Hot Car Deaths' (Dahlgren and Arkin, 2017). It was reworked as follows: '[T]hese are stories of Black children the media don't want you to see'; 'White people invent tools for killing, this Black child is inventing a tool for saving lives' (New Knowledge, 2018: 62). The divisiveness and the effectiveness ascribed to the sample post derives not only from the transformation of the feel-good news story into a contrived in-group and out-group divide based on race. Note, too, the format used; the second sentence is a two-liner, to be cast into an image macro or meme, the popular format for sharing and further circulation of grievance, outrage as well as mockery. The story also brings together categories of problematic information. It is both clickbait as well as rather extreme content, and it invites the consumer to read more about the grievance. It is also packaged to be shared.

The purpose of such campaigning is to sow discord and enmity, but it is only one of a variety of tactics where the overall goal is to remove a sense of a collective and shared experience of the world, as analysts have phrased it, and reify group formation (Gessen, 2018). Apart from the creation of a media mirage, the other tactics listed are as follows: 'targeting, asset development, cross-platform brand building, memetics, inflecting a common message for

different audiences, narrative repetition and dispersal, repurposing and re-titling pages and brands, manipulating journalism, amplify conspiratorial narratives, sow literal division, and dismiss and redirect' (New Knowledge, 2018: 2). With respect to social media, as discussed above, targeting could refer to the audience segmentation available in platforms for advertising purposes, and memetics to the use of both the image macro to formulate a punchy message as well as to build the meme as an additive content container for narrative reinforcement.

It is worthwhile to mention that the expert studies are snapshots, but these as well as subsequent reporting have pointed to the 'ongoing efforts' of the influence campaigners, and their global spread. While social media companies – since the Cambridge Analytica and fake news scandals – have become more active in identifying and suspending accounts of known Russian and other state-sponsored trolls (e.g., Iranian), similarly named accounts are active and can be traced to known networks of political operatives (New Knowledge, 2018; FireEye, 2018). New accounts are continually made (Vaidhyanathan, 2018); the Chief Technology Officer at Facebook speaks of 'blocking more than one million fake accounts every day, sometimes just when they are created' (O'Brien, 2019). The percentage of influence campaigner accounts in that large number is not known.

Recently, there has been growing concern not only about the ongoing efforts of Russian influence campaigners but also the uptake by other groups (or 'domestic actors') of the so-called 'Russian playbook' (Frenkel et al., 2019). Journalistic coverage was prompted by the announcement by Twitter that prior to the US Congressional elections of 2018 it removed accounts of Americans posing as members of state Republican parties (Harvey and Roth, 2018). Facebook also announced that hyperpartisan pages on both sides of the political spectrum in the US would be removed. Discussions of the 'Russification' of online political campaigning also historicized disinformation, pointing to the classic examples, such as the claim that the HIV virus was the leaked product of a US bioweapons lab; it was planted in news outlets beginning in 1983 by Soviet *dezinformatsiya* campaigners in 'Operation Infektion' and ultimately spread four years later to national US TV news (Boghardt, 2009; Ellick and Westbrook, 2018). Comparing the time span of such news spread to the dynamics of reach in the hybrid media system nowadays is how one may describe how the 'platform press' has supercharged fake news (Chadwick, 2013; Bell and Owen, 2017).

In a well-cited article in the *New York Times*, Facebook, as a leading example of the 'platform press', was described as a 'totally insane, unintentionally gigantic, hyperpartisan political-media machine' (Herrman,

2016). The author spends some time describing the manner in which Facebook mixes posts in its news feed from both family members and faint acquaintances, but also discusses the presence of upstart media organizations and self-styled advocacy groups that only exist online, many only in social media. Most are described as 'hyperpartisan'. These sources populating the platform with content are defined as 'openly ideological web operations' (Herrman, 2016). They also are successful, not just because more extreme and sensational content spreads faster than more sobering truth (Vosoughi et al., 2018). It is also because they employ formats that engage large numbers of users and learn from their engagement and reach. 'Operating' in a continuous feedback loop of metrics data, posts are optimized to perform well in social media. The performance measures are based on the virality of posts, and those that work well are emulated. There are particular formats as well as styles that drive engagement. Memes and clickbait such as listicles, cliff-hanger headlines and human-interest stories are among the formats used, as mentioned above. The hyperpartisan style has a variety of substantive features, not all of which are equally applied, but many appear to be working well. Often anti-establishment as well as positioned as against or in competition with the truth-seeking and fact-finding of the mainstream media, the media operations post stories that are alternatives. These alternatives may be interpretations, facts and editorial commentary on events. They become media layers on the news. The presentation is often edgy, both in terms of being knowledgeably on trend but also sharp in tone. The posts are regular, and as such are part of the permanent updating culture, providing a competing 'feed' about what is happening in the world and in media.

The post-truth condition

There is a series of contemporary utterances that have contributed to public discourse about a post-truth condition. One is the satirical notion of 'truthiness' (Colbert Report, 2005). Developed as political news commentary and comedy, it refers to having the appearance of being true, but without evidentiary basis. Another – 'alternative facts' – is a term that initially referred to the insistence by a member of the US Trump administration that the number of attendees at the presidential inauguration in 2016 was higher than reported and measured by crowd science (Still, 2017). The subsequent clarification of the meaning behind 'alternative facts' is more to the point: 'additional facts, alternative interpretation' (Nuzzi, 2017). Compared to

truthiness, here facticity does not derive from eye-witnessing or additional methodological authority but rather from other fact-making.

In response to what is sometimes considered first-order objectivity battles, or disputes over matters of fact (Margolis, 1995; Latour, 2008), newspaper reporting with such headlines as 'Here Are the Real [Facts]' as well as the work by fact-checking bureaus and initiatives are contesting fact claims with increasing urgency (Fandos, 2017). These are public debates about facts, inputs into which include fact-checking, a common practice of journalists and university research groups seeking to confirm the basis behind particular statements by politicians and others (Graves, 2016). Recently, scholarship on the effectiveness of fact-checking has developed in at least two directions: the extent to which fact-checking corrects the record as well as factual beliefs, and whether it changes attitudes (Barrera et al., 2017). Both are part of the decades-long discussion and critique of the 'information deficit' and 'diffusion' models, which challenge ideas that providing correctives clears up controversies (Wynne, 1991; McNeil, 2013).

In the fake news scholarly discourse, it has been found that there are distinct audiences for 'alternative facts' and 'fact-checked facts' (Bounegru et al., 2018). Whilst there may be a correction to the record, the original audience may not have been exposed to it. Fact-checked stories also have similar circulation patterns to alternative facts; they are forwarded to like-minded audiences (Shin and Thorson, 2017). Though it does not tell the entire story about exposure, both the original as well as the fact-checking publications are outlets with distinctive audiences or subscriber bases, with fact-checking newsletters often with smaller, specialty circulations, though their visibility may increase as they are built into platform interfaces such as Facebook's. In the other strand of work, it is asked, does exposure to fact-checked facts change factual beliefs as well as attitudes? Here one set of findings is in keeping with the critiques of the effectiveness of fact-checking and the information deficit model more generally, for respondents saw their factual accuracy improve, but their attitudes remain unchanged (Nyhan et al., 2019). Fact-checking, however, could be understood as a documenting process that corrects the record by capturing a dubious story and committing it, and its debunking or exposure, to searchable databases and other media.

The post-truth condition, though, has been described as a competition with respect to not first-order but second-order objectivity. In such a circumstance there is a rise of competing regimes of truth (Fuller, 2018). Expertise becomes 'sectarian' (Turner, 2001). The idea of the media mirage (evoked to describe effective disinformation campaigns) does not in itself create a competing truth regime or infrastructure. Rather, it introduces noise into an infrastructure.

But when propagandists, or in a different reading of the contemporary situation, a populist radical right media ecology, create an alternative news and information infrastructure, those efforts fit with descriptions of the post-truth condition (Benkler et al., 2017; Sängerlaub et al., 2017).

In other words, post-truth is a term that should not be construed as signifying hoodwinked (or radicalized) consumers, or the 'wholesale cheapening' of fact-making (Sismondo, 2017). Rather, in asking whether 'we can have our facts back', the debate concerns whether (or when) publics can agree on the 'facticity infrastructure' or even the modernist project of knowledge institutions (Marres, 2018). As a case in point, there are ideologically distinctive alternatives to Wikipedia (such as Infogalactic, Metapedia and Conservapedia), producing encyclopaedias challenging not only what is known or settled fact, but also the sources rooting it (Fitts, 2017).

Elections, disinformation, and the Dutch case

Three recurring topics are often discussed in the news and (commissioned) research on disinformation and fake news in the Dutch context. First of all, of particular concern are Russian trolls and their spreading of disinformation in the Netherlands. Secondly, there are the (non-Russian) fake accounts and fake fans that that inflate the popularity of a campaign or a prominent figure, granting them greater symbolic power. And thirdly, publications are addressing its discernibility and possible countermeasures. How to recognize it and combat it? Each of these discussions is often set against the backdrop of a changing news media landscape, whereby mainstream news is increasingly competing with more tendentious and hyperpartisan outlets, and digitization is leading to user-driven and algorithm-driven personalization. That may narrow the horizon of news that users encounter and perhaps increase fringe consumption, though in empirical studies such has not been found (Wieringa et al., 2017). Comparisons of the Dutch situation are also drawn with the US.

While digitization may be changing how people consume news, a study of online news behaviour, disinformation, and personalization of the news by the Rathenau Institute stresses that in the Netherlands, the traditional news media still hold a firm and stable position in the media landscape (van Keulen et al., 2018). The study also finds that there is not (yet) widespread algorithmic personalization in Dutch media sites. And, in stark contrast to the current situation in the US, Dutch news consumers tend to use a variety of sources and have trust in the traditional news media (and less so in social

media). Lastly, the report underlines that the Netherlands does not have such a particularly polarized media landscape as the US.

Overall, there is a strikingly moderate tone of voice in the literature on the Dutch case, both in news reporting and research reports. Since 2016, several studies have looked at disinformation practices in the Dutch political landscape, and each of them has concluded that neither is there any large-scale disinformation activity in the Dutch media nor does disinformation have a significant impact on Dutch citizens. However, in the Summer of 2017, Wilfred Rietdijk, a Dutch general and national security advisor, announced in an interview with Dutch newspaper *de Volkskrant* that the Netherlands could no longer deal with the digital threat (van Zijl and Modderkolk, 2017). A 'landslide of fake news', as the subsequent tabloid headline read, would lead the country into chaos and division (Jonker, 2017). Including breaches and intrusions in his threat assessment (thereby widening the scope beyond disinformation), Rietdijk explained how Dutch companies are 'in the line of fire' from 'thousands of hackers from Russia, China, and countries such as Iran and even Sudan' (van Zijl and Modderkolk, 2017). The general is not the first to warn of foreign interference in the Dutch online space, though case studies were lacking, at least in the public domain.

Russian trolling and its perceived insignificance in the Netherlands

When the Minister of Internal Affairs, Kajsa Ollongren, warned the Dutch government of Russian disinformation in the Netherlands, she initially was criticized for not having compelling examples (Pleijter, 2017; Kist and Wassens, 2018a). Two journalistic studies that have looked into Russian tweets have found activity in the Dutch online realm, however. A study by *NRC Handelsblad* mined 200,000 tweets from Russian Internet Research Agency (IRA) accounts and found disinformation campaigning beginning in 2014 and another spate in 2016. The weekly magazine *De Groene Amsterdammer* combined the *NRC Handelsblad* data with larger collections of Russian troll accounts, made available on the American public opinion analysis website, *FiveThirtyEight* as well as the lists published by American Congress (van der Noordaa and van de Ven, 2018a). Both studies found a peak in trolling activity after the downing of MH17 in July of 2014. The *NRC Handelsblad* study finds that Russian trolls posted 57,500 tweets, most of which were in Russian and aimed to influence public opinion in Russia and Ukraine, and only four of the tweets were in Dutch (Kist and Wassens, 2018b). The study by *De Groene Amsterdammer* confirms that most tweets on MH17

were in Russian but finds more mentions of Dutch 'conspiracy theorists and activists', indicating a shift from challenging Western narratives (for Russian-speaking audiences) to seeking to stir conflict within the West.

A second event revealed more coordinated Russian troll activity in the Dutch language Twitter space (in Belgium and the Netherlands), and a further example of striving to foment unrest, albeit unsuccessfully (according to engagement measures) (van der Noordaa and van de Ven, 2018b). It concerned the spreading of anti-Islam content directly following the terrorist attacks in the Brussels airport and metro in March 2016, and in the two years after the attacks. This anti-Islam 'campaign' involved about 950 tweets in the Dutch language that were circulated by some 150 IRA-related accounts. These tweets were rarely retweeted, however. In the event, Russian trolls are more successful in the Netherlands with the circulation of English-language content. While these tweets are not related to Dutch issues and focus on for instance the US elections, they have been shared widely by over 6,000 Dutch Twitter users with a total of 9.5 million followers (Kist and Wassens, 2018a).

Perhaps counterintuitively, there was only minimal Russian interference with the Ukraine referendum in the Netherlands in April of 2016 (NOS, 2017). There was the Russian video capturing fake Ukrainian far-right militia members threatening terrorist attacks in the Netherlands and burning a Dutch flag, but it was readily recognized as propaganda (Bellingcat, 2016). Otherwise, only a handful of tweets propagating a 'No' vote was found in the larger set of tweets under study (van der Noordaa and van de Ven, 2018a).

The *NRC Handelsblad* concludes its work on the Twitter data set by noting that it is possible there is larger scale Russian activity in the Netherlands; it should be studied beyond just Twitter to include other platforms with known troll activity, such as Facebook, Instagram, YouTube and Reddit. Indeed, especially after Trump's victory in the US presidential elections of 2016, many news outlets pointed towards Facebook. As discussed in some detail below, a study by *BuzzFeed News* compiled the most engaged-with posts in the nine months prior to the elections and found that so-called fake news during that time was circulating more than mainstream news. Journalists from the *NRC Handelsblad* replicated the study's general method for the Netherlands, but with a narrower definition of fake news. They determined that the one hundred most-shared political news articles from January and February of 2017, in the run-up to the Dutch general elections, did not contain fake news (Kist and Zantingh, 2017). Certain articles could be considered misleading or biased, they thought, for they exaggerated news facts or took them out of context. The themes that were most resonant during the campaign period in the Netherlands were immigration, Islam and Geert Wilders.

Dutch fake followers and trolls

Until November of 2017 much of the reporting has insisted that the Nether-
lands – and the Dutch elections in particular – have been largely unaffected
by disinformation or fake news. Much of the news coverage that speaks of
it concerns 'fake followers'. For instance, in 2015, there was a small scandal
about Geert Wilders concerning a dubious increase in his followers on
Twitter. Indeed, when Twitter addressed the issue of fake followers and
follower count inflation through a mass removal of suspect accounts in
2018, Wilders as well as other Dutch politicians (including from the political
party Denk) saw their metrics decline (NOS, 2018). In perhaps the most
well-known case, the Dutch singer-songwriter Dotan was found to have a
fake following of 140 user accounts, which were used between 2011 and 2017
to like the musician on social media, edit the Wikipedia article on the artist,
request his songs at radio stations and circulate heart-warming stories about
him across social media platforms. One of the profiles declared how Dotan's
music helped her through a period of grief after a miscarriage; another tells
how Dotan welcomed one fan's terminally ill brother in a meet-and-greet,
throughout which the singer held the boy's hand. Both testimonials were
false, as reporters of *de Volkskrant* found and Dotan later confirmed (Misérus
and van der Noordaa, 2018a; 2018b).

   In 2018 the first large-scale global study of computational propaganda
was published, examining organized social media manipulation such as
the use of fake followers in 48 countries, including the Netherlands (Brad-
shaw and Howard, 2018). The study describes the different computational
tactics employed not so much by Russian influence campaigners but by
political parties to influence voters and the elections.[2] It was found that
the use of social media as an infrastructure for the spread of propaganda
and disinformation has become widespread. Under examination is 'cyber
troop activity,' defined as 'government or political party use of social media
to manipulate public opinion' (Bradshaw and Howard, 2018: 9).

   While in more authoritarian regimes, social media manipulation fits
into larger scheme of voter suppression and election rigging, in 'emerging

2   The research conducted a content analysis of news articles reporting on cyber troop activity
in a sample of 48 countries, supplemented by an in-depth secondary literature review. To collect
the news articles, the researchers used the following keywords in combination, in queries across
Google, Yahoo!, Bing and LexisNexis: astroturf*; bot; Cambridge Analytica; Facebook; fake;
fake account; disinformation; government; information warfare; intelligent agent; military;
misinformation; persona management; pro-government; propaganda; psychological operations;
psyops; social media; sock puppet*; troll*; Twitter (2018: 8).

and Western democracies, sophisticated data analytics, and political bots are being used to poison the information environment, promote scepticism and distrust, polarize voting constituencies, and undermine the integrity of democratic processes' (Bradshaw and Howard, 2018: 5). The tactics described include the use of three kinds of fake accounts. First, there is the creation of online commentator accounts that attack and troll genuine users, spread divisive content, or '[divert] conversations or criticism away from important issues' (Bradshaw and Howard, 2018: 11). A second tactic entails automated accounts or political bots to automatedly flood particular hashtags, and astroturf by faking a follower base. The bots also troll genuine users by reporting them and flag organic content thereby having both suspended until a human moderator checks them. A third tactic is the use of hybrid accounts, which are those that make use of automation (for the sake of speed and convenience) but are actively curated by human users, who commonly manage multiple fake accounts or sock puppets. This type of fake account is difficult to recognize, and thus to combat. The study finds that automation is the most recurring tactic, seen in 38 of the 48 countries under study.

Besides fake accounts, other strategies involve the use of political ads and the involvement of search engine optimization and activity on chat applications and across social media platforms. Where Twitter is proven to be the platform most friendly to automation, the study finds 'cyber troop activity on chat applications or other platforms (Instagram, LINE, SnapChat, Telegram, Tinder, WeChat, WhatsApp)' in one-quarter of the countries under study (Bradshaw and Howard, 2018: 13). In the European countries in their sample, they find distinct junk news footprints per country. In Germany, it is rather marginal and was mostly circulated by far-right political actors during the 2017 federal elections. In Italy on the other hand, a large and active 'ecosystem' of it is connected to political forces such as the Lega Nord (Northern League) and the Movimento Cinque Stelle (M5S, 5 Stars Movement), which were at work during the 2017 constitutional referendum and the elections of 2018. Here, junk news connects national politics to Euroscepticism, conspiracy theory, aliens and pro-Putin propaganda. In the Netherlands, the analysis finds that it revolves around politician Geert Wilders and in particular the spread of his anti-Islam video, which was broadcast on television and shared in social media in the lead-up to the 2017 Dutch national elections. In particular, the study finds that automated accounts have amplified Geert Wilders' campaign hashtags.

These results match the findings in a study that looked at troll-like behaviour on Twitter, leading up to the 2017 Dutch general elections, where sock puppets were found (Bounegru et al., 2018). The study collected over

500,000 tweets mentioning at least one of the Twitter accounts of the 28 political leaders a month before the 2017 Dutch general elections. To retain the users that demonstrated troll-like behaviour, it narrowed down the set to only the 25 users who consistently targeted one or more political representative.[3] The analysis showed that there was a notable asymmetry in the distribution of targets of troll-like behaviour and sock puppetry across the political spectrum, where left-wing politicians are most often targeted by negative mentions, while right-wing politicians receive support. Troll content extended to reputable news sources which cited it at least thirty times. Among the cited troll accounts were fake news organizations with names as 'Today in Syria' and 'WorldNewsPolitics', political parties (including multiple fake accounts for the Republican party in Tennessee) and concerned citizens, most of whom were fiercely pro-Trump and anti-Islam (Kist and Wassens, 2017). In another analysis by the *NRC Handelsblad*, a Dutch political party (DENK) also exhibited troll-like behaviour, including sock puppetry on both Twitter as well as Facebook (Kouwenhoven and Logtenberg, 2017).

While Dutch news consumers have been found to use a variety of news sources, the Netherlands also has a steady 'pulp news' diet (Burger et al., 2019; van der Poel, 2019). From 2013-2017 Dutch Facebook users consumed more low-quality, commercially driven clickbait than mainstream news, as was found through engagement scores. As may be expected, there is also relatively more clickbait on Facebook than quality news.

The consumption and forwarding of clickbait, extreme clickbait as well as other problematic information extends also to politicians and public figures. One Dutch researcher, Peter Burger, has a collection of instances when Dutch politicians have retweeted anti-Semitic or otherwise disturbing content. In one example, a video purporting to show 'Muslims vandalizing Christmas market in Lithuania' was actually a recording of an event that took place in the city of Baltimore in the US (Burger, 2016).

Recognizing and countering disinformation in the Dutch online space

Various initiatives aim to detect and counter disinformation in the Netherlands and on an EU-level. The EU taskforce (*East Stratcom Task Force*) against disinformation was heavily criticized in the Netherlands after its project EUvsDisInfo mistakenly categorized articles by *The Post Online*, *GeenStijl* and *De Gelderlander* as disinformation (van Keulen et al., 2018; Heck, 2018). (Figure 1.1 shows a cartoon about the fake news taskforce,

---

3   By @mentioning them at least 100 times in a one-month period.

Figure 1.1 **Cartoon that ridicules the fake news taskforce, stating: 'internet trolls are best countered by internet hobbits'**

Source: Reid et al. (2018)

stating internet trolls are best countered with internet hobbits.) In a sense, the dispute stemmed from misreadings of single stories, perhaps without an appreciation of how settled some of the sources are in the Dutch media landscape, despite their tendentious style (in the case of *The Post Online* and *GeenStijl*). For its part, *De Gelderlander* had taken over nearly verbatim a Russian storyline concerning the perpetrator behind the downing of the MH17 but did attribute it to its original source in a barebones reporting style. The flagged cases were removed from the EUvsDisInfo site after complaints by the Dutch media organization Persgroep (EUvsDisinfo, 2018).

Fact-checking as a journalistic practice has taken hold in the Netherlands. Many newspapers have implemented (or revived) a fact-checking section, often dedicated to checking statements made by political figures in interviews in newspapers or TV shows. There are also websites such as Hoaxmelding.nl and Nieuwscheckers.nl that compile lists of instances of false news on Facebook and elsewhere. For their study of disinformation, Rathenau researchers analyzed these lists, comprising respectively 140 on Hoaxmelding (collected between 1 February 2014 and 18 December 2017) and 166 on Nieuwscheckers (between 3 February 2017 and 5 January 2018) (van Keulen et al., 2018). They found that the items on the list of Hoaxmelding involved examples of unfounded warnings (65), polarizing disinformation (32) and fake crime news (31). Additionally, there were several examples of clickbait, benign as well as malicious. The content steers users to

**Figure 1.2   'Detected and eliminated' fake news, with a warning issued by NU.nl
                and Nieuwscheckers**

Source: NOS (2017a)

advertising, 'like-farming' and phishing sites (van Keulen et al., 2018: 38).
Such posts contain human interest stories that are 'painful on a personal
level' (van Keulen et al., 2018: 45). The researchers found that only 25% of
the disinformation concerned political content and most clickbait serves a
commercial goal, rather than a political one. On the list of items collected by
Nieuwscheckers, the Leiden University-based initiative, less than half was
found to have political content. Within the full set, the researchers found
six examples of polarizing content. Otherwise, many of the posts concern
factually incorrect, public statements by politicians, the investigation of
which is how fact-checking is conventionally practiced.

Fact-checking now extends well beyond unpacking politicians' statements,
and Facebook has entered into partnerships with many bureaus around
the world, including in the Netherlands, to explore and catalogue dubious
content. In 2017 Nieuwscheckers partnered with Facebook and NU.nl and
celebrated their first collaborative, 'successful detection and elimination
of fake news' that year when they flagged a tabloid-style, human-interest
post about an Australian new-born weighing 20 kilograms (see Figure 1.2).
In February of 2019, however, Nieuwscheckers withdrew from the Facebook
fact-checking initiative because of liability risks (Kist, 2019). Nu.nl continued
to work with Facebook on fact-checking, on a paid basis, an issue raised

repeatedly in the context of journalists' being asked to address an issue of Facebook's making on a voluntary basis.

The effectiveness of fact-checking as a strategy in the Netherlands is a different question. As mentioned above, fact-checks and fake news often have separate publics, and fact-checks may lead people to fake news, rather than away from it. A recent study in the Netherlands found that even when many people would agree with a fact-check, they are not interested in reading the fact-checking article, prompting the scholars to advise journalists to make the fact checks an engaging read (Hameleers and van der Meer, 2019). Another strategy to counter disinformation concerns a strand of media literacy that involves developing skills to recognize fake user accounts and disinformation. One is on a source level, the other on a story level. The *Field Guide to Fake News* provides a method for the detection of trolling accounts by looking at their friends, or their profile information (Bounegru et al., 2018). There are also courses and training modules for fake news detection and fact-checking, such as those given by Radio Netherlands (RNTC, 2019). The other format is the fake news quiz, such as those by *de Volkskrant* (2016) and the *Guardian* (2016), as well as the *New York Times* 'deceptive Facebook post' test (2018). These quizzes make it clear how challenging it is to recognize fake news. The Dutch serious game, titled *Slecht Nieuws* ('Bad News'), invites players to create fake news and by doing so gain insight into the strategies behind it and become more astute in its recognition (NRC, 2018; DROG, 2018). It is part of efforts that study false news as risk and ultimately seek to inoculate populations against it (Roozenbeek and van der Linden, 2018).

Voting aid applications

Voting aid applications (VAAs), often called *stemwijzers* in Dutch, are generally websites that describe their purpose as helping undecided voters find the political party that best matches their preferences and positions. As such, in the context of the study of disinformation and so-called fake news, they could be regarded as a competing persuasion instrument, a pre-emptive measure against influence campaigning, or even a potential site that may include it, either through parody, hoax or hack. The literature on VAAs takes up the Dutch and Belgian cases, countries that together with Germany, Austria and Switzerland have upwards of half the voter population accessing them prior to elections. The work can be positioned broadly as pertaining to 'the impact of internet-based applications on politics' and can be roughly divided into user studies, impacts of VAAs on the voters as well as the methods behind them (Hirzalla and van Zoonen, 2015: 88). To date

these online voting aids have not been raised as recommended technology to combat disinformation and influence campaigning per se, though they do furnish a rather personalised information experience that may be studied for its 'influence' effects, as discussed briefly below.

In studies of their usage, researchers have asked whether VAAs 'mobilize the mobilized' (Hirzalla and van Zoonen, 2015). And indeed, while VAAs have a heterogenous user base across demographics, interests, attitudes and behaviour (Vassil, 2011), there is an overrepresented subgroup of younger, mainly left-of-centre, urban and well-educated male users who are politically active or knowledgeable. This imbalance could lead to the conclusion that those who may benefit from political advice are not seeking it (Ruusuvirta, 2010).

A second set of literature concerns the impact of VAAs and assesses whether they have influenced the voting behaviour of its users, though it is not clear whether the quality, reach and graphical interfaces of the aids affected the extent of the influence. From those surveyed anywhere from 1% to 15% using DoeDeStemTest (in Belgium) as well as StemWijzer and Kieskompas (in the Netherlands) reported having been influenced by the aids (Walgrave et al., 2009; Hirzalla and van Zoonen, 2015). While research has found that the politically knowledgeable and engaged users that are common to use VAAs perceive them as useful, they are also among the less likely users to be influenced by them (Alvarez et al., 2014; Dumont and Kies, 2012).

A third set of literature concerns the methods used by the VAAs. Here there is a distinction between the choice of the policy positions to include in the interactive system and the models underlying the advice. The very selection of the policy positions is a crucial factor in the voting advice given, where another set would lead to other advice (Walgrave et al, 2009). In general, VAAs are found to select policy positions according to their saliency (for the election period), and variability (in that different parties hold different positions) (Hirzalla and van Zoonen, 2015). The editorial process differs, where certain VAAs select their statements solely with experts such as political scientists or journalists (e.g., the Austrian VAA wahlkabine.at), while others co-create the formulation of VAA positions, workshopping them with party representatives in the case of the Dutch StemWijzer, or with an editorial board that consists of professional experts as well as first and second-time voters in the German 'Wahl-O-Mat' (Garzia and Marshall, 2017).

As the voters register their political views, and in certain cases add weight to them, the software calculates the extent to which the voters' preferences

match the respective parties' and presents its results as a ranked list, bar chart, grid or radar chart. Several studies concentrate on the workings and visual outputs of the different voting aids. Louwerse and Rosema (2014) dissect them by examining how many dimensions are taken into account when ranking the political parties. In their study, a one-dimensional model refers to the ranking the political parties based on the level of agreement with the voter and presents its findings as a ranked list or bar chart. A two-dimensional model places the political parties' statements and the voters' responses on a continuum from left-wing to right-wing and proposes its match accordingly. The more elaborate multi-dimensional model, employed by the Swiss smartvote application, plots the statements and responses onto eight policy dimensions and presents its results in a spider plot that is more complex to read (Louwerse and Rosema, 2014). In a comparative test of these models, researchers took a dataset from the Dutch Stemwijzer and found that the different spatial models would lead to very different matches (Louwerse and Rosema, 2014).

As mentioned above, the voting aids are rather popular in a series of European countries and could be considered not only as another information input but also as one that competes with campaigning. Though the influence (similar to campaigning) may again be minimal, it could be considered as another approach or countermeasure in the discussion of how to address the disinformation problem.

Junk news may be pervasive, but is it persuasive?

If one were to divide the current period of junk news studies into waves, it could be argued that the first related to the definitional issues and the production side (as mainly discussed above), whilst the second is increasingly concerned with the study of its consumption (Boczkowski, 2016). In other words, junk news may be seen as 'pervasive, but is it persuasive?' (Shaw, 1979). Why do people consume it, and do these readers have particular demographics or profiles? Which people deem these stories credible or at least have pass-along value? Are they persuaded or even persuadable? In the US and in a growing list of other countries social media platforms are increasingly a main source of news, and the manner in which they deliver news is different from a newspaper or similar package or container (Gottfried and Shearer, 2016; Poynter, 2019). One receives single stories, rather than an entire newspaper, each shared by someone with whom the social media user has made a connection, most often directly. These can

be friends (Facebook), followers (Twitter), connections (LinkedIn), etc. Stories arrive in the feeds algorithmically, meaning there is a filtering mechanism where certain of them are boosted, based on signals such as activity and increasingly trustworthiness, or the amount of given and measured meaningful engagement between individuals. Put differently, those who are close to the user (by some special measure) are the ones whose stories more likely will be seen (Eslami et al., 2015). Such observations have led to discussions of the re-application of the notion of the filter bubble, a term originally associated with a user receiving personalised (rather than universal) search engine results (Pariser, 2011; van Keulen et al., 2018; Puschmann, 2018). Personalisation, however, has evolved from being the result of the information interactions of one user searching to engagement with an entire social network. As such it shifts the bubble from enveloping the individual to the group; it has prompted 'bubble studies' of not just social media news environments, but those of health, science, fashion and other areas of collective information production, sharing and recommendation (Pedersen and Hendricks, 2014; Hendricks and Vestergaard, 2019). Indeed, junk news circulation and consumption are increasingly experienced as an issue for the environment (e.g., climate change and its sceptics), health (e.g., the anti-vaccination discourse) and a variety of other areas (Kitta, 2018).

Such findings have led researchers to define on the one hand the groups most likely to consume and share the news together with the dynamics of their bubbles, and on the other the meaning, or sincerity, attached to the sharing. In terms of the consumption of junk news, it could be said at the outset that there have been two widely cited findings about their significance from the journalistic arena. One found the most shared stories during the US presidential elections were 'fake news' (see Figure 1.3), and the other that Russian disinformation campaigns had a far greater spread than previously imagined as well as reported in testimony by Facebook before the US Congress (Silverman, 2016; Timberg, 2017). These findings have since been put into a broader context and compared to 'normal' political campaigning and the development of messaging strategies, filtered through news. First, in the event, only a small fraction of the population consumed such 'news' (Allcott and Gentzkow, 2017). Given the limited exposure, the impact, if at all, would have paled in comparison to political TV commercials (Persily, 2017). There is the larger question, however, of whether the messaging would have anything but 'minimal effects' (Lazarsfeld et al., 1948). As has been repeatedly found, the net effect of campaigning, albeit by political elites, that persuades the prospective voter is exceedingly low or even zero (Kalla

Figure 1.3   The birth of the fake news crisis, or 'fake news' outperforms 'mainstream
news' on Facebook, in the run-up to the U.S. elections in 2016
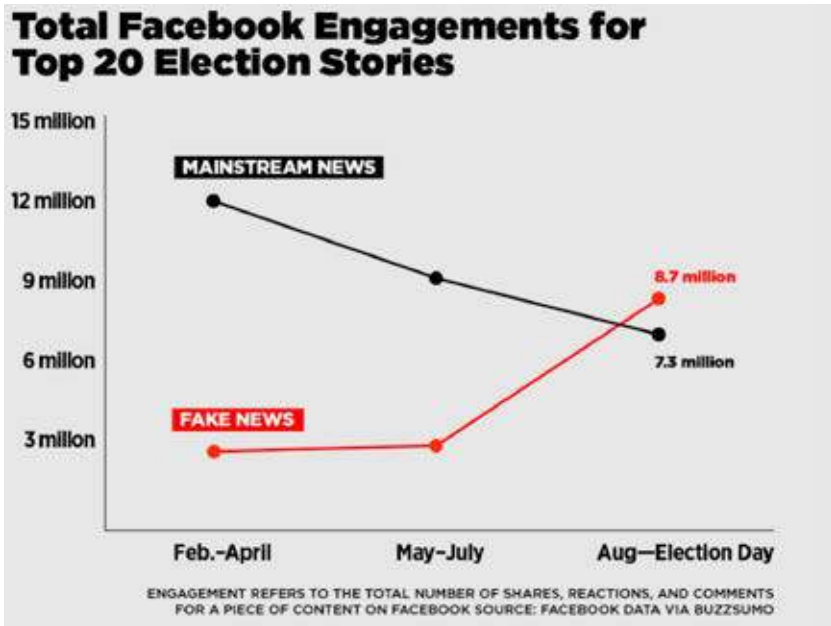
Source: Silverman (2016)

and Broockman, 2017). The aim then is less to persuade than to 'rous[e] the enthusiasm of existing supporters' (Panagopoulos, 2016).

Though they may have begun as symmetrical studies of the right and the left, of the most circulated findings to date about the spread of junk news – both with respect to the contents as well as its consumers – ultimately all have overwhelmingly concentrated on the right, be it conservatives and the alt right in the US or other right-leaning, populist radical right or new right publics in Europe (Bounegru et al., 2018; Benkler et al., 2018). It is of interest to note for starters that both during the US presidential campaigning and thereafter the information spaces or spheres of the right contained far more fake, junk, disinformation or otherwise dubious stories and sources than the left (Faris et al., 2017). Thus, conclusions drawn about right-leaning publics sharing information should take into account that they are disproportionately exposed to such information; all else being equal, the right would share more of it (Marwick, 2018). In the empirical studies it was found that the right (most notably Trump supporters) consumed the most so-called fake news. However, there seems to be an older, hard core of its consumers in the US during the run-up to the US presidential elections in

2016 – 'the 10% of Americans with the most conservative information diets'
(Guess et al., 2018: 11). These are heavy media users, and 'available audiences',
who have made time to consume media (Nelson and Taneja, 2018). Unlike
the majority of the media-consuming public, they are far more likely to read
niche rather than only establishment sources. There is, in other words, a
normalcy to the consumption by those audiences of fringe materials.

The strand of work that considers why users share 'fake news' should be
prefaced by the distinction between 'earnest and ambivalent' internet users
(Hedrick et al., 2018). Much of the scholarship about internet culture has not
considered that considerable cultural production and sharing are undertaken
not to be part of participatory culture, connective action and other earnest
forms of civic culture online but rather for unsympathetic amusement (aka
'lulz') (Phillips, 2015). 'Sharing', a term that has mutated in digital culture
from acting in a gift economy to a dominant form of so-called platform
capitalism, could have been prompted these days as much by insincerity
as by mindfulness (Barbrook, 1998; Belk, 2007; Srnicek, 2017). That is, the
rationale for making and sharing could 'go either way […] complicating an
easy assessment of authorial intent' (Phillips and Milner, 2018: 10-11). Such
a tricky attribution of intent is especially troublesome in the spaces where
vitriolic exchange as well as extreme speech and content are prevalent. It
is difficult to disentangle whether one is sharing for amusement and to
trigger a reaction, or for substantive reasons.

As has been found in the US context, the problematic news stories most
shared on social media resonate with particular grievances (about the bias of
establishment sources) and resentments (concerning economic opportunity)
that underlie certain societal divides (Marwick, 2018). Moreover, the stories
do not stand alone in a mirror world of conspiracy theory but rather are
contiguous with more mainstream conservative news, anchored by Fox
News; they are more extreme as well as transgressive in their wording and
presentation. Hence the notion of 'hyperpartisan', but there is also reference
made to tendentious, anti-establishment sources. Here the Overton Window
is appropriately referenced, meaning the bounds of current, acceptable public
discourse, and the extent to which extreme speech in hyperpartisan and
tendentious sources is moving established norms (Daniels, 2018).

Junk news studies: Digital methods and data journalism

As we come to shortly, one research strategy for measuring the prevalence
of problematic news story types and sources around national elections

is to gauge their presence generally in scoping exercises, but also more specifically in the most engaged-with content in social media concerning elections, political parties, candidates and social issues. A more subtle analysis would examine the top stories for the penetration of problematic news narratives, measuring mainstreaming. Moreover, through comparison of engagement with such news, one also could determine which platforms are most susceptible (or amenable) to hosting and circulating such content. Facebook in particular has been held up as a 'hyperpartisan media machine' (Herrman, 2016). Empirically, it has been found to host (proportionately) more of it, whether narrowly or liberally defined, than other platforms (Guess et al., 2018).

In order to contextualize such measures, it is worthwhile to consider the ways in which the scale, reach and impact of such news have been studied to date with media analysis, or more specifically digital methods and data journalism. The methods generally could be considered mixed quantitative/ qualitative approaches. They often begin in the journalistic arena, with the qualitative determination of the dubiousness of a set of sources and/or stories and proceed with digital methods that design queries and collect data from platform APIs, media monitoring company dashboards, and social media companies that have furnished lists of banned trolls or user accounts. Indeed, with respect to the dubious source lists, Buzzfeed News' original list of about 20 sources determined to be 'fake news' inform a series of empirical studies (Silverman, 2016; Allcott and Gentzkow, 2017; Bounegru et al., 2018; Marwick, 2018; Grinberg et al., 2019). For studies of the Italian news space, the lists relied upon are from BUTAC, Bufale and Bufalopedia (Fletcher et al., 2018; Butac, 2018). Hoaxwijzer's list of 92 Dutch-language 'false news' sites also informs certain of the empirical studies to date in the Netherlands (van Keulen et al., 2018; Wieringa, 2017).[4] But other work, such as the *NRC Handelblad*'s analysis of the extent of the problem of 'fake news' in the Netherlands in the run-up to the 2017 national elections, looks at the sources afresh, making on-the-spot determinations of fakeness (Kist and Zantingh, 2017). These may conflict with previous listings. For example, Hoaxwijzer lists *De Dagelijkse Standaard* as a 'false news' site whereas the *NRC Handelsblad* did not determine it to be 'fake news', but it fell among those they called 'misleading' because it reported that '1,000 crazy Muslims' had 'torched' a church in Dortmund on New Year's Eve when instead a firework had landed on its roof causing light damage. The *NRC*

---

4   As other studies also found, the list is dated; as of April 2019, 40 of the 92 sites are offline. It remains useful as a list for older media corpora.

Handelsblad determined that it did not meet its definition of fake news as a 'fully fabricated story packaged as news'.

Indeed, the question of detecting fabricated news, on a source or story level, is often placed at the feet of journalists, media organizations and fact-checking bureaus, where credibility and transparency may be rated (NewsGuard, 2019). Masked sources are penalised, for example. As mentioned above, for online stories, the determination of dubious content may benefit, too, from a genre analysis (Lüders et al., 2010). Disinformation, conspiracy, clickbait and (automated) amplification have styles (Rony et al., 2017). Disinformation tends to be a hard counterfactual presentation, conspiracy has multiple characters and plot entanglements, clickbait is a cliff-hanger that is often painful on a personal level and (automated) amplification posts at particular intervals and in coordination, as malicious social bot detection projects have found (Ratkiewicz et al., 2011; Bessi and Ferrara, 2016; RoBhat labs, 2017). Other technical signatures of dubious news sites are of interest. For instance, empirical work on the types of cookies and third-party elements in mainstream and nominally fake news sites found distinctive types in each, with the mainstream sites using customised trackers and the other off-the-shelf (Bounegru et al., 2018).

With the lists of fake news sources either in place or determinations still to be made, the next step is to build a media corpus. Following *Buzzfeed News*' method, many undertakings query media monitoring services (such as Buzzsumo and Facebook's Crowdtangle) for political and issue-related keywords, in order to build source sets of most engaged-with media and pull in engagement scores per story. Certain of the techniques also include further interpretative coding of stories, including grievance narratives (Marwick, 2018).

Whilst much attention has been directed towards Facebook, and the study of the election-related stories most engaged with on that platform, Twitter is often used as the preferred data source, given dedicated data sets (made available by Twitter or academic researchers) of accounts run by the Internet Research Agency (Farkas and Bastos, 2018). There is a series of studies that rely on Twitter's curated sets as well as on the data robustly collected and shared among data researchers, such as by Clemson University and FiveThirtyEight, mentioned above. In a form of crowd science, the publication on GitHub of the Clemson data set led to numerous studies; in the US widespread disinformation campaigning was found, as is known, but also more niche-targeting of politicians in such states as Maine (Roeder, 2018). As in the Netherlands, discussed above, the data were put to use in other countries that according to journalistic accounts had been previously

understudied. For example, in Italy IRA trolls posted numerous pro-populist party tweets in Italian, joining the 'cacophony' or media ecology around the populist right, as discussed in the Oxford Internet Institute work (Fubini, 2018; Fletcher et al., 2018). Twitter is also preferred given the general ease of use of data collection through its streaming and search APIs, intermediate services such as Hexagon Crimson for samples as well as the availability of historical data sets, albeit at a price.

Other approaches (considering consumption and persuasion rather than definition and production) should be touched on that rely on surveys, user data collection and experiments. Numerous experiments have been performed on misinformation (Jankowski, 2018). For example, a representative sample of the population consents to having their online media consumption passively monitored, and subsequently surveyed thereafter (Guess et al., 2018). Or, there are experiments that show fabricated news to consumers, and subsequently provide fact-checks to them in order to determine whether the fact-checks should be 'attitudinally congruent' for them to be persuasive (Hameleers and van der Meer, 2019). In another experiment in the Netherlands, commissioned by the newspaper, *de Volkskrant*, respondents were presented with fabricated news around one of four topics: vaccinations and autism, MH17, rape incidents in connection to migration, or Sylvana Simons (a politician and media personality) and discrimination. The study tests whether they became less certain about the facts after being misinformed (I&O Research, 2017; Kranenberg, 2017).

With respect to platforms other than Facebook and Twitter, YouTube and especially Instagram appear to be relatively understudied but significant, and Reddit and 4chan are being recognized as breeding grounds for some of the more outlandish and consequential content such as Pizzagate (New Knowledge, 2018; Tuters et al., 2018). There are platform-specific approaches for building and analysing datasets for Instagram (through queries for hashtags and place names), as well as YouTube, Reddit and 4chan (Rogers, 2018b; Rieder et al., 2018). Google web search also has invited scrutiny, given the extreme content returned for queries such as the Holocaust.

Buzzfeed News' work on detecting and analysing 'fake news' on Facebook has been particularly influential in data journalism research and subsequent studies that build upon it, and thus is worthy of mention in some detail (Silverman, 2016). First, the researchers built a keyword list concerning elections (and especially controversial election topics), and subsequently queried those keywords in media monitoring software (Buzzsumo) that returns stories ranked by engagement scores. With the aid of the results, they built a fake news and hyperpartisan website list, which they merged with lists of

the same that they curated previously through separate reporting, including on the infamous collection of about 100 websites created by the Macedonian clickbait makers, members of the same family of sites (with the same Google Analytics ID) of WTOE 5 News that created the story about the Pope endorsing Trump, and a collection of hyperpartisan sites (Silverman and Singer-Vine, 2016; Silverman et al., 2016). They also curated a list of some 20 mainstream news sites.[5] (All the accompanying data Buzzfeed also made available through online Google spreadsheets, in keeping with emerging standards in data journalism.) The engagement scores of the top mainstream news and top fake news stories are subsequently compared. In the first study of this kind and perhaps the beginning of what could be called the 'fake news crisis' for Facebook, it was found that the fake news stories outperformed by engagement scores those from the mainstream news in the three-month period before the US presidential elections, thereby leading to conclusions about the comparable 'power of fake election news on Facebook' (see Figure 1.3) (Silverman, 2016). Follow-up reporting has considered the extent to which such news continues to resonate more on Facebook than mainstream news stories, despite incipient efforts by the company to curtail its impact. One of the major studies commissioned by the US Congress found that such news and influence campaigning activity on Facebook and especially Instagram substantially increased after the US elections (Howard et al., 2018).

In April of 2019, some two and one-half years after *Buzzfeed News* story, we found that only 4 of the 13 top-performing 'fake news' and hyperpartisan websites are still online: World News Daily Report, Burrard Street Journal, Twitchy and Breitbart. The others appeared to have been fly-by-night operations, which is another means of considering a source's dubiousness. That is, the other 9 sites, including two Macedonian-made ones (Denver Guardian and World Politicus) and the highest-performing site (Ending the Fed) that spread the 'Pope endorses Trump' story are gone.

Facebook's adjustments

After the US elections in 2016, Facebook CEO Mark Zuckerberg initially argued that 'the idea that fake news on Facebook influenced the election in

---

5   Buzzfeed's list contains the following mainstream sources: New York Times, Washington Post, NBC News, USA Today, Politico, CNN, Wall Street Journal, CBS News, ABC News, New York Daily News, New York Post, BuzzFeed, Los Angeles Times, NPR, The Guardian, Vox, Business Insider, Huffington Post and Fox News (Silverman, 2016).

any way, I think is a pretty crazy idea,' and put forward that such material amounted to a small fraction of its platform's content (Isaac, 2016). Two years later Facebook's work to quell fake news, together with its more stringent policies on (research) data access should be considered here. Addressing the fake news crisis, there has been an increase in those hired to perform 'content moderation', referred to as the janitors of social media, or even those doing the platform's dirty work (Roberts, 2017). Facebook also installed a political ad transparency tool; it lists on the ad itself who has sponsored it, and there also is a political ad archive and an API (Hern and Waterson, 2018). No longer is the maker and targeted individual the only ones able to view the hitherto 'dark post'.

With respect to algorithmic changes, in 2018 Facebook began a three-pronged strategy that would favour 'meaningful connections' (family and friends), 'trusted sources' (user-surveyed media) and 'local news' in the news feed over more far-flung 'businesses, brands, and media' (Abbruzzese, 2018; Flynn, 2018; Gartenberg, 2018). It should be remarked that these are global initiatives, coming on the heels of well-reported Facebook-associated riots in Myanmar and Sri Lanka but also the compilation of compendiums on the effects of 'fake news' on Facebook all over the world, as the OII's global study have shown, but also the numerous governmental and think tank (umbrella) initiatives such as disinfoportal.org.

Whether Facebook's measures are working in some sense is unclear. The political ad library tool may show a source, but who is behind it may remain unclear as in the case of a pro-Brexit campaign group, Britain's Future (see Figure 1.4), that spent hundreds of thousands of pounds on ads in the run-up to significant UK parliamentary votes (Waterson and Hern, 2019). Efforts by journalists to unmask the source behind Britain's Future as well as other 'dark money' campaigners had for months been in vain (Monbiot, 2019). Significant political ads are also not in the archive, as ProPublica found, before its tool crowdsourcing Facebook ads and targeted individuals was purposively rendered inoperable by the company in what it called a 'routine update' that would prevent illegitimate 'scraping' (Merrill and Tobin, 2019). Similar tools by Mozilla and Who Targets Me also broke, thus making the verification work a difficult prospect.

The news feed tweak to boost 'meaningful connections' was initially critiqued for its capacity to exaggerate the importance of 'fake news', as was observed in Slovakia and elsewhere when dubious sources saw their engagement scores rise (Frenkel et al., 2018). The prominence of 'meaningful connections' and 'local news' in the news feed, according to Buzzfeed, stirred as well as amplified the Gilets Jaunes protests in France, for their coverage

**Figure 1.4   Facebook political ad library tool, results for Britain's Future,
13 March 2019**
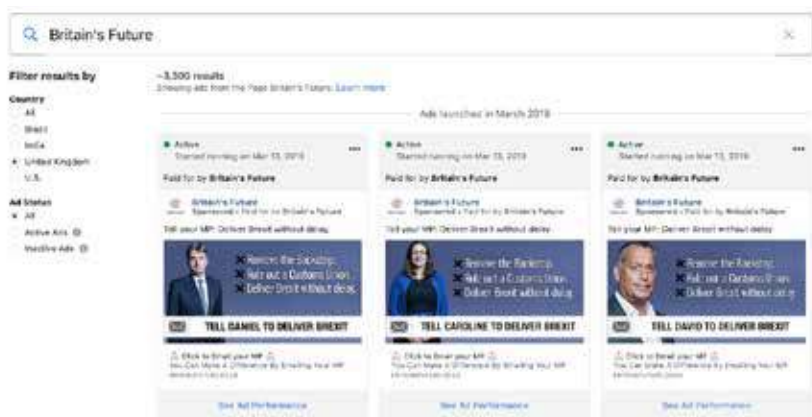
on the local news made the anger groups (groupes colère) and their posts
more prominent in the news feeds, as evidenced by engagement scores from
Crowdtangle (Broderick and Darmanin, 2018).

Given the fake news crisis stemmed from the US elections, Facebook
also created specific initiatives for future elections that would put political
parties and their positions on issues in a single, curated Facebook portal.
One of the early projects was for Sweden's national elections in 2018, which,
it was found in a separate study (with Twitter data), suffered from 'junk news'
quantities second in magnitude only to that surrounding the US elections,
and much larger in fact than such materials around the German, French
and Dutch elections in 2017 (Hedman et al., 2018; Kist and Zantingh, 2017).
The Facebook elections project, rolled out in meetings with social media
researchers in 2018, also coincided with their new academic 'partnership'
project, Social Science One. It seeks to make available to researchers data sets
such as all the URLs that have been posted to Facebook over the course of a
year (King and Persily, 2018). At the same time, however, Facebook revoked
approval for research software (such as Netvizz and Netlytic) that made use
of its Pages API, sparking academic protest about 'locked platforms' (Bruns
et al., 2018; Rieder, 2018). Seen as reactions to the Cambridge Analytica
scandal, Facebook's measures could be described as curating the datasets
researchers can use. The new datasets (that would be available in the Social
Science One initiative) notably do not include Facebook pages themselves
and their engagement scores – data that led to the very knowledge about
the fake news crisis and the scope of the Russian influence campaign in
the first instance (Albright, 2017).

Conclusions: Fakery and campaigning

The 'fake news' phenomenon could be viewed as a revival of previous ones that typically have occurred when a new media technology is introduced that destabilises production, distribution and consumption of news and information, as was the case with eighteenth and nineteenth century broadsheets and tabloids (respectively) but also the radio and newswire of the twentieth century. The early web and the blogosphere also challenged existing news publication practices and were considered unedited spaces populated by self-styled authors, providing speedy news 'too fresh to be true'. Now social media platforms disrupt the trustworthiness of established news and fact and reintroduce the idea of the web as 'truthless medium' (Marres, 2018).

The post-truth age, or condition, as it were, may be viewed in light of a conflict between what counts as 'fake' (on a source or a story level), but it has been described rather as a contest between facticity regimes, or even sets of sectarian expertise. Locating a network of so-called 'fake news' websites, for example, could be viewed as the discovery of an influence campaign, but it just as well can be seen as an 'alternative facts' media ecology. When it is a hyperpartisan, right-wing news ecology, as in the US in the run-up to the presidential elections of 2016, it could be described as a part of the contemporary post-truth situation, or, as been often related, a culture war.

Having the 'trappings of news' in terms of look and feel, 'fake news' has been defined as consisting of distinctive types with varying intentionality. For instance, disinformation and mal-information (the neologism) are meant to harm, whereas misinformation may be just as false but its circulation unintentional. As a case in point, satirical stories and parody may become misinformation, such as the story about the Pope endorsing Trump, which outperformed (by engagement score) any other 'news' on Facebook during the US presidential election campaigning in 2016.

In both the public as well as scholarly discourses, there has been a swing from the hype of the 'fake news' problem (perhaps well exemplified by the Dutch tabloid headline 'landslide of fake news') to its gradual debunking, e.g., 'researchers say fears about "fake news" are exaggerated' (Ingram, 2019). Such a view has resulted from a series of studies not just on engagement but also on its consumption, including the rationale behind its sharing. Small, older populations appear particularly active, as do 'heavy news consumers' and 'available audiences', or those who have at their disposal time for fringe news consumption and spreading it among online friends. The vast majority of news consumption remains of the mainstream sources, however. The evidence that consumers have been influenced or persuaded is minimal.

Nevertheless, there appears to be agreement that social media platforms remain worthy of study not only as the new 'truthless medium' but for their capacity to accelerate (or 'supercharge') 'fake news' distribution in a hybrid media system comprised of new and established media and media formats. Despite increased content moderation, automated detection work, and a reorientation of its news feed principles, does Facebook remain a 'fake news' machine, comparable to the one during the US presidential campaigning? Indeed, Facebook, at first hesitant to admit an issue, has taken a series of measures since then that strive to produce more trustworthiness, such as boosting posts by friends and family, crowdsourcing trusted sources as well as favouring local news, though the effectiveness of these reengineered principles has been questioned. Indeed, continuing empirical research on the most engaged-with, political news on Facebook could shed light on the quality of the platform's content delivery, however much data access may be restricted to researchers. It remains to be seen how 'oversight' research will be affected now that Facebook has closed research APIs and instead plans to curate data sets for researchers, rather than allowing them to create their own. Other oversight projects have been thwarted; in early 2019 Facebook's 'routine update' blocked the software by ProPublica, Mozilla and Who Targets Me that was collecting political ads and their targets, as mentioned.

The question of 'fake news' as a campaign strategy – be it by Russian operatives, Russified domestic actors, hyperpartisan media-makers, and others – also has been meticulously studied, with detailed 'playbooks' laid bare as tactics to create both a media mirage (where fact and fiction are difficult to disentangle) as well as competing truth regimes, offering counter-expertise as well as uncertainty. Governments around the world have commissioned studies, revealing the breadth and scope of the problem, explaining the playbook and putting forward policy recommendations such as increased media literacy and the regulation of political advertising on platforms, including 'dark' posts. Platforms are asked to create public archives, which also would benefit research as well as (data) journalism. Fact-checking also has gone global, though it often remains a small-scale enterprise practiced by bespoke bureaus, occasionally working in tandem with Facebook, checking posts that have been flagged by users, and weighing in on the question of fakery.

Finally, there are scholars in the US and recently in Europe putting forward the argument that studying Russian disinformation shifts the attention away from the home-grown hyperpartisan news ecologies that have been emerging over the past few years, particularly on the right

(Benkler et al., 2017; Benkler et al., 2018; Rone, 2019). The point also fits with the 'dark globalization' argument concerning how existing domestic divisions, displayed in this media, may be exacerbated by foreign operatives but are not created by them. To date the effectiveness of Russian influence campaigning in Europe, in either sowing or exacerbating division, has yet to be compellingly demonstrated; the false and junk domestic news sources (e.g., the pro-Russian sources re-narrating the cause of the downing of MH17) also appear to have scant reach (Fletcher et al., 2018). In a climate of heightened sensitivity towards dubious sources and stories, it remains to be seen whether they have staying power.

* * *

Appendix: Governmental efforts and discussions of countermeasures

A first step for many national governments and other regional political entities that wish to counter disinformation is to install committees as well as task forces; it occurs across the globe, from the much publicised hearings by the US Congress and UK Parliament on the Russian involvement in the US elections and the Cambridge Analytica affair, to the task forces and other entities formed in many of the nearly 50 countries where influence campaigning has taken place (Bradshaw and Howard, 2018). Following from these convenings, there have been national calls to regulate the 'digital giants', and the European Union, through its creation of a High-Level Expert Group (EU HLEG) on fake news and online disinformation, has issued its recommendations for countering disinformation, including calls for transparency, media and information literacy, and tools for empowering journalism. In the European countries with recent or imminent national elections there has been even greater urgency, with Germany and France enacting legislation (online hate speech and 'fake news laws', respectively), and Sweden and Denmark engaging in awareness-raising as well as media literacy campaigns. Denmark installed a 'digital ambassador' (Gramer, 2017).

Below is a list of certain measures to counteract disinformation and fake news, gleaned from governmental documents and related materials. They include social media company regulation, codes of ethics, fact-checking and media literacy campaigning.

Social media company regulation

Many government committees agree that the large tech companies that have
come to dominate the online realm, such as Google, Twitter, and Facebook,
should be regulated, but caution over-regulation in forms that would curtail
expression and press freedoms. The starting point for the regulation of these
companies to counter disinformation is to address political advertising
on social media platforms. It can include the verification of those paying
for political advertisements and disclosing them publicly. Additionally,
all social media companies could be required to create public archives of
advertisements so that among other ad types 'dark posts' may be studied
(Bradshaw, 2018). In fact, as said, Facebook has such an archive (and an
API), but it also prevented watchdogs including Mozilla from verifying
its collection techniques, equating their methods with illegitimate data
'scraping' (Merrill and Tobin, 2019).

    Relatedly, the EU HLEG proposes the development of a 'European-wide
code of practices' that describes the roles and responsibilities of relevant
stakeholders such as tech companies, and media organizations but also
research organizations and fact-checking initiatives, based on key principles
(2018). In short, they address the adaptation of political advertising policies
(including sponsored advertisements and other forms of content), and
the provision of access to data for research and fact-checking. They also
propose the installation of advanced settings for users to customise their
user experience, collaboration with news outlets to facilitate users' access
to trustworthy news, the facilitation of fact-checking and content flagging,
and allowing users to 'exercise their right to reply' (EU HLEG, 2018: 32-33).

    The UK Parliamentary report on fake news and disinformation speaks
in an unusually piqued tone of the importance of regulating social media
platforms and related tech companies, singling out Facebook as providing
the 'impression of working towards transparency', but often 'obfuscating'
how well it is capturing and archiving political ads (House of Commons,
2019: 85). Ultimately, they propose the establishment of an 'educational
levy' or charge on social media companies to fund digital literacy as a
fourth pillar of the education system after reading, writing and maths
(House of Commons, 2019: 87). There is also a recommendation that social
media companies should develop means to distinguish between those
sources regularly furnishing disinformation and those who do not, in a new
system of 'content regulation' (House of Commons, 2019: 87). While carefully
worded, that measures can count on the criticism that similar proposals
have faced concerning the restriction of the freedom of expression, while

not being effective measures against hateful or incendiary content (Access Now et al., 2018).

Nevertheless, legislation has been passed. Germany has established a law, NetzDG, that extends its hate speech legislation compelling social media companies (with more than two million registered users in Germany) to remove such speech rapidly or face hefty fines (Claussen, 2018). More controversially, France has new legislation which applies to 'false information'; the law requires that three months prior to an election 'false news' be removed.

Detecting and removing false content

The Reporters' Lab at Duke University keeps track of fact-checking initiatives worldwide and has identified some 160 active initiatives (Duke Reporters Lab, 2019). In European countries, some fact-checking initiatives are attached to news organizations, but most are operating as not-for-profits (Wardle and Derakhshan, 2017; Graves and Cherubini, 2016). Many work in tandem with Facebook; as of January 2019, some 50 fact-checking groups, who are party to the International Fact Checking Network Code of Principles, independently assess fake news flagged by users (Volpicelli, 2019). The expertise developed includes a variety of flagging and adjudication systems such as NewsGuard's 'nutrition label' that evaluates some 2,000 online news sources, or, as it relates, the sites that garner about 95% of engagement in the news sector (2019).

Automation

Brief mention should perhaps be made of automation as offering methods for flagging dubious or false content, however much it is rarely recommended in governmental reports. With respect to fact-checking, if there are shared databases of 'already fact-checked' stories as well as sources, then software could cross-check suspicious ones against those already debunked or evaluated, as the UK parliamentary report mentions. The discussion concerning the need for human reviewers for content interpretation and curation remains pertinent.

Counter-narratives

In Germany the government chooses to actively participate in spaces where disinformation is spread. 'On these platforms, the German Government

provides both reliable information that can be fact-checked and a narrative based on this information' (German Federal Foreign Office, 2018). In that vein, rumoursaboutgermany.info is a website for collecting and countering disinformation about Germany spread by human traffickers. While Germany chooses to work with counter-narratives, others have criticised this approach. A Canadian intelligence report argues that developing counter-narratives is a 'one event at a time approach' that 'fails to address the source and methodology of information campaigns' (Canadian Security Intelligence Service, 2018: 66).

Media literacy and digital 'hygiene'

The EU high level expert group on fake news and online disinformation makes a case for increased media and information literacy to counter disinformation, which should be 'implemented on a massive scale in school and teacher training curricula' (EU HLG, 2018: 26). This media literacy also should involve the development of tools and training modules for journalists. As a particularly relevant method, the group proposes 'more powerful tools to be able to visually map online networks and connections to understand how disinformation is being created, spread and amplified' (EU HLG, 2018: 28).

    Some countries speak of 'digital hygiene' when referring to media literacy practices, for instance in France when making a case for the development of skills to assess the validity of the arguments and the reliability of the source. 'This is a public hygiene measure – just as people in the 19th century learned to wash their hands' (Jeangène Vilmer et al., 2018: 179). In Sweden the word 'cyberhygien' is employed. The Swedish Civil Contingencies Agency has published a handbook for communicators in public sector organizations for the countering of disinformation, which includes strategies that range from source checking and recognizing a bot to choosing an appropriate response to disinformation. The Swedish Media Council developed a media literacy programme for young people, teaching them critical thinking and disinformation detection; it includes a set of educational materials on 'source criticism' ('Källkritik') (Government Offices of Sweden, 2017; Swedish Media Council, 2019). Several recent reports stress the importance of better equipping journalists with tools and skills to recognize and avoid disinformation, mentioning the importance of fact-checking, critical source assessment and ethics (Jeangène Vilmer et al., 2018; Wardle and Derakhshan, 2017).

Investing in civil society and building public trust

A more general way forward that is presented in the literature is to invest in civil society, as it 'must remain the first shield against information manipulation in liberal, democratic societies' (Jeangène Vilmer et al., 2018: 169). Such initiatives are specifically relevant around events such as elections, in which civil society can be supported through non-legislative, pre-emptive measures and multi-stakeholder collaboration of government with the industry, non-governmental sector, and regional actors (Haciyakupoglu et al., 2018). In Sweden, the aforementioned Swedish Media Council is an example in which politicians and media professionals collaborate and meet regularly to discuss and counter disinformation and related challenges. Such regular, multi-stakeholder consultation both within and across European countries is among the recommendations often given (Brattberg and Mauer, 2018).

Guaranteeing participation in public debate by all

Lastly is the admonition issued in the 2017 joint UN declaration on 'fake news' that emphasized the need for states to enable the participation of all in public debate. They should ensure that any efforts to quell or thwart the practices of fake news-making and spread as well as that of disinformation be handled within the context of the freedom of expression and the freedom on the press (McGonagle, 2017).

References

Abbruzzese, Jason (2018) 'Facebook became your news diet. Now, it's going to serve you junk', *Mashable*, 17 January.

Access Now, Civil Liberties Union For Europe, and European Digital Rights (2018) *Informing the "disinformation" debate*, Report, Published online on October 18. https://edri.org/files/online_disinformation.pdf

Albright, Jonathan (2017) 'Itemized Posts and Historical Engagement – 6 Now-Closed FB Pages', Data set, *Tableau Public*, 5 October, https://public.tableau.com/profile/d1gi#!/vizhome/FB4/TotalReachbyPage

Allcott, Hunt and Matthew Gentzkow (2017) 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, 31(2): 211-236. https://doi.org/10.1257/jep.31.2.211

Alvarez, R. Michael, Ines Levin, Alexander H. Trechsel and Kristjan Vassil (2014) 'Voting Advice Applications: How Useful and for Whom?', J*ournal of Information Technology & Politics*, 11(1): 82-101, DOI: 10.1080/19331681.2013.873361

Angwin, Julia, Madeleine Varner and Ariana Tobin (2017) 'Facebook Enabled Advertisers to Reach "Jew Haters"', *ProPublica*, 14 September. https://www.propublica.org/article/facebook-enabled-advertisers-to-reach-jew-haters

Barbrook, Richard (1998) 'The Hi-Tech Gift Economy', *First Monday*, 3(12). https://ojphi.org/ojs/index.php/fm/article/view/631

Beiler, Markus and Johanna Kiesler (2018) '"Lügenpresse! Lying press!" Is the Press Lying?', in Otto, Kim and Andreas Köhler (eds.) *Trust in Media and Journalism*, Wiesbaden: Springer, 155-179.

Belk, Russell (2007) 'Why Not Share Rather Than Own?', *The ANNALS of the American Academy of Political and Social Science*, 611: 126-140.

Bell, Emily and Taylor Owen (2017) 'The Platform Press', Report, Columbia University: Tow Center for Journalism.

Bellingcat Investigation Team (2016) 'Behind the Dutch Terror Threat Video: The St. Petersburg "Troll Factory" Connection', *Bellingcat*, 3 April.

Benkler, Yochai, Robert Faris, Hal Roberts, and Ethan Zuckerman (2017) 'Study: Breitbart-Led Right-Wing Media Ecosystem Altered Broader Media Agenda', *Columbia Journalism Review*, 3 March.

—, Robert Faris and Hal Roberts (2018) *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*, Oxford: Oxford University Press.

Bessi, Alessandro and Emilio Ferrara (2016) 'Social bots distort the 2016 US presidential election online discussion', *First Monday*, 21(11). https://firstmonday.org/article/view/7090/5653

Boczkowski, Pablo (2016) 'Fake news and the future of journalism', *NiemanLab*, December. https://www.niemanlab.org/2016/12/fake-news-and-the-future-of-journalism/

Boghardt, Thomas (2009) 'Soviet Bloc Intelligence and Its AIDS Disinformation Campaign', *Studies in Intelligence*, 53(4): 1-24.

Bounegru, Liliana, Jonathan Gray, Tommaso Venturini, Michele Mauri (2018) *A Field Guide to "Fake News" and Other Information Disorders: A Collection of Recipes for Those Who Love to Cook with Digital Methods*, Amsterdam: Public Data Lab.

Bradshaw, Samantha (2018) 'Responding to Fake News through regulation and automation', in *Fake News, Authentic Views,* Report, London: Carter- Ruck. https://www.carter-ruck.com/images/uploads/documents/RESPONDING_TO_FAKE_NEWS.pdf

— and Phillip N. Howard (2018) 'Challenging Truth and Trust: A Global Inventory of Organized Social Media Manipulation', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute.

Brattberg, Erik and Tim Mauer (2018) 'Russian Election Interference: Europe's Counter to Fake News and Cyber Attacks', White Paper, Washington, DC: Carnegie Endowment for International Peace, May.

Brennen, Bonnie (2017) 'Making Sense of Lies, Deceptive Propaganda, and Fake News', *Journal of Media Ethics*, 32(3): 179-181.

Broderick, Ryan and Jules Darmanin (2018) 'The "Yellow Vest" Riots In France Are What Happens When Facebook Gets Involved With Local News', *Buzzfeed News*, 6 December.

Bruns, Axel, Anja Bechmann, Jean Burgess et al. (2018) 'Facebook shuts the gate after the horse has bolted, and hurts real research in the process', *Internet Policy Review*, 25 April.

Bump, Philip (2017) 'The investigation goes digital: Did someone point Russia to specific online targets?' *Washington Post*, 12 July.

Burger, Peter (2016) 'Moslims vernielen kerstmarkt in Litouwen? Nee: rellen in de VS', De Gestolen Grootmoeder blog, 14 December. http://www.gestolengrootmoeder.nl/wordpress/moslims-vernielen-kerstmarkt-in-litouwen-nee-rellen-in-de-vs/

—, Soeradj Kanhai, Alexander Pleijter, and Suzan Verberne (2019) 'The Reach of Commercially Motivated Junk News on Facebook'. *ArXiv:1901.07290* [*Cs*], 22 January. http://arxiv.org/abs/1901.07290.

Butac, Maicolengel (2018) 'The Reuters Institute for the Study of Journalism vs fake news', BUTAC blog, 8 February.

Cadwalladr, Carole and Emma Graham-Harrison (2018) 'Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach', *The Guardian*, 17 March.

Canadian Security Intelligence Service (2018) *Who said what? The Security Challenges of Modern Disinformation*, World Watch: Expert Notes series publication (No. 2016-12-05), Canada: Canadian Security Intelligence Service.

Cary, Stephen G. (1955) *Speak Truth to Power: A Quaker Search for an Alternative to Violence*, Philadelphia: American Friends Service Committee.

Chadwick, Andrew (2013) *The Hybrid Media System: Politics and Power*. Oxford: Oxford University Press.

Chen, Adrian (2015) 'The Agency', *The New York Times*, 2 June.

Claussen, Victor (2018) 'Fighting hate speech and fake news. The Network Enforcement Act (NetzDG) in Germany in the context of European legislation', *Media Laws* 3, published online on October 14.

Colbert Report (2005) 'The WØRD "Truthiness"', *Comedy Central*, 17 October.

Collins, Keith Sheera Frenkel (2018) 'Can you spot the deceptive Facebook post?' *New York Times*, 4 September.

Dahlgren, Kristen and Daniel Arkin (2017) '11-Year-Old Texas Boy Invents Device to Prevent Hot Car Deaths', *NBC News*, 29 June.

Daniels, Jessie (2018) 'The algorithmic rise of the alt-right', *Contexts*, 17(1): 60-65.

Darnton, Robert (2010) *Poetry and the Police: Communication Networks in Eighteenth-Century Paris*. Cambridge, MA: Harvard University Press.

— (2017) 'The True History of Fake News', *New York Review of Books*, 13 February.

Day, Amber and Ethan Thompson (2012) 'Live from New York, it's the fake news! Saturday night live and the (non)politics of parody,' *Popular Communication* 10(1-2): 170-182.

DeAmicis, Carmel (2014) 'Facebook shifts its algorithm to fight clickbait. Will it kill off Upworthy and Buzzfeed?', *GIGAOM*, Austin: Giga Omni Media.

Drog (2018) 'Slecht Nieuws: Serious game over propaganda', Website, https://www.slechtnieuws.nl/.

Duke Reporters Lab (2019) 'Fact Checking News', Website. https://reporterslab.org/fact-checking/

Dumont, Patrick and Raphaël Kies (2012) 'Smartvote.lu: Usage and impact of the first VAA in Luxembourg', *International Journal of Electronic Governance* 5(3/4): 388-410.

Ellick, Adam B. and Adam Westbrook (2018) 'Operation Infektion', *New York Times*, 12 November.

EU HLEG (2018) *A multi-dimensional approach to disinformation*, Report of the independent High level Group on fake news and online disinformation, Luxembourg: Publications Office of the European Union.

Fandos, Nicholas (2017) 'White House Pushes 'Alternative Facts.' Here Are the Real Ones', *New York Times*, 22 January.

Faris, Robert M., Hal Roberts, Bruce Etling, Nikki Bourassa, Ethan Zuckerman, and Yochai Benkler (2017) 'Partisanship, Propaganda, and Disinformation: Online Media and the 2016 U.S. Presidential Election', Berkman Klein Center for Internet & Society Research Paper.

Farkas, Johan and Marco Bastos (2018) 'IRA Propaganda on Twitter: Stoking Antagonism and Tweeting Local News', SMSociety '18, Copenhagen.

FireEye (2018) 'Suspected Iranian Influence Operation', Report, Milpitas, CA: FireEye.

Fitts, Alexis Sobel (2017) 'Welcome to the Wikipedia of the Alt-right', *Wired*, 21 June.

Fletcher, Richard, Alessio Cornia, Lucas Graves, and Rasmus Kleis Nielsen (2018) 'Measuring the reach of "fake news" and online disinformation in Europe', Reuters Institute for the Study of Journalism, Oxford University, February.

Flynn, Kerry (2018) 'Facebook will elevate "trusted" news outlets after surveying U.S. users', *Mashable*, 19 January.

Frenkel, Sheera, Kate Conger and Kevin Roose (2019) 'Russia's Playbook for Social Media Disinformation Has Gone Global', *New York Times*, 31 January.

—, Nicholas Casey and Paul Mozur (2018) 'In Some Countries, Facebook's Fiddling Has Magnified Fake News', *New York Times*, 14 January.

Fubini, Federico (2018) 'Tweet populisti dalla Russia sulla politica italiana. Come negli Usa', *Corriere della Sera*, 1 August.

Gartenberg, Chaim (2018) 'Facebook is going to start surveying users to determine trustworthy news sources', *The Verge*, 19 January.

Garzia, Diego and Marschall, Stefan (2012) 'Voting Advice Applications Under Review: The State of Research', *International Journal of Electronic Governance,* 5: 203-22.

German Federal Foreign Office (2018) 'Fake news, bots and provocative statements – disinformation on the internet', *Auswaertiges Amt website,* published online on August 7.

Gessen, Masha (2018) 'Why the Russian Influence Campaign Remains So Hard to Understand', *The New Yorker*, 18 December.

Gitelman, Lisa (2006) *Always Already New: Media, History, and the Data of Culture*. Cambridge, MA: MIT Press.

Gottfried, Jeffrey and Elisa Shearer (2016) 'News Use Across Social Media Platforms 2016', Washington, DC: Pew Research Center.

Government Offices of Sweden (2017) *A practical approach on how to cope with disinformation*, Government Offices of Sweden website, published online on October 6.

Gramer, Robbie (2017) 'Denmark Creates the World's First Ever Digital Ambassador', *Foreign Policy,* published online on January 27.

Graves, Lucas (2016) *Deciding What's True: The Rise of Political Fact-Checking in American Journalism*. New York: Columbia University Press.

Graves, Lucas and Federica Cherubini (2016) *The Rise of Fact-checking Sites in Europe*. Oxford: University of Oxford, Reuters Institute for the Study of Journalism.

Grinberg, Nir, Kenneth Joseph, Lisa Friedland, Briony Swire-Thompson and David Lazer (2019) 'Fake news on Twitter during the 2016 U.S. presidential election', *Science* 363(6425): 374-378.

Groll, Elias (2018) 'Battling the Bots', *Foreign Policy*, 12 November.

Guess, Andrew, Brendan Nyhan and Jason Reifler (2018) 'Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign', Report, Hannover, NH: Dartmouth College, https://www.dartmouth.edu/~nyhan/fake-news-2016.pdf.

Haciyakupoglu, Gulizar, Jennifer Yang Hui, V. S. Suguna, Dymples Leong, and Muhammad Faizal Bin Abdul Rahman (2018) *Countering Fake News: A Survey Of Recent Global Initiatives*, Singapore: Nanyang Technological University.

Hall, Jim (2001) *Online journalism: a critical primer*. London: Pluto Press.

Hameleers, Michael and Toni van der Meer (2019) 'Fact-checks helpen tegen desinformatie! Maar dan moeten ze wel gezien worden', *De Nieuwe Reporter*, 29 January.

Harvey, Del and Yoel Roth (2018) 'An update on our elections integrity work', Twitter blog, 1 October.

Haynes, Gavin (2016) 'Can you spot the 'real' fake news story?' *The Guardian*, 28 December.

Heck, Wilmer (2018) 'Nederlandse media dagen EU voor rechter na beschuldigingen desinformatie', *NRC Handelsblad*, 20 February.

Hedman, Freja, Fabian Sivnert, Lisa-Maria Neudert, Bence Kollanyi, Philip N. Howard and Vidya Narayanan (2018) 'News and Political Information Consumption in Sweden: Mapping the 2018 Swedish General Election on Twitter', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, 6 September.

Hedrick, Ashley, Dave Karpf and Daniel Kreiss (2018) 'The Earnest Internet vs. the Ambivalent Internet', *International Journal of Communication*, 12:1057-1064.

Hendricks, Vincent F. and Mads Vestergaard (2019) *Reality Lost: Markets of Attention, Misinformation and Manipulation*, Cham: Springer.

Hern, Alex (2017) 'Google acts against fake news on search engine', *The Guardian*, 25 April.

— and Jim Waterson (2018) 'Facebook cracks down on 'dark ads' by British political groups', *The Guardian*, 16 October.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August. https://www.nytimes.com/2016/08/28/magazine/inside-facebooks-totally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html.

Hirzalla, Fadi and Liesbet van Zoonen (2015) 'Online voting applications. Foci, findings and future of an emerging research field' in Coleman, S. & Freelon, D. (eds), *Handbook of Digital Politics*, Northampton, MA: Edward Elgar: 87-103.

Holzman, Michael (2008) *James Jesus Angleton, the CIA and the Craft of Counterintelligence*, Amherst: University of Massachusetts Press.

House of Commons (2019) 'Disinformation and "Fake News": Final Report Eighth Report of Session 2017-19', Digital, Culture, Media and Sport Committee, London: UK Parliament.

Howard, Philip N., Gillian Bolsover, Bence Kollanyi, Samantha Bradshaw, and Lisa-Maria Neudert (2017) 'Junk news and bots during the U.S. election: What were Michigan voters sharing over Twitter?' Computational Propaganda Data Memo, Oxford: Oxford Internet Institute.

—, Bharath Ganesh, Dimitra Liotsiou, John Kelly and Camille François (2018) 'The IRA, Social Media and Political Polarization in the United States, 2012-2018', Report, Computational Propaganda Research Project, Oxford: Oxford Internet Institute.

Isaac, Mike (2016) 'Facebook, in Cross Hairs After Election, Is Said to Question Its Influence', *New York Times*, 12 November.

Jack, Caroline (2017) *Lexicon of Lies: Terms for Problematic Information* New York: Data & Society Research Institute.

Jankowski, Nicholas W. (2018) 'Researching Fake News: A Selective Examination of Empirical Studies', *Javnost – The Public*, 25(1-2): 248-255.

Jeangène Vilmer, Jean-Baptiste, Alexandre Escorcia, Marine Guillaume, Janaina Herrera (2018) *Information Manipulation: A Challenge for Our Democracies*, report by the Policy Planning Staff (CAPS) of the Ministry for Europe and Foreign Affairs and the Institute for Strategic Research (IRSEM) of the Ministry for the Armed Forces, Paris, August.

Jonker, Jorn (2017) 'Nepnieuws gevaar voor Nederland', *De Telegraaf*, 14 November.

Kanne, Peter and Milan Driessen (2017) *Desinformatie leidt tot verwarring bij nieuwsconsument*, Amsterdam: I&O Research.

Kasteleijn, Nando (2017) 'Nepnieuws groot gevaar voor Nederland? Dat lijkt dus wel mee te vallen', *NOS*, 28 August.

van Keulen, Ira, Iris Korthagen, Paul Diederen en Pieter van Boheemen (2018) 'Digitalisering van het nieuws: Online nieuwsgedrag, desinformatie en personalisatie in Nederland', Den Haag: Rathenau Instituut.

King, Gary and Nathaniel Persily (2018) 'A New Model for Industry-Academic Partnerships', Working Paper, 9 April. http://j.mp/2q1IQpH

Kist, Reinier (2019) 'Factchecken Facebook loopt stuk op aansprakelijkheid', *NRC Handelsblad*, 26 February.

— and Rik Wassens (2017) 'Ook Nederlandse media werden misleid door Russische trollen', *NRC Handelsblad*, 8 December.

— and Rik Wassens (2018a) 'Russische trollen actief in Nederland', *NRC Handelsblad,* 15 July.

— and Rik Wassens (2018b) 'Russisch trollenleger ook actief in Nederland', *NRC Handelsblad*, 15 July.

— and Peter Zantingh (2017) 'Geen grote rol nepnieuws in aanloop naar verkiezingen', *NRC Handelsblad*, 6 March.

Kitta, Andrea (2018) 'Alternative Websites and Fake News: Taking a Stab at Definition, Genre and Belief', *The Journal of American Folklore* 131(522): 405-412.

Kouwenhoven, Andreas and Hugo Logtenberg (2017) 'Hoe Denk met 'trollen' politieke tegenstanders monddood probeert te maken', *NRC Handelsblad*, 10 February.

Kranenberg, Annieke (2017) Wie weet nog wat er waar is?, *de Volkskrant*, 23 December.

Laquintano, Timothy and Annette Vee (2017) 'How Automated Writing Systems Affect the Circulation of Political Information Online', *Literacy in Composition Studies*, 5(2): 43-62.

Latour, Bruno (2008) *What is the style of matters of concern?* Assen: Van Gorcum.

Lazarsfeld, Paul F., Bernard R. Berelson and Hazel Gaudet (1948) *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*, New York, NY: Columbia University Press.

Lazer, David M.J., Matthew A. Baum, Yochai Benkler, Adam J. Berinsky, Kelly M. Greenhill, Filippo Menczer, Miriam J. Metzger, Brendan Nyhan, Gordon Pennycook, David Rothschild, Michael Schudson, Steven A. Sloman, Cass R. Sunstein, Emily A. Thorson, Duncan J. Watts and Jonathan L. Zittrain (2018) 'The science of fake news', *Science*, 359(6380):1094-1096.

Lippmann, Walter (1922) *Public Opinion*, New York, NY: Harcourt, Brace and Co.

Louwerse, Tom and Martin Rosema (2014) 'The design effects of voting applications: Comparing methods of calculating matches', *Acta Politica* 49(3):286-312.

Lüders, Marika, Lin Prøitz and Terje Rasmussen (2010) 'Emerging personal media genres', *New Media & Society*, 12(6): 947-963.

Margolis, Joseph (1995) 'Beyond postmodernism: Logic as rhetoric', *Argumentation*, 9(1): 21-31.

Marres, Noortje (2018) 'Why We Can't Have Our Facts Back', *Engaging Science, Technology, and Society,* 4: 423-443.

Marvin, Carolyn (1988) *When Old Technologies were New.* New York, NY: Oxford University Press.

Marwick, Alice E. (2018) 'Why Do People Share Fake News? A Sociotechnical Model of Media Effects', *Georgetown Law Technology Review*, 2(2): 474-512.

McGonagle, Tarlach (2017) '"Fake news": False fears or real concerns?', *Netherlands Quarterly of Human Rights*, 35(4): 203-209.

McKernon, Edward (1925) 'Fake News and the Public', *The Harper's Monthly,* October, pp. 528-536.

— (1928) 'News Fakers', *The Outlook,* 149(4): 130-141.

McNeil, Maureen (2013) 'Between a Rock and a Hard Place: The Deficit Model, the Diffusion Model and Publics in STS', *Science as Culture*, 22(4): 589-608.

McQueen, Sharon (2018) 'From Yellow Journalism to Tabloids to Clickbait: The Origins of Fake News in the United States', in Agosto, Denise E. (ed.) *Information Literacies and Libraries in the Age of Fake New*s, Santa Barbara, CA: Libraries Unlimited, pp. 12-35.

Merrill, Jeremy B. and Ariana Tobin (2019) 'Facebook Moves to Block Ad Transparency Tools – Including Ours', *ProPublica*, 29 January.

Milneil, Christian (2018) 'Data: Read the tweets from alleged Russian troll accounts targeting Maine politicians', *Portland Press Herald*, 2 August.

Mina, An Xiao (2019). *Memes to Movements: How the World's Most Viral Media Is Changing Social Protest and Power,* Boston, MA: Beacon Press.

Misérus, Mark and Robert van der Noordaa (2018a) 'Het trollenleger van popartiest Dotan', *de Volkskrant*, 14 April.

— and Robert van der Noordaa (2018b) 'Dotan erkent aanmaken nepfans: "Ik was heel naïef, veel te ambitieus en onzeker"', *de Volkskrant*, 16 April.

Monbiot, George (2019) 'Dark money is pushing for a no-deal Brexit. Who is behind it?', *The Guardian*, 13 February.

Morozov, Evgeny (2017) 'Moral panic over fake news hides the real enemy – the digital giants', *The Guardian*, 8 January.

Neudert, Lisa-Maria N. (2017) 'Computational Propaganda in Germany: A Cautionary Tale', Computational Propaganda Working Paper, 2017.7, COMPROP Data Memo, Oxford: Oxford Internet Institute.

New Knowledge (2018) 'The Tactics & Tropes of the Internet Research Agency', White Paper, Austin, TX: New Knowledge.

Newman, Michelle C. (2010) 'The Daily Show and Meta-Coverage: How Mock News Covers the Political Communications System', *The Elon Journal of Undergraduate Research in Communications*, 1(2).

NewsGuard (2019), 'Restoring Trust and Accountability', webpage, https://www.newsguardtech.com.

Nijmeijer, Bert (2018) 'Zelf nepnieuws maken om daarna de echte trollen te kunnen herkennen', *NRC Handelsblad,* 22 July.

van der Noordaa, Robert and Coen van de Ven (2018a) 'Hoe Russische trollen inspelen op westerse angsten', *De Groene Amsterdammer*, 28 Augustus.

— and Coen van de Ven (2018b) '3 Miljoen "trollentweets" onderzocht: hoe Rusland via sociale media ook in België verdeeldheid zaait', *Knack*, 27 November.

NOS (2017a) 'Baby van 20 kilo heeft de primeur: eerste nepnieuws in Nederland', *NOS,* 8 June.

— (2017b) 'Ollongren: Russische desinformatie bij Oekraïne-referendum', *NOS*, 15 November.

— (2018) 'Twitters grote schoonmaak: Wilders en Denk-politici verliezen volgers', NOS, 13 July.

Nuzzi, Olivia (2017) 'Kellyanne Conway Is a Star', *New York Magazine*, March.

Nyhan, Brendan, Ethan Porter, Jason Reifler and Thomas J. Wood (2019) 'Taking Fact-Checks Literally But Not Seriously? The Effects of Journalistic Fact-Checking on Factual Beliefs and Candidate Favorability', *Political Behavior*, published online 21 January.

O'Brien, Chris (2019) 'Sheryl Sandberg says Facebook is now blocking 1 million fake accounts every day', *Venture Beat*, 21 January.

O'Donovan, Caroline (2014) 'What is clickbait?', *Niemanlab*, 25 August.

Opper, F. (1894) 'The fin de siècle newspaper proprietor', *Puck,* 35(887).

Panagopoulos, Costas (2016) 'All about that base: Changing campaign strategies in US presidential elections' *Party Politics*, 22(2): 179-90.

Pariser, Eli (2011) *The Filter Bubble: What the Internet Is Hiding From You.* New York, NY: Penguin.

Parlapiano, Alicia and Jasmine C. Lee (2018) 'The Propaganda Tools Used by Russians to Influence the 2016 Election', *New York Times*, 16 February.

Peck, Reece (2019) *Fox Populism: Branding Conservatism as Working Class*, Cambridge: Cambridge University Press.

Pedersen, David B. and Vincent F. Hendricks (2014) 'Science Bubbles', *Philosophy and Technology*, 27(4): 503-518.

Persily, Nathaniel (2017) 'The 2016 U.S. Election: Can Democracy Survive the Internet?'. *Journal of Democracy*, 28(2): 63-76

Phillips, Whitney (2015) *This Is Why We Can't Have Nice Things: Mapping the Relationship Between Online Trolling and Mainstream Culture.* Cambridge, MA: MIT Press.

— (2018) 'The Oxygen of Amplification: Better Practices for Reporting on Extremists, Antagonists and Manipulators Online', Report, New York: Data & Society Research Institute.

— and Ryan Milner (2018) *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online*, Cambridge: Polity Press.

Pleijter, Alexander (2017) 'De nepnieuwslawine zonder nepnieuws', *Villamedia*, 17 November.

Pohjonen, Matti and Sahana Udupa (2017) 'Extreme Speech Online: An Anthropological Critique of Hate Speech Debates', *International Journal of Communication,* 11: 1173-1191.

Posetti, Julie and Alice Matthews (2018) *A short guide to the history of 'fake news' and disinformation. A learning module for journalists and journalism educator*, Washington, DC: International Center for Journalists.

Poynter (2019) *A guide to anti-misinformation actions around the world*, St. Petersburg, FL: The Poynter Institute.

Puschmann, Cornelius (2018) 'Beyond the Bubble: Assessing the Diversity of Political Search Results' *Digital Journalism*, published online 28 November. https://doi.org/10.1080/21670811.2018.1539626

Ratkiewicz, Jacob, Michael D. Conover, Mark Meiss, Bruno Goncalves, Alessandro Flammini, Filippo Menczer Menczer (2011) 'Detecting and Tracking Political Abuse in Social Media', *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media*, Barcelona, Spain, July.

Reid, John, Bastiaan Geleijnse and Jean-Marc van Tol (2018) 'Fokke en Sukke hebben zitting in de taskforce nepnieuws', Cartoon, 17 January.

Renner, Nausicaa (2017) 'Memes trump articles on Breitbart's Facebook page', *Columbia Journalism Review*, 30 January.

Rieder, Bernhard (2018) "Facebook's app review and how independent research just got a lot harder". Politics of Systems blog, 11 August.

—, Ariadna Matamoros-Fernández and Òscar Coromina (2018) 'From ranking algorithms to 'ranking cultures': Investigating the modulation of visibility in YouTube search results.' *Convergence: The International Journal of Research into New Media Technologies*, 24(1): 50-68.

RNTC (2019). 'Challenging fake news', webpage, Hilversum: RNTC. Https://rntc.com/blog/challenging-fake-news.

Roberts, Sarah T. (2016) 'Commercial Content Moderation: Digital Laborers' Dirty Work', in Safiya Umoja Noble and Brendesha M. Tynes (eds.) *The Intersectional Internet*, New York, NY: Peter Lang, pp. 147-160.

RoBhat Labs (2017) 'Identifying Propaganda Bots on Twitter', *Medium*, 31 October.

Roeder, Oliver (2018) 'We Gave You 3 Million Russian Troll Tweets. Here's What You've Found So Far', *FiveThirtyEight*, 8 August.

Rogers, Richard (2018a) 'Otherwise Engaged: Social Media from Vanity Metrics to Critical Analytics', *International Journal of Communication*, 12: 450-472.

— (2018b) 'Digital Methods for Cross-Platform Analysis', in Jean Burgess, Alice Marwick and Thomas Poell (eds.), *SAGE Handbook of Social Media*. London: Sage, pp. 91-110.

— (2005) 'Poignancy in the US political blogosphere', *Aslib Proceedings: New Information Perspectives*, 57(4): 356-368.

Rone, Julia (2019) 'Why talking about "disinformation" misses the point when considering radical right "alternative" media', LSE Media Policy project blog, 9 January.

Rony, Md Main Uddin, Naeemul Hassan and Mohammad Yousuf (2017) "BaitBuster: Destined to Save You Some Clicks". *Proceedings of Computation+Journalism Symposium*, Northwestern University, October.

Roozenbeek, Jon and Sander van der Linden (2018) 'The fake news game: actively inoculating against the risk of misinformation', *Journal of Risk Research*, DOI: 10.1080/13669877.2018.1443491.

Ruusuvirta, Outi (2010) 'Much Ado About Nothing? Online Voting Advice Applications in Finland', in Cedroni, Lorella and Diego Garzia (eds.), *Voting Advice Applications in Europe. The State of the Art*, Napoli: ScriptaWeb, pp. 47-77.

Sängerlaub, Alexander, Miriam Meier and Wolf-Dieter Rühl (2017) 'Fakten statt Fakes: Das Phänomen "Fake News"', Berlin: Stiftung Neue Verantwortung.

Shane, Scott (2018) 'How Unwitting Americans Encountered Russian Operatives Online', *New York Times*, 18 February.

Shao, Chengcheng, Giovanni Luca Ciampaglia, Onur Varol, Kai-Cheng Yang, Alessandro Flammini and Filippo Menczer (2018) 'The spread of low-credibility content by social bots', *Nature Communications*, (9)4787, 20 November.

Shaw, Eugene (1979) 'Agenda-Setting and Mass Communication Theory', *International Communication Gazette*, 25(2): 96-105.

Silverman, Craig, J. Lester Feder, Saska Cvetkovska, and Aubrey Belford (2018) 'Macedonia's Pro-Trump Fake News Industry Had American Links, And Is Under Investigation For Possible Russia Ties', *Buzzfeed News*, 18 July.

— (2016) 'This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook', *Buzzfeed News*, 16 November.

— and Lawrence Alexander (2016) 'How Teens In The Balkans Are Duping Trump Supporters With Fake News', *Buzzfeed New*s, 3 November.

— and Jeremy Singer-Vine (2016) 'The True Story Behind The Biggest Fake News Hit Of The Election', *Buzzfeed News*, 16 December.

—, Lauren Strapagiel, Hamza Shaban, Ellie Hall, and Jeremy Singer-Vine (2016) 'Hyperpartisan Facebook Pages Are Publishing False And Misleading Information At An Alarming Rate', *Buzzfeed News*, 20 October.

Sismondo, Sergio (2017) 'Post-truth?', *Social Studies of Science*, 47(1): 3-6.

Snyder, Timothy (2018) *The Road to Unfreedom: Russia, Europe, America*, New York, NY: Tim Duggan Books.

Solon, Olivia and Sam Levin (2016) 'How Google's search algorithm spreads false information with a rightwing bias', *The Guardian*, 16 December.

Srnicek, Nick (2017) *Platform Capitalism*. Cambridge: Polity Press.

Still, Keith (2017) 'Inauguration Crowd Size', Crowd Safety and Risk Analysis blog, Manchester: Manchester Metropolitan University. http://www.gkstill.com/CV/Projects/Counting.html.

Swedish Civil Contingencies Agency (2018) *Countering information influence activities: A handbook for communicators*, Karlstad: Swedish Civil Contingencies Agency (MSB).

Swedish Media Council (2019) *Källkritik – en utmaning,* webpage, https://statensmedierad.se/larommedier/kallkritikvemvadvarfor/kallkritikenutmaning.422.html, 5 March.

Tandoc Jr., Edson C., Zheng Wei Lim and Richard Ling (2018) 'Defining "Fake News": A typology of scholarly definitions', *Digital Journalism*, 2: 137-153.

Timberg, Craig (2017) "Russian propaganda may have been shared hundreds of millions of times, new research says". *Washington Post*, 5 October.

Tripodi, Francesca (2018) 'Alternative Facts, Alternative Truths', *Data & Society: Points blog*, 23 February.

Tucker, Joshua A., Andrew Guess, Pablo Barberá, Cristian Vaccari, Alexandra Siegel, Sergey Sanovich, Denis Stukal, and Brendan Nyhan (2018) 'Social Media, Political Polarization, and Political Disinformation: A Review of the Scientific Literature', Report, Menlo Park, CA: William and Flora Hewlett Foundation.

Turner, Stephen (2001) 'What is the problem with experts?', *Social Studies of Science*, 31(1): 123-149.

Tuters, Marc, Emilija Jokubauskaitė, and Daniel Bach (2018) 'Post-Truth Protest: How 4chan Cooked Up the Pizzagate Bullshit', *M/C Journal* 21(3). http://journal.media-culture.org.au/index.php/mcjournal/article/view/1422.

Vaidhyanathan, Siva (2018) 'Why Facebook Will Never Be Free of Fakes', *New York Times*, 5 September.

— (2017) 'Facebook Wins, Democracy Loses', *New York Times*, 8 September.

Vassil, Kristjan (2011) *Voting smarter? The impact of voting advice applications on political behavior*, PhD dissertation, European University Institute, Tartu, Estonia.

Volpicelli, Gina (2019) 'This is how Facebook's news feed fact-checking will work in the UK,' *Wired*, 11 January.

Vosoughi, Soroush, Deb Roy and Sinan Aral (2018) 'The spread of true and false news online', *Science*, 359(6380): 1146-1151.

Walgrave, Stefaan, Michiel Nuytemans and Koen Pepermans (2009) 'Voting Aid Applications and the Effect of Statement Selection', *West European Politics,* 32(6): 1161-1180.

Wardle, Claire (2018) *Information Disorder: The Essential Glossary*, Shorenstein Center, Cambridge, MA: Harvard Kennedy School.

— and Hossein Derakhshan (2017) *Information Disorder: Toward an interdisciplinary framework for research and policy making*, Strasbourg: Council of Europe, September 27.

Wendling, Mike (2018a) 'The (almost) complete history of 'fake news'', *BBC News*, 22 January.

Wieringa, Maranke, Tim de Winkel and Callum Lewis (2017) 'Wie is de waakhond op sociale media?', report, Utrecht: Utrecht Data School.

Woolley, Samuel and Philip N. Howard (2016) 'Social media, revolution, and the rise of the political Bot', in Piers Robinson, Philip Seib, Romy Fröhlich (eds.), *Handbook of Media, Conflict and Security*. New York, NY: Routledge, 282-292.

Wynne, Brian (1991) 'Knowledge in context', *Science, Technology & Human Values*, 16(1): 111-121.

van Zijl, Frank and Huib Modderkolk (2017) 'Generaal: Nederland kan digitale dreiging niet aan', *de Volkskrant*, 29 August.

About the authors

RICHARD ROGERS is Professor of New Media & Digital Culture at the University of Amsterdam and Director of the Digital Methods Initiative, the group responsible for social media research tools. Among other works, Rogers is author of *Information Politics on the Web* (MIT Press, 2004), *Digital Methods* (MIT Press, 2013), and *Doing Digital Methods* (Sage, 2019).

SABINE NIEDERER is Professor of Visual Methodologies at the Amsterdam University of Applied Sciences. Her research focuses on the cartography of issues and online debates through visual and digital methods, with a particular interest in climate-related issues. In 2014, Niederer founded the Citizen Data Lab as an applied research lab specializing in participatory mapping of local issues.

2   Political news on Facebook during the 2019 Dutch elections

Stijn Peeters and Richard Rogers[1]

Abstract

This chapter discusses Facebook-based engagement with news sources during the campaigns for two Dutch election campaigns in 2019. Building on earlier journalistic and academic work, a broad typology of 'junk' versus mainstream news is developed, as well as a number of more specific alternative categories. Engagement with news articles within these categories on Facebook is then analysed with BuzzSumo (a media monitoring service built atop CrowdTangle). While mainstream news receives significantly more engagement than other types of news during both campaigns, junk news also receives consistent and significant engagement, though no substantial engagement with outright disinformation is found. We conclude with a cursory comparison of the findings with those for other social media platforms, positioning Facebook as the platform where engagement with junk news is most significant.

Keywords: Facebook, news engagement, junk news, cross-platform analysis

Introduction: Facebook

Since 2016 online disinformation and so-called fake or junk news have been virtually synonymous with social media platforms, serving as their most significant conduits. The 2016 U.S. presidential elections and the British Brexit referendum of the same year opened a period of increased scrutiny of these platforms in how false or misleading information are published and amplified. Facebook, the single largest social media platform of the

1   The research reported here was undertaken in collaboration with Tim Groot.

past decade, has been an obvious focal point. It has been the subject of a substantial and growing amount of studies that investigate its 'challenge [to] journalism' (Johnson and Kelling, 2018: 817), the persuasiveness of fake news shared on it (Allcott and Gentzkow, 2017) and the prevalence of it in the average user's Facebook practice (Guess et al., 2018).

One of the first well-publicized reports on this topic, and the one that informed some of the subsequent research, was *BuzzFeed News'* 2016 story on the prevalence of 'fake news' in the three months leading up to the presidential elections that saw Donald Trump elected the 45th president of the United States. The report, entitled 'This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook' (Silverman 2016), outlines user engagement with 'fake news', finding that in the last few weeks before the election it was engaged with more often than mainstream news.

Following this piece and other coverage on the prevalence of 'fake news' on its platform, Facebook repeatedly announced initiatives that were ostensibly intended to prevent it from happening again by employing third-party fact-checking organizations (Mosseri 2017a), giving 'more informative' content higher priority (Mosseri 2017b), providing more information about the authors of news content (Hughes et al., 2018) and increasing content moderation. Despite these changes, a few years after the 2016 US elections the platform has still repeatedly been found in studies to be spreading problematic content. It has been criticized because of its role in spreading false and hateful content about minorities in Myanmar (Fink, 2018), live streaming the 2019 Christchurch mass shooting (Shead, 2019) and in inciting religious hatred in Bangladesh through viral content that is misleading (Haque et al., 2018: 1). In an analysis of social media use around the Mexican presidential elections in 2018, however, only 'limited evidence of junk content on [Facebook]' was found (Glowacki et al., 2018: 4). Similarly, a 2017 analysis of social media usage by Dutch political parties found scant 'dubious' content shared by Dutch political Facebook pages (Wieringa et al., 2017: 60), though their focus was Facebook pages associated with political parties rather than a larger Dutch Facebook sphere.

Facebook therefore remains an interesting object of study. It is both the platform most commonly associated with dubious content as well as one that, taken at face value, has been relatively proactive in deploying initiatives against its spread. Additionally, existing literature is inconclusive with regards to the extent to which these measures have been effective, and there seem to be significant regional differences in the penetration of 'fake news' in the discourse on the platform, and its effects. There is some existing research focused on the overall Dutch media sphere, most notably

a study on fake news during the 2017 Dutch parliamentary elections by the *NRC Handelsblad*, the national newspaper. The *NRC Handelsblad* found little evidence of the phenomenon; however, as both Dutch politics and Facebook's platform have undergone changes since then, the two Dutch elections of 2019 – the provincial elections (*provinciale statenverkiezingen*) and the EU Parliamentary elections – present a useful case study through which one may investigate the extent to which disinformation and 'fake news' in a broader sense play a role in this particular geographical context on the platform, three years after the 2016 U.S. elections, and two years after the previous major national Dutch elections.

While ostensibly regional in character, the Dutch provincial elections nevertheless have a 'strong national component'[2] (Hietbrink and van Voorst, 2011: 6) as they determine the composition of the Dutch senate, which is indirectly elected by the 'provincial states' (*provinciale staten*). As such they can serve as a national case study similar to that of the two other major case studies by *BuzzFeed News* and the *NRC Handelsblad* that serve as a kind of baseline for this one. In addition to provincial elections, only two months later, in May 2019, the Netherlands took part in the EU parliamentary elections. Given the close proximity of these two elections, and their different character, they together provide an opportunity to explore disinformation and 'fake news' in the media concerning Dutch politics.

In the following, we first discuss how their methods may be appropriated for this case study, through an adapted query list and a more well-defined typology of 'mainstream' versus 'junk news' sources, a term preferred over fake news, as we discuss in more detail below. We then analyze the results in terms of overall trends and a characterization of the sites found in the junk news category. By way of wider contextualization, these findings are further compared with results found in other case studies contained within this volume. Finally, we offer a characterization of the platform-specific and cross-platform trends, and a qualification of the role junk news plays in Dutch political news coverage.

The BuzzFeed method: results so far

The two aforementioned journalistic analyses that have investigated discourse on Facebook in the context of national elections serve as a

---

2   Transl. from Dutch: 'de statenverkiezingen hadden een sterke nationale component' (Hietbrink and van Voorst, 2011: 6).

methodological starting point here. These are *BuzzFeed News*' landmark report into 'fake news' in the lead-up to the US presidential elections of 2016, and the *NRC Handelsblad*'s study of news shared on Facebook around the Dutch parliamentary elections of 2017, which was inspired by *BuzzFeed News*' report and to a large extent employed the same method.

Both of these studies used BuzzSumo, a commercial content aggregation and analysis platform, to track the most engaged-with articles shared on Facebook in the chosen time period. BuzzSumo defines 'engagement' as a 'sum of likes, comments, and shares attributed to an article' (Lee, 2019). If the article is shared in multiple places (e.g., in multiple groups), the engagement score represents the sum of all engagement that BuzzSumo has gathered from the platform. After capturing this data through BuzzSumo, both *BuzzFeed News* and the *NRC Handelsblad* categorized the results as of one of two categories, 'mainstream' and 'fake news'. This simple typology has the advantage of providing clear results, though is potentially limited through its lack of nuance in terms of distinguishing between disinformation, conspiracy, clickbait, and hyperpartisan (as discussed in the introduction to this volume), or related terms as problematic information, misinformation and mal-information.

We adopt this basic method for our case study, but some refining is offered as the original description could be said to lack specificity in some areas. Particularly, with regards to what *BuzzFeed News* considers 'fake', the report is somewhat ambiguous, but it does provide the source list in the form of open data. On the one hand, *BuzzFeed News* consistently refers to content as either 'mainstream' or 'fake'/'false', implying that all of the content in that category constitutes articles containing untrue information. On the other hand, their definition of 'fake' is somewhat expansive in the sense that hyperpartisan sites such as *Breitbart News* are included in their 'fake news' category. Either way, the most engaged with content they found primarily consisted of such false stories as the Pope endorsing Donald Trump, Hillary Clinton selling weapons to ISIS, and a fabricated 'leaked email'.

While the *NRC Handelsblad*'s study broadly uses the same approach, its method differs in how it categorizes the articles it found. Rather than focusing on 'fake'/'false' news, the *NRC Handelsblad* uses a broader category of 'news that is taken out of context, strongly politically coloured, or has a strongly exaggerated headline'[3] (Kist and Zantingh, 2017). Approximately 10% of the content they found fit this description. This would include

3   Transl. from Dutch: 'nieuws [dat] uit zijn context werd gehaald, sterk politiek gekleurd werd gebracht of werd voorzien van een sterk aangezette kop' (Kist & Zantingh 2017).

hyperpartisan outlets, even if they do not make false claims in their content. Their report notes that very little of the content they found was actually false news, or consciously misleading, but that approximately 10% of the content they found fit the broader description. Crucially, even with this broader definition their 'non-mainstream' category is far smaller than that of *BuzzFeed News*' findings, and thus the *NRC Handelsblad* answers its question of whether fake news ('nepnieuws') plays a role in Dutch elections with a resounding 'no'. In spite of these different outcomes, in different contexts, both studies follow the same basic methodology of extracting results from a number of relevant queries from BuzzSumo, which we follow here.

    BuzzFeed News' method, as described in their report, is relatively straightforward: a list of queries is prepared, engagement for articles matching these articles is extracted from Facebook (via BuzzSumo), the results are aggregated and divided into three-month periods, results are coded as either 'fake' or 'mainstream', and the relative prevalence of both categories is plotted over time (Silverman, 2016). More practically, this data was collected by *BuzzFeed News* by querying BuzzSumo for a number of thematically appropriate queries. While no full query list is given, the examples include names of election candidates (["Hillary Clinton"] and ["Donald Trump"]) and phrases reflecting topics of debate during the campaign, such as [Clinton AND emails]. They also included a number of 'known viral lies' such as [Soros AND voting machine]. It should be noted that the latter inclusion is somewhat asymmetrical for it means the search for more sensational and divisive subject matters is more precise and targeted than the search for mainstream news topics, thereby seeking 'fake news'. In any case, the question of asymmetry is addressed in the case study at hand.

Query design: descriptions, issues and party leaders

Dutch provincial elections

We follow *BuzzFeed News* and the *NRC Handelsblad* in their general method in terms of query design, querying BuzzSumo in order to find the most engaged-with content on Facebook. We compiled a list of queries to search BuzzSumo following *BuzzFeed News*' approach of mixing names of political leaders with issues that were particular to the given election campaign. This method also was used by the 2017 *NRC* study which queried 'words like "elections", "parliament" and "polls", and/or the name of a party, party leader, and/or widely discussed topics such as "health care", "pensions", "immigrants"

and "EU"' (Kist and Zantingh, 2017).[4] We used the *NRC Handelsblad* list as a starting point and adjusted it to fit the provincial elections rather than the national elections they studied.

A complication here is the dual local/national focus of the elections. While candidate lists differ per province, in televised debates, national rather than local party leaders participate, and they can generally be said to dominate media coverage (though some local broadcasters organize their own debates as well). In terms of media coverage, local leaders are simultaneously more numerous (as there are far more local leaders than national leaders) and much less significant (as news coverage and debates concentrate on national leaders). A national focus additionally was particularly apparent in the 2019 elections as polls indicated the cabinet risked losing a senate majority following the elections (Herderscheê and Meijer, 2019). For this reason, we limited our party-based queries to the last names of the political leaders of the parties that currently constitute the Dutch parliament,[5] as well as the name of the Prime Minister, representing the national government.[6]

Additionally, we queried a number of political issues that were topics of debate during the election campaign. We looked at the manifestos of the larger Dutch parties and chose three themes that were both significant across all parties' manifestos and had been the topic of media coverage during the ongoing campaign: [Klimaat] (*climate*), [Migratie] (*migration*), and [EU]. Finally, we queried two further general keywords, [verkiezingen] (*elections*) and [PS2019], a widely used hashtag and shorthand for the elections at hand.

The queries were undertaken to capture the election campaign period from 18 February 2019 (the start of the first full week of campaigning, marked by the launch of various voting aids and launch events hosted by a number of parties) to 5 March 2019 (five days after the elections), or five full weeks after the start of the campaign for the provincial elections

EU parliamentary elections

Using the same general strategy, another set of queries was made to find discussion pertaining to the EU parliamentary elections on 23 May 2019. As parties ran with national lists of candidates in this case, we queried the

---

4   Transl. from the Dutch by the authors: 'termen als "verkiezingen", "Tweede Kamer" en "peiling", en/of de naam van een partij, lijsttrekker en/of veelbesproken onderwerpen als "zorg", "AOW", "asielzoekers" en "EU"' (Kist and Zantingh, 2017).
5   [Asscher], [Baudet], [Buma], [Dijkhoff], [Jetten], [Klaver], [Krol], [Kuzu], [Marijnissen], [Segers], [Staaij], [Thieme], and [Wilders].
6   [Rutte].

lead candidates for each party in addition to the current political leaders of all parties in the Dutch parliament.[7] Querying these again was necessary as national leaders played an active role in the election campaign, such as when Mark Rutte, the VVD Prime Minister, and Thierry Baudet, the leader of the FvD, engaged in a televised debate on the eve of the elections.

We further queried general election-related phrases, as well as three themes that occurred across multiple parties' manifestos: climate [klimaat], migration [migratie] and [privacy]. As the elections coincided with a government campaign seeking to make voters aware of the dangers of disinformation (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019), we also queried ["fake news" OR fakenews OR nepnieuws OR desinformatie OR junknieuws]. Finally, for this election we also queried the names of all parties for which one could cast a vote.[8]

We queried these keywords using BuzzSumo, limiting ourselves to articles in Dutch, excluding Belgian sources. As with the Dutch provincial elections, for the EU campaign we queried a similar 5-week period between 19 April and 23 May (election day). Finally, we removed irrelevant results such as those covering various Belgian election campaigns and those resulting from ambiguous keywords such as [Klaver], the name of a party leader but also the word for clover.

Outlet coding: fake and/or junk news?

An important question here is how one identifies a source as either mainstream or its counterpart, whether fake news, junk news or another term (such as problematic information). While mainstream appears rather straightforward to identify (though that also may shift in time), its counterpart is a fuzzier concept. *BuzzFeed News* described their 'fake news' as emanating 'from news websites that only publish hoaxes or from hyperpartisan websites that present themselves as publishing real news' (Silverman, 2016). Here both types of sites purport to be 'news', but not in the manner or with the substance that the mainstream publishes, given their hoaxes or hyperpartisanship, or strong political colour.

7   ["De Graaff"], ["De Lange"], ["in 't Veld"], ["van Dalen"], ["van der Spek"], ["van der Staaij"], ["van Lanschot"], [Asscher], [Azmani], [Baudet], [Berendsen], [Buma], [Dijkhoff], [Eickhout], [Eppink], [Hazekamp], [Hoekstra], [Jetten], [Klaver], [Krol], [Kuzu], [Manders], [Marijnissen], [Rutte], [Segers], [Thieme], [Timmermans], [Tonça], [Wierda], [Wilders].
8   [50Plus], [CDA], [Christenunie OR SGP], [D66], [Denk], [FvD OR "Forum voor Democratie"], [GroenLinks], ["Jezus Leeft"], [PvdA], [PvdD OR "Partij voor de Dieren"], [PVV], [SP], [VVD].

Another notion is 'junk news', and it may be preferred because it avoids the other, historically fraught 'fake news' definition of the 'lying media', but is more ontologically flexible, at least as scholars have described it. While this term has been used as a synonym for 'fake news' (Venturini, 2019: 10), Marchal et al. (2018) employ it to capture a broader category of content that consists of 'various forms of propaganda and ideologically extreme, hyperpartisan or conspiratorial news and information' (2). This then would include *BuzzFeed News*' notion, but also part of the *NRC Handelsblad*'s broader category of tendentious sites that may more often comment upon rather than deliver news, as we come to.

For their 'Junk News Aggregator', a Facebook junk news scraping project, researchers at the Oxford Internet Institute identified a set of measures to define what qualifies as junk news, consisting of 1) a lack of journalistic standards; 2) tendentious style; 3) low credibility; 4) clear bias; 5) a mimicry of traditional news reporting aesthetics; or 6) aggregating content matching the first five criteria (Liotsou et al., 2019: 3). A source was then considered junk news if it satisfied at least three of the first five criteria, or the sixth. Herein lies the flexibility, but also the breadth of the definition that may be suitable for the current analytical purposes in the Dutch case.

In its report, the *NRC Handelsblad* concluded that propaganda or disinformation did not play a significant role in Dutch media. It also distinguished between mainstream and hyperpartisan sources, where the latter is news that is purposively taken out of context, exaggerated to promote a cause (i.e., tendentious) or strongly politically coloured. A number of Dutch outlets can be qualified as both 'tendentious' and strongly politically coloured, while also being embedded in the Dutch media landscape (and in that sense mainstream or mainstreaming). Originally a so-called 'shock blog', *Geenstijl* describes itself as tendentious, and gave birth to PowNed, a public TV broadcaster with a similar signature style. Given its durability and link with the public broadcasting company, *GeenStijl* could be considered both tendentious and mainstream, or the hybrid category, tendentious-mainstream. Another case that is prominent in the BuzzSumo results we found is *The Post Online* (TPO). It is a right-wing media outlet and could fit the *NRC Handelsblad*'s definition as well as a broader definition of hyperpartisan sites as 'openly ideological web operations' (Hermann, 2016). Putting it in the same category as more fringe sites such as Ninefornews (a site promoting conspiracies and UFOlogy) or *De Dagelijkse Standaard* (a far-right outlet that regularly publishes anti-immigrant articles) would not do justice to the less extreme tone. Thus, we could dub it tendentious-hyperpartisan. In the analyses to follow here we show the results with tendentious as a

separate category made up of these two sources. In other studies to follow (on Twitter), the results are compared when the tendentious-hyperpartisan source is categorized as either tendentious or hyperpartisan (see Niederer and Groen, this volume).

In the following we employ the fine-grained categorization and continuum, distinguishing between 'mainstream', 'tendentious', 'hyperpartisan', 'conspiracy' and 'clickbait', occasionally linking the categories, as mentioned. These categories reflect the various sub-types of mainstream, tendentious and otherwise lower-quality content discussed in the introductory chapter. This also allows more nuanced categorizations of sites such as *GeenStijl* and *The Post Online*. In the following analysis we offer this five-category coding as an addition to the binary OII-based categorization, as a way to illustrate the make-up of non-mainstream content found in the data. This categorization resulted from a collaborative coding effort across all case studies found in this volume and provides a more detailed alternative to the binary 'fake/junk' versus 'mainstream' opposition found in, for example, the *BuzzFeed News* and *NRC Handelsblad* studies.

In all we therefore elect not to reduce the sources to fake but rather use a more inclusive category of 'junk news', but then also pay special attention to the tendentious outlets. After identifying the sites using this typology, we further removed all other sites from the results that were either marginal or local. Marginal here refers to sites that received very low engagement scores in the BuzzSumo results and were not otherwise notable in terms of content or overall engagement. We also excluded local news sites, as our main concern for this analysis are outlets with a national or otherwise substantial reach; regional outlets conversely typically have a limited audience, and our list of 'junk' sites contained more nationally oriented outlets rather than regional ones. This left a 'mainstream' category containing national outlets, mostly firmly embedded in the Dutch media landscape, such as various national newspapers, TV broadcasters and a number of online news sites and magazines.

Data analysis: overall and per-query trends

Dutch provincial elections

We used the annotated source list (or expert list) to code the results for the BuzzSumo queries, as discussed in more detail below. This allows for a per-query observation of the ratio between mainstream and junk sources.

Figure 2.1   Engagement of mainstream (blue) and junk-like news (pink) articles found through provincial elections-related BuzzSumo queries, per week, between 18 February 2019 and 25 March 2019. Engagement scores have been normalized.
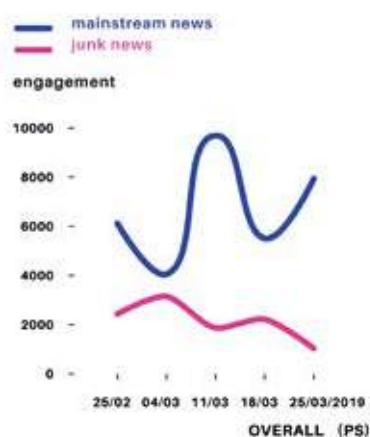
Line graph; visualization by Federica Bardelli

Next to these separate analyses we also calculated an average ratio, weighted by the relative engagement per category, on both an overall and a per-week basis. While our categorization method is slightly different from *BuzzFeed News'*, this per-week analysis nevertheless allows for a trend comparison with the results of their over-time analysis of the US 2016 presidential election campaign.

Notably, the trendline found in our over-time analysis (Figure 2.1) does not match the one in BuzzFeed's study (see Figure 2.2). While *BuzzFeed News'* data saw a clear increase of engagement of fake news in the weeks leading up to the elections, in our data junk news stayed relatively constant in terms of engagement and even decreased slightly during the last few weeks. There are, however, some differences between the two campaigns that complicate a direct comparison. The US election campaign is typically far longer than Dutch election campaigns, especially in this case as the 2019 election was concerned with the provincial states and senate rather than the lower house of parliament (typically the most important Dutch election). While the US campaign was analyzed over a period of 9 months, the Dutch campaign and hence our data spans five weeks only. Additionally, *BuzzFeed News'* data resolution is quite low (one datapoint per three months) while ours is more fine-grained (one per week).

Nevertheless, even considering these differences it is striking that the graphs indicate rather different dynamics. While the BuzzFeed data points

Figure 2.2   Total Facebook engagement of fake versus mainstream news. Results from election-related queries on BuzzSumo, for the 20 most-engaged with articles between February and November 2016, per three-month period
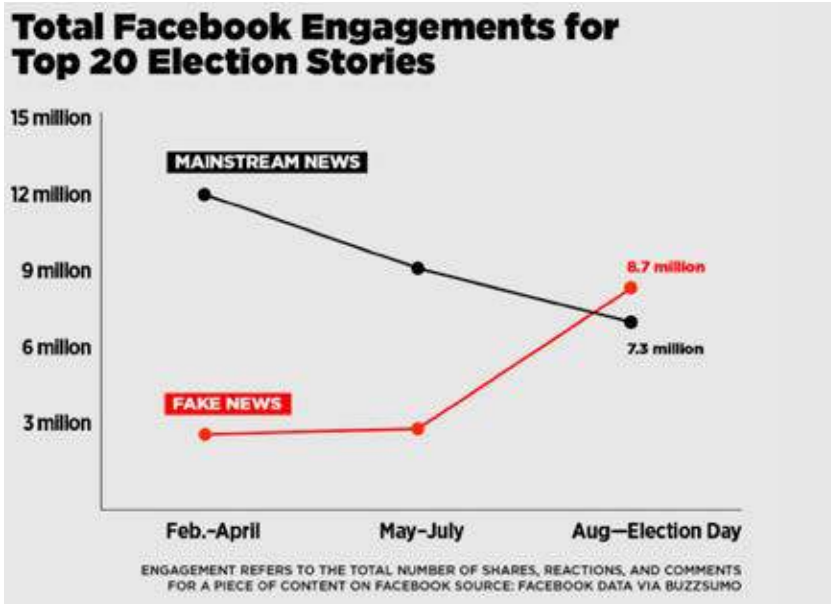
Source: Silverman (2016)

to a clear ramping up of fake news content as the election date draws near, our data is more in line with the *NRC Handelblad*'s earlier study and suggests a more constant but persistent undercurrent of junk news that is a part of politically oriented media output. The above data is an aggregate of all queries performed on BuzzSumo, however. While in aggregate there is no clear trend, this could be the result of summing up the values, and more apparent trends exist in the results for individual queries.

As can be seen in the overview in Figure 2.3, even on a per-query basis there are few clear trends with regards to the prevalence of junk news engagement. There is an interesting uptick in the prevalence of *mainstream* engagement for a few queries. Most notably, the data for [Segers], the leader of ChristenUnie (a centrist Christian party), shows a sharp increase in the last week of the election campaign. This can almost entirely be attributed, however, to news coverage *after* the elections about the implications of the election results for the cabinet, of which Segers' party is the smallest member. (Note the similar uptick for [Jetten], whose D66 party is the second-smallest cabinet member.) Another notable bump in mainstream engagement occurs

Figure 2.3   Per-query engagement of mainstream (blue) and junk (pink) articles found through provincial elections-related BuzzSumo queries, per week, between 18 February and 25 March 2019. Engagement scores have been normalized.
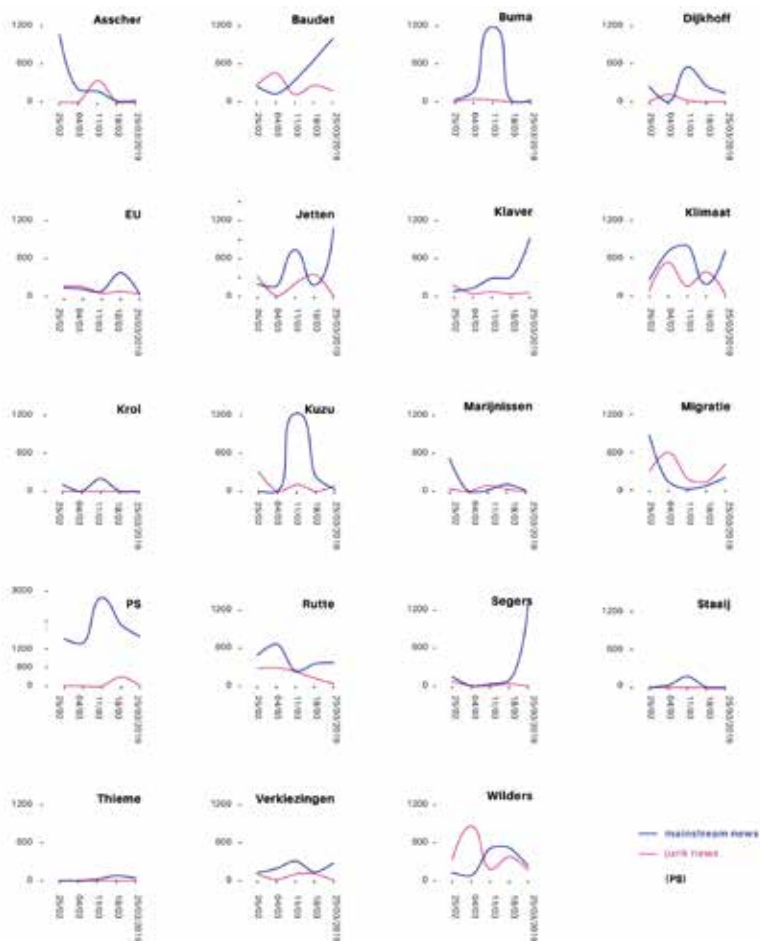
Line graphs; visualization by Federica Bardelli

for a number of queries ([PS2019], [Buma], [Kuzu] and [Dijkhoff]) around the middle of the election campaign. A closer look at the articles responsible for this engagement reveals that this may be an indication of the campaign coming into full swing and hence the increasing media coverage of it. The oft-quoted and feared *BuzzFeed News* pattern of fake news outperforming mainstream news is thus not repeated on either an aggregate or query level in this case study.

What remains of interest is the relative performance of mainstream and junk news on a per-week and per-query level, particularly on a number of occasions where junk news briefly outperforms mainstream news in terms of Facebook engagement. For queries of politicians, it occurs most notably for [Baudet], [Kuzu] and [Wilders] during the first week of the election campaign, where the dominance of junk news is most pronounced. These politicians all lead relatively fringe parties: Baudet leads the far-right Forum voor Democratie (FvD), Kuzu the left-wing and immigrant-oriented DENK, and Wilders is the leader of the far-right Partij voor de Vrijheid (PVV). A closer look at the junk news articles that are responsible for these surges shows that in all three cases, these are not articles primarily concerned with the elections themselves but rather coverage of other political issues (mostly around climate laws that were being discussed at the time) by hyperpartisan outlets like *De Dagelijkse Standaard*. The relative prevalence of this coverage is perhaps an indication that media had not yet started covering the election campaign in earnest, rather than a dominance of junk news in election discourse. Overall, while in some individual cases junk news outperforms mainstream news, these episodes are outliers and represent less of an overall trend than one for particular parties. There is one general exception to this rule, however, and it concerns the query for [migratie], or migration, where junk outperforms mainstream for most of the period. Also, [klimaat] or climate, has a week where junk news had more engagement that the mainstream. These are rather polarizing issues, drawing attention from hyperpartisan outlets.

EU Parliamentary elections

A trend analysis of the EU parliamentary results (see Figure 2.4) shows a pattern not too dissimilar to the one found in the provincial elections data, similarly seeing junk news match the performance of mainstream news particularly in the beginning of the query period. Recall that during the provincial elections campaign junk news performed as well as mainstream news on two occasions. Though this trend is still notably different from the one found by *BuzzFeed News*, where junk news overtook mainstream news towards the end of the campaign, it is nevertheless a significant finding that suggests an increasingly robust position for junk news in the Dutch context.

A closer look at this second week of the EU campaign data shows that the junk news engagement can for a large part be attributed to an article in *De Dagelijkse Standaard*, which discusses a video posted by the political party Denk on their Facebook page, accusing the party of demonizing

Figure 2.4   Engagement of mainstream and junk-like articles found through EU elections-related queries on BuzzSumo, between 19 April 2019 and 23 May 2019. Engagement scores have been normalized.
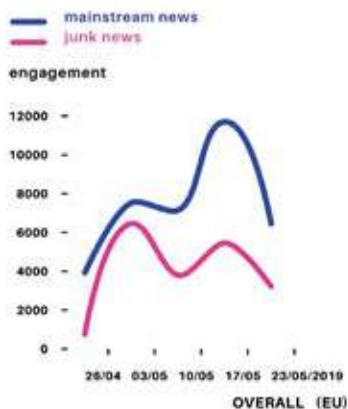
Line graph; visualization by Federica Bardelli

Geert Wilders (of the PVV party).[9] This article's engagement is responsible for about 36% of that week's 'junk' engagement, providing a major boost.

More generally the relatively high engagement attained by junk sources can in many cases be attributed to a small number of high-performing articles. This matches the findings from the analysis of the provincial elections, where peaks in junk news engagement could similarly be attributed to a smaller number of well-scoring articles. While junk sources perform relatively well, especially in the earlier weeks of the data set, this success is thus attributable to a relatively small number of sources and articles rather than a broadly successful and diversified ecosystem or even a coordinated campaign.

Though the findings do not approximate those in the *BuzzFeed News* story, in the case of the EU election campaign it is noteworthy that indeed junk news does on one occasion match the performance of mainstream news, though not during the tail end of the campaign period as was the case in the *BuzzFeed News* data. Overall, junk news is roughly as successful during the EU campaign as it was during the provincial election campaign, and has a significant presence, though over the whole campaign mainstream news still easily outperforms it.

9   'Video! Kuzu (DENK) wil dat Wilders gestopt wordt, voordat hij een tweede Srebrenica-bloedbad kan aanrichten': https://www.dagelijksestandaard.nl/2019/05/video-kuzu-denk-wil-dat-wilders-gestopt-wordt-voordat-hij-een-tweede-srebrenica-bloedbad-kan-aanrichten/

Figure 2.5   Per-query engagement of mainstream (blue) and junk (pink) articles found through EU parliamentary election-related BuzzSumo queries, per week, between 19 April 2019 and 23 May 2019. Engagement scores have been normalized.
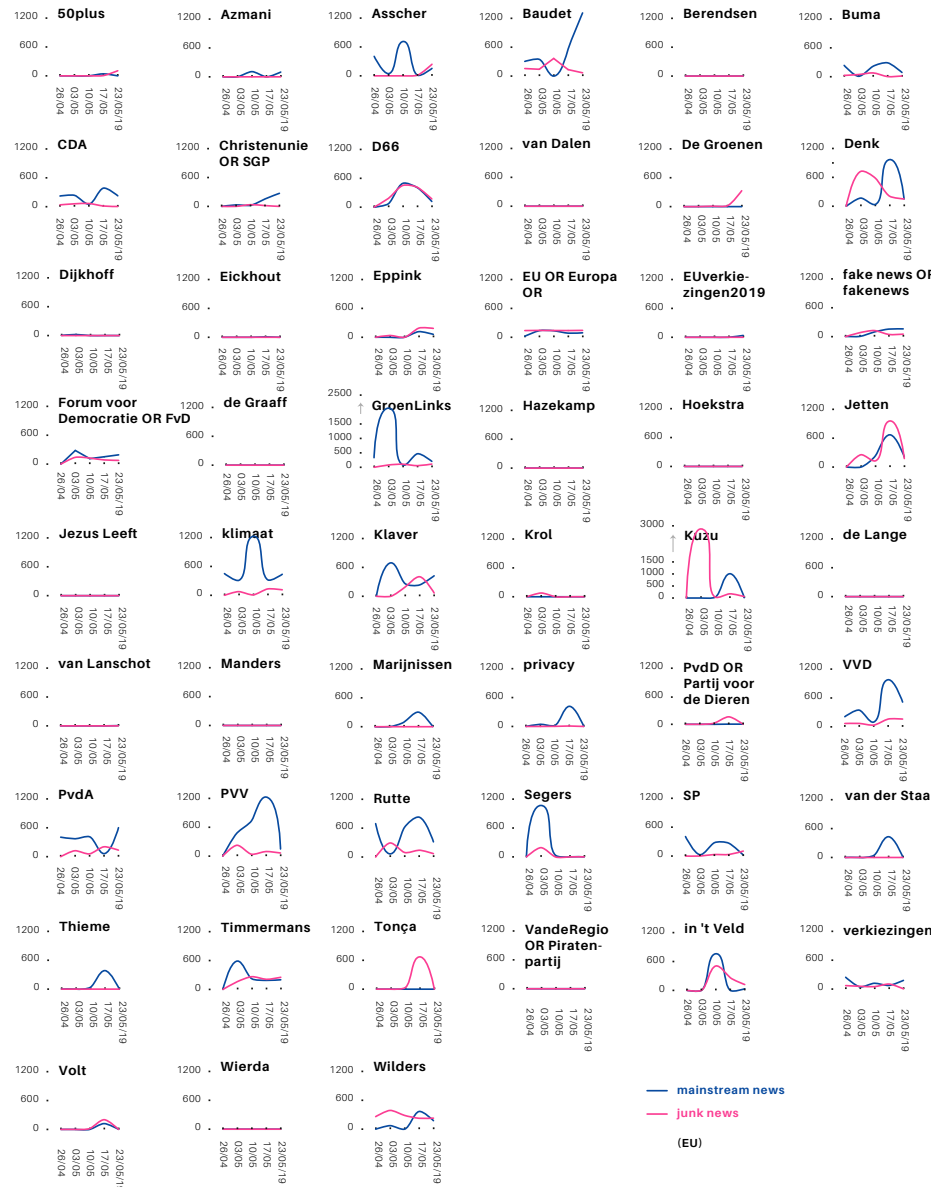
Line graphs; visualization by Federica Bardelli

Characterizing sources

It is useful here to briefly discuss the sites that make up both categories of content. Our category of mainstream outlets (see Table 2.1) consists of well-known outlets with a national reach, which in practice translates to a number of national newspapers, public broadcasting organizations, national TV programmes and large online magazines. The junk category is comparatively more diverse; the typology we use covers conspiracy sites, hyperpartisan online sources (including independent self-styled journalists), and clickbait aggregators. Some of these are relatively large: *De Dagelijkse Standaard*, a far-right weblog, appears in the top three of most engaged-with articles for 15 of our 19 queries. Some other junk sites appear to be more focused on a particular topic; this is especially apparent in the results for the provincial elections [Migratie] (*migration*) query, in which fenixx.org – a far-right extreme site advancing the 'race replacement' theory – appears often, while it is far less prominent for the other queries, save for the [EU], in which it also appears occasionally. This site was also noted by the earlier 2017 *NRC Handelsblad* study as being especially prevalent in their 'hyperpartisan' category.

This 'hyperpartisan' category can then be seen to be comprised of roughly the same set of sites in both data sets (see Table 2.1 and 2.2). This could be considered to suggest a hyperpartisan news ecosystem of sites that enjoy a significant and stable readership. On the other hand, this ecosystem is notably top-heavy; for both data sets *De Dagelijkse Standaard* (DDS) is by far the most engaged-with site, almost four times as popular as the next site in the list. Following *DDS* is a number of far smaller but simultaneously more outspokenly far-right blogs such as *Stop de Bankiers*, *Fenixx* and *JD Report*. *Fenixx* here is further notable as a site that was also mentioned as a relatively prominent junk site in the 2017 NRC study. While we can thus identify a stable sphere of hyperpartisan news sites that drive significant engagement, the success of this sphere is still mostly reliant on *De Dagelijkse Standaard*, and with the exception of that site is quite marginal compared to the mainstream sphere.

As discussed above, an alternative to the binary mainstream/junk opposition one may consider the data for both election campaigns in terms of a more detailed five-category perspective (see Figures 2.5 and 2.6). For both the provincial and EU elections it is apparent that the largest non-mainstream category by far consists of hyperpartisan sources. The only other category that has a noteworthy impact are tendentious sources *GeenStijl* and *The Post Online* (which are both not included in the other, binary, categorization in Figures 2.1 and 2.4). Conspiracy and clickbait sources are present in the data but do not play a significant role compared to the other categories.

Table 2.1 Top 10 sites per category (provincial elections), for all queries combined, sorted by overall engagement scores as reported by BuzzSumo

Mainstream		Junk news	
Site	Engagement	Site	Engagement
telegraaf.nl	102117	dagelijksestandaard.nl	98414
nu.nl	46962	stopdebankiers.com	26429
rtlnieuws.nl	46849	fenixx.org	13024
wnl.tv	39975	jdreport.com	8564
nos.nl	37319	ninefornews.nl	5975
nrc.nl	16010	tpook.nl	4431
metronieuws.nl	14746	ejbron.wordpress.com	4126
pauw.bnnvara.nl	10130	opiniez.com	2777
evajinek.kro-ncrv.nl	7412	dlmplus.nl	2110

Table 2.2 Top 10 sites per category (EU parliamentary elections), for all queries combined, sorted by overall engagement scores as reported by BuzzSumo

Mainstream		Junk news	
Site	Engagement	Site	Engagement
telegraaf.nl	232327	dagelijksestandaard.nl	225006
nu.nl	192962	stopdebankiers.com	46892
nos.nl	141440	fenixx.org	25852
rtlnieuws.nl	99820	tpook.nl	17453
wnl.tv	91211	jdreport.com	9199
elsevierweekblad.nl	31150	opiniez.com	8302
metronieuws.nl	28038	ejbron.wordpress.com	6427
nrc.nl	27195	reactnieuws.net	5565
joop.bnnvara.nl	22509	ninefornews.nl	2047

Table 2.3 Top 10 'hyperpartisan' sites for both data sets (provincial and EU elections), sorted by overall engagement scores as reported by BuzzSumo

Dutch provincial elections		EU Parliamentary elections	
Site	Engagement	Site	Engagement
dagelijksestandaard.nl	168668	dagelijksestandaard.nl	225006
stopdebankiers.com	35414	stopdebankiers.com	46892
fenixx.org	20757	fenixx.org	25852
jdreport.com	15679	jdreport.com	9199
ejbron.wordpress.com	5285	opiniez.com	8302
dailypaper.org	4887	ejbron.wordpress.com	6427
opiniez.com	4554	reactnieuws.net	5565
destaatvanhet-klimaat.nl	3912	xandernieuws.net	2009
pallieterke.net	3228	eunmask.wordpress.com	1296
eunmask.wordpress.com	2487	novini.nl	862

Figure 2.6   **Engagement of mainstream, hyperpartisan, conspiracy and clickbait
articles found for provincial elections-related queries on BuzzSumo,
between 18 February 2019 and 25 March 2019. Engagement scores have
been normalized.** *GeenStijl* **is considered 'mainstream' here, while** *The
Post Online* **is classified as 'hyperpartisan'.**
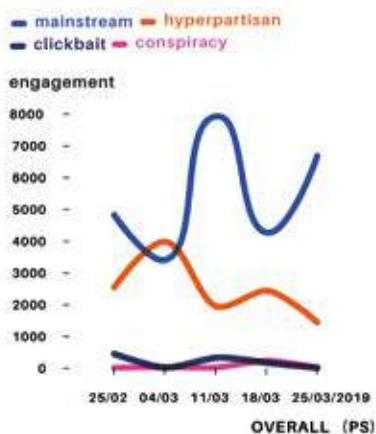
Line graph; visualization by Federica Bardelli

Figure 2.7   **Engagement of mainstream, tendentious, hyperpartisan, conspiracy
and clickbait articles found for provincial elections-related queries on
BuzzSumo, between 18 February 2019 and 25 March 2019. Engagement
scores have been normalized.** *GeenStijl* **and** *The Post Online* **are
considered 'tendentious' here.**
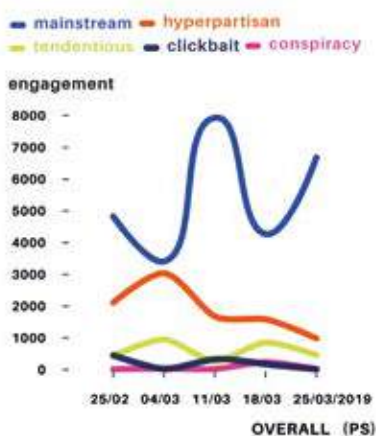
Line graph; visualization by Federica Bardelli

Figure 2.8   Engagement of mainstream, tendentious, hyperpartisan, conspiracy and clickbait articles found for EU parliamentary elections-related queries on BuzzSumo, between 19 April 2019 and 23 May 2019. Engagement scores have been normalized. _GeenStijl_ is considered 'mainstream' here while _The Post Online_ is classified as 'hyperpartisan'.
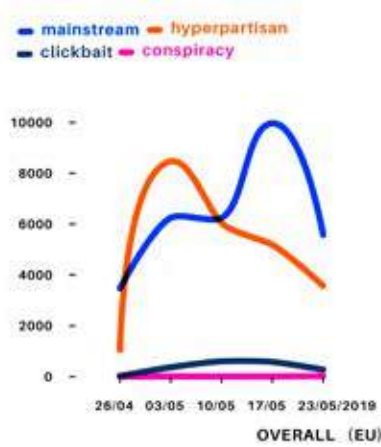
Line graph; visualization by Federica Bardelli

Figure 2.9   Engagement of mainstream, tendentious, hyperpartisan, conspiracy and clickbait articles found for EU parliamentary elections-related queries on BuzzSumo, between 19 April 2019 and 23 May 2019. Engagement scores have been normalized. _GeenStijl_ and _The Post Online_ are considered 'tendentious' here.
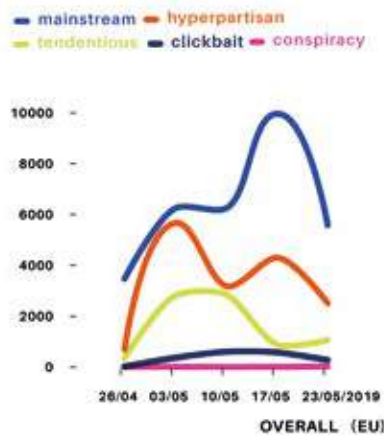
Line graph; visualization by Federica Bardelli

An examination of the most engaged-with sites in the hyperpartisan category (see Table 2.3) further confirms that this category is the most influential one in the broader 'junk' (or 'junk-like') sphere, with the top ten sites mostly matching those found in the top 10 of 'junk' sites identified in tables 1 and 2. The top five is similar on all lists, and again *De Dagelijkse Standaard* is the most important site. Notably, as the campaign draws on, mainstream engagement can be seen to increase while junk news performance is relatively stable, meaning interest in mainstream news coverage increases towards the end of a political campaign, while junk news remains stable. Perhaps they serve different publics, though such a construal would require further work.

Generally, the junk news sites, of which hyperpartisan sites are the largest constituent, can be characterized as on the right, anti-immigrant, anti-EU and in some cases anti-Semitic or advancing conspiracy theories (the latter especially applying to ninefornews.nl and jdreport.com). This ideological slant in our findings is consistent with other studies on junk news, including the 2016 *BuzzFeed News* analysis but also others that found that left-wing content was less prominent in that category (Silverman, 2016; Neudert et al., 2017: 1; Alcott and Gentzkow, 2017: 223). In this case study, next to the prevalence of hyperpartisan sites such as *DDS* the relatively large engagement of especially conspiracy sites is notable; ninefornews.nl, which is the 5th-most engaged with site in our data, regularly promotes conspiracy theories ranging from UFO sightings to such far-fetched concoctions as Pizzagate and QAnon. The authors seem to be convinced that this is accurate accounting of events. Overall, the data show that junk news, consisting primarily of hyperpartisan and conspiracy theory sites, are a minor but constant and significant factor.

A cross-platform appraisal

This case study focuses on Facebook, but a similar analysis may be performed for other platforms. While Facebook has the dubious honour of being the platform with perhaps the strongest association with fake news, other platforms have their own affordances that could make them attractive for those seeking to spread forms of junk content. Just as this case study builds on the analyses of *BuzzFeed News*' and the *NRC Handelsblad*'s, with a number of methodological tweaks, one could similarly move to other platforms as well, studying over-time engagement of junk and mainstream content respectively. Multiple case studies in this volume employ a method of this type.

The multiple platform analyses present an opportunity not only to investigate the prevalence of junk news on individual platforms, but also to perform a cross-platform analysis in order to investigate whether there are platforms that are particularly susceptible to junk content, or whether some platforms have perhaps succeeded in combating the spread of it, given that the phenomenon has been addressed for some time now, and the case studies in question take place in early to mid-2019. While we present such a comparison in this section, it should be noted that a direct comparison between platforms is complicated for a number of reasons.

One issue with a comparison between various platforms is that 'engagement' means different things depending on the features a platform offers for interacting with content. On Facebook, engagement means the sum of comments, likes (or reactions) and shares a post received. But Reddit, for example, has no direct counterpart to some of those, as 'shares' are not a relevant concept on that platform. It simultaneously offers metrics Facebook does not use (including upvotes and downvotes). Moreover, on Facebook a dislike or angry reaction, for example, often would be counted as a plus engagement, whereas a downvote on Reddit reduces a post's score.

More specifically, the case studies in this collection use different time periods and, in some cases, investigate, apart from election issues and leaders, certain polarized topics (such as MH17 and Zwarte Piet) so as to seek disinformation or junk, as we discussed above in terms of asymmetrical querying. Such query design may be justified, given that previous studies of disinformation in the Dutch media context were borne of data curated by Twitter that consisted of Russian IRA trolls, and found activity around the downing of the MH17 airliner in 2014 as well as the terrorist attacks in the Brussels airport and metro in 2016. When examining on Twitter the MH17 hashtag and keyword usage over the past number of years, one may find increased activity around elections (such as during the national elections of 2017), thus further justifying a renewed attention towards at least MH17 during the 2019 elections. Such asymmetrical querying of course complicates comparisons, as the ratio between mainstream and junk news engagement may be less balanced, given conspiracy and other sources' continual attention to such themes. Differences in time periods also pose issues, as there may be particularly 'junk-sensitive' episodes from the past that are missing from the current analyses, and for analytical purposes have been removed from the comparison.

Nevertheless, provided one is aware of the limitations in such a comparison, the results of such an analysis for other platforms compared to the Facebook case study can provide an impression of the relative penetration of

Figure 2.10 **Relative engagement of content categories across 4chan /pol/, Reddit, Twitter and Facebook.** *GeenStijl* **is considered 'mainstream' here while** *The Post Online* **is classified as 'hyperpartisan'. 4chan and reddit data from 1 Dec 2015 until 1 June; Twitter and Facebook data from 18 Feb 2019-25 Mar 2019 and 19 Apr 2019-23 May 2019**
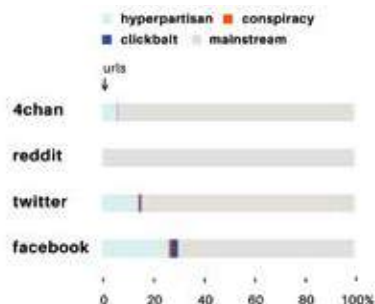
Figure 2.11 **Relative engagement of content categories across 4chan /pol/, Reddit, Twitter and Facebook. 4chan and reddit data from 1 Dec 2015 until 1 June; Twitter and Facebook data from 18 Feb 2019-25 Mar 2019 and 19 Apr 2019-23 May 2019**
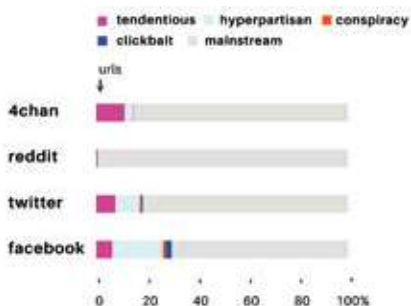
junk across different social media platforms. While in the rest of this volume there are separate case studies that investigate the individual platforms with methods similar to this one, the graphs above present a rough impression of the results across platforms, using data from this chapter and the other case studies.

What is striking in the cross-platform comparison of results in Figures 2.10 and 2.11 is that the two 'mainstream' social platforms, Facebook and Twitter, show a higher prevalence of junk content than 4chan and Reddit, the deep vernacular web platforms. This is interesting because the latter two – the 'seedy underbelly' of the internet (Bergstrom, 2011) – are often characterized as hotbeds of polarizing and alt-right political discussion, thus providing an

environment where one could expect particularly hyperpartisan content to thrive.

One plausible explanation of this is that especially on 4chan's /pol/, the 'politically incorrect' sub-forum that was investigated in this case, those posting may position themselves in opposition to mainstream sources. This positioning often goes hand in hand with linking to the sources in question, thus increasing the share of mainstream content in the overall picture for the platform. As such it underlines the notion that engagement does not necessarily indicate that one agrees with the engaged-with content, and in fact high engagement may be taken to indicate controversiality, as something polarizing that is hotly debated can be expected to be clicked on and scrutinized by many of those posting about it.

As discussed, a detailed cross-platform comparison is complicated by the different methods used in each case study. While outside the scope of this research, further commensuration of these methods and results for a more thorough cross-platform analysis presents an opportunity for further research.

Conclusions: Absence of disinformation and junk news prevalence

This particular case study, focused on Facebook, is informed by similar investigative (data) journalism originating with *BuzzFeed News* and the *NRC Handelsblad*. Our results are not strictly in keeping with theirs. It is of particular interest that the prevalence of intentionally false news *BuzzFeed News* found was not apparent in our data, indicating that this is far less of a problem in the Dutch sphere than in the US. The data do seem to confirm the reputation of Facebook as an especially fertile ground for junk news in comparison to other platforms and indicates that despite its initiatives to combat such content, it is still endemic on the platform. In fact, whereas the NRC found that 'at most 10%'[10] (Kist and Zantingh, 2017) of the engagement they analyzed concerned hyperpartisan and tendentious content, in our analysis a little over a year later we find this share has risen to 25%.

While this difference between our findings and the *NRC Handelsblad*'s could partially be explained by the differences in the criteria used to categories the content, it seems justified to conclude that even if junk news is in the minority, it is certainly not marginal, and seems to be a growing product in the Dutch media landscape, on some occasions matching the performance

10   Transl. from Dutch by authors of 'hoogstens 10 procent' (Kist & Zantingh, 2017).

of mainstream news in terms of Facebook engagement. Though this case study is limited to the 2019 provincial and EU elections, its findings suggest that a broader analysis of junk coverage of Dutch politics on Facebook is warranted. Such an analysis could also investigate what 'engagement' means in practice; as indicated by the cursory cross-platform analysis, engagement may not translate to agreement, and if junk news is such a factor on Facebook it is important to understand the motivations behind engaging with it if we are to understand the significance of it in the wider political debate.

A silver lining (so to speak) is that there was virtually no outright (foreign) disinformation in the data we found, and indeed across all platforms we investigated. While especially on Facebook there is a solid undercurrent of junk sites including hyperpartisan content, and a number of well-shared conspiracy sites which promote highly dubious content, there is no imminent reason to expect so-called fake news affecting Dutch election coverage in the same way it appeared to for the 2016 US elections. Overall, our Facebook case study indicates that there is no immediate cause for concern about disinformation about Dutch elections, but that junk news is a growing factor that warrants closer scrutiny.

References

Allcott, Hunt and Matthew Gentzkow (2017) 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, 31(2): 211-236. https://doi.org/10.1257/jep.31.2.211

Bergstrom, Kelly. 2011. "Don't Feed the Troll': Shutting down Debate about Community Expectations on Reddit.Com', *First Monday*, 16(8). https://doi.org/10.5210/fm.v16i8.3498

Fink, Christina (2018) 'Dangerous Speech, Anti-Muslim Violence, and Facebook in Myanmar', *Journal of International Affairs* 71(1.5): 43-52.

Glowacki, Monika, Vidya Narayanan, Sam Maynard, Gustavo Hirsch, Bence Kollanyi, Lisa-Maria Neudert, Phil Howard, Thomas Lederer, and Vlad Barash (2018) 'News and Political Information Consumption in Mexico: Mapping the 2018 Mexical Presidential Election on Twitter and Facebook,' 2018.2, COMPROP Data Memo. Oxford: Oxford Internet Institute.

Guess, Andrew, Brendan Nyhan and Jason Reifler (2018) 'Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign', Report, Hannover, NH: Dartmouth College, https://www.dartmouth.edu/~nyhan/fake-news-2016.pdf.

Haque, Md Mahfuzul, Mohammad Yousuf, Zahedur Arman, Md Main Uddin Rony, Ahmed Shatil Alam, Kazi Mehedi Hasan, Md Khadimul Islam, and Naeemul Hassan (2018) 'Fact-Checking Initiatives in Bangladesh, India, and Nepal: A Study of User Engagement and Challenges', *ArXiv:1811.01806* [*Cs*], November. http://arxiv.org/abs/1811.01806.

Herderscheê, Gijs and Remco Meijer (2019) 'Kabinet krijgt bitter voorproefje van regeren zonder meerderheid in Eerste Kamer', *de Volkskrant*, January 31. https://www.volkskrant.nl/gs-b378d420.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August. https://www.nytimes.com/2016/08/28/magazine/inside-facebooks-totally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html.

Hietbrink, Niek and Evert van Voorst (2011). *Regionale media: oog en oor voor de provinciale democratie?* Zwolle: Hogeschool Windesheim.

Hughes, Taylor, Jeff Smith and Alex Leavitt (2018) 'Helping People Better Assess the Stories They See in News Feed with the Context Button | Facebook Newsroom', *Facebook Newsroom* (blog). April. https://newsroom.fb.com/news/2018/04/news-feed-fyi-more-context/

Johnson, Brett G. and Kimberly Kelling (2018) 'Placing Facebook', *Journalism Practice* 12(7): 817-33. https://doi.org/10.1080/17512786.2017.1349546

Kist, Reinier and Peter Zantingh (2017) 'Geen grote rol nepnieuws in aanloop naar verkiezingen', *NRC Handelsblad*, 6 March.

Lee, Alexis (2019) 'What Is a 'Facebook Engagement?', *BuzzSumo Knowledge Base*. https://help.buzzsumo.com/faqs-and-troubleshooting/product-faqs/what-is-a-facebook-engagement.

Liotsiou, Dimitra, Bence Kollanyi, and Philip N. Howard (2019) 'The Junk News Aggregator: Examining Junk News Posted on Facebook, Starting with the 2018 US Midterm Elections', *ArXiv:1901.07920* [*Cs*], January. http://arxiv.org/abs/1901.07920.

Marchal, Nahema, Lisa-Maria Neudert, Bence Kollanyi and Philip N. Howard (2018) 'Polarization, Partisanship and Junk News Consumption on Social Media During the 2018 US Midterm Elections' 2018.5, COMPROP Data Memo, Oxford: Oxford Internet Institute.

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (2019) 'Campagne nepnieuws vandaag van start – Nieuwsbericht', *Rijksoverheid.nl*. March 11. https://www.rijksoverheid.nl/actueel/nieuws/2019/03/11/campagne-nepnieuws-vandaag-van-start.

Mosseri, Adam (2017a) 'Working to Stop Misinformation and False News | Facebook Newsroom', *Facebook Newsroom,* blog post, April. https://newsroom.fb.com/news/2017/04/working-to-stop-misinformation-and-false-news/.

—. 2017b. "Showing More Informative Links in News Feed | Facebook Newsroom." *Facebook Newsroom*, blog post, June 30. https://newsroom.fb.com/news/2017/06/news-feed-fyi-showing-more-informative-links-in-news-feed/

Shead, Sam (2019) 'Facebook Reacts to Live-Streamed Footage of the Deadly New Zealand Mass Shooting That Was Posted on Its Platform', *Business Insider Australia*, March 15. https://www.thisisinsider.com/facebook-responds-to-alleged-live-stream-of-christchurch-shooting-2019-3.

Silverman, Craig, J. Lester Feder, Saska Cvetkovska and Aubrey Belford (2018) 'Macedonia's Pro-Trump Fake News Industry Had American Links, And Is Under Investigation For Possible Russia Ties', *Buzzfeed News*, 18 July.

Venturini, Tommaso (2019) 'From Fake to Junk News, the Data Politics of Online Virality', in Didier Bigo, Engin Isin, and Evelyn Ruppert (eds), *Data Politics: Worlds, Subjects, Rights*. London: Routledge. https://hal.archives-ouvertes.fr/hal-02003893.

Wieringa, Maranke, Tim de Winkel and Callum Lewis (2017) 'Wie is de waakhond op sociale media?', report, Utrecht: Utrecht Data School.

About the authors

STIJN PEETERS is a postdoctoral researcher at the University of Amsterdam, working on the ODYCCEUS Horizon 2020 project. In 2018 he completed his Ph.D. research on the platform histories of Twitter and IRC at King's College London. His research focuses on platform history and the development of digital research protocols and tools.

RICHARD ROGERS is Professor of New Media & Digital Culture at the University of Amsterdam and Director of the Digital Methods Initiative, the group responsible for social media research tools. Among other works, Rogers is author of *Information Politics on the Web* (MIT Press, 2004), *Digital Methods* (MIT Press, 2013), and *Doing Digital Methods* (Sage, 2019).

3   Political news in search engines

Exploring Google's susceptibility to hyperpartisan sources
during the Dutch elections

Guillén Torres and Richard Rogers[1]

Abstract
The research enquires into the susceptibility of Google's search engine
to provide users with questionable information when querying political
parties and their issues during the run-up to the Dutch provincial and
European parliamentary elections. Which rankings has the search engine
assigned to problematic sources when querying political parties and
their issues? Are there particular political issues and party spaces where
these sources are prevalent or entirely absent? Do the ranks and amounts
increase as the elections draw near? In all, it was found that hyperpartisan
sources are rather pervasive in the search-demarcated political space,
but far more so for certain actors and their issues on the far right of the
political spectrum.

Keywords: Google Web Search, search engines, elections, social issues,
digital methods

Introduction: Search engines as junk source space

As key entry points to the web, search engines serve as a site for the con-
sumption of information, including political information, and as such are a
relevant space for the study of both the presence of disinformation and junk
news as well as approaches to combat it (Bowden, 2016). Although they are
described in the industry as 'organic', the output of search engines could be

---

[1]   The research reported here was undertaken in collaboration with Anja Duricic, Lisa Fluttert,
James Ingleby and Ziwen Tang.

---

termed manufactured hierarchy (Hindman, 2008; Halavais, 2017). Sources are ranked per query, and as such certain ones are offered as more relevant than others, as if naturally. Such ranking practices are often considered inscrutable, since search engines generally do not provide a means to save and study query results, e.g., through offering an API that enables it or terms of service that allow it. In fact, the ranking algorithms are trade secrets jealously guarded by corporations.

Since 2009 Google and subsequently other search engines have personalized results, be it for the individual or the place where the search has taken place (Pariser, 2011; Puschmann, 2018). Increasingly engines are thus both providing ranked political information but also tailoring it to user preferences and/or location (Martens et al., 2018).

When it comes to events, such as elections, search engines become providers not only of topical but also of timely information. These are particularly poignant moments to study the presence of disinformation and junk news. As cases in point, there have been occasions when sources that were otherwise insignificantly ranked rose to the top of engine returns during the 'breaking news' period of an event, such as in the immediate aftermath of the Las Vegas shootings in 2017, when a 4chan post misidentifying the shooter rose to the top of the results (Robertson, 2017). Google results also prominently linked to rumours about the identity of a Texas shooter in 2018 as 'a Muslim convert, member of Antifa or Democrat supporter' (Lomas, 2018). One could point to artificial manipulation, such as search engine optimization, as triggering the unexpected rankings and sudden presence of dubious information. With respect to the 4chan post, the gaming of the engine (if that were the cause) also may have been maliciously playful, introducing misinformation as an act of trolling. In the case of the rumours about the Texas shooter, the manipulation appears to have been hyperpartisan. Both spates of false news were not 'corrected' in the editorial sense of an erratum notice; rather, the dynamically published results are continually algorithmically tweaked so 'good information' is said to ultimately prevail (Waters, 2017).

In the study of engine returns and hierarchies (through manual capture techniques) it is often pointed out that top placement matters, since engine users over the years have been browsing fewer and fewer result pages (Jansen and Spink, 2003; Dan and Davison, 2016). Thus, in the above examples, the significance of the location of misinformation, rumour and extreme results relies on findings about how users gravitate to the top results, making them the most consumed and thereby particularly worthy of study. An additional research strategy for inquiries into junk news presence concerns anticipatory search, also known as autosuggestion, which drives the user to particular search

terms. It also has been studied for the offensive associations made by engines, such as the completion of 'are Jews' with 'evil' (Cadwalladr, 2016). Misogynistic autosuggestions also were documented in earlier cases which led to a UN campaign in 2013 discussed in a longer study of 'how search engines reinforce racism' (Noble, 2018). Other extremist content has been similarly documented towards the top of Google results for the query 'holocaust' (Hern, 2017).

The discovery by *The Guardian* journalist of the offensive associations with the word 'Jews' and the resulting sites that surfaced (such as the neo-Nazi website, The Daily Stormer) have led to discussions of not just how Google's algorithms could be tweaked, but also the reach of the sources producing and driving such information in the first place. Their presence (and top placement) could be interpreted as a proxy for the significance and audience of such material online, or as others have argued as evidence of a culture war, driven by the online boosting tactics of 'culture hackers' (Albright, 2016; Confessore and Wakabayashi, 2017). Whilst they may seek to correct the autosuggestions (and perhaps remove religious ones all together), companies such as Google are hesitant to delist such extreme websites, given free speech concerns, which also may arise if they are nudged downwards.

The present chapter studies the susceptibility of Google's search engine to provide users with questionable information sources in the results for queries related to Dutch political parties during the Dutch provincial and European parliamentary elections of 2019. Our goal is to identify the presence of dubious sources in the results for political queries. Thus, the research questions read as follows. Which rankings has the search engine assigned to false and junk sources when querying political parties and their issues? Are there particular political issues and party spaces where junk news is prevalent or entirely absent? Do the ranks and amounts increase as the elections draw near?

We have divided the chapter into six sections: a brief reflection about the methodological challenges of studying search engines, the methodology for building our dataset, three sets of findings, and a discussion of the limitations and further steps. In all it was found that junk news, specifically of the hyperpartisan variety, is rather pervasive in the search-demarcated political space, but far more so for certain actors and their issues on the far right of the political spectrum.

Studying personalization, junk news, or both?

The extent to which autosuggestions are personalized is understudied, but the personalization of results more generally has been the subject of

numerous inquiries and methodological innovations that work around Google's inscrutability through selectively scraping results or soliciting data donations. The findings from scraping batch-queried results have shown relatively low amounts of results affected by personalization in the Google search engine (Feuz et al., 2011), and the same held for Google News (Haim et al., 2018), suggesting that original concerns regarding the 'filter bubble' may not be as well founded any longer. Where the second method is concerned, Algorithm Watch, the German NGO, created a browser extension for users to install that regularly would make political queries, such as for ["Angela Merkel"] (Puschmann, 2017). The results would be donated by the users to Algorithm Watch so as to enable a larger number of those under study than is normally the case. Here again the findings have shown low levels of personalization, but the study of the presence of certain junk sites (be they disinformation or another genre) could be pursued further. Another technique, discussed below, is to selectively scrape results in a manner that seeks to minimize personalization effects, thereby concentrating on the overall presence of junk sites rather than on whether particular users, in a filter bubble, are seeing more of them.

To begin to understand the amount and placement of junk news in search engine space, be it around events or even after an algorithmic tweak, a query routine is designed, and a window of activity is chosen. (Longer-term studies also may be undertaken, as in the Issuedramaturg project that followed 9/11 query results for years, but Google often changes its output formats, breaking automated tools (Rogers, 2013).) In order to reduce personalization, a research browser may be deployed, which is a clean instance of a browser with the user not logged in. City-level geographical personalization may be avoided through the use of advanced settings, choosing a particular region, such as the Netherlands. For projects as ours, geographical personalization is not viewed as a disadvantage in the sense of creating the conditions for a filter bubble to materialize.

A brief mention should be made of the search engine under study. Among them Google is the most popular, with the largest market share of users in most countries, certainly in the Netherlands. As mentioned above, recently, the company has become entangled in the fake news debate through the appearance not of Russian disinformation sources (though that to our knowledge has not been studied in great detail), but owing first to the appearance of misogynistic and extremist content that the company previously defended as 'reflective' of societal concern rather than the product of algorithmic error or 'culture hacking'. If one were to expand the number of search engines under study (to include Bing and Yahoo!,

for example), one could triangulate results, and inquire further into the normalcy and regularity of misogynistic and extremist content present in the top results, though one could not control for algorithmic concentration or the extent to which the big engines' algorithms are anyways similar. The extent to which the results reflect societal concern would remain an open question.

Studying Google results

The presence of junk news within Google's search engine results is a multi-causal phenomenon that may be credited to a number of factors. Among others, Google's algorithm reacts and learns from users' own consumption of junk sources. It is trained using varied datasets, and content producers' attempt to game the search engine via search engine optimization tactics (Finkel et al., 2017). Given the inscrutability of Google's tools, it is difficult to determine what could be causing the presence of junk sources in the Dutch web sphere or others. Here, rather than attempting an explanation for the presence of junk news, we conduct a test of the engine's susceptibility to connect politically relevant queries with junk sources.

As noted, the investigation relies on scraping as a method (Marres and Weltevrede, 2013), and takes as its point of departure the question of junk news in search returns rather than the effect of personalization in the creation of a filter bubble. The research seeks so-called junk news in search engine results, which has been defined as 'extremist, sensationalist, conspiratorial and masked commentary' (Howard et al., 2017: 1). In keeping with *Buzzfeed News*' definition of fake news (Silverman, 2016), we also seek (foreign) disinformation, hyperpartisan sources as well as clickbait, which itself may be extreme. In order to do so we rely on a list of sources expertly curated by other researchers in the project (see the Appendix 6.2 in Hagen and Jokubauskaite, this volume).

Generally, the research employs the 'source distance' approach, inquiring into how far from the top of the returns are the offending results (Rogers, 2013). More specifically, we investigate how false and junk webpages are positioned in the first twenty Google.nl results of various queries of political parties and their most significant issues during the 2019 provincial elections campaign as well as those of the European parliamentary elections. Thus, this case examines the susceptibility of search engine results to junk news, as defined above, rather than exploring the issue of falseness and junk in themselves or the effectiveness of countermeasures.

Engine returns as political spaces

In order to demarcate a political space in search engine results, we designed a query protocol based on combining the names of political parties with specific issues associated with their respective political agendas. In that sense, the underlying assumption is that junk news may have a more significant impact when discussed in a specific political context, such as election campaigns, when voters gather information to guide their choice. To be able to collect the results of a large number of queries, we used the Search Engine Scraper by the Digital Methods Initiative, a tool that allows one to scrape search engine results for a given query and commit them to a database for further scrutiny through visualization.

The first step of the methodology consisted in constructing a list of Dutch parliamentary parties and locating their websites as well as Facebook pages (see Table 3.1). Another list was created pertaining to the parties participating in the European parliamentary elections. In the next step we identified the relevant keywords to build the queries; in the case of the Dutch provincial elections, these were sourced from both the party webpages and the party Facebook pages. For the parties competing in the European parliamentary elections, only the parties' own websites were consulted. The party webpages provided the parties' issue keywords. The Facebook pages furnished a more vernacular set of issue terms, as they contain issue keywords from users or citizens in the comment space. The aim of sourcing these two sets of keywords is to enable us to capture and compare the results for both official as well as more popular issue language.

The lists of party keywords were built by collecting the platform standpoints (*standpunten*) on the party websites. There is one list for the provincial elections and another for the European parliamentary elections. Most political parties mention between five and ten keywords on their platforms, and all were collected. A few parties (e.g., the *Staatkundig Gereformeerde Partij*, SGP) offer longer lists which were shortened on the basis of their key issues. In all, the political party issue space consisted of 158 keywords across the thirteen parties for the provincial elections, and four keywords across fourteen parties for the European parliamentary elections. The vernacular list was made through a close reading of the comments made under the posts of the Facebook pages of each political party. To build this list, the most commented posts around the days of the elections were close-read, and the most representative keywords related to the views expressed by the commenters were chosen. Identifying the most relevant issues in the comment space on Facebook proved to be problematic, given that the comments

were often polarizing and emotive, especially those relating to the elections themselves. This citizen-enriched political issue space consisted of five keywords for each of the thirteen parties, making a total of 65.

Table 3.1   List of Dutch political parties under study

Dutch Provincial Elections		European Parliamentary Elections	
Name of the Party	**Abbreviation**	**Name of the Party**	**Abbreviation**
Volkspartij voor Vrijheid en Democratie	VVD	Volkspartij voor Vrijheid en Democratie	VVD
Partij voor de Vrijheid	PVV	Partij voor de Vrijheid	PVV
Christen-Democratisch Appèl	CDA	Christen-Democratisch Appèl – Europese Volkspartij	CDA-EV
Democraten 66	D66	Democraten 66	D66
GroenLinks	GL	GroenLinks	GL
Socialistische Partij	SP	ChristenUnie – Staatkundig Gereformeerde Partij	CU – SGP
Partij van de Arbeid	PvdA	Partij voor de Dieren	PvdD
ChristenUnie	CU	50Plus	50plus
Partij voor de Dieren	PvdD	Jezus Leeft	
50Plus	50plus	Denk	DENK
Staatkundig Gereformeerde Partij	SGP	Forum voor Democratie	FvD
Denk	DENK	Van de Regio & Piratenpartij	VR – PP
Forum voor Democratie	FvD	Volt Nederland	VN
		De Groenen	GN

The three lists of keywords were inputted in the Search Engine Scraper along with the name of each party. The results from the parties' own websites were excluded. For example, for the political party *D66* and the keyword *onderwijs* (education), the following query was made: [onderwijs d66 -d66.nl]. Using the advanced search features of Google, maximum results were set to 1,000, and each day of our periods of interest (13-22 March and 22-24 May 2019) was queried separately. The date ranges included the run up to the provincial elections on 20 March and a short election aftermath period, and the days before and after the European Parliamentary elections on May 23. The searches were conducted in a clean browser, in the Dutch Google.nl domain, in the Dutch language, and in the Netherlands region (through the advanced settings). The keyword and party were queried together so that the scraper tool delivered results that are related to election politics, rather than a general overview by querying each keyword in isolation. The keywords derived from Facebook were queried in the same format, using the same settings and date range.

The outputs of the Scraper tool are the top twenty ranked Google.nl results per query. The URLs in our lists were then truncated to their host names so that they could be cross-checked with the list of known false and junk websites curated by other researchers in the project. Here a formula was used that effectively linked the search engine results spreadsheet to that of the expertly curated list of junk sites. The question for each source concerned its ranking per query and its presence or absence in the expert list. All query results (per party and per official or vernacular language type) were marked as junk sites or not and listed in the order they were returned.

Table 3.2   List of categories and political keywords used in the study

Party platforms	
Foreign affairs	*Europese Unie, Europa, EU, Nederland en Europa, buitenland, internationale zaken*
Polarizing topics	*Islamisering, Islam*
Health	*zorg, menselijke zorg*
Environment	*klimaat, natuur, milieu, dierenrechten, natuur en milieu*
Finances	*belasting, economie, inkomen, pensioen, werk en inkomen, schone economie, eerlijk delen, werklozen, economisch beleid, overheid en bestuur*
Safety and security	*veiligheid, privacy, defensie, criminaliteit, rechtsstaat, terrorisme*
Society	*waarden, gezin, respect, familie, samenleving, burgers, democratie, ouderen, onderwijs, goed onderwijs voor iedereen, vrijheid, verantwoorde-lijkheid, drugs*
Future	*innovatie, duurzaamheid, schone energie, energie*
Migration	*immigranten, migratie*

Facebook	
Foreign affairs	*Europa, EU, referendum*
Polarizing topics	*Islam, Moslim, racisme, discriminatie*[2]
Environment	*milieu, klimaat, kernenergie, energie*
Finances	*belasting, bezuinigingen, pensioen, onderwijs*
Society	*samenleving, democratie, toekomst crisis, vrouwen, vrijheid, Nederland, armoede*
Faith	*Islam, Moslim, Christendom, Christenen, geloof*
Migration	*migratie, immigranten, gelukszoekers, migranten*

2   Islam is placed in both faith as well as polarizing topics categories, given how it is discussed as shorthand for a social issue.

We zoomed in on those queries in which junk news showed up consistently, that is, for a minimum of four days within our period of interest for the provincial elections, and two days for the European parliamentary elections. The keywords that produced junk news websites in their search results in the first case were then grouped thematically in the following categories: 'foreign affairs', 'polarizing topics', 'health', 'environment', 'economy', 'safety and security', 'society', 'future', 'migration' and 'faith', the most salient of which are described in some detail below (see Table 3.2). For the case of the European parliamentary elections, the four keywords common to all parties were queried: *Europese Unie* ["European Union"], *klimaat* ["climate"], *migratie* ["migration"] and *economie* ["economy"].

Political parties and issue keywords

Before analyzing the presence and positioning of junk news in Google web search, we would like to discuss briefly the keywords obtained for the provincial election campaign from the official websites and Facebook pages of the political parties. Comparing the composition of the categories that emerged from each of the two political spaces allows for showing differences between the matters of concern as expressed by political parties and citizens or social media users. Whereas political parties included keywords that could be grouped under the categories, 'future', 'security', and 'health', that was not the case for the Facebook users. In contrast, 'faith' was present in the Facebook comment space, whereas it was largely absent from the party platforms (except for the SGP, with its long list).[3] There are also matters of concern common to citizens and political parties alike, such as 'foreign affairs', 'economy', 'society', and 'environment'.

Within the shared concerns there are still differences between the way each political space is constructed by political parties or citizens. For example, within the 'foreign affairs', 'economy' and 'society' categories, parties tend to refer to a wider variety of issues in comparison to the concerns expressed by citizens, which are mostly focused on the European Union and the referendum. In the economy cluster, political parties address ten issues, whereas citizens are concerned with far fewer. The same holds roughly for the society cluster. Interestingly, this trend reverses in the environment cluster, where users tend to express concerns about nuclear energy, while

---

3   Islam was present in the party platforms (largely the PVV and SGP) but discussed in terms of a social issue.

the topic is not present in parties' platforms (again, with the exception of SGP). Lastly, even though the usage of some keywords is more or less the same in party platforms and the Facebook comment spaces, for others it differed, as is the case for *onderwijs* (education). By the political parties it is framed as a societal issue, whereas in the discourse on Facebook it is discussed in terms of citizens' ability to afford it.

Visualizations are made to facilitate the analysis; they show at a glance the presence and ranked position of junk news for each query over time. The columns represent the days in the timeframes studied (13-22 March or 22-24 May 2019). Red cells indicate the source as marked as junk news. One also may read the placement and distribution of it over time.

Political party standpoint space

The study of the political party standpoint space found overall that all false and junk webpages that appeared can be subcategorized as hyperpartisan. The one exception fell within the environment cluster in the form of a conspiracy website in the top twenty. Three specific websites make up for the biggest amount of junk: *De Dagelijkse Standaard, Stop de Bankiers,* and *Opiniez.* A second general observation is that queries related to right-wing parties returned hyperpartisan sources in a greater proportion than queries related to parties with other political orientations. In particular, the queries related to the FvD were the most populated by hyperpartisan sources. Thirdly, queries related to parties located at the centre of the political spectrum seem to produce results with less questionable sources. In those instances where hyperpartisan websites appear among the top twenty results for centre-oriented parties, the sites mainly do not make it to the top positions (though there were exceptions).

In the political party standpoint space, most junk appears to be associated with queries related to keywords within 'foreign affairs' and 'polarizing topics'. The keywords within the foreign affairs cluster mainly relate to the European Union and the Dutch relationship with it. Issues related to political parties from the centre of the political spectrum seem to be least connected to junk, as may be noted for 50Plus, Partij voor de Dieren or D66 (see Figure 3.1). Contrariwise, parties that position themselves strongly against the European Union are linked to a high concentration of junk results. For example, when looking at FvD and PVV, we can see that hyperpartisan sites account for 37% and 47% respectively of all the returns discussing the European Union. Moreover, the hyperpartisan sources are among the top five results throughout almost the entire time period.

Figure 3.1   Presence of junk news in Google.nl search engine results for political queries related to foreign affairs, 13-22 March 2019

Foreign affairs
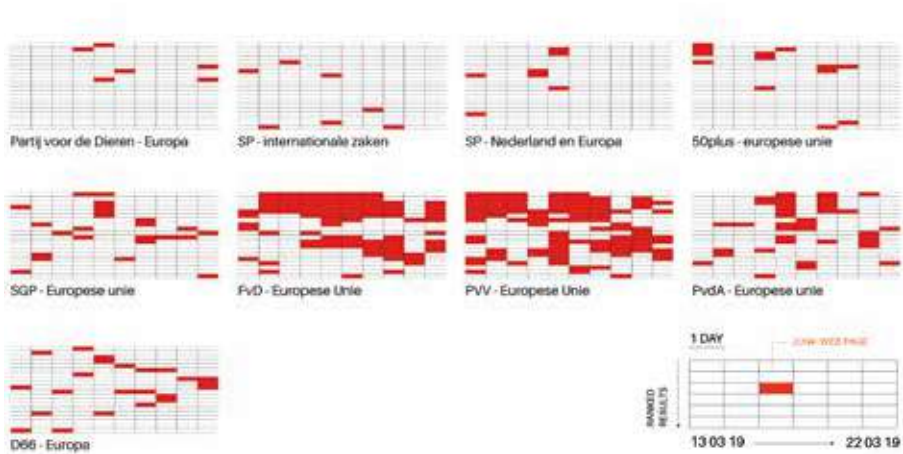
Figure 3.2   Presence of junk news in Google.nl search engine results for political queries related to polarizing topics, 13-22 March 2019

Polarizing topics

Regarding the keywords within the 'polarizing topics' cluster (Figure 3.2), two related issues in the political party-demarcated space lead to search engine results with a large amount of hyperpartisan sources: *Islam* and *Islamisering* (Islamization). These keywords are only discussed by two right-wing parties, PVV and SGP, the latter from the religious right. In particular, when PVV is queried together with the keyword *Islamisering* (Islamization), hyperpartisan websites appear at the top of the results throughout the entire time span, occupying even the highest positions. This changes only for three days (16, 19 and 20 March), when, however, the amount of junk increases overall.

The queries for environmental keywords (Figure 3.3) also lead to significant quantities of junk. First, it is of note that the amount decreased as

the elections neared, though junk websites still maintained a prominent position among the first 10 results. Once again, queries mentioning right-wing parties such as FvD are more prone to produce junk sources within their results. The site, ninefornews.nl, was identified here as the only conspiracy website in the entire data set. It emerged in the 8th position when [milieu FvD -www.fvd.nl] was queried, meaning that it appears on the first page of Google results (with default settings at 10). The centre party, D66, also registered significant amounts of junk for the query climate (klimaat), as did the centre-left labour party (PvdA).

The cluster related to economic issues, the second largest in our set of results, contains nine keywords such as *belasting* (taxes), *eerlijk delen* (fair sharing) and *werklozen* (unemployed) (see Figure 3.4). Queries including FvD are once again among the most prone to produce hyperpartisan results, particularly with the keywords *economie* (economy), *pensioen* (pension) and *belasting* (taxes). When examining the remaining parties (with the possible exception of the PVV), the number of junk results is relatively low overall, and they rarely occupy the first position of the search engine results.

The 'society' cluster is the largest; twenty issues were identified in this cluster, ranging from concerns about *warden* (values) to drugs (see Figure 3.5). Social issues produced a varied distribution of hyperpartisan sources overtime, with hyperpartisan websites appearing less prominently. Only three queries, two including the FvD and one the VVD, stand out in this cluster as junk-ridden: drugs, democracy and responsibility (*verantwoordelijkheid*).

Lastly, the thematic cluster, 'future developments' (Figure 3.6), with such issues as *duurzaamheid* (sustainability), *innovatie* (innovation), and *schone energie* (clean energy), are addressed by parties located at the extremes of the political spectrum and the query results are populated by hyperpartisan sources. This is most evident in the case of FvD, where questionable sources appear nearly every day, and in four instances are returned in the top two positions, albeit not in close vicinity of election day, which remains largely unaffected by junk sources in relation to these terms.

Vernacular political issue space

Based on the keywords gleaned from the Facebook pages of the Dutch political parties, one new category was created ('faith') on top of the other six from the previous exercise. Generally, the results were similar. Queries mentioning right-wing parties such as PVV and FvD returned more hyperpartisan

Figure 3.3 Presence of junk news in Google.nl search engine results for political queries related to the environment, 13-22 March 2019
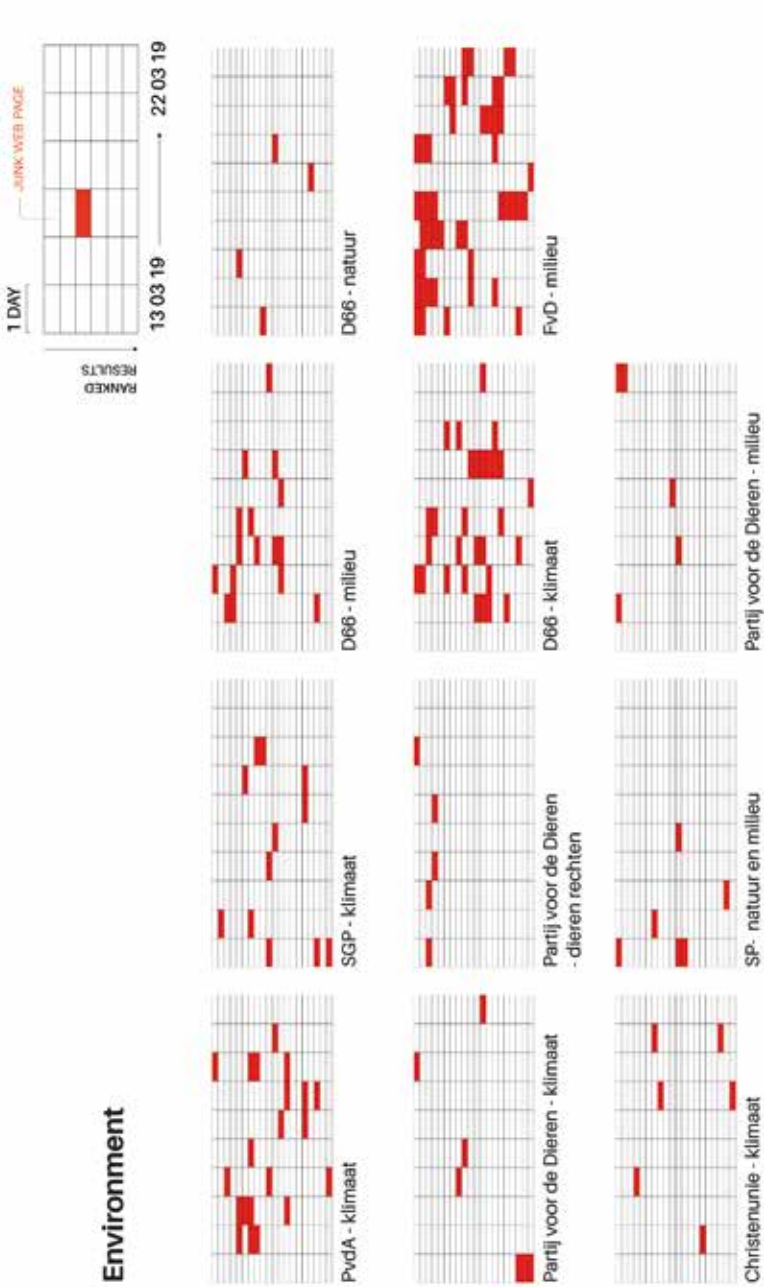
Figure 3.4   Presence of junk news in Google.nl search engine results for political queries related to the economy, 13–22 March 2019

Figure 3.5 Presence of junk news in Google.nl search engine results for political queries related to societal issues, 13-22 March 2019
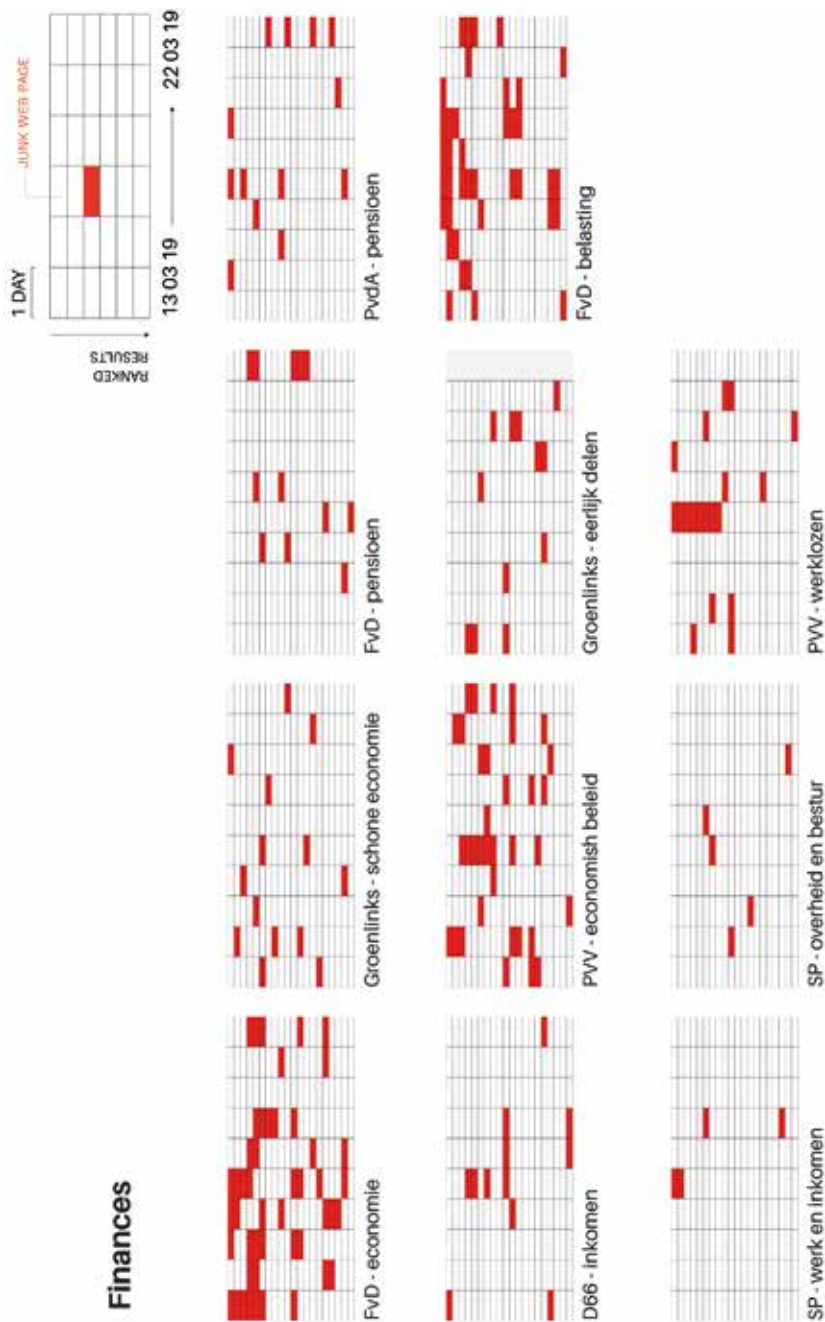
**Figure 3.6   Presence of junk news in Google.nl search engine results for political
queries related to future innovation, 13-22 March 2019**

sources in the top 20 Google results, and the positions of these junk sources
tend to be higher than in queries related to other parties.

In the vernacular political issue space, the foreign affairs cluster received
the most junk news returns; nearly 25% of the top 20 results are considered
hyperpartisan websites. Migration and polarizing topics have the second
and third highest percentage of junk websites, with 19% and 17% of junk,
respectively. Results associated with keywords such as *immigranten* (im-
migrants) and *Islam* were significantly populated with hyperpartisan
sources. Issues related to environment, society, and finance obtained fewer
junk returns (less than 10%). The faith cluster had the fewest hyperpartisan
returns.[4]

The environment cluster (which for many terms could have been merged
with the future innovations one) is the largest one in the vernacular is-
sue space. In it the keyword *klimaat* (climate) was discussed by Facebook
users on the pages of five different parties, and *milieu* (environment) on
three. For Groenlinks, D66, PvdA and VVD, the keyword *klimaat* features
hyperpartisan sources in the top results (see Figure 3.7). From the election
day onwards, fewer junk websites showed up in the top 20 results. The
same pattern was observed in the 'foreign affairs' cluster (see Figure 3.8).
Hyperpartisan websites occupied the first position for five days during our
10-day research period for queries related to FvD and PVV. Queries for FvD
and EU were the most likely to return junk webpages.

Regarding the keywords grouped under the 'polarizing topics' cluster,
Islam was brought up by Facebook users in the pages of four political parties:

---

4   Here again, Islam is excluded, because it is considered a social issue, given the manner in
which it is discussed in the vernacular issue space.

Figure 3.7 Presence of junk news in Google.nl search engine results for political queries related to the environment, using language from the Facebook comment space of the political parties, 13-22 March 2019
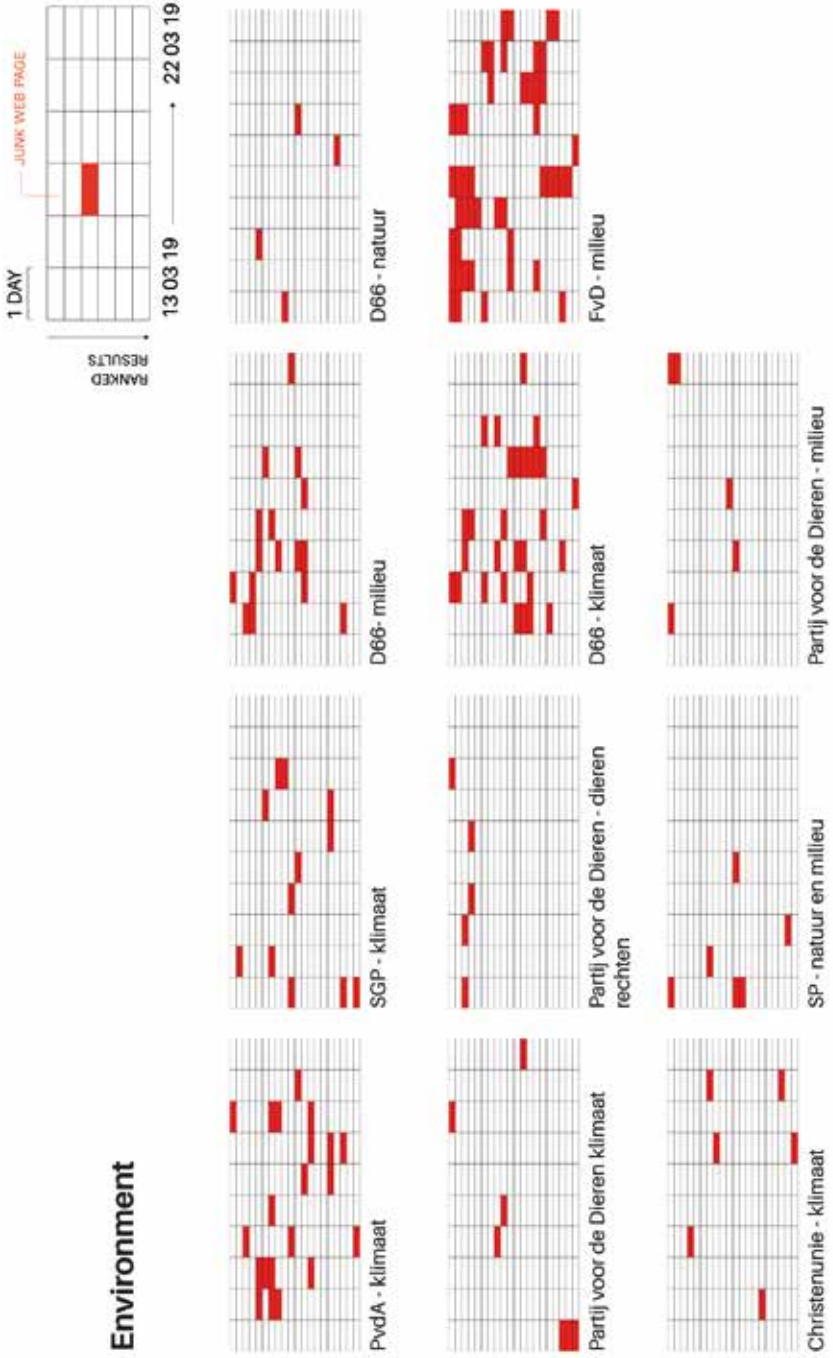
Figure 3.8   Presence of junk news in Google.nl search engine results for political queries related to foreign affairs, using language from the Facebook comment space of the political parties, 13-22 March 2019
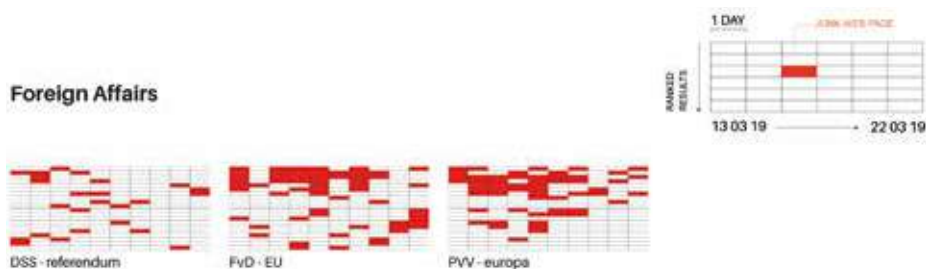
Figure 3.9   Presence of junk news in Google.nl search engine results for political queries related to polarizing topics, using language from the Facebook comment space of the political parties, 13-22 March 2019
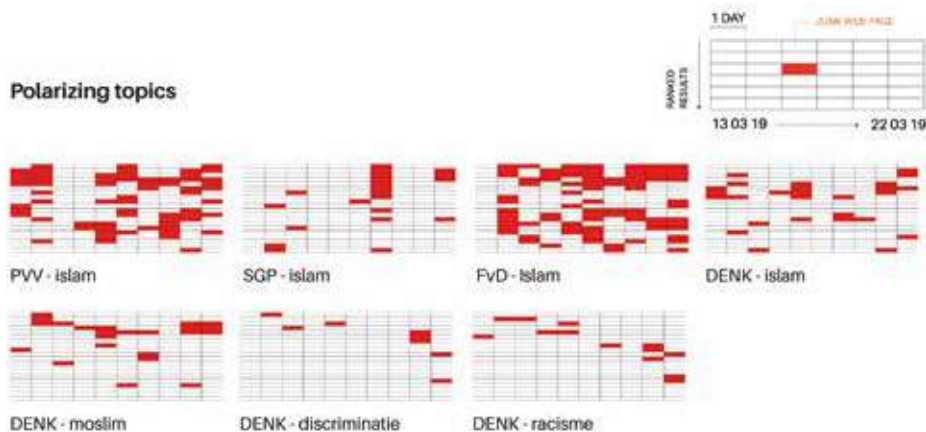
PVV, SGP, FvD and DENK.[5] Among them, results associated with FvD received the most junk webpage returns in the top 20 results, and hyperpartisan results maintained the first position for seven days (Figure 3.9). On election day, however, all the parties returned few to no such results in the cluster of 'polarizing topics', with the exception of the FvD. The number of junk sources and the rankings dropped dramatically on that day. Concerning DENK, although queries including it did not return many junk websites overall,

5   For the political party, DENK, Islam, while discussed as a social issue, also could be categorized as 'faith'.

Figure 3.10   Presence of junk news in Google.nl search engine results for political queries related to migration, using language from the Facebook comment space of the political parties, 13-22 March 2019
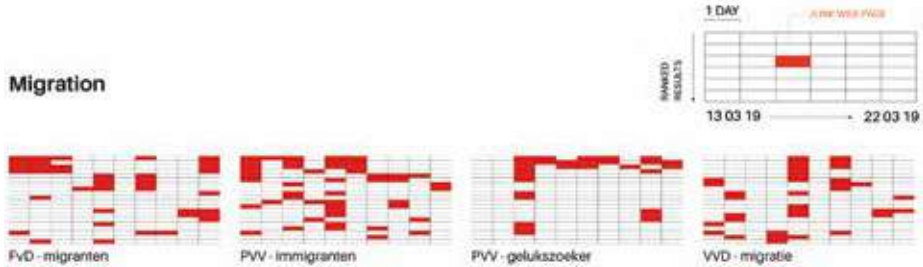
they were found in relation to the issues *Moslim* (Muslim), *discriminatie* (discrimination) and *racisme* (racism).

The migration cluster (Figure 3.10) was more prominent in the discussion space on Facebook pages than in the platforms of the political parties. Keywords as *migranten* (migrants), *migratie* (migration), *immigranten* (immigrants) and *gelukszoekers* (fortune seekers) were often mentioned in the comments on the Facebook homepages of political parties. (*Gelukszoekers* could be said to be a pejorative term for economic migrants.) Results for three parties in particular (FvD, PVV and VVD) had junk webpages in the top 10 Google search results, and they were spread evenly over the ten-day research period. It is also noteworthy to see that there appears to be a decreasing tendency of junk news from the election day onwards in this cluster, both in terms of the amount as well as the rankings.

European Parliamentary Elections

The results for the political party standpoint space during the European Parliamentary elections also show a consistent presence of junk news. Three major findings are worth mentioning. Firstly, as figures 11 and 12 make evident, the presence of junk sources in the Google search engine results was lower during the European parliamentary elections than during the provincial elections. In many cases, our queries combining issues with parties did not produce links to hyperpartisan material or only did so for one day. *Only* 25% of our queries returned junk for more than one day during the three-day period under research. Of the four keywords queried, the one that produced the least amount of junk in combination with party

names was *economie* (economy). In contrast, *migratie* was the most prone to returning junk, with queries related to five parties consistently returning junk websites between May 22 and 24 (see Figure 3.11).

Queries in combination with the political party DENK were particularly junk ridden. On the day of the election and the day after, almost half of the results provided by the Google search engine is problematic. It is particularly relevant that during the 24th of May, hyperpartisan websites occupied the top seven positions.

A second relevant finding is that the presence of hyperpartisan resources is more prevalent on the day after the election than the day before, in contrast to what happened during the provincial elections. Although this is the case for all parties and keywords where junk sources were identified, it was especially prominent for the issues of migration, economy and climate (keywords *migratie*, *economie* and *klimaat*). In most cases, junk sources also occupy the first positions in the results during the 24th of May. We cannot answer the question of whether this phenomenon can be credited to the Google search algorithms reacting to an increase in searches related to the elections, to a surge in the activity of hyperpartisan websites after they took place, or to some combination. A close reading of the results in the highest positions, however, shows that the hyperpartisan sources behave as one would expect from any information provider during election season, if only keeping their radical tone; before the election they provide predictions about the results, on the day of the election they invite citizens to vote, and on the day after they discuss the results. An article by the *De Dagelijkse Standaard* that consistently occupied the top result for various keywords and parties is a reflection about how the FvD and leader Thierry Baudet need to tone down their radical discourse in order to become a more powerful political force.

Lastly, whereas during the Dutch provincial elections the queries related to right-wing parties were more strongly connected by the search engine with junk sources, during the European elections this is not the case. For example, although queries performed in May involving FvD also produced results pointing to hyperpartisan websites – similarly to the results obtained in March – it was those related to DENK which, in aggregate terms, produced more junk (i.e., 25 for FvD and 27 for DENK). However, the case of DENK is difficult to assess given that, apart from the name of a party, it is also a common Dutch word ('think', in English). Although this does not change the fact that people looking for information about this party would likely be exposed to junk sources, the content may not specifically relate to DENK. In fact, the highest-ranking result for the query [migratie DENK -bewegingdenk.

Figure 3.11 Presence of junk news in Google.nl search engine results for political queries related to migration and European Union issues, 22-24 May 2019

Migration

DENK VVD D66 FvD PVDA

Europese Unie

PVDA D66 PVV
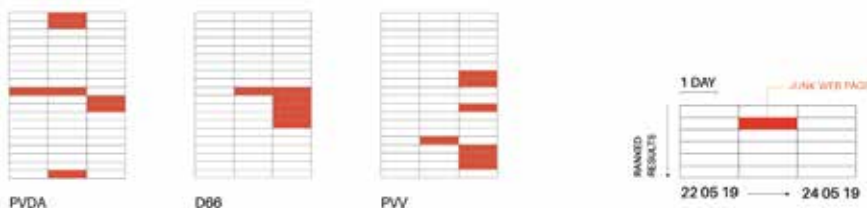
Figure 3.12 Presence of junk news in Google.nl search engine results for political queries related to climate and economic issues, 22-24 May 2019

Klimaat

FvD VVD D66 PVV

Economie

DENK FvD
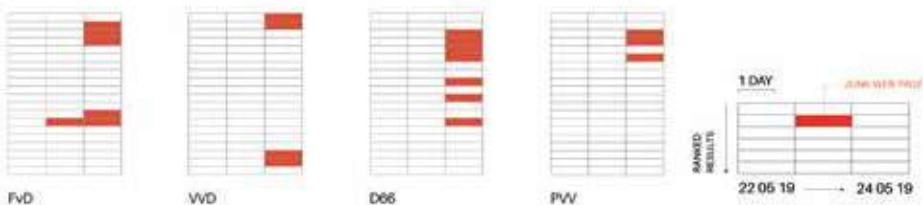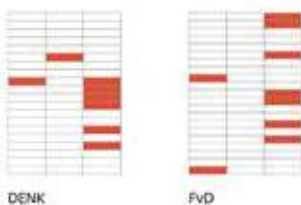
nl] is an article in the hyperpartisan website *De Dagelijkse Standaard* that
makes no specific mention to this party, but instead generally reflects on
the results of the elections and specifically on the demise of the PVV.

Conclusions: Junk news in search engine results

The goal of this research is to locate the presence and ranking of junk
websites within the first twenty Google.nl results of queries concerning
Dutch political parties and their most significant issues during the 2019
provincial and European parliamentary elections. The keyword queries
were built by combining political party names with keywords retrieved from
political party platforms and party Facebook page comment spaces (in the
case of the provincial elections). We clustered the keywords into categories to
enable a comparative analysis. At the outset the research questions were as
follows: Which rankings has the search engine assigned to junk sources when
querying political parties and their issues? Are there particular political
issues and party spaces where junk news is prevalent or largely absent? Do
the ranks and amounts increase as the elections draw near?

Our results indicate that the junk websites present in the results of our
Google.nl political queries are almost exclusively hyperpartisan, rather than
sources spreading disinformation, conspiracy theories, or clickbait. Three
websites, namely *De Dagelijkse Standaard*, *Stop de Bankiers* and *Opiniez,*
account for the largest portion of the junk sources identified. We did not find
fake advocacy groups or foreign disinformation operatives. Furthermore, we
found that queries involving right-wing parties were more prone to result in
exposure to hyperpartisan sources than those associated with centre-left or
left-wing parties. For most keywords, hyperpartisan websites appeared in
the top positions, and certainly always within the first page of results. Our
findings suggest that on Google.nl there is a considerably high probability
that junk news is outputted on the first page of results when the queries
concern right-wing parties and their issues.

Another finding is that hyperpartisan results spread unevenly during
our research period. For the case of the Dutch provincial elections, they are
more present before the day of the election and drop their presence and
ranking, in some cases dramatically, on election day and in the immediate
aftermath, for instance in the case of migration issues in the vernacular
issue space. In contrast, during the European parliamentary elections this
phenomenon reversed, and junk sources were more prominent the day
after the elections.

Concerning the comparison between the two spaces, the vernacular space had the highest percentage of junk news returns, especially in the categories of foreign affairs and migration. In the political party standpoint space, the differences among themes is smaller. In other words, the queries designed with the political language of Dutch Facebook users were more likely to result in hyperpartisan results than the queries built with the standpoint language of political parties. Although more research is needed in this regard, such a finding suggests that the discourse of normal citizens, or those commenting on party Facebook pages, is more politically contentious than that of political parties.

The results are indicative of the amount of hyperpartisan material in political space in Google.nl rather than conclusive, for they derive from a particular query strategy and not from multiple strategies and are only a snapshot from a particular event-related timeframe. The data set we built could also be read more closely, and additional junk sources could be found, meaning that we could have undercounted (rather than overcounted).

Given that our intention is to determine the susceptibility of the Google search engine to junk news, the question remains whether the location of the results of politically charged queries can be credited to an optimization effort on the side of hyperpartisan content generators, an overall susceptibility of Google's search algorithm to provide questionable content to its users, consumers' preference for low quality information, or some combination of the three.

While discussing the two latter hypotheses would require more space, a few words can be said about the first. A possible way to detect search engine optimization strategies consists of using one of the many online services providing SEO analysis. Given the proprietary nature of their methodologies, however, the results should be interpreted with caution. We submitted the three most recurrent junk websites we found during our research to the service *SEO Tester Online,* a tool that measures a website's readiness to achieve top positions within search results. This tool provides analysis in four different categories: basic (related to the overall online presence of the website), content (measuring the richness of the keywords that trigger the website to pop up in search results), web performance (indicating how fast the website can be rendered in mobile and desktop devices), and social (providing information about the website's engagement with users through social networks). *De Dagelijkse Standaard* obtained a score of 56/100, faring the lowest in their web performance, and the highest in its social engagement. *Opiniez* obtained a score of 62/100, faring the best in web performance and the lowest in content, although it obtained an excellent

score in the number of unique keywords. *Stop de bankiers* obtained the highest score, with 74/100, including a 100/100 in the assessment of keywords which may lead to the site through search engines. It also fared the best in social engagement and the lowest in web performance.

The reports produced by *SEO Tester Online*, which for all websites included a considerable amount of suggestions about how to improve the websites' code, suggest that, at least currently, content producers are not actively seeking to artificially alter the performance of their sites. Consequently, the presence of these junk sources in our analysis is more likely related to an inherent susceptibility of Google's search engine and/or an organic result of users' preferences.

Further research is necessary to paint a clearer picture regarding the increased consumption of junk news. One could repeat the work for longer periods of time in order to ascertain the extent to which the presence of these or other dubious source types is becoming more widespread or even disappearing in the top results for political queries, as is currently the case with clickbait. Furthermore, specific sources could be monitored over time to track the performance of their content (and the changes to their code), in order to detect attempts to artificially increase relevance and thus the ranking assigned by search engine algorithms.

References

Albright, Jonathan (2016). "The #Election2016 Micro-Propaganda Machine", *Medium*, 18 November.

Bowden, Ian (2016). "How Google is tackling fake news, and why it should not do it alone," *Search Engine Land*, 30 November, https://searchengineland.com/google-tackling-fake-news-not-alone-264058.

Cadwalladr, Carole (2016). "Google, democracy and the truth about internet search", *The Guardian*, 4 December.

Confessore, Nicholas and Daisuke Wakabayashi (2017). "How Russia Harvested American Rage to Reshape U.S. Politics", *New York Times*, 9 October.

Dan, Ovidiu and Brian D. Davison (2016). "Measuring and Predicting Search Engine Users' Satisfaction", *ACM Computing Surveys*, 49(1), art. 18.

Feuz, Martin, Matthew Fuller and Felix Stalder (2011). "Personal Web Searching in the Age of Semantic Capitalism: Diagnosing the Mechanisms of Personalisation", *First Monday,* Volume 16, Number 2 – 7 February 2011. https://doi.org/10.5210/fm.v16i2.3344.

Hern, Alex (2017). "Google acts against fake news on search engine," *The Guardian*, 25 April.

Haim, Mario, Andreas Graefe and Hans-Bernd Brosius (2018). "Burst of the Filter Bubble? Effects of personalization on the diversity of Google News", *Digital Journalism*, 6 (3): 1-14.

Howard, Philip N., Gillian Bolsover, Bence Kollanyi, Samantha Bradshaw and Lisa-Maria Neudert (2017). "Junk news and bots during the U.S. election: What were Michigan voters sharing over Twitter?", Computational Propaganda Data Memo, Oxford: Oxford Internet Institute.

Jansen, Bernard J. and Amanda Spink (2003). "An Analysis of Web Documents Retrieved and Viewed", 4th International Conference on Internet Computing, Las Vegas, Nevada, 23-26 June, 65-69.

Lomas, Natasha (2018). "Google is surfacing Texas shooter misinformation in search results — thanks also to Twitter", *TechCrunch*, 11 June.

Martens, Bertin, Luis Aguiar, Estrella Gomez-Herrera and Frank Mueller-Langer (2018). "The Digital Transformation of News Media and the Rise of Disinformation and Fake News," *SSRN Electronic Journal*, doi:10.2139/ssrn.3164170.

Marres, Noortje and Esther Weltevrede (2013). "Scraping the Social?" *Journal of Cultural Economy*, 6(3): 313-35, doi:10.1080/17530350.2013.772070.

Noble, Safiya Umoja (2018). *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York: New York University Press.

Pariser, Eli (2011). *The Filter Bubble*. New York: Penguin.

Puschmann, Cornelius (2017). "How significant is algorithmic personalization in searches for political parties and candidates?", Algorithmed Public Spheres blog, https://aps.hans-bredow-institut.de/personalization-google/

Robertson, Adi (2017). "After its 4chan slip-up, is it time for Google to drop Top Stories?", *The Verge*, 3 October.

Rogers, Richard (2013). *Digital Methods*. Cambridge, MA: MIT Press.

Rogers, Richard and Sabine Niederer (eds.) (2019). *The Politics of Social Media Manipulation*. The Hague: Ministry of Internal Affairs.

Silverman, Craig (2016) "This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook", *Buzzfeed News*, 16 November.

Waters, Richard (2017). "Facebook and Google help showcase Las Vegas fake news", *Financial Times*, 3 October.

About the auhors

GUILLÉN TORRES is a Ph.D. researcher at the University of Amsterdam, within the DATACTIVE research group, and an information activist at ControlaTuGobierno, a Civil Society Organization based in Mexico. His work focuses on how data and information mediate the interaction between citizens and the state.

RICHARD ROGERS is Professor of New Media & Digital Culture at the University of Amsterdam and Director of the Digital Methods Initiative, the group responsible for social media research tools. Among other works, Rogers is author of *Information Politics on the Web* (MIT Press, 2004), *Digital Methods* (MIT Press, 2013), and *Doing Digital Methods* (Sage, 2019).

4 The circulation of political news on Twitter during the Dutch elections

Sabine Niederer and Maarten Groen[1]

Abstract

This chapter enquires into the resonance of junk news on Twitter during the campaign periods prior to the 2019 Dutch Provincial elections and European Parliamentary elections. Querying Twitter for political topics related to the two elections, and various divisive social issues such as Zwarte Piet and MH17, we analyse the spread and prominence of problematic sources. We also examined the claim that Twitter is susceptible to abuse by bot and troll-like users, and found that troll-like users were active across all political and issue spaces during the Dutch Provincial elections of 2019. Divisive issues remain steadily (even if marginally) active in junk and tendentious news throughout the tested time frames, suggesting these issues are year-round rather than event-based or seasonal, as they are in mainstream media.

Keywords: Twitter, social media analysis, junk news, social issues, trolling, digital methods

Introduction

In 2018 the Dutch daily newspaper *de Volkskrant* published an article entitled 'The troll army of pop artist Dotan', which revealed how the Dutch singer-songwriter had made use of fictitious accounts pretending to be fans (Misérus and van der Noordaa, 2018a). The fake fans were highly active

---

---

across social media platforms (including Facebook, Twitter, and Instagram) where they circulated heart-warming stories about the artist, requested his songs on Dutch and German radio stations, and actively tried to edit the Wikipedia pages about the artist and his mother (who is also a Dutch singer). At the root of these activities were 140 accounts that the newspaper retrieved, at least one of which connected directly to the artist's own Gmail account, and others to accomplices. Dotan's case is perhaps the most-known example of artificially boosted accounts and content in the Netherlands, but certainly not the only known case of such behaviour. The politicians Geert Wilders and members of the political party Denk were found to have suspiciously inflated follower counts, which surfaced when Twitter started deleting unvalidated users (NOS, 2018).

The present study builds on previous digital research in which the social media platform Twitter, used by over 326 million monthly active users accounting for 500 million tweets per day, is repurposed for social research (Omnicore, 2019). As with Dotan and the Dutch politicians mentioned above, it similarly looks into social media use and the question of manipulation, in particular in political spaces around elections. It studies troll-like and artificial boosting as well as the circulation of junk and tendentious news sources during two election campaign periods in 2019. Initially intending to detect the possible presence of Russian disinformation in the Dutch Twitter space, the study enquires into coordinated campaigning around divisive issues and ascertains the extent of homegrown junk news in Dutch political Twitter, including hyperpartisan, conspiracy and clickbait sources. So-called (and self-identified) tendentious sources such as Geenstijl.nl and TPO.nl are labelled as such, and one could argue that they are mainstreaming, given how they are shared, as we discuss below. These two sources are part of the 'anti-establishment established source' set, and as such are closely related to an emerging alternative media landscape (see Tuters, this volume).

In employing digital research methods and techniques, the analysis makes use of the platform's own features and cultures of use, which offer built-in structuring of the content being shared (Rogers, 2019). These are repurposed for social or political research. Hashtags can be repurposed as content categories or issue activity indicators, retweeting suggests 'pass-along value', and the @reply and @mention functionalities network users and their content to fellow users and content (Niederer, 2018). Through an analysis of @replies, Twitter can be studied 'as a conversation-maker, where one may explore the extent to which there is dialogue, or broadcasting' (Honeycutt and Herring, 2009; boyd et al., 2010). The @mentions may contribute to the inquiry of dominant voice – certain understandings of issues can be shaped

by the actors most mentioned in a tweet corpus, and also by the actors that are the most vocal. Twitter can be studied as a social network of professional information-sharers (Java, 2007). It also can be considered a 'rebroadcaster' of (political) news, in which the platform's built-in algorithms reinforce the issues and framings discussed there as so-called trending topics (Kwak et al., 2010). Furthermore, Twitter is often moving information faster than the news, and Twitter content in some cases becomes news (Niederer, 2018). As news and mass media sources strive to make their content 'platform-ready' (Helmond, 2015), political news, other mass media content and new platforms become further entangled, forming a hybrid media system (Chadwick, 2013). Here, professional journalists include tweets in their stories, and when their work has been published, they may post a link to that article on Twitter and other social media, using the platforms both as a source of information and as a channel for the distribution of their own work.

Critiques of digital social research take issue with its dependency on the already problematic hegemony of proprietary social media platforms. On a methodological level, scholars warn of the sheer impossibility of distinguishing between the working logic of web platforms and exemplary 'platform artefacts' (Marres, 2015; Marres and Weltevrede, 2013; Rogers, 2013; Niederer, 2019). How do we know whether the most-retweeted Twitter post is the most relevant, or the most Twitter-friendly (Marres, 2015)? One way to approach this issue is to take into account the socio-technical specifics of each platform, and to regard Twitter and other social media platforms as distinct windows on an issue. Rather than questioning the relevance of the platform for the elections, we then ask: how does Twitter present the elections? And how does this compare to how other social media platforms cover the topic? Such lines of questioning open up avenues for qualitative and empirical digital research across political events and social issues as they resonate online and offer insights into the cultures of use of the various platforms. In this present study, Twitter can be seen to produce political subspaces around divisive issues, in which a relatively small number of highly active, troll-like users sow division and where junk news at times outperforms mainstream news.

Troll-like user activity during the 2017 Dutch general elections

The present study follows from an earlier one, which itself concerned Dutch elections. In the lead up to the 2017 Dutch general elections for the national parliament, journalists revealed the use of sock puppets (i.e., false online

Figure 4.1   Political party leaders as trolling targets on Twitter during the 2017 Dutch general elections. Each dot represents one mention (by a user mentioning political leaders at least 100 times). Red represents an attack, and green represents a favourable mention.

@MinPres (VVD)   @geertwilderspvv (PVV)   @thierrybaudet (Forum voor Democratie)

@jesseklaver (GroenLinks)   @APechtold (D66)   @LodewijkA(PvdA)
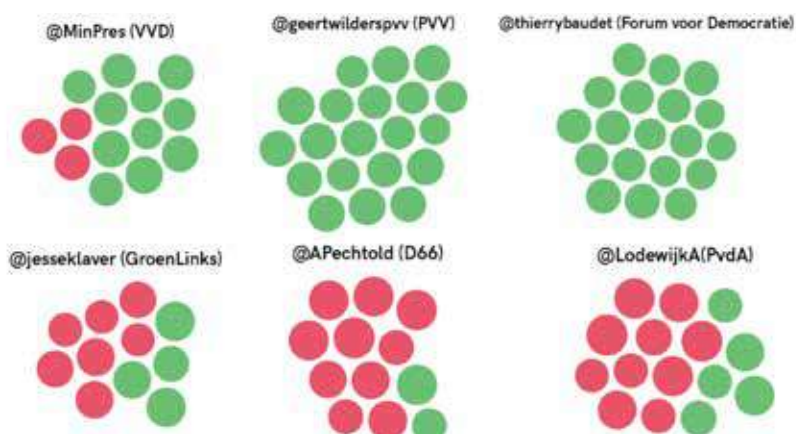
Source: Borra et al., 2017

identities assumed to deceive and influence opinion) by the political party Denk, in order to amplify their online messages and attack their political opponents on Twitter and Facebook (Kouwenhoven and Logtenberg, 2017). In an empirical study as part of the *Field Guide to Fake News* (Bounegru et al., 2018), we studied troll-like behaviour in Twitter, developing a research protocol for identifying and analyzing political trolling, which in this case referred to repeated attacks of politicians on Twitter. It focused on the sources of troll-like activity (i.e., which user accounts target politicians?), their targets (who do these troll-like users address?), and the characteristics of these practices (what do troll-like users do?) (Borra et al., 2018).

The detection of user accounts engaging in political trolling behaviour starts by compiling a list of potential targets. The aforementioned study looked into the user accounts of 28 political party leaders participating in the 2017 elections. The users that @-mention them were queried. For the most-active users per @mention, their posts in which they @-mention the political leaders were qualitatively studied. In a next step, only those who @-mention one or more political leaders at least 100 times during a one-month period (8 February-8 March 2017) were retained, and their tweets coded for being favourable or unfavourable of the politician. The study found an asymmetry in the troll-like behaviour across the political spectrum, as more left-wing politicians were being targeted by negative

mentions while most right-wing politicians were receiving support (see Figure 4.1). There are exceptions, such as Emile Roemer (SP) and Marianne Thieme (PvdD), who in this time frame received only support by troll-like users, and Prime Minister Mark Rutte (VVD) who received unfavourable mentions, in particular on his personal account though less so on his official @MinPres account.

To classify the sources of political trolling, we used the same list of 24 highly active and troll-like users (mentioning political leaders at least 100 times in the one-month time frame), and collected their profile information (description, profile picture and banner) from the Twitter interface. If the profiles had a profile picture, Google reverse image search was used to check these images for authenticity. Then, using the Twitter API, the creation date for each of these accounts was retrieved, in order to assess whether accounts in our dataset had been created on the same date. This analysis provided a more nuanced view of the user accounts responsible for the trolling behaviour. Of the 24 accounts still active at the time of study, three users appeared to be sock puppets created for trolling activities. They had very similar profiles and had been created within a short timeframe. Another six accounts in the data set promoted the same anti-Islam agenda, but were not determined to be fake accounts.

To characterize the substance of the trolling practices, the study looked at the issues and the media sources that resonate in the set of tweets. To identify the issues, the hashtags used by the highly active and trolling users in their tweets (that @mention a political leader) were collected and analyzed. Most tweets that include hashtags were found to mention the right-wing populist candidate Geert Wilders, and most hashtags referred to the issues in PVV's political messages from 2017 ('Nexit', 'StopIslam' and 'BanIslam'), as well as those pertaining to expressions of Dutch patriotism (Borra et al., 2017: 188). To assess which media sources were circulated by the troll-like users, the most-circulated URLs in the tweets were collected and categorized. For the 2017 general elections, the most-tweeted media sources by the 24 trolling users were the Dutch extreme blog fenixx.org followed by the anti-Islam site *Jihad Watch* and the right-wing think tank *the Gatestone Institute* (Borra et al., 2018: 192).

Research questions and data collection

For the study presented in the next section, the main research question is to what extent junk news sources and troll-like user accounts are present

Table 4.1   **Query overview showing the election campaign period (Provincial, EU**
or both), the political or issue space and the query made resulting in
Twitter data sets

Elections	Topic	Query
PS	General	Ps2019, Ps19, verkiezingen
EU	General	EUverkiezingen2019, euverkiezingen, ep2019, eu2019, euelections2019, verkiezingen, verkiezingen2019, EU, Europa, Europese Unie, europeseverkiezingen
PS	Party leaders	Mark Rutte, MinPres, markrutte, Geert Wilders, geertwilderspvv, Thierry Baudet, thierrybaudet, Jesse Klaver, jesseklaver, Rob Jetten, RobJetten, Lilian Marijnissen, MarijnissenL, Marianne Thieme, mariannethieme, Gert-Jan Segers, gertjansegers, Lodewijk Asscher, LodewijkA, Tunahan Kuzu, tunahankuzu, Henk Krol, HenkKrol, Klaas-Jan Dijkhoff, dijkhoff, Sybrand Buma, sybrandbuma,Kees van der Staaij, keesvdstaaij
EU	Party leaders	SophieintVeld, Esther_de_Lange, mjrldegraaff, malikazmani, arnouthoekstra, TimmermansEU, petervdalen, BasEickhout, anjahazekamp, ToineManders, florens0148, atonca, paulbeasd, djeppink, sentwierda, RLanschot, MinPres, markrutte, geertwilderspvv, thierrybaudet, jesseklaver, RobJetten, MarijnissenL, mariannethieme, gertjansegers, LodewijkA, tunahankuzu, HenkKrol, dijkhoff, sybrandbuma, keesvdstaaij
PS and EU	MH17	mh17
PS and EU	Zwarte Piet	Zwartepiet, zwarte piet
PS and EU	Climate	klimaat
PS and EU	Fake news	Fake news, fakenews, nepnieuws, desinformatie, junknieuws
PS	Utrecht	utrecht, 24oktoberplein, gokmen tanis, gokman tanis

on Twitter around both the provincial and the European parliamentary elections in the Netherlands in 2019. To answer these questions, we examine Twitter activity concerning the elections, the party leadership as well as political candidates, and zoom in on potentially divisive issues, including Zwarte Piet and MH17.

In addressing these research questions, queries are formulated to demarcate the political and issue spaces in Twitter (see Table 4.1). The data are collected using the commercial social media monitoring tool, Coosto, and the Twitter Capturing and Analysis Toolkit developed by the Digital Methods Initiative (DMI-TCAT). Coosto was used to retrieve data from both the provincial and European election periods, in order to conduct a comparative analysis of the engagement with mainstream and junk news across political and issue spaces, and the presence of troll-like users in these spaces, as discussed in detail in the next sections. DMI-TCAT, a tool that 'provides robust and reproducible data capture and analysis and

Figure 4.2   Engagement of mainstream (blue) and junk news (pink) articles during the Dutch Provincial election campaign (left) and the European Election campaign period (right)
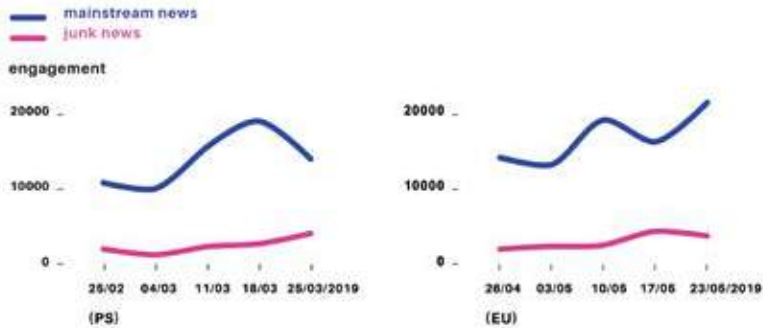
Line graphs; visualizations by Federica Bardelli

interlinks with existing analytical software' (Borra and Rieder, 2014: 262), was used to analyze the engagement with junk and tendentious news sources and the users responsible for this engagement. While some collections (or 'bins,' in the terminology of the TCAT-tool) were created only for this study, others had been running for months prior, such as MH17, or in the case of Zwarte Piet even years (with a bin that was created in December of 2017). The set for the Utrecht tram shooting was created on the day that event took place, 18 March 2019. For this study, the sets were limited to the provincial elections campaign period (18 February-25 March 2019) and the European Parliamentary election campaign period (26 April-24 May). The one exception was the Utrecht tram shooting set, which was only included in the Provincial Elections campaign period, as it took place during that time frame.

Junk news sources and troll-like users during the provincial elections on Twitter

During both the provincial and the European election campaigns we tracked the resonance of mainstream, junk and tendentious sources in Twitter. We did so around the potentially divisive issues of Zwarte Piet and MH17 and chose to include climate and fake news (as an issue). Furthermore, we tracked the resonance of news sources for the political spaces of the (Provincial and EU) elections, as well as the party leadership and political candidates. For each of the elections, we demarcated a five-week campaign period. Per

Figure 4.3   Engagement with mainstream news (blue) and junk news (pink) for the issue of Zwarte Piet (top left) and MH17 (top right) and during the Provincial elections, and the EU elections (bottom left and right)
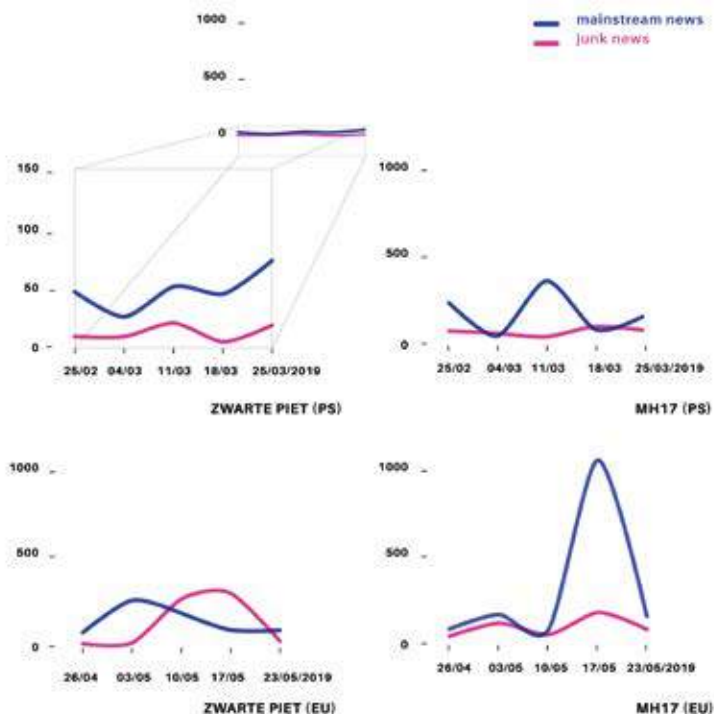
Line graphs; visualization by Federica Bardelli

political and issue space, and for each of the five weeks of the campaign, the most-shared links (up to a maximum of 500) were collected and coded (for mainstream or junk news of various types, using the aforementioned expert list). The engagement scores for the mainstream and junk news source engagement per week were visualized as line graphs, as in the well-known *Buzzfeed News* study (Silverman, 2016).

For both election campaign periods, overall the mainstream news outperforms junk news (see Figure 4.2). When zooming in on the political spaces of the elections and the party leadership and political candidates, the mainstream news sources garner far more engagement than junk news. A look at the top 500 most engaged-with links shows the rise and fall of mainstream hosts circulated in the issue space, and the relatively small but steady resonance of junk news hosts, which during the provincial election campaign rises slightly in its last week.

Divisive issues: Zwarte Piet and MH17

Both for Zwarte Piet and MH17, there are instances in which junk news outperforms mainstream news. In the climate and fake news datasets mainstream news outperforms junk news in all weeks. The line graphs in Figure 4.3 include a zoomed-in view that renders visible the moments in which junk news is more engaged with than the mainstream news. For the controversial topic of Zwarte Piet, during the Provincial election period mainstream news receives more engagement. Junk news outperforms mainstream news in weeks three and four of the European parliamentary elections campaign. The article mostly responsible for this peak in week three is a short commentary on tendentious-hyperpartisan website *The Post Online*, about the proposal by Dutch politician Sylvana Simons (addressed to the Amsterdam Municipality) to ban the 'racist caricature of Zwarte Piet' in the city of Amsterdam. When one removes *The Post Online* from the graph, the results remain the same apart from the one week in May during the European parliamentary election period where now mainstream news outperforms junk (see Appendix 4.1). In week four, an article on Cultuurondervuur.nu ('culture under fire') entitled 'Jerry Afriyie receives funding for anti-Zwarte Piet educational materials' is responsible for the increased activity. In it, activist Jerry Afriyie is described as a 'Zwarte Piet hater' (cultuurondervuur.nu, 2019).

For the issue of MH17, during the Provincial elections campaign there are times in which junk news outperforms mainstream news in terms of engagement. For the European parliamentary elections, the mainstream attracts more engagement, but during certain periods junk news is on a similar level as the mainstream. The peaks that occur during the Provincial elections are mainly caused by engagement with a piece from citizen-journalist Max van der Werff, on his website kremlintroll.nl, in which he demands rectification of an article in *De Groene Amsterdammer* (from August 2018) about Russian internet trolls (van der Werff, 2019). Two other articles that attract engagement are from the hyperpartisan website jdreport.nl, questioning the integrity of the MH17 investigation, and in one Frans Timmermans (who would win a seat for the PvdA in the EU parliamentary elections) is named as part of an 'MH17-doofpot', or cover-up (jdreport.nl, 2019). In week four of the Provincial elections campaign period, the Kremlintroll piece requesting rectification is particularly actively shared. Simultaneously, the interlinked article with the actual critiques of the article from *De Groene Amsterdammer* is receiving more engagement.

During the EU election campaign, mainstream news receives more engagement. It is important to note, however, that aside from a peak in mainstream news in week three of the campaign, its engagement level is equal to that of junk news sources. Where in the mainstream certain events cause peaks in media coverage, it appears that for junk news these divisive issues are continuous and year-round. Zwarte Piet may not be a subject matter in the mainstream news in Springtime, but it remains a matter of concern and a source of engagement in junk news media.

Troll-like users during the Dutch provincial and European elections on Twitter

For the Dutch provincial elections campaign period, the next step in the study is to look closely at the user activity related to the Dutch provincial elections and the political party leadership, as well as coverage of the potentially divisive issues of Zwarte Piet, MH17 and the Utrecht tram shooting. As a first step, the URLs (hosts) were extracted from the sets of tweets and checked against a collaboratively compiled expert list of junk and tendentious news sources. Similarly, the users active in each of the sets of tweets were checked against a list of flagged users. Here, we made use of existing lists from the previous project in *The Field Guide to Fake News* (Borra et al., 2017) and expanded these lists. To do so, we extracted top users from the data sets of Zwarte Piet, MH17, Utrecht tram shooting, the Dutch provincial elections and the political party leadership and followed a protocol adapted from the aforementioned study, and combined them with research on credibility metrics (Borra et al., 2017; Groot et al., 2019).[2] With the Compare List tool (Borra, 2013), the study assessed whether any of the flagged users were active in one or more of the political issue spaces. Zwarte Piet had an initial list of 26 potentially troll- or bot-like accounts,

2   For this particular study, to identify potentially troll-like users in the data sets, the top 15 most-active users in the set were selected, as well as the top 15 users who were highly active yet at the same time very low on visibility (i.e., rarely or not at all @mentioned). Then, the profiles of these user accounts were checked for the following flags: mostly retweeting, or retweeting in several languages (as possible indicators of automation) which is of interest given the wide distribution of easily acquirable retweet bots (McGarry, 2013); profile oddities such as inauthentic user's profile images, which were checked with Google Image search to assess their authenticity; a recently created account; a high following count (of over 1,000); a username with over 3 numbers in it; high tweet frequency as tweeting over 200 times mentioning the issue; posting 20 tweets or more times per day; and, whether the user seems to mostly retweet more often rather than tweet his/her own content.

five of which had already been taken offline at the time of inquiry. Of the 21 remaining each was flagged as potentially troll-like; one of which described itself as a retweet bot (in the user profile). For MH17, of an initial list of 26 potentially troll- or bot-like user accounts, two were inactive at the time of inquiry. Of the remaining user accounts, 13 accounts were flagged, and 10 were not. For the Utrecht tram shooting, from an initial list of 23 potential troll- or bot-like accounts, 10 were flagged after examination. For the provincial elections dataset, the list of potentially troll- or bot-like users entailed 24 accounts, 17 of which were flagged according to our criteria and one of them described itself as a bot.

Subsequently, these flagged users were checked for activity in more than one issue. This would make sense for those data sets that are of related topics, such as the provincial elections and the political leadership. When users are active across distinct controversial issues such as Zwarte Piet, MH17, and the shooting in Utrecht, which have in common their potential divisiveness, such multi-issue users and the content they circulate would be further scrutinized. In fact, 14 flagged accounts are common to all of the five political issue spaces, and as many as 29 flagged user accounts are common to four of the data sets, pointing to efforts to fuel division during the election period.

Figure 4.4 provides an overview of the tweet- and user counts per issue, as well as the most-resonating hashtags, and most-retweeted tweets, during the time around the elections (18 February-25 March 2019). The analysis shows that there is no disinformation resonating in the top 10 hosts per political and issue space. The top hosts are mostly (Dutch and international) mainstream news media. The hyperpartisan site Opiniez.nl is among the top 10 hosts for Zwarte Piet in the provincial elections space, and the tendentious site geenstijl.nl is shared for MH17 and PS2019. Junk sources are present across political and issue spaces around MH17, Zwarte Piet, Utrecht, PS2019, and the Dutch party leadership. There are junk news hosts that are common across all five issues: Ninefornews.nl, fenixx.org, tref.eu, ejbron.wordpress.com, drimble.nl (a particular story), and dagelijksestandaard.nl. Hyperpartisan and conspiracy sources are mostly circulated by flagged users. However, some hyperpartisan and tendentious sources are being mainstreamed, and circulated by regular (as in: unflagged) users. These include tendentious-hyperpartisan host *The Post Online* and hyperpartisan sources, *De Dagelijkse Standaard* and *Fenixx*.

Looking at the time frame around the provincial elections, flagged users are among the top, most active users across issues. In particular for Zwarte Piet and MH17, six of the top ten users are flagged accounts. Analyzing the

Figure 4.4   Tweet and user counts, top hashtags, and most-retweeted tweets during the Dutch provincial election period of 2019

STATISTICS AND TOP TWEETS DURING THE CAMPAIGN
18 February - 25 March
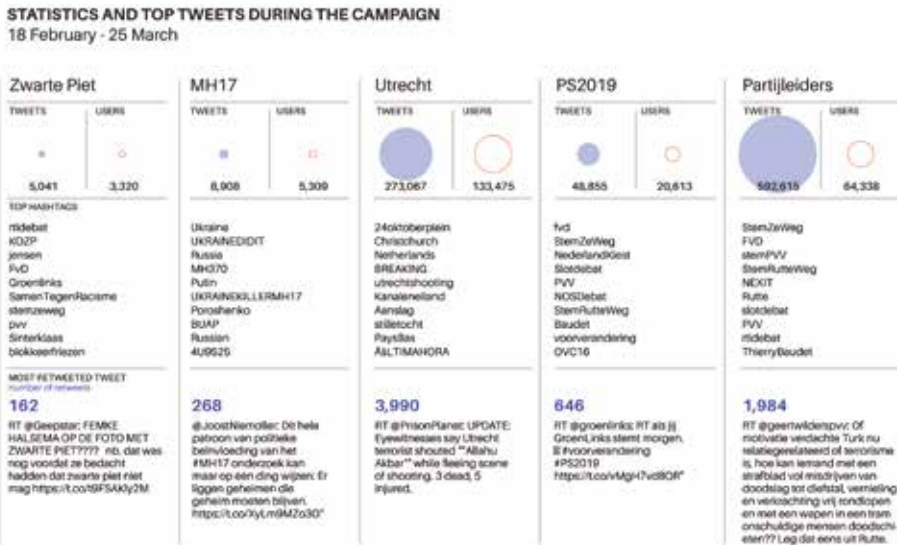
Dashboard; visualization by Carlo De Gaetano

top @-mentioned users in tweets about Zwarte Piet and MH17, we found that two flagged user accounts are among the top 10 @mentioned. When analyzing the most-used hashtags across the issues, what stands out is that the top hashtags used in the MH17 issue space all seem to be Pro-Russian. Across the issue spaces of Zwarte Piet, MH17 and PS2019, we see the resonance of right-wing political party hashtags, such as PVV and FvD. Zwarte Piet contains hashtags both for pro-Zwarte Piet (e.g., 'blokkeerfriezen', referring to the Frisian counter-protest in Dokkum against anti-Zwarte Piet protesters of 'Kick out Zwarte Piet', which can be found in the data set with hashtag #kozp, in which they blocked the highway to prevent anti-Zwarte Piet protesters from entering their town) and anti-Zwarte Piet, e.g., 'SamenTegenRacisme', which translates as 'united against racism'.

For the EU election campaigns, we similarly investigated the activity of flagged users in the political and issue space. For the political spaces, the top 1000 most active users were collected for the general EU election hashtags and the political leaders relevant to the EU election campaigns. For the issue spaces, the top 1000 most active users were collected on the topics of climate change, Zwarte Piet, MH17 and fake news. These lists of top users were matched with the flagged users list from the first part of the empirical study. Because some topics were more active than others, the

activity of the top 1000 users varies per dataset. For the more generic EU set, the top 1000 users each posted more than 44 tweets in the EU election period. In comparison, in the Zwarte Piet dataset the top 1000 users each posted two or more tweets.

Of the flagged users list, eight users were active in all six issue spaces during the EU campaign period. Three users were active in five of the spaces and another three users in four of the spaces. Four of the eight users active in all spaces were also active in all the provincial election period datasets. From the users active in all datasets, the top user posted 2,781 tweets. 2,578 of those tweets were in the general EU and party leader dataset. This user is not only retweeting other content, but also posts his own content. The content in the EU Elections period can be characterized as anti-EU, anti-immigration, pro-PVV/FvD and critical of all other parties.

The circulation of junk and tendentious news during the provincial elections

To gain a better view of these troll-like, junk and tendentious news activities, a next step zooms in on the circulation of these news sources during the campaign period in each of the political issue spaces. Visualized as network graphs, the analysis considers whether such news sources are circulated by flagged or regular (non-flagged) users.[3] Each host-user bi-partite network graph includes a short overview of the user and host types per data set, clearly illustrating that the number of flagged users and the circulation of junk or tendentious news sources are outnumbered by unflagged users and the circulation of mainstream news. Thus, these visualizations should be read as a zoom-in on a particular, small set of hosts that are of interest to the study of the presence and circulation of junk news and tendentious news and the users that circulate them.

In each issue space, hyperpartisan sources are circulated the most. And while the issue space of Zwarte Piet is dominated by the circulation of hyperpartisan sources being shared by flagged but also by regular users, the main junk news sources for MH17 are more diverse in composition. Here, we see a mix of tendentious, hyperpartisan, as well as conspiracy hosts. For the Utrecht shooting, tendentious and hyperpartisan hosts are circulated the most, by flagged and regular users, making them appear as

3   Regular in this case in fact strictly speaking means *not flagged*.

**Figure 4.5   Gephi visualization of Zwarte Piet host-user network during the
provincial elections campaign period, depicting only junk and
tententious hosts and the user accounts that circulate these sources**
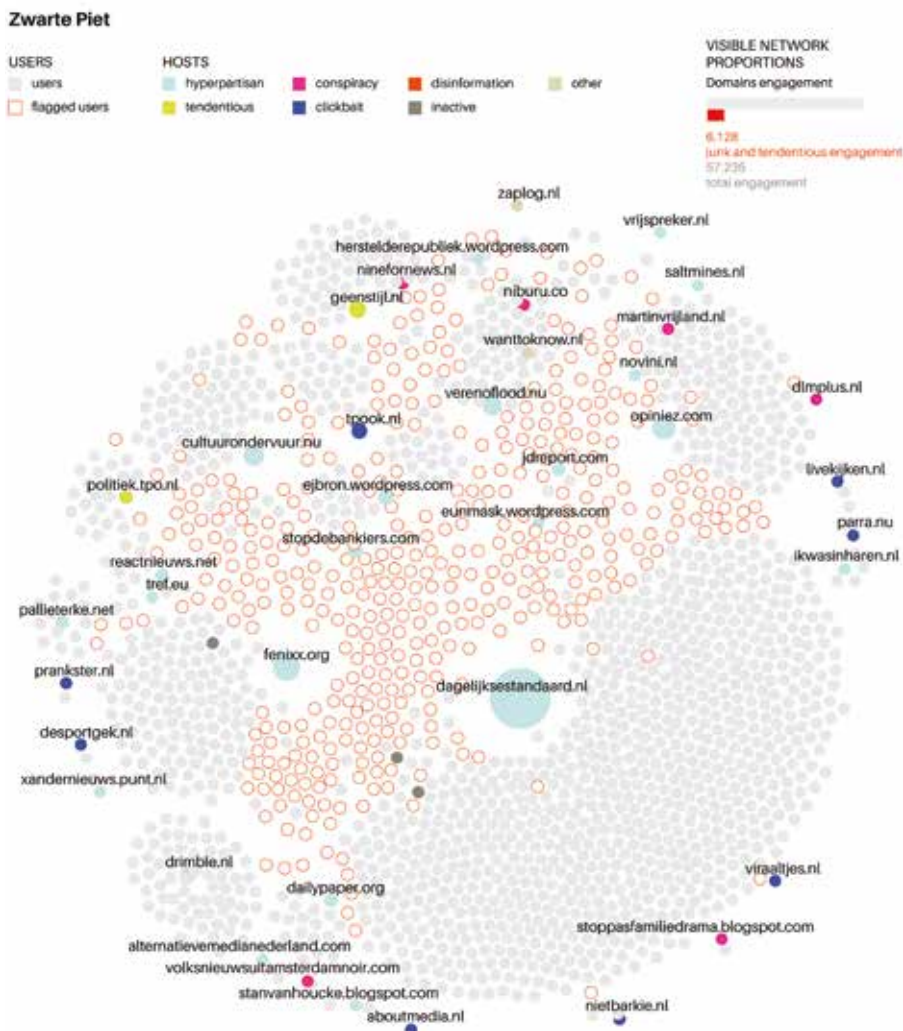
Visualization by Carlo De Gaetano

mainstream. The junk news and tendentious sources in both of the political
spaces, PS2019 and the party leaders, revolve around mostly hyperpartisan
and tendentious sources.

The host-user network of the Zwarte Piet issue space (Figure 4.5) is dense
and, as said, is dominated by the circulation of hyperpartisan sources such

Figure 4.6   Gephi visualization of MH17 host-user network during the provincial elections campaign period, depicting only junk and tendentious hosts and the user accounts that circulate these sources

Visualization by Carlo De Gaetano

as dagelijksestandaard.nl, fenixx.org, cultuurondervuur.nu and opiniez.nl, and, at a slightly lower level, the tendentious source geenstijl.nl. These central nodes are the sources of choice for the majority of the flagged users, but also have been shared by regular users, who demonstrate a preference for the hyperpartisan source, dagelijksestandaard.nl. One clickbait host (tpook.nl), which can be found in the outskirts of the graph, stands out as being circulated by both flagged and regular users.

The network visualization of the MH17 junk news source circulation (Figure 4.6) shows a different source composition to that of Zwarte Piet,

Figure 4.7   Gephi visualization of Utrecht shooting host-user network during the provincial elections campaign period, depicting only junk and tendentious hosts and the user accounts that circulate these sources
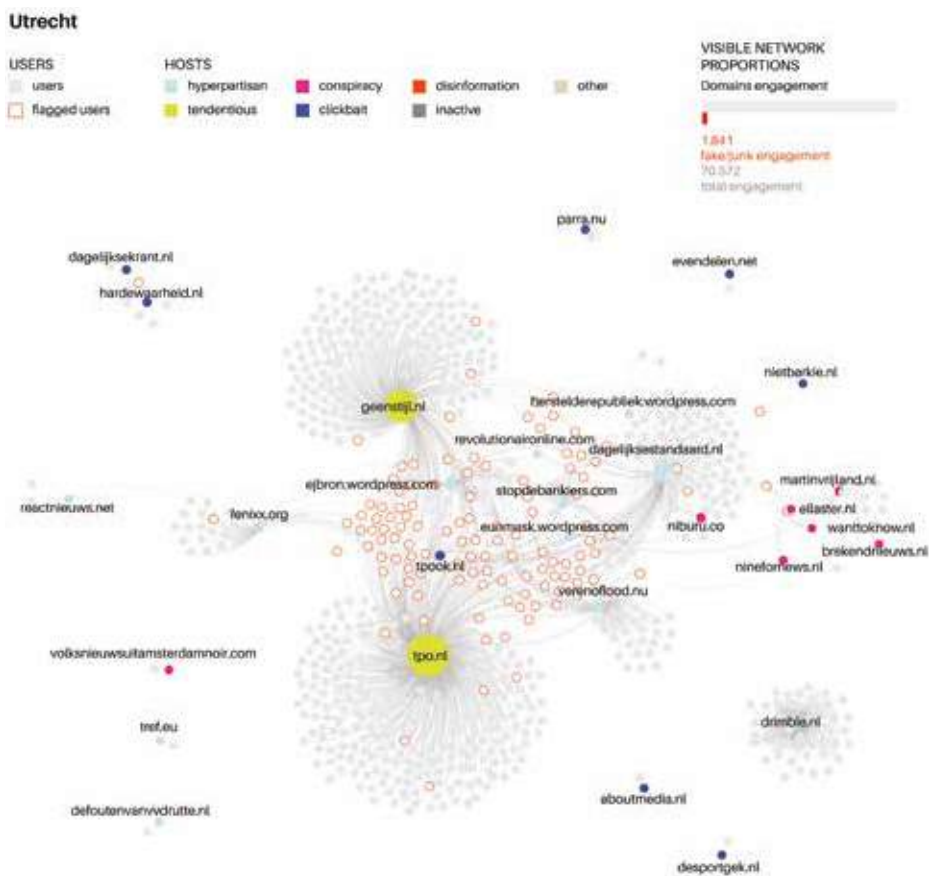
Visualization by Carlo De Gaetano

which had hyperpartisan sources at its core. For MH17, we see a more diverse set of sources central to the network: tendentious source geenstijl.nl, hyperpartisan/conspiracy source novini.nl, and a set of two other conspiracy hosts (ninefornews.nl and niguru.co), which have been widely circulated by flagged users.

The flagged users in this issue space mostly circulate tendentious hosts, such as geenstijl.nl, and hyperpartisan and conspiracy sites, hersteldere-publiek.wordpress.com and novini.nl. The source most circulated by regular users is the tendentious geenstijl.nl.

Figure 4.8   Gephi visualization of PS2019 host-user network during the provincial elections campaign period, depicting only junk and tendentious hosts and the users that circulate these sources

Visualization by Carlo De Gaetano

**Figure 4.9   Gephi visualization of Party Leadership host-user network during
            the provincial elections campaign period, depicting only junk and
            tendentious hosts and the users that circulate these sources**

Visualization by Carlo De Gaetano

In the issue space for the Utrecht shooting (Figure 4.7), tendentious and
hyperpartisan sources (geenstijl.nl, tpo.nl and dagelijksestandaard.nl)
populate the centre of the network. Several smaller clusters of junk news
sources that have been circulated by regular users are evenly distributed
on the periphery of the graph (e.g., drimble.nl (story-level), evendelen.net,
dagelijksekrant.nl or hardwaarheid.nl). Only a minority of flagged users
circulate clickbait (tpook.nl, nietbarkie.nl) and conspiracy pages (martin-
vrijland.nl, ninefornews.nl, brekendnieuws.nl, ellaster.nl, wanttoknow.nl).

It is important to note that overall the hyperpartisan and tendentious sources in this network have been circulated by both flagged and regular users, making them appear to be mainstream(ing).

The PS2019 (Provincial State elections) host-user network appears to be organized around two major hosts, hyperpartisan source opiniez.com and tendentious source geenstijl.nl (Figure 4.8). The (marginal) presence of clickbait host aboutmedia.nl is caused by the activity of only one regular user. Conspiracy hosts ninefornews.nl and dlmplus.nl have been only marginally circulated by users who also shared other junk news hosts. Two recently created user accounts in the network (created in December 2018) demonstrate an uncommonly high number of tweets and likes. One of them has around 39,300 posts, and 31,900 likes within four months of existence, a level of activity that suggests automation and artificial inflation.[4]

For the Party leadership network, the tendentious-hyperpartisan source tpo.nl and hyperpartisan source dagelijksestandaard.nl are the largest nodes in the network and are circulated by both flagged and regular users (Figure 4.9). Smaller nodes of hyperpartisan sources, such as fenixx.org, opiniez.com and verenoflood.nu, are positioned slightly more towards the periphery of the network. A dense cluster of flagged users is situated in the heart of the network and has circulated mostly tendentious and hyperpartisan hosts as well as conspiracy hosts, such as ninefornews.nl or ellaster.nl. Regular users populate the rest of the network and have circulated mostly tendentious and hyperpartisan hosts (e.g., tpo.nl, dagelijksestandaard.nl and opiniez.com) and to a lesser extent, have circulated conspiracy hosts (e.g., donquijotte.wordpress.com or stoppasfamiliedrama.blogspot.com) which are visible in the margins of the graph.

Conclusions: Troll-like activity in divisive issue spaces

As emphasized in studies of the campaigning by the Russian Internet Research Agency as well as so-called home-grown actors, Twitter allows for easy automation, which makes the platform susceptible to abuse by bot and troll-like users (boyd et al., 2018; DiResta et al., 2018; Howard et al., 2018). We have identified such suspicious activity during the Dutch Provincial elections of 2019, when looking at political issue spaces as well

---

4   Their high number of likes is also inconsistent with the pattern of activity, which is mostly retweets and replies with GIFs or funny images.

as divisive issues. In fact, troll-like users are central across political and issue spaces around MH17, Zwarte Piet, Utrecht, PS2019, and the Dutch party leadership. In particular, 14 flagged users were found to be active across all political and issue spaces, and the 29 that appear in four out of five, deserve further scrutiny. Four suspect users active during the provincial election period were also (or still) active in all issue spaces during the EU election period. Some of these users had already been flagged in previous research from 2017, which means they have been operating and engaging in new and existing issues for over two years. Overall, our study found that such flagged users tend to spread mostly hyperpartisan and tendentious sources, followed by conspiracy websites. We also found no indication of a coordinated campaign, whereby (as found elsewhere) the troll-like users would include sock puppets, automated accounts, and semi-automated user accounts that post both retweets and original content.

Divisive issue spaces are active year-round. From 18 February – the beginning of the official campaign – to 25 March 2019, the issue spaces of Zwarte Piet and MH17 were still active, even though Sinterklaas, the holiday related to Zwarte Piet, takes place in December and the downing of the Malaysian airliner was not in the news, either through new developments or official memorial events. A significant number of the most active users in each issue during this period display troll-like behaviour through their high activity (30% in the case of Utrecht and 60% in MH17 and Zwarte Piet). Despite the activity, most of these users' influence is still limited, however. Only two of them appear among the top ten most @-mentioned for each issue space.

At the same time, we identified at least three highly active new accounts that were created close to the elections with a clear purpose of disseminating divisive content, indicating how the platform may be employed around election time. When these troll or bot-like users are not aggressively attacking the opposition, they function as amplification machines for web news operations, ranging from tendentious sources such as *Geenstijl* and *The Post Online* to hyperpartisan sources such as *De Dagelijkse Standaard*, *Opiniez* and *Fenixx*. Repeatedly, we have seen how these tendentious and hyperpartisan sources are widely circulated by regular users who crowd out the flagged users (in a network clustering sense). The uptake of tendentious and hyperpartisan sources by such regular users leads to a 'mainstreaming' of these hosts, in times of elections.

In all, flagged users tend to spread mostly tendentious and hyperpartisan hosts, followed by conspiracy hosts, which appear in all datasets but seem to

be more pervasive in tragedy spaces as MH17 and the Utrecht tram shooting. During the EU election period, on several occasions, junk news sources outperformed mainstream sources around the controversial topics, Zwarte Piet and MH17. On both issues, junk news outperformed mainstream news in two of the five weeks. During these weeks, there is not a large increase visible in the engagement of junk news sources compared to other weeks. Instead, the overperformance is mostly caused by a drop in the mainstream media attention for the topics on hand, while coverage persists on the junk news sources, fuelling the debate.

According to these results, the Dutch political Twittersphere does not appear to have a junk news problem, though it is populated by some troll-like users, whose existence serves to amplify certain voices. While we did not find a professional or large-scale trolling campaign, the activity across issues in spreading divisive content was caused by various types of user accounts, both bot-like (as in: automated) and troll-like (as in: repeatedly engaging with divisive issues and targeting politicians). Divisive issues remain steadily (even if marginally) active in junk news and tendentious news throughout the tested time frames, suggesting these issues are year-round rather than event-based or seasonal (as may be expected with Zwarte Piet).

Appendix 4.1   Alternate figures

Alternate Figure 4.2   **These line graphs visualize the engagement with mainstream news (blue) and junk news sources (pink) during the Dutch provincial election campaign (PS) and the European Election campaign period (EU), similar to Figure 4.2, but excluding the tendentious-hyperpartisan sources.**
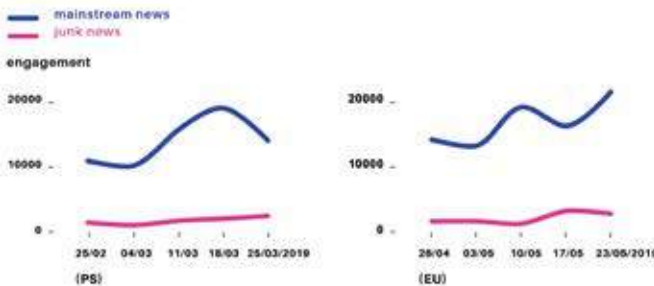
Visualization by Federica Bardelli

Alternate Figure 4.3 **These line graphs visualize the engagement with mainstream news (blue) and junk news sources (pink) for the issues of MH17 and Zwarte Piet during the provincial elections (PS), and the EU elections (EU), similar to Figure 4.3, but excluding the tendentious-hyperpartisan sources.**
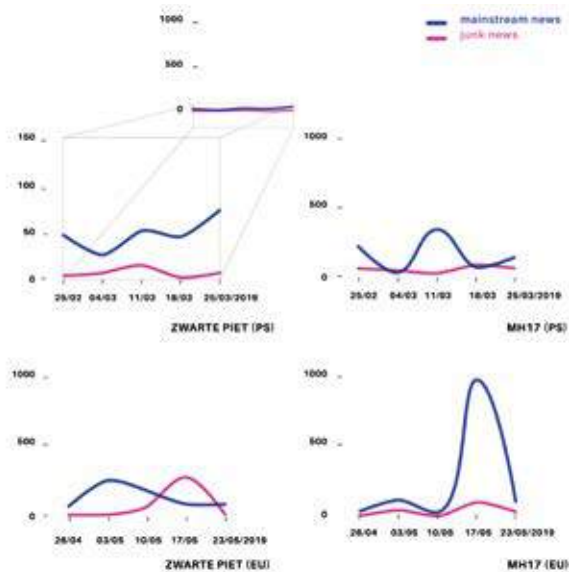
Visualizations by Federica Bardelli

References

Borra, Erik (2013) 'DMI Tools', wiki. https://wiki.digitalmethods.net/Dmi/ToolDatabase.

— and Bernhard Rieder (2014) 'Programmed method: developing a toolset for capturing and analyzing tweets', *Aslib Journal of Information Management*, 66(3): 262-278.

—, Sabine Niederer, Johannes Preuß and Esther Weltevrede (2018) 'Mapping troll-like practices on Twitter', in Liliana Bounegru, Jonathan Gray, Tomasso Venturini & Michele Mauri (Eds.), *A Field Guide to 'Fake News' and Other Information Disorders: A collection of recipes for those who love to cook with digital methods*, Amsterdam: Public Data Lab, pp. 161-196.

Bounegru, Liliana, Jonathan Gray, Tommaso Venturini and Michele Mauri (eds.) (2018) *A Field Guide to "Fake News" and Other Information Disorders: A Collection of Recipes for Those Who Love to Cook with Digital Methods*, Amsterdam: Public Data Lab.

Boyd, Danah, Scott Golder and Gilad Lotan (2010) 'Tweet, tweet, retweet: Conversational aspects of retweeting on Twitter', in *43rd Hawaii International Conference on System Sciences,* Honolulu, HI: IEEE, January, pp. 1-10, DOI: 10.1109/HICSS.2010.412.

Chadwick, Andrew (2013) *The Hybrid Media System: Politics and Power.* Oxford: Oxford University Press.

Cultuurondervuur (2019) 'Jerry Afriyie ontvangt subsidie voor lespakket tegen zwarte piet', *Cultuurondervuur.nu*, 13 May. https://cultuurondervuur.nu/jerry-afriyie-ontvangt-subsidie-voor-lespakket-tegen-zwarte-piet/

DiResta, Renee, Kris Shaffer, Becky Ruppel, et al. (2018) 'The Tactics & Tropes of the Internet Research Agency', Report, *New Knowledge.* https://disinformationreport.blob.core.windows.net/disinformation-report/NewKnowledge-Disinformation-Report-Whitepaper.pdf.

Groot, Tim, Sophie Minihold, Jessica Robinson, Manuel Schneider, Joanna Sleigh and Dydimus Zengenene (2019) 'Russia, Twitter & Authenticity: Establishing Credibility Metrics', *Digital Methods Initiative*, Winter School 2019. https://wiki.digitalmethods.net/Dmi/WinterSchool2019CredibilityMetrics

Helmond, Anne (2015) 'The Platformization of the Web: Making Web Data Platform Ready', *Social Media + Society* 1(2):1-11. https://doi.org/10.1177/2056305115603080.

Honeycutt, Courtenay and Susan C. Herring (2009) 'Beyond microblogging. Conversation and collaboration', *42nd Hawaii International Conference on System Sciences*. Los Alamitos, CA: IEEE Press.

Howard, Philip N., Bharath Ganesh, Dimitra Liotsiou, John Kelly and Camille François (2018) 'The IRA, Social Media and Political Polarization in the United States, 2012-2018', Report, Computational Propaganda Research Project, Oxford: Oxford Internet Institute.

Java, Akshay, Xiaodan Song, Tim Finin and Belle Tseng (2007) 'Why we twitter: understanding microblogging usage and communities'. In *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis*, New York, NY: ACM, pp. 56-65.

JDReport (2019) 'Zal Frans Timmermans met zijn walgelijke rol bij de MH17 ramp eindigen in een Roemeense cel?', *jdreport.nl*, 24 February. https://jdreport.com/zal-frans-timmermans-met-zijn-walgelijke-rol-bij-de-mh17-ramp-eindigen-in-een-roemeense-cel/

Kouwenhoven, Andreas and Hugo Logtenberg (2017) 'Hoe Denk met 'trollen' politieke tegenstanders monddood probeert te maken', *NRC Handelsblad*, 10 February.

Kwak, Haewoon, Changhyun Lee, Hosung Park and Sue Moon (2010) 'What is Twitter? A social network or a news media?', in *Proceedings of the 19th International Conference on World Wide Web*, New York: ACM, April, pp. 591-600.

Marres, Noortje (2018) 'Why We Can't Have Our Facts Back', *Engaging Science, Technology, and Society,* 4: 423-443.

Marres, Noortje and Esther Weltevrede (2013) 'Scraping the Social?' *Journal of Cultural Economy*, 6(3): 313-35, DOI:10.1080/17530350.2013.772070.

Misérus, Mark and Robert van der Noordaa (2018a) 'Het trollenleger van popartiest Dotan', *de Volkskrant*, 14 April.

Niederer, Sabine (2018) 'The Study of Networked Content: Five Considerations for Digital Research in the Humanities,' in Giovanni Schiuma and Daniela Carlucci (eds.), *Big Data in the Arts and Humanities: Theory and Practice,* Boca Raton, FL: CRC Press, pp. 89-100.

— (2019) *Networked Content Analysis: The case of climate change*, Amsterdam: Institute of Network Cultures.

NOS (2018) 'Twitters grote schoonmaak: Wilders en Denk-politici verliezen volgers', *NOS*, 13 July. https://nos.nl/nieuwsuur/artikel/2241321-twitters-grote-schoonmaak-wilders-en-denk-politici-verliezen-volgers.html

Omnicore (2019) 'Twitter by the numbers', *Omnicore Agency*. https://www.omnicoreagency.com/twitter-statistics/

Rogers, Richard (2019) *Doing Digital Methods,* London: Sage.

— (2013) *Digital Methods*, Cambridge, MA: MIT Press.

Silverman, Craig (2016) 'This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook', *Buzzfeed News*, 16 November.

van der Werff, Max (2019) 'De Groene trolt Rusland – Deel II', *Kremlintroll*, 17 March. http://kremlintroll.nl/?p=2854

About the authors

SABINE NIEDERER is Professor of Visual Methodologies at the Amsterdam University of Applied Sciences. Her research focuses on the cartography of issues and online debates through visual and digital methods, with a particular interest in climate-related issues. In 2014, Niederer founded the Citizen Data Lab as an applied research lab specializing in participatory mapping of local issues.

MAARTEN GROEN is a researcher and programmer at the Visual Methodologies Collective at the Amsterdam University of Applied Sciences. He is interested in developing and researching tools that empower citizens. In the past, he has worked on projects involving open data, social media analysis, intelligent sensory systems, and public screens.

5   Dutch political Instagram

Junk news, follower ecologies and artificial amplification

Gabriele Colombo and Carlo De Gaetano[1]

Abstract

The research examines junk news, followers of problematic sources as well as artificial amplification on Instagram during the 2019 Dutch provincial and European parliamentary elections. First, this study looks at the circulation of junk content in high-engagement political spaces on Instagram. Second, it takes up the question of the mainstreaming of Dutch junk news providers by looking at the intersection between the followers of Dutch political entities and those of junk news sources. Third, it looks at the presence of artificial engagement tactics (specifically fake followers) employed by Dutch political entities and news sources on Instagram. In all it was found that Dutch political Instagram is a relatively healthy space, but not for all issues or political entities.

Keywords: Instagram, artificial engagement, junk sources, fake followers, digital methods

Introduction: Fake followers, computational propaganda and their detection on Instagram

Though Facebook has been labelled the 'hyperpartisan media machine' (Herrman, 2016) and Twitter studied as a matter of routine, owing to the availability of datasets, Instagram, when scrutinized, has been found to perform well as an outlet for junk or hyperpartisan news circulation, artificially amplified engagement and other types of problematic content and users.

---

[1]   The research was undertaken together with Rama Adityadarma, Joris van Breugel and Vic Krens.

The relationship between Instagram and different types of 'problematic information' (Jack, 2017) has been studied in connection with the Russian effort to influence the 2016 American elections. A study by New Knowledge (2018) found that Russian propaganda tactics played well on Instagram. The report analyses data from a variety of platforms, in order to detect efforts by the Internet Research Agency (IRA) to spread disinformation and divisive content. The study found that Instagram, with '187 million engagements' of '116,000 Instagram posts across 133 accounts' (New Knowledge, 2018: 7), to be at the forefront of an IRA operation, with better performing fake accounts and overall higher engagement than on Facebook.

The significance of Instagram, which 'outperformed Facebook' (New Knowledge, 2018: 8) as a battleground in the Russian disinformation enterprise, is linked, according to the report, to two possible causes. First, since it is a platform designed around sharing visual materials, Instagram may be well suited for the so-called 'image-centric memetic (meme) warfare' (2018: 8), that is, the weaponized use of image macros to stir conflict and foster division online. Second, the report states that the considerably high engagement of content from the IRA's accounts on Instagram may also be the result of click-farm activity, and some of the accounts in the dataset appeared indeed to be linked to 'a live engagement farm' (2018: 8).

With respect to the Dutch case, Russian influence has been studied mainly on Twitter, with the detection of trolling activities, especially in the aftermath of tragic and divisive events both in the Netherlands and in Belgium. For example, two journalistic studies found peaks in Russian trolling activity following the downing of MH17 in 2014 (Kist and Wassens, 2018; van der Noordaa and van de Ven, 2018a), while another study uncovered a (rather unsuccessful) organized Russian effort in spreading anti-Islam content on Twitter after the 2016 Brussels airport attacks (van der Noordaa and van de Ven, 2018b). Despite the lack of empirical research regarding Russian influence on Instagram, one study from the *NRC Handelsblad* (Kist and Wassens, 2018) suggests that a larger organized trolling activity may be found on other platforms beyond Twitter, including Instagram.

The use of computational means to amplify misinformation and hyperpartisan content on Instagram has not been linked exclusively to the Russian propaganda operation in the West, but it has also been described as a domestic tactic, adopted by national campaigners as well. A comparative, global study of social media manipulation in 48 countries (Bradshaw and Howard, 2018) describes different computational tactics for political influence online, including the use of fake accounts to attack other users, automated accounts generating artificial engagement, and human-curated

accounts that employ automation to be more efficient. With respect to the Netherlands, the study found such automated activity to be mainly linked to the boosting of Geert Wilders' hashtags on Twitter. While the study describes Twitter as the platform where automation thrives the most, signs of 'cyber troop activity' (Bradshaw and Howard, 2018: 13) are also to be found in other platforms, including Instagram, among 25% of the countries studied.

That fake following and artificial engagement flourish on Instagram may also be noted from reported cases in the news. As a case in point, in June 2017, the Russian journalist, Vasily Sonkin, posted an image of a vending machine, placed inside a shopping centre in Moscow, that lets users buy Instagram followers and likes. The news that for the (cheap) price of 50 Russian roubles (about EUR 0.70) one could buy 100 fake Instagram likes was reported by numerous tech or news media outlets (Matsakis, 2017; Feldman, 2017; Tan, 2017).

There have also been efforts by Instagram itself to counter artificially amplified activities on the platform. In December 2014, Instagram announced a crackdown on fake (or improperly obtained) profiles, in the so-called 'Instagram rapture' (Lorenz, 2014) that resulted in the deletion of hundreds of thousands of accounts. And later, in December 2018, a 'Christmas crackdown' (Lorenz, 2018) resulted in the shutdown of 500 meme accounts, some of which with millions of followers, suspected of using stolen or traded profiles. On the same note, in April 2019, Facebook filed a lawsuit against one company based in New Zealand, accusing it of providing 'fake likes, views and followers to Instagram users' (Romero, 2019). The lawsuit is presented as part of a larger effort by the platform to prevent 'inauthentic behaviour' on Instagram. While actions have been taken to cope with artificial engagement as well as fake or improperly obtained accounts, the platform has been apparently less active in limiting the spread of extremely coloured or hyperpartisan content, but rather has become the 'Alt-Right's new favourite haven' (Sommer, 2018), offering refuge to extreme right-wing personalities, after their accounts are deleted from Twitter.

The presence of a large automated engagement infrastructure on Instagram is also indicated by the deluge of fakeness-detection tools offered by commercial services online. The detection of inauthentic automated activity on Instagram may work by fingerprinting one account's follower base by nationality, and associate specific geographical locations, such as Brazil, Turkey or China, to suspected bot activity (Maheshwari, 2018). For example, among the available tools, *HypeAuditor*, a '100% AI-powered' service to expose 'fake followers and engagement' on Instagram, flags certain countries, such as Brazil, as geographical locations that may signal the presence of fake followers (Komok, 2018).

Despite being understudied, specifically in the Dutch context, Instagram appears to be a platform prone to the presence of various instantiations of junk and fakeness. There is the presence of content that can be described as false as well as merely hyperpartisan and divisive, but deliberately pushed online in order to stir conflict in a political space, both from outside the country and from within. It is also a platform prone to various computational tactics (such as bot work, fake likes and fake following) employed as a means to artificially amplify that same content.
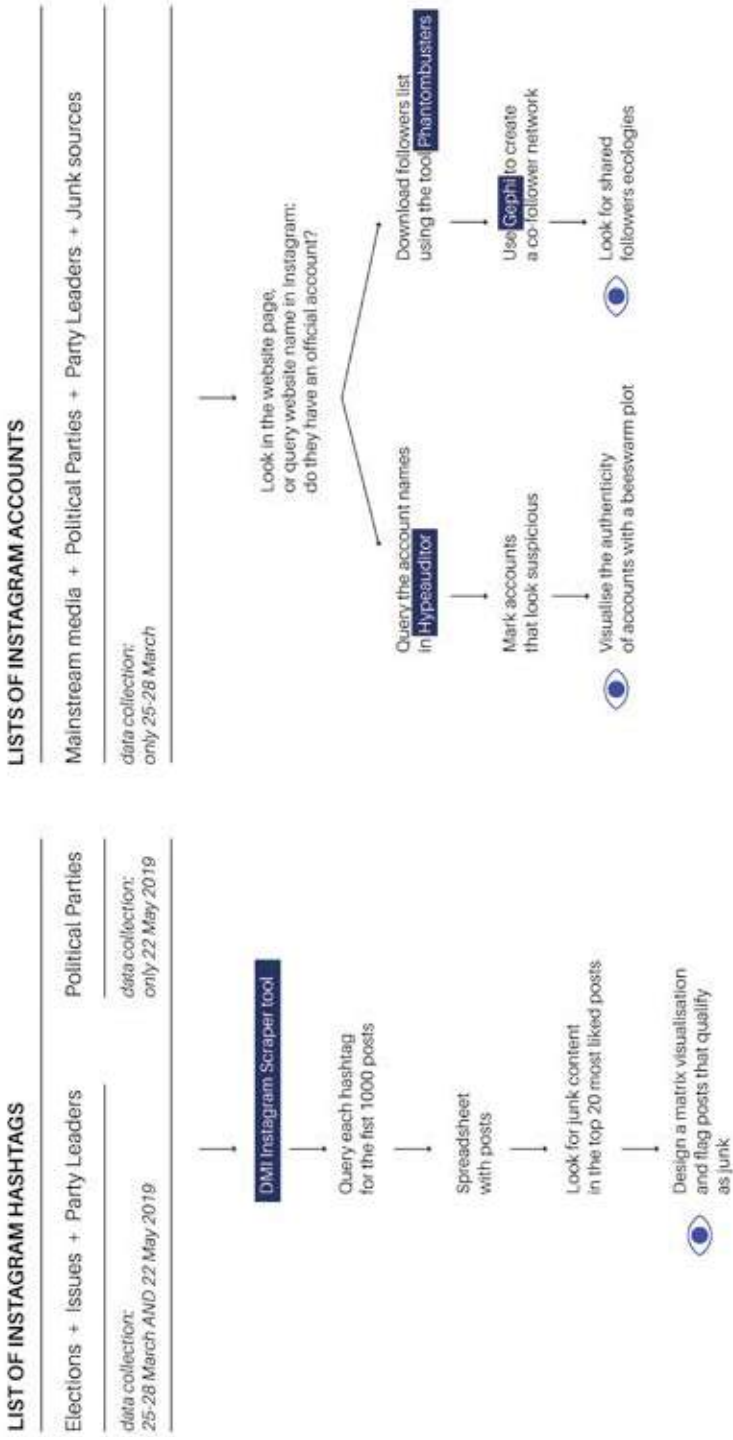
Junk content and artificial amplification in the Dutch political space on Instagram

As mentioned, a few studies have described Instagram as fertile ground for the distribution of inflammatory content in the form of memes, but also as a well-performing infrastructure for the artificial amplification of engagement. In this empirical research project, we devised three complementary approaches for the assessment of Dutch political Instagram in order to test these premises. They study the amount of junk content shared on the platform, the dubiousness of the most relevant information sources within the space, and the inauthenticity of followers that may generate artificial engagement (see Figure 5.1).

In the first part of this study, we search for levels of junk content shared on the platform, by asking to what extent the most liked content in a demarcated Dutch political space on Instagram can be defined as junk (i.e., disinformation, conspiracy, clickbait or hyperpartisan). Second, as the estimation of junk also can be made through 'online source criticism' (Rogers and Niederer, this volume), we expand the work by detecting it on Instagram at a source level. Here, we study the mainstreaming of junk sources by exploring the affinity of the follower bases of Dutch political entities with those of junk news providers (flagged as such by experts). We ask, to what extent do Dutch political entities share an audience with junk news sources on Instagram? Thirdly, in order to study the tactics of artificial engagement that political parties and news sources may employ on Instagram to boost their content, we search for signs of inauthentic activity in the follower bases in the Dutch political space and inquire into the extent of any efforts at artificially boosting (by means of fake followers) present around divisive topics on the Dutch Instagram.

In this research we employ a 'digital methods' approach (Rogers, 2013), repurposing Instagram-specific features to gather data from the platform. In particular, we compile a list of hashtags and profiles in order to demarcate the Dutch political space on Instagram. Within this space, we collect and

Figure 5.1   Diagram of the research protocol, showing the type of hashtags and accounts used for querying Instagram, and the tools used to collect, visualize and analyze the data

LIST OF INSTAGRAM HASHTAGS

Elections + Issues + Party Leaders | Political Parties

data collection:
25-28 March AND 22 May 2019

data collection:
only 22 May 2019

DMI Instagram Scraper tool

Query each hashtag
for the fist 1000 posts

Spreadsheet
with posts

Look for junk content
in the top 20 most liked posts

Design a matrix visualisation
and flag posts that qualify
as junk

LISTS OF INSTAGRAM ACCOUNTS

Mainstream media + Political Parties + Party Leaders + Junk sources

data collection:
only 25-28 March

Look in the website page,
or query website name in Instagram:
do they have an official account?

Query the account names
in Hypeauditor

Mark accounts
that look suspicious

Visualise the authenticity
of accounts with a beeswarm plot

Download followers list
using the tool Phantombusters

Use Gephi to create
a co-follower network

Look for shared
followers ecologies

analyze most liked posts (i.e., posts that receive a certain number of likes) to study junk in the shared content. Furthermore, we collect followers of the accounts of Dutch political entities, mainstream news sources, and junk news sources, in order to study the intersection between their audiences, and more generally to assess the degree of junk in the Dutch political space at the level of the sources. Finally, we rely on profile features (such as the 150 characters bio in one's profile, or post captions), to evaluate the number of fake followers of the Dutch political space.

Detecting junk in the most liked content

The aim of the following analysis is to identify engaging content in the Dutch Instagram political space and observe the extent to which it contains junk – in the sense of how much engagement is generated by content that is either disinformation, conspiracy, clickbait or hyperpartisan.

To outline the Dutch political space in Instagram, we compiled a list of hashtags (see Table 5.1) that are used on the social network to identify the leaders of Dutch political parties (e.g., #markrutte), the 2019 Dutch provincial elections (#PS2019) as well as politically charged issues such as climate change (#klimaatverandering). We used the *Instagram Scraper* tool,[2] offered by the Digital Methods Initiative, to collect the 1,000 most recent posts per hashtag (data collected between the 25th and 28th of March 2019), together with their metadata (date of the post, media URL, caption, number of comments and number of likes). For each hashtag we selected only the 20 most liked posts, manually filtering out posts that are not relevant to the search criteria, or identical posts that prevent more diverse results from reaching the top 20.[3]

In this curated list of most liked posts, we conducted a close reading by looking at post captions and embedded media (images and videos) to understand how political party leaders and politically charged topics are discussed within the limits of the Instagram Dutch political space, and specifically to flag the presence of junk content.

As a result of this evaluation (see Figure 5.2), we found that out of the 400 most liked posts within our dataset there are (only) 45 posts that can

---

2   The tool is available at this link: https://wiki.digitalmethods.net/Dmi/ToolInstagramScraper

3   For example, we filter out posts about the Slovak professional footballer Marek Hamšík, who plays with the number 17 and is referred to in Instagram with the same hashtag of the Malaysia Airlines Flight 17 (#MH17). We also do not include in the dataset the identical posts of condolence messages for the Utrecht attack posted by Dutch national football team players with the hashtag #Utrecht.

be flagged as junk, 4 satirical posts, and 351 posts that do not appear to be junk. Looking at the engagement generated by these posts, junk content was liked 79,466 times, satirical content 37,532 times, and non-junk content 838,794 times.

In Figure 5.3, the 400 most liked posts are divided in hashtag-dedicated columns, in which they are also ranked from the most liked post in the first row to the least liked one in the last. Junk content is flagged using three different colours: light blue for hyperpartisan content, magenta for conspiracy, and blue for click-bait. Satirical posts are color-coded in dark blue. Finally, columns are ordered from left to right according to the amount of junk content, calculated on the total number of likes for each hashtag.

The analysis shows that the #zwartepiet, #geertwilders and #tunahankuzu hashtags represent the most divisive political spaces, with respectively 56.1%, 42.8% and 42.7% of their total amount of likes directed to junk content. Moreover, we find that the majority of the posts flagged as such can be considered hyperpartisan, mostly supporting and/or opposing particular ideology or figures, while only one post can be considered as clickbait, and one conspiracy. Generally, we did not find any trace of disinformation linked to the content that receives the most likes. The findings suggest that certain issues or political leaders, such as the Zwarte Piet debate and the leader of Denk political party, Tunahan Kuzu, draw more divisive content than others. Of the 20 most liked posts, however, we found no strong presence of junk.

In general, we found a relative scarcity of junk content in this high-engagement political space. In the top results for the Dutch provincial elections, #PS2019, we found only positive content, either celebrating preliminary poll results or encouraging people to exercise their right to vote. The hashtags, #24oktoberplein and #utrecht, returned mainly condolence posts and the news that the attacker was spotted and arrested. Almost all of the content we considered as junk is hyperpartisan. We found no presence of disinformation in the most liked results within the demarcated political space.

In order to ascertain the presence of junk content on Instagram surrounding the 2019 European Parliamentary elections in the Netherlands, we conducted a second hashtag analysis concerning content posted in the months before the election day (23 May). With the goal of demarcating the Dutch political space around the 2019 European elections, we compiled a new list of hashtags (see Table 5.2) used to identify Dutch political parties (e.g. #fvd) and their leaders (e.g. #thierrybaudet), the European elections

Table 5.1   Lists of hashtags pertaining to political leaders and politically charged discussions used to demarcate the Dutch political space on Instagram around the 2019 provincial elections

Hashtags related to Dutch political party leaders	Hashtags related to politically charged discussions
#markrutte, #rutte, #geertwilders, #wilders, #thierrybaudet, #baudet, #jetten, #tunahankuzu, #jesseklaver, #lodewijkasscher, #alexanderpechtold, #gertjansegers, #sybrand-buma, #mariannethieme	#PS2019, #klimaatverandering, #immigranten, #utrecht, #zwartepiet, #MH17, #24oktoberplein

Figure 5.2   Proportions of most liked content shared around the 2019 Dutch provincial elections, categorized as junk, satire, and not junk

Top 20 most liked posts per hashtag (400 posts in total)
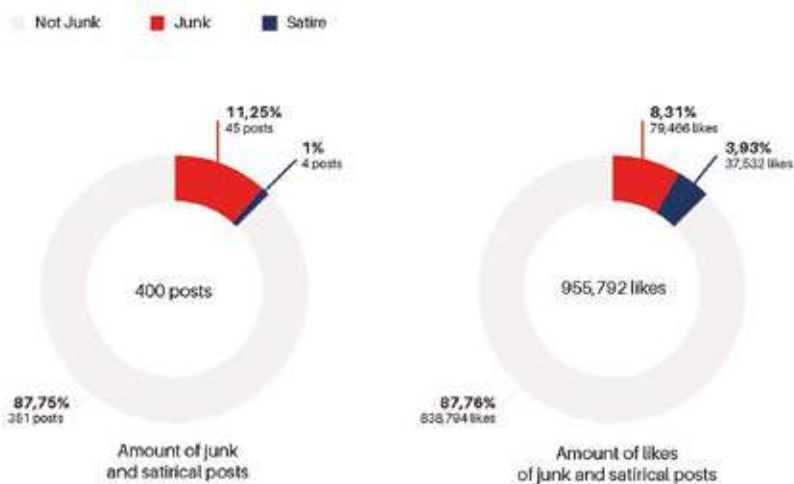
Data source: Instagram Scraper; data collection: 25-28 March 2019; pie charts

(#EUverkiezingen2019, #EUverkiezingen), and various politically charged issues such as immigration (#immigratie, #migratie, #immigranten) and climate change (#klimaat, #klimaatverandering).

With the Instagram Scraper tool, we collected the 1,000 most recent posts per hashtag (data collected on the 22nd of May) and their metadata. For each hashtag we only retained posts shared after the 28th of March, in order to focus on the detection of junk in the period prior to the European elections, but after that of the Dutch provincial elections. For each hashtag we selected the 20 most-liked posts, excluding those included in

Figure 5.3   20 most-liked posts per hashtag shared around the 2019 Dutch provincial elections, sorted from right (most junk) to left (least junk)

Data source: Instagram Scraper; data collection: 25-28 March; image wall

Figure 5.4   Examples of the posts flagged as hyperpartisan or satire

Data source: Instagram Scraper; data collection: 25-28 March; image wall

the dataset but not relevant to the search criteria.[4] Subsequently, in order to ascertain the amount of junk in the dataset, we looked at embedded media and textual captions and flagged each post as junk or not (making the additional distinctions between disinformation, conspiracy, clickbait and hyperpartisan content).

The analysis (see Figure 5.5) confirmed the relative lack of junk content in the Dutch political space, also around the 2019 European parliamentary elections: out of 452 most liked posts, we found only 41 that can be considered junk (specifically hyperpartisan), counting for less than 10% of the total amount of posts. Moreover, hyperpartisan posts score low even in terms of engagement, generating only 4.66% of likes out of the total amount.
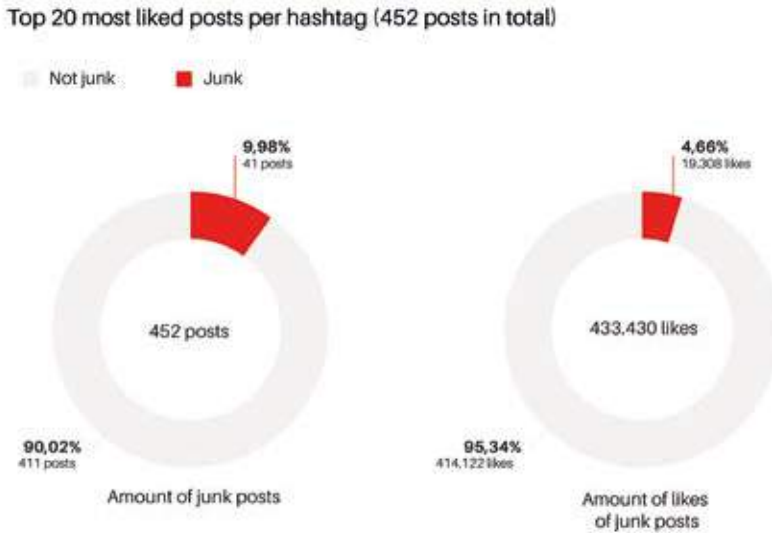
In Figure 5.6, most liked posts are organized in hashtag-dedicated columns. Columns are grouped by type of hashtag and sorted from right to left according to the number of likes generated by hyperpartisan content. The

---

4   The query for some of the less popular hashtags returned less than 20 posts in the specified date range.

Table 5.2   Lists of hashtags pertaining to political leaders and politically charged discussions used to demarcate the Dutch political space on Instagram during the months before the 2019 European elections

| *Hashtags related to Dutch political party leaders*	*Hashtags related to Dutch political parties*	*Hashtags related to politically charged discussions*
#markrutte, #rutte, #geertwilders, #wilders, #thierrybaudet, #baudet, #jesseklaver, #jetten, #mariannethieme, #tunahankuzu	#cdavandaag, #pvv, #social-istischepartij, #pvda, #chris-tenunie, #partijvoordedieren, #50pluspartij, #groenlinks, #fvd, #stempiraat, #voltneder-land, #d66, #degroenen	#duurzaamheid, #klimaat, #klimaatverandering, #immigratie, #migratie, #immigranten, #mh17, #zwartepiet

Figure 5.5   Proportions of most-liked content shared around the 2019 European elections, categorized as junk and not junk

Top 20 most liked posts per hashtag (452 posts in total)

Not junk   ■ Junk

9,98%
41 posts

452 posts

90,02%
411 posts

Amount of junk posts

4,66%
19.308 likes

433.430 likes

95,34%
414.122 likes

Amount of likes
of junk posts

Data source: Instagram Scraper; data collection: 22 May 2019; pie charts

analysis shows that the hashtags related to political parties attracting more divisive content are #pvda and #christenunie, with respectively 27.6% and 25.1% of likes directed to hyperpartisan content. Compared to the dataset around the provincial elections, Geert Wilders (#geertwilders, #wilders) remains the political leader receiving the highest percentage of likes directed to hyperpartisan content (28.4%), followed by Jesse Klaver (#jesseklever) with 13.4%, who instead scored low in terms of junk content in the previous analysis. We did not find traces of hyperpartisan content in the most-liked

Figure 5.6   20 most liked posts per hashtag shared around the 2019 European elections, sorted from right (most junk) to left (least junk) and grouped by type (elections, issues, political leaders, and parties). Posts flagged as hyperpartisan are coloured in red
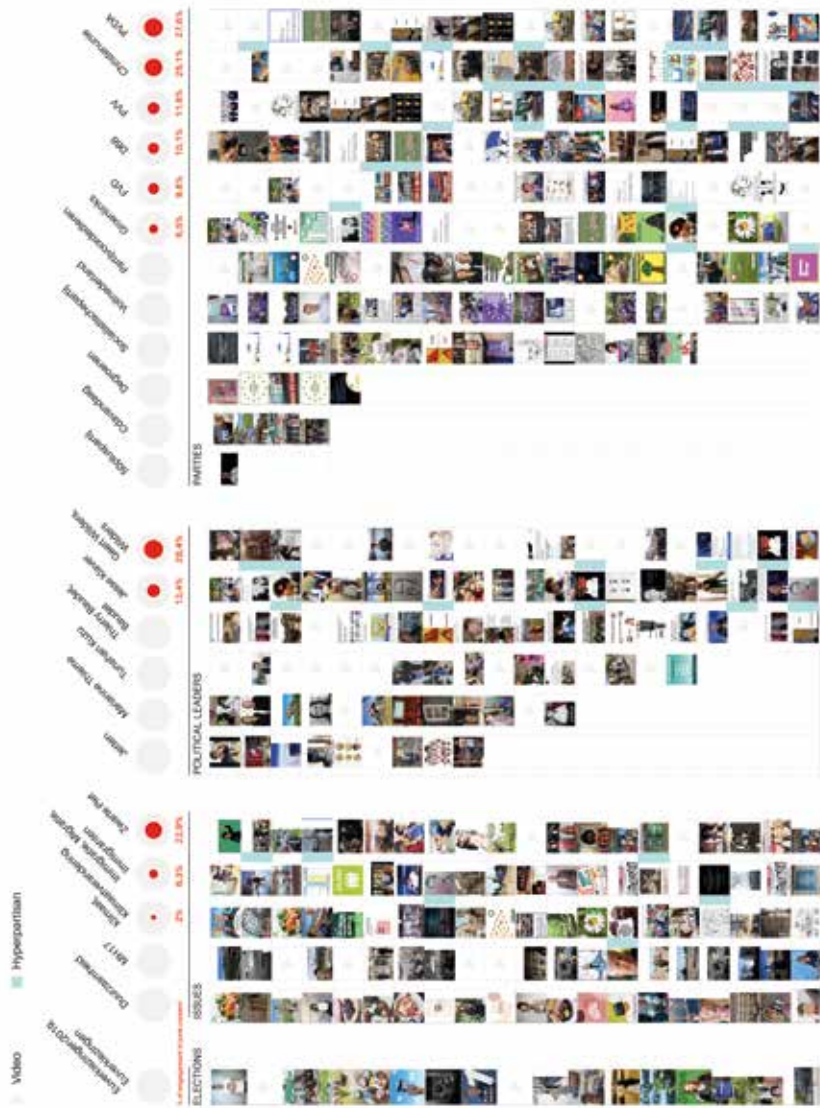
Data source: Instagram Scraper; data collection: 22 May 2019; image wall

posts around other political leaders. As was the case with the hashtags used to refer to the Dutch provincial elections, #EUverkiezingen2019 and #EUverkiezingen are related mainly to invitations to exercise the right to vote. Among the issues under study, #zwartepiet remains the most divisive one, with 22.9% of likes directed to hyperpartisan content.

In general, we did not find evident signs of dubiousness in the most-liked content around the 2019 European elections, except for a few hyperpartisan posts. The finding is aligned with that of the hashtag analysis conducted around the 2019 Dutch provincial elections.

Follower ecologies and the relevance of junk sources

In order to detect the relevance of junk news sources within the Dutch political space on Instagram, and to assess whether and how much junk news sources are becoming mainstream, we studied the overlap between followers of Dutch political entities, mainstream news sites and Dutch-language junk news sites.[5] Specifically, we asked, to what extent are followers of junk news providers shared with those of Dutch political entities?

First, we demarcated the Dutch political space on Instagram, by compiling three lists of profiles: a list of Dutch political parties and their leaders, a list of Dutch mainstream media outlets, and the profiles of Dutch information sources flagged as junk in the expert list (see Appendix 6.2 in Hagen and Jokubauskaite, this volume). We then used the API Instagram Follower Collector by Phantombuster[6] to collect the follower list of each Instagram account, and then, by creating a co-follower network, we looked at the amounts of shared followers between the political entities and the dubious Dutch information sources from the expert list.

In mapping the follower network of the Dutch political space, we found three distinct follower ecologies (see Figure 5.7). First, an ecosystem of followers of mostly established mainstream news organizations, such as the Dutch public broadcasting station, NOS. The follower bases of these news organizations are the largest in the network, which suggests that the Dutch mainstream news providers are still more relevant that those flagged

as junk, at least in terms of follower count. Few sites from the expert list are close to (or part of) the cluster of mainstream news organizations, due to a relatively high number of shared followers. Shared followers among mainstream news organizations and junk news sites may indeed suggest a special affinity among them, or rather be the signal of the mainstreaming of junk news providers.

A second ecosystem is made up of political parties and their youth organizations. The distribution of parties is laid out from left-wing to right-wing parties, whilst still being tightly clustered together. This may suggest that most followers either follow multiple parties on the same side of the political spectrum or follow all political parties regardless of political leaning. What can also be observed is the relative distance of the cluster of political parties to that of news organizations, suggesting that followers of political entities are mostly not shared with those of news organizations.

A third cluster is made up of right-wing political entities, which are far from other political entities, closer to few hyperpartisan or clickbait sites and to few, less established, mainstream news providers. Within this cluster, the account of PVV leader Geert Wilders is surrounded by *GeenStijl*, a tendentious 'shock blog' and PowNed, the public broadcasting station that is an offshoot of *GeenStijl*. The official profile of FvD (Forum for Democracy) and the youth organization of the same party are even more distant and isolated from other parties: they are surrounded by individual political commentators and share a high number of followers with the hyperpartisan news site, *De Dagelijkse Standaard*. This topology may suggest that although these parties and personalities share some followers with those from other sides of the political spectrum, they are mostly on their own and produce content consumed by a unique audience.

Fake followers and artificial engagement

In order to profile the follower base of the previously demarcated Dutch political space, we feed each account[7] (of political entities, but also of mainstream media, and of those from the expert list) in the HypeAuditor tool to check the authenticity of the accounts and look for signs of artificial boosting and fake followers. With HypeAuditor one can profile an Instagram account to determine the authenticity of its follower base. To assess the

---

7   *HypeAuditor* analyzes only accounts with more than 1,000 followers. For this reason, we limited the detection of fakeness to accounts with more than 1,000 followers.

Figure 5.7   **Follower ecologies in the Dutch political space, visualized as a co-follower network and manually annotated. In the network, accounts with higher amounts of shared followers (pink) are placed closer to each other.**
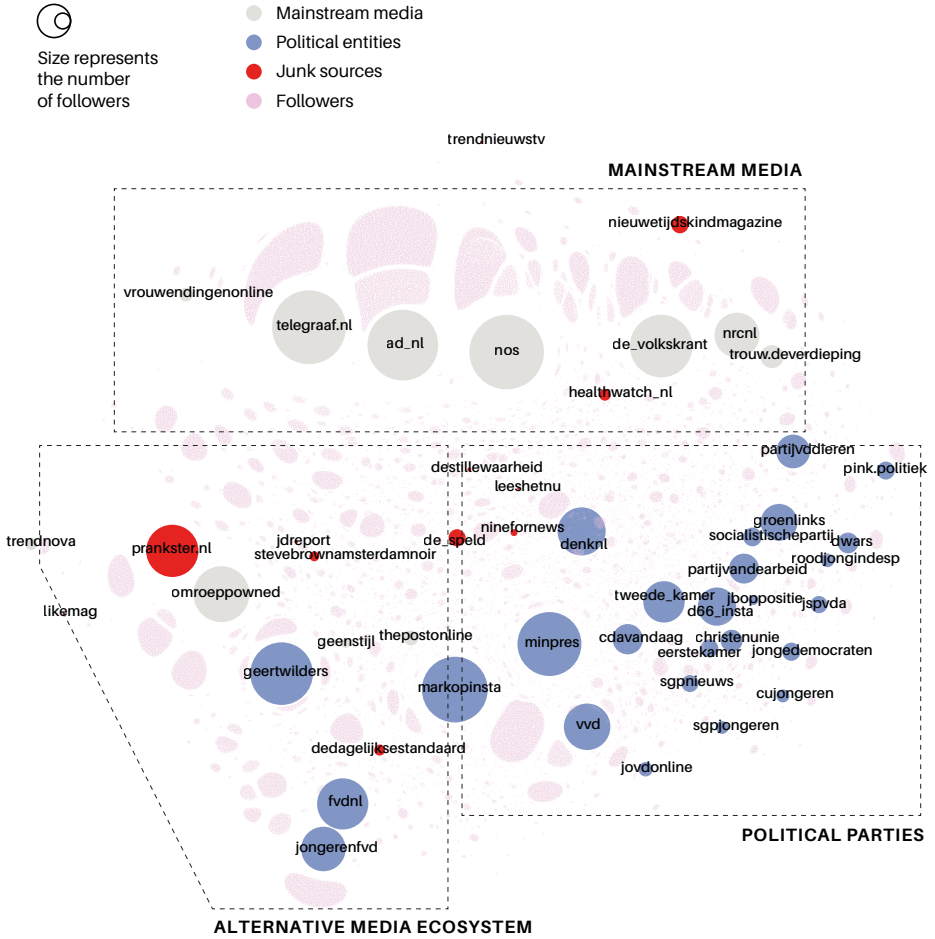
Data source: Phantombuster; data collection: 25-28 March; network graph

extent to which Dutch political accounts are employing artificial engagement tactics, we use reports from HypeAuditor, regarding the percentage of real followers, and their geographical origin.[8] The percentage of fake followers

---

8   According to HypeAuditor, the geographical origin of one follower base is detected by analysing profiles biographies and place names in post captions (twitter.com/hypeauditor/status/1077143110432538624).

Figure 5.8   Degree of account fakeness according to report by the HypeAuditor tool. Accounts on the further right have more suspected 'fake followers' than accounts on the left side of the graphs.

TYPE OF ACCOUNTS

Political entity　　Mainstream media　　Hoaxwijser list　　Clickbait　　Conspiracy　　Satire

NUMBER OF FOLLOWERS

1.000　　70.000　　200.000

parastv

Frankstein

Geert Wilders

Mark Rutte (personal)

businessinsider.nl

panorama.nl   Powned

itpdeipd.nl

volksnieuwsuitamsterdamnoir.com

bnnvara.nl

npo3fm.nl

rtllateright.nl

avrotros.nl

Telegraaf

rtlz.nl

nporadio1.nl

pink.politiek

Alexander Pechtold

Eerstekamer

FvD

rtlboulevard.nl

VVD

Sybrand van Haersma Buma

Mark Rutte

Thierry Baudet

Tweede kamer

CDA

npostart.nl

Groenlinks   D66wars

koffietijd.nl   Denk

jongedegcraten   FvD   Jesse Klaver

Volkskrant   NRC Handelsblad

P66   Klodewijk Asscher

dewerelddraaitdoor bnnvara.nl

NOS

pauw.bnnvara.nl

vpro.nl

decorrespondent.nl

Partij voor de Dieren

groene.nl

Marianne Thieme

jbanda

eenvandaag.avrotros.nl

Trouw

Tunahan Kuzu

D66

SP

niu.nl

evajinek.kro-ncrv.nl

dewerelddraaitdoor bnnvara.nl

Christen-Unie

rd.nl

Gerrijan Segers   Algemeen Dagblad

Nieuwwetijdsind Magazine

SGP

Amount of fake followers (in %, estimated by the HypeAuditor tool)

10%　　20%　　30%　　40%

Data source: HypeAuditor; data collection: 25–28 March 2019; bee swarm plot

Figure 5.9   Visualization of the follower base of Mark Rutte's personal and work accounts and Geert Wilders' account, based on results from the HypeAuditor tool. Each follower base is segmented based on 'audience type' and geographical provenance. Popular suspicious countries, that may suggest an inauthentic follower base, are coloured in red.

Audience type

| Real People | ■ Influencers | ■ Mass Followers | ■ Suspicious Accounts |

Mark Rutte
40.7K followers

13.9%
8.4%
2.3%
76.4%

Mark Rutte (Personal)
49.7K followers

22.8%
14.1%
0.7%
82.4%

Geert Wilders
73K followers

26.7%
11.1%
0.9%
61.3%

Followers main countries

Netherlands	52%	Netherlands	56%	Brazil	36%
Iran	4%	United States	4%	Netherlands	26%
Venezuela	3%	Germany	3%	Turkey	4%
Italy	2%	France	3%	United States	3%
France	2%	United Kingdom	2%	Germany	2%

•popular locations for click and followers farms

Data source: HypeAuditor; data collection: 25-28 March 2019; pie charts

returned by the tool is then used to rank each account from less fake to more fake (see Figure 5.8). Furthermore, we zoomed in on those accounts with a higher percentage of fake followers, to observe their geographical provenance (paying particular attention to suspicious countries), as well as the segmentation of the follower base provided by HypeAuditor, which breaks down followers in 'real people', 'influencers', 'mass followers' and 'suspicious accounts' (see Figure 5.9).

Generally, we found that the majority of profiles do not have a suspicious follower base, with most accounts scoring higher than 70% in the real follower metrics provided by the tool. There are some accounts, however, that are suspect of having a fake follower base. For instance, the media entity PowNed has 32.6% of suspicious followers. The clickbait site Prankster also scores relatively high in terms of fake following. Within the group of political entities, the personal account of Mark Rutte and the account of Geert Wilders have the highest number of suspicious followers. Strikingly, the 'work' account of the prime minister, Mark Rutte, has a lower percentage

of fake followers than that of his personal account. On the other hand, the account for the political party, Christenunie, has hardly any suspicious followers, just as the SGP (Reformed Political Party) and that of the minister Gert-Jan Segers.

When we look closer to the nationality of the follower bases, we found no suspicious results, with most of the accounts followed by users based in The Netherlands. For both of Mark Rutte's accounts, the followers are mostly based in the Netherlands. On the contrary, Geert Wilders account has 36% of his followers from Brazil. This raises some questions regarding the legitimacy of Geert Wilders' follower base, for Brazil is often mentioned as one location that can signal the presence of fake followers (Maheshwari, 2018).

In all the follower analysis does not show an organized effort of artificial boosting within the Dutch political Instagram sphere, and it indicates, with the exception of Geert Wilders, a rather authentic follower base.

Conclusions: Findings and limitations

The goal of the present research is to detect the scope of junk news and the degree of artificial amplification in the Dutch political Instagram sphere. More generally, it can be considered an attempt at applying to the Dutch context the argument in the New Knowledge report (2018) that Instagram performs well in terms of junk content circulation and artificial amplification strategies. It also takes up the invitation from the *NRC Handelsblad* study to inquire into other platforms than Facebook and Twitter for disinformation campaigning and computational propaganda.

The presence of dubious content (or lack of thereof) has been studied on three levels: at the story level (by looking at the circulation of junk content in high-engagement political spaces on Instagram); at the source level (by looking at the intersection between the follower bases of Dutch political entities and that of news sources flagged as junk); and through the detection of artificial engagement tactics, specifically fake followers, among the profiles of Dutch political entities as well as Dutch information sources.

In general, we found a rather healthy political space. Most liked content in the Dutch political space proved to be junk to a very small degree, although we found a small amount of hyperpartisan and polarizing content centred around more divisive figures and issues in the 2019 Dutch provincial and European elections. With respect to the alignment of the audience of Dutch political parties with that of (mainstream or junk) news providers, we found

mainstream news organizations to be still more relevant in this political space, somehow confirming the argument that in the Netherlands 'the vast majority of news consumption remains of the mainstream sources' (Rogers and Niederer 2019, this volume). Furthermore, the analysis of the follower base of Dutch political entities (and that of news sites, both mainstream and junk) revealed an apparent authentic audience with almost no signs of artificial engagement.

Within a relatively healthy political spectrum, it is at the extremes that junk sources and artificial amplification surface. With the current research we have pointed out a special affinity between right-wing political entities and some information sources that may be defined as junk (or at least hyperpartisan). Furthermore, the few indications of artificial engagement we have found are located at the far end of the political spectrum, with Geert Wilders' account being the most suspected of inauthentic activity.

In the co-follower analysis, we found that extreme political entities to have a unique follower base, not shared with other parties or mainstream news sites. Right-wing political entities are also relatively closer (in terms of shared followers) to suspicious sources (a few of them flagged by the expert list). Above all, Geert Wilders' account is the closest (according to shared followers) to hyperpartisan news sources. Relatedly, Geert Wilders' account is the only one of those under study that may reveal signs of artificial engagement, as suggested by a geographically dubious follower base. This finding resonates with the 2015 scandal about a suspicious increase of the follower count of Geert Wilders' Twitter profile. In addition, the already mentioned comparative study of social media manipulation strategies by the Oxford Internet Institute (Bradshaw and Howard, 2018) also refers to Geert Wilders as making use of various artificial boosting strategies in The Netherlands, reporting on an analysis by a social media analytics firm that in February 2016 found 26 fake accounts amplifying the #geertwilders hashtag on Twitter.

The determination of the relative absence of junk content, dubious sources and fake followers in the scope of the current research has a series of methodological limitations. First, in the search for junk news in the shared contents, we collected data based on a limited list of hashtags related to Dutch politicians and controversial topics. One could repeat the analysis to include other politically charged issues. Furthermore, we have considered only the top 20 most-liked posts per hashtag, whereas we could have also counted the number of comments per posts to analyze most engaged-with content. Moreover, we could have included in the analysis a larger set of

posts that do not necessarily make it to the top (because they receive fewer likes, or have fewer comments), in order to evaluate the presence of junk news in less engaged-with spaces. In addition, given that for data collection we made use of the DMI *Instagram Scraper*, which 'scrapes Instagram to retrieve posts' (Digital Methods Initiative, 2019), this research is dependent on the limits of such scraping, including Instagram's rate limits which are not documented and unknown security challenges (Instaloader, 2019). It is also not a platform that invites research through scraping. As others have pointed out, social media platforms are designed to increase a platform's commercial value, rather than to meet researchers' needs (Borra and Rieder, 2014). To overcome the limitations, one could use additional tools for data collection and compile a richer data set.

Secondly, we established the fakeness in the Dutch political follower base using the metrics provided by a single tool (HypeAuditor). We could have compared the results with those by other similar services (and audited the auditors, so to speak). Moreover, we searched for signs of inflated engagement in the Dutch political space only by looking at followers' demographics, while we could have paid attention to other signals such as patterns of repetition in posts comments. For example, to account for other tactics of artificial engagement on Instagram, one could perform a co-hashtag analysis[9] in a demarcated issue space, and detect signs of (semi-automatic) boosting, such as the use of long list of popular unrelated hashtags, deliberately added in the post captions to increase content visibility.[10] Moreover, one could trace back the users involved in this activity and profile them in order to evaluate their authenticity.

---

9   In addition to the most recent lists of posts, the *Instagram Scraper* tool returns a network of hashtag co-occurrences, that is, a file that contains the hashtags used at least once together with the hashtag under study. For each pair of hashtags, the tool returns a numeric value representing the total number of posts in which the two hashtags appear together in the data set. A similar approach is largely used for empirical research on Twitter: with co-hashtag analysis one can gain a sense of the relationship between subtopics in a conversation (Borra and Rieder, 2014); or find additional and/or more 'significant hashtags' (Rogers, 2017) to be queried to expand a corpus of data; or spot hashtags practices aimed at enhancing the visibility of particular content (Wang et al. 2016), or overturning its original meaning through hashtag hijacking practices (Berg, 2017).

10   Unlike Twitter, which has a character limit of 280 characters, Instagram's character limit is 2,200 characters, and users can include up to 30 hashtags in the caption and comment sections of the post. This results in certain users adding blocks of more or less related hashtags to the posts to enhance their visibility. Even if Instagram is applying countermeasures to block the use of certain hashtags (Drewe, 2016), there are several websites that provide lists of safe and popular hashtags that users can copy paste directly in their posts (for example, tagblender.net).

References

Berg, Kati Tusinski (2017). 'Social Media, Hashtag Hijacking, and the Evolution of an Activist Group Strategy.' in *Social media and crisis communication*, edited by Lucinda Austin and Yan Jin. Routledge, pp. 141-156

Bradshaw, Samantha and Phillip N. Howard (2018) 'Challenging Truth and Trust: A Global Inventory of Organized Social Media Manipulation', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute.

Borra, Erik and Bernard Rieder (2014). 'Programmed method: developing a toolset for capturing and analyzing tweets'. *Aslib Journal of Information Management*, 66(3), 262-278.

Digital Methods Initiative (2015) Instagram scraper. Available at: https://wiki.digitalmethods.net/Dmi/ToolInstagramScraper. [Accessed 22 April 2019].

Drewe, Nick (2016) 'The Hilarious List Of Hashtags Instagram Won't Let You Search', *The Data Pack*, 10 May. http://thedatapack.com/banned-instagram-hashtags-update/

Feldman, Brian (2017) 'In Russia, You Can Buy Instagram Likes From a Vending Machine', N*ew York Magazine*, 8 June.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August.

Instaloader (2019) Instaloader software, version 4.2.5, GitHub project, https://instaloader.github.io/.

Jack, Caroline (2017) *Lexicon of Lies: Terms for Problematic Information* New York: Data & Society Research Institute.

Kist, Reinier and Rik Wassens (2018) 'Russisch trollenleger ook actief in Nederland', *NRC Handelsblad*, 15 July.

Komok, Anna (2018) 'How to Check Instagram Account for Fake Followers', *HypeAuditor*, 6 July. https://hypeauditor.com/blog/how-to-check-instagram-account-for-fake-followers/

Lorenz, Taylor (2014) 'Instagram Rapture Claims Millions Of Celebrity Instagram Followers', *Business Insider*, 18 December.

Lorenz, Taylor (2018) 'Instagram's Christmas Crackdown. No meme account is safe – not even @God', *The Atlantic*, 27 December.

Maheshwari, Sapna (2018) 'Uncovering Instagram Bots With a New Kind of Detective Work', *The New York Times*, 12 March.

Matsakis, Louise (2017) 'This Russian Vending Machine Will Sell You Fake Instagram Likes', *Motherboard Vice*, 7 June.

New Knowledge (2018) 'The Tactics & Tropes of the Internet Research Agency', White Paper, Austin, TX: New Knowledge.

Romero, Jessica (2019) 'Preventing Inauthentic Behavior on Instagram', *Facebook Newsroom*, 25 April. https://newsroom.fb.com/news/2019/04/preventing-inauthentic-behavior-on-instagram/

Rogers, Richard (2013) *Digital Methods*. Cambridge, MA: MIT Press

Rogers, Richard (2017) 'Foundations of digital methods: Query design' in *The Datafied Society. Studying Culture through Data,* edited by Mirko Tobias Schäfer and Karin Van Es. Amsterdam University Press, pp. 75-94

Rogers, Richard and Sabine Niederer (2019) *The Politics of Social Media Manipulation*, The Hague: Ministry of Internal Affairs.

Sommer, Will (2018) 'Instagram Is the Alt-Right's New Favorite Haven', *The Daily Beast*, 30 October.

Tan, Yvette (2017) 'There's a vending machine selling fake Instagram likes, because this is what we've become', *Mashable*, 7 June.

van der Noordaa, Robert and Coen van de Ven (2018a) 'Hoe Russische trollen inspelen op westerse angsten', *De Groene Amsterdammer*, 28 August.

van der Noordaa, Robert and Coen van de Ven (2018b) '3 miljoen "trollentweets" onderzocht: hoe Rusland via sociale media ook in België verdeeldheid zaait', *Knack*, 27 November.

Wang, Rong, Wenlin Liu, and Shuyang Gao (2016) 'Hashtags and information virality in networked social movement: Examining hashtag co-occurrence patterns.' *Online Information Review* 40(7): 850-866.

About the authors

GABRIELE COLOMBO is a design researcher. In 2018 he completed his Ph.D. research at Politecnico di Milano. His research and teaching activities revolve around the design of visual tools in support of digital social research, focusing on the design of novel strategies for the analysis of collections of images and videos.

CARLO DE GAETANO is a designer and researcher with the Visual Methodologies Collective, Amsterdam University of Applied Sciences. He focuses on data visualization for social and cultural research. Carlo is interested in speculative methods with machine learning, images as data and the mapping of social issues.

6   Dutch junk news on Reddit and 4chan/pol

Sal Hagen and Emilija Jokubauskaitė[1]

Abstract

This chapter investigates the presence of junk news on Reddit and 4chan's /pol/ subforum, spaces often described as "alternative" owing to their lower user numbers and subcultural ethos compared to the likes of Facebook. We first delineate Dutch spheres within the two spaces over multiple years, finding a rising number of posts within Reddit's Dutch sphere and a stagnant yet non-negligible number of Dutch posters on 4chan/pol/. We then categorise and analyse what URLs are shared to gauge the presence of junk news domains. We find that Reddit seems fairly resilient against the presence of disinformation or other forms of junk news, save for the appearance of some hyperpartisan sources and incidental malicious users. 4chan/pol/ shows a somewhat more problematic situation, returning a larger presence of (foreign) junk news sources.

Keywords: Reddit, 4chan/pol/, junk news, alternative media, digital methods

Introduction: The understudied, deep vernacular Web

Recent debates on online fake news and disinformation have largely been discussed with respect to the social media behemoths in the context of a 'platformized' internet ecosystem (Helmond, 2015), with Facebook, Twitter, Instagram and YouTube in the spotlight. It is not without reason; given their gigantic user bases, open publishing and micro-targeting, they are vulnerable

---

1   The research team includes Lucie Chateau, Gabriele Colombo, Ognjan Denkovski, Carmen Ferri and Holly Foxton.

---

to disinformation campaigns and dubious information, not so unlike the Web itself. Regardless, they do not exist in a vacuum. On the fringes of the Web, yet difficult to characterize as marginal, are pseudonymous or anonymous platforms like Reddit and 4chan. Instead of public-facing 'e-celebs' or otherwise identifiable accounts, these spaces are characterized by 'masked' users with distinctive subcultural styles, vernaculars and iconographies. The pseudonymous and anonymous users on Reddit and 4chan do not only congregate around shared interests or common goals, but also – and in some cases predominantly – around a deep understanding of shared subcultural knowledge and norms. The unconventional and sometimes downright esoteric cultural productions some of these groups create feed into community members' self-imagination as 'underground', 'countercultural', or 'internet native'. 4chan and (parts of) Reddit can be associated with the term 'deep vernacular Web' (Tuters and De Zeeuw, 2019), referring to online discussion forums that lack stable user identities and whose masked participants frequently transgress the boundaries of 'mainstream' conventions, often through an entangled mix of sincere ideology and ironic play.

While Facebook, Twitter, Instagram and YouTube have already been studied in relation to issues of 'fake news', the abovementioned 'virality-oriented subcultures' of the deep vernacular Web are also said to play a 'crucial role in the system' of the circulation of various types of 'junk news' (Venturini, 2019). 4chan and certain parts of Reddit have indeed been characterized as hotbeds for disinformation (Shiebel, 2017; Collins and Russell, 2018; Lagorio-Shafkin, 2018), trolling campaigns (Phillips, 2015), and conspiracy theories (Marwick and Lewis, 2017; Tuters et al., 2018). Despite their relatively marginal number compared to more mainstream platforms, users of 4chan and areas of Reddit are considered particularly skilled in 'setting the agenda' of broader news media (Phillips, 2018). In a 2017 report, Marwick and Lewis highlight how an underground current of Internet subcultures associated with 4chan and Reddit 'take advantage of the current media ecosystem to manipulate news frames, set agendas, and propagate ideas' (Phillips, 2018: 1). Later, Phillips builds on this research by exploring how and why the false narratives of these online antagonists were amplified by major U.S. news outlets (2018). As she identifies, journalists were keen on reporting the narratives with false information or dark undertones partly because of a fascination with their bizarre cultural phenomena or simply due to a lack of time required to decipher their problematic code language. The reporting, she argues, 'amplifies' their overall presence. By 2019, there are now well-known by-products of this cycle of the normalization of false content emerging from fringe online spaces. To provide but one example, the 'Pizzagate' conspiracy theory, originating on 4chan, presumed the Clintons

were maintaining a child sex trafficking ring, which led to media coverage and an actual shooting in a US pizza parlour (Tokmetzis, 2018; Tuters et al., 2018). A related conspiracy theory, 'QAnon', gradually spread from 4chan to Reddit and mainstream news sources (Hagen et al., 2019), even sprouting international support groups including 'QAnon Nederland' (QAnon Netherlands).

The influence of fringe internet subcultures on the news ecosystem has mostly been scrutinized in relation to English-language spheres and U.S. politics. As such, it remains unclear to what extent the propagation of problematic content from the 'deep vernacular Web' affects other news ecosystems such as the Dutch. Such activity already has caught the attention of Dutch media outlets. For example, the QAnon conspiracy was covered by major outlets like *RTL Nieuws* (2018) and *Algemeen Dagblad* (Van Huet, 2018), while *De Correspondent* untangled the related Pizzagate conspiracy in some depth (Tokmetzis, 2018). *De Volkskrant* discussed Dutch users active in the far-right 'politically incorrect' subforum of 4chan, /pol/, by observing an increasing prevalence of anti-Semitic conspiracies (Kranenberg and Bahara, 2018). In a broader sense, conspiratorial rhetoric native to the deep vernacular Web seems to be normalizing in the Dutch political and media discourse at large. For instance, the concept of 'cultural Marxism' has increasingly appeared in Dutch news media (Van den Bos, 2018). It concerns a theory assuming a Marxist and/ or Jewish network pulling the strings of European institutions – a narrative particularly popular on 4chan/pol/. Dutch politicians have subsequently flirted with such sweeping theories. For instance, the party Forum voor Democratie tweeted that Mark Rutte was a puppet of the Jewish philanthropist George Soros,[2] while the party's leader Thierry Baudet supported the most conspiratorial aspects of the 'cultuurmarxisme' debate, tweeting that the European Union is 'a cultural Marxist project aiming to destroy European civilization'.[3] NOS, the public broadcaster, subsequently published an article framing George Soros as an 'influential meddler with tentacles deep in world politics',[4] which was later withdrawn after heavy criticism pointing out the

2   The original Dutch tweet by Forum voor Democratie notes: '@MinPres [i.e. Mark Rutte] draait er niet eens meer omheen: De belangen van NDO's (lees: Soros) gaan boven het beleid van de democratisch gekozen regering van #Hongarije. Hoogste tijd dat deze loopjongen van het grootkapitaal nu van het toneel verdwijnt. Reken af met #Rutte op 20 maart! Stem #FVD' (@fvdemocratie, 14 Sep. 2018).

3   The original Dutch tweet by Baudet noted: 'Omdat de Europese Unie een cultuurmarxistisch project is dat tot doel heeft de vernietiging van de Europese beschaving' (@thierrybaudet, 19 Aug. 2017).

4   In their original article, *NOS* used the title 'George Soros: invloedrijke bemoeial met tentakels ver in de wereldpolitiek' and noted: 'De jood Soros steunt organisaties die regeringen openlijk bekritiseren [...]. Dat moet stoppen, zeggen tegenstanders' (Peek 2018).

framing's commonalities with anti-Semitic rhetoric (Peek, 2018). While direct ties between such mainstream attention and fringe internet platform rhetoric are not to be drawn, each incident in its own right could be situated in the aforementioned dynamics of amplification in a Dutch context.

The falsehoods cooked up on the deep vernacular Web are hard to grasp through the concepts of 'disinformation' or 'fake news', since their 'fakeness' is broader than deliberately coordinated campaigns or clearly false information. Rather, they speak to what Muirhead and Rosenblum (2019) call a 'new conspiracism', whereby sweeping accusations are made independent of evidence or coherent explanations, and complex phenomena are 'explained' through 'conspiracy without theory'. Such conspiracism is said to be dangerous since it delegitimizes the knowledge-making institutions at the foundations of democratic societies (Muirhead and Rosenblum, 2019). Importantly, this conspiracism can be fuelled by or work alongside a mix of foreign interferers, sincere believers and hyperpartisan actors.

To understand these broad range of actors and interests that stimulate the emergence of problematic information, the concept of 'junk news' (or 'pulpnieuws') is more apt. Junk news shifts the focus from clear and coordinated falsehoods towards a broader notion of news crafted to be engaged with and to circulate, which, in turn, stimulates polarizing or 'simple' information that 'saturates public debate' (Venturini, 2019). Junk news thereby forms an umbrella term for conspiracies, hyperpartisan slander, 'ironic' false-hoods, low-effort clickbait articles, as well as deliberate disinformation. The circulation of these types of junk news has a plethora of reasons, but as noted 'tightly-knit communities' (Zannettou, 2017) and 'virality-oriented' subcultures creating and engaging with this highly 'shareable' content are said to be a crucial factor in their effectiveness (Venturini, 2019).

Much has been said about the grassroots production of false narratives *within* spaces like Reddit and 4chan (Marwick and Lewis, 2017; Phillips, 2018; Tuters et al., 2018; Benkler et al., 2018). However, a more elementary question is usually left untouched: what kinds of news sources do these actors rely on themselves? Zannettou et al. (2017) found that '"fringe" communities often succeed in spreading alternative news to mainstream social networks and the greater Web' (1), employing a statistical model (Hawkes process) that indicated that fairly marginal spaces like Reddit's pro-Trump subforum r/The_Donald and 4chan's /pol/ board are often first to post a URL to alter-native news, only later catching attention on Twitter. They furthermore traced which alternative sources were shared on Reddit, 4chan, and Twitter, showing that alternative news was shared more often on 4chan/pol/ and

select subreddits than on Twitter, noting the popular use of breitbart.com, rt.com, infowars.com, and sputniknews.com across the three platforms.

What about junk news in a Dutch context? Is there a Dutch alternative 'junk news' network within the deep vernacular web, or do these platforms mostly rely on mainstream sources? If found, how vast is the presence of Dutch junk news in these spaces? In identifying linked-to websites, can signs of coordinated disinformation campaigns be discerned? Or are the types of junk news shared mostly hyperpartisan, clickbait, or some other 'junk' category? These questions are of interest when applied to fringe and 'extreme' spaces like 4chan/pol/ but can also aid in positioning more widely used yet still largely 'alternative' spaces, like the largest Dutch subreddit, r/thenetherlands. The research reported here thereby begins with the question, where does Dutch junk news appear (if at all) on Reddit and 4chan/pol/? Subsequently, it asks, what kinds of junk news resonate? It concludes with a brief section on YouTube as a possible alternative news network by following the links to Google's video platform.

Demarcating the Dutch spaces and Dutch junk news in the deep vernacular Web

Case studies: Reddit and 4chan

For Dutch cases of virality-oriented subcultures, we focus on Reddit and 4chan/pol/. Although less known than the likes of Twitter, Facebook, Instagram and YouTube, Reddit is one of the largest discussion sites globally, with Alexa metrics currently showing 234 million unique visitors per month. The platform is divided into different subreddits dedicated to the discussion of specific topics, such as r/tennis or r/politics. Posts on these subreddits can be 'upvoted' or 'downvoted' by users. The higher the post's score (upvotes minus downvotes), the higher it is placed in a ranked list of content and the more visibility it gains. In the comment section underneath every post, 'redditors' discuss, debate, or simply joke around. Reddit's Dutch user base seems to be growing (as is shown below), with the largest Dutch subreddit r/thenetherlands amounting to 236,000 'subscribers' at the time of writing. Its growing popularity makes it an increasingly important object of study in a Dutch context. This is heightened by the fact that Reddit has been identified as a target of multiple Russian disinformation campaigns, with 'at least a hundred' IRA accounts influencing the 2016 U.S. elections and campaigns continuing into late 2018 (Collins and Russel, 2018; Lagorio-Shafkin, 2018). Exploring whether such campaigns have also transpired within Dutch spheres of Reddit is thus part of the objective of this research.

The second case study is 4chan, an infamous imageboard where users post anonymously within one of its subforums (called boards) dedicated to different topics like videogames or fitness. 4chan is ephemeral, meaning posts are deleted from the site after a few days or even hours. It is a visual environment conducive to the production of viral content and generation of junk news (Venturini, 2019). The space's creativity extends beyond the generation of alternative theories, as 4chan is also infamous as the 'birthplace of internet memes', as well as a hotbed for nebulous political movements. The latter include 'Anonymous', the loose 'masked' collective of geeks and hackers infamous for trolling and DDoSing the likes of the Church of Scientology and MasterCard (Coleman, 2014), as well as more recently the 'alt-right', once characterized as an 'amalgam of conspiracy theorists, techno-libertarians, white nationalists, Men's Rights advocates, trolls, anti-feminists, anti-immigration activists, and bored young people' (Marwick and Lewis, 2017: 3) but now arguably pertaining to the extreme side of those far-right actors. For this research, we chose to focus squarely on 4chan's politics board, /pol/. This is the most relevant board in relation to the research questions, for it is currently among the most active boards on the website[5] and is a fertile ground for conspiracy theories (Tuters et al., 2018) and alternative news sources (Zannettou, 2017). 4chan/pol/ is a far-right space, identified as a recruitment zone for neo-Nazis (Wendling, 2018) and connected to various acts of extreme violence (Hankes and Amend, 2018). This partisanship naturally affects the types of news shared on this platform. For balance, other partisan areas of the deep vernacular Web were also considered (e.g., 8chan/leftypol/) but were ultimately found too insignificant in terms of Dutch activity.

Tools and timeframe

In contrast to mainstream platforms like Facebook and Twitter, data from Reddit and 4chan are rather accessible. For most of the data collection, we used 4CAT (Peeters and Hagen, 2018), a tool developed by the Digital Methods Initiative that captures data from a variety of sources, including 4chan/pol/ since November 2013. For Reddit, 4CAT makes use of the Pushshift API, which allows access to an archive of nearly all Reddit posts and comments (Baumgartner, 2018).

We chose a timeframe from 1 December 2015 up to 1 June 2019, spanning 4 1/2 years in total. Whereas most other studies in this volume present

---

5   At the time of writing, the website 4stats.io, which tracks activity on each 4chan board, lists /pol/ and /v/ (video games) as the most active boards, with almost 50 posts per minute and 120 thousand posts per day (taking the last 4 weeks as a benchmark). These numbers are supported by metrics from our own tools (Peeters and Hagen, 2018).

Figure 6.1   The frontpage of Reddit (retrieved 11 June 2019)

Figure 6.2   The index page of 4chan/pol/ (retrieved 11 June 2019)

timeframes based on specific events, this long-term timeframe is more suitable here for multiple reasons. Firstly, as we will show, the activity in relation to junk news posting on these platforms was shown to be fairly marginal in comparison to more mainstream social media websites. A larger timeframe thereby aids to arrive at patterns in this relatively small stream of data. Secondly, to the best of our knowledge, it is the first time the presence of questionable *Dutch* news is researched on these platforms, so it makes sense to start with a high-level perspective on the object of study instead of limiting it to a particular case. Moreover, this timeframe includes a variety of major political events in the Netherlands, including the general elections in 2017 and more recently the provincial and European parliamentary elections in 2019.

Analyses: Haystack to needle and needle to haystack

As the research focuses on the presence of junk news *linked to* on Reddit and 4chan/pol/, it takes URLs as the primary research objects. To provide an overview of the types of news linked to, we decided to focus on domain names (sources) instead of links to individual articles (stories). To identify and categorize domains, we used two related approaches, referred to metaphorically as 'haystack to needle' and 'needle to haystack'. The haystack to needle approach denotes a macro to micro inquiry where *all* domains posted were categorized in order to subsequently identify the presence of Dutch junk news within this larger pool of data. The needle to haystack does the reverse and starts from an expert list of Dutch junk news domains[6] and subsequently enquires into when and where these sources appear, and, for Reddit, what kinds of users post them. The next two subsections describe these approaches in more depth.

Haystack to Needle

The *haystack to needle* approach moves from a high-level overview to the categorization of particular linked-to domains, specifically by parsing (1) news from non-news, (2) Dutch news from non-Dutch news, and (3) types of junk news (mainstream/junk and types of junk). To do so, a Dutch sphere first had to be defined for Reddit and 4chan/pol/ from which an initial list of domains could be extracted. For Reddit, the full dataset of opening posts

6   The expert list is comprised of an original list by *De Hoax-Wijzer*, edited to remove inactive sources, with additional sites added through qualitative analysis by University of Amsterdam researchers.

was filtered for a list of Dutch subreddits (thus excluding comments; the most 'authoritative' and visible URLs are usually in opening posts). The relevant subreddits were compiled from a set of 'related communities' posted by administrators of r/thenetherlands[7] and supplemented through querying Dutch issues on Reddit. This resulted in a final collection of 182 subreddits (see Appendix 6.1). Not all of these subreddits were equally of interest, but we nonetheless kept the full list considering our bird's-eye approach. On 4chan/pol/, all posts show a flag icon indicating the location of the IP address of the poster. To identify a Dutch sphere on /pol/, all posts with a country flag of the Netherlands were extracted. It is important to note that this only results in a partial sample of Dutch posters, since users can also choose to display a custom flag (like 'Hippie') instead of one based on geolocation, or they can spoof their IP addresses. In all, the dataset collected consists of over 2 million posts with Dutch country flags, forming a large enough sample to gauge the presence of Dutch junk news using the *haystack to needle* approach.

Having demarcated Dutch spheres on Reddit and 4chan/pol/, domains from URLs posted were extracted from all posts. For Reddit, this resulted in 3,489 unique domains. To make categorization manageable, only the domains that were posted five times or more were retained. This resulted in a list of 372 domains. Similarly, domain names from the Dutch 4chan/pol/ posts were extracted using 4CAT, yielding 8,048 domains.[8] To arrive at a comparative sample, we kept the domains that were posted twenty times or more, resulting in 352 unique domains.

The two lists were then categorized according to (1) whether the domains were news websites, (2) whether the news websites were in the Dutch language or concerned Dutch affairs, and (3) the category of news websites they would fall in. 'News websites' here refer to a fairly broad selection of websites focusing on the production of news and opinionated columns which contain a section dedicated to timely updates. They include blogs on current affairs, special interest news, and websites of TV news programmes. Thereafter, the news sources were categorized as follows:
– Mainstream: Reporting by 'established' general news outlets with a predominantly neutral tone of voice.
– Other mainstream: All other mainstream news websites concerning special interests, such as business or sports news.

7   See: https://www.reddit.com/r/theNetherlands/wiki/related. Accessed 25 March 2019
8   This is a higher number than for Reddit because for 4chan, not only the first posts in a thread were kept, but also the replies, matching 4chan's infrastructure of more 'horizontal' conversational threads.

– Disinformation: Sources deliberately publishing false information, often with harmful intention, and part of a network or campaign.
– Hyperpartisan: Extremely coloured and 'openly ideological' reporting and editorializing from a far end of the political spectrum (Herrman 2016).
– Clickbait: Sources consisting mainly of articles with sensational headlines and gossip, often in the form of cliff-hangers and listicles, with a financial incentive to gain advertising revenue.
– Conspiracy: Sources mainly dedicated to propagating a range of explanations to events behind which are secret plots and multiple actor entanglements.

Three researchers categorized the domains, discussed the debatable cases with other researchers in this volume for higher intercoder reliability, and used external sources like mediabiasfactcheck.com. Mostly, these discussions were held for websites that could be categorized with multiple labels or that fall between hyperpartisan and mainstream such as tendentious ones (Peeters and Rogers, this volume). A caveat to this method is that categorizing websites on a source instead of story level results in stories being labelled, for example, as 'hyperpartisan', even though the categorization would differ on a story-by-story basis. Websites like *The Post Online*, for instance, contain stories from press agencies as well as tendentious and hyperpartisan ones. Despite this, the rigorous domain categorization did allow preliminary overviews, which is why it was fitting for the 'bird's-eye' perspective of this research. In the *haystack to needle* approach, we kept and categorized the non-Dutch news sources, since they made up a sizable percentage of posts, especially on 4chan. Considering these are largely Dutch users, it is worth understanding what foreign sites they circulate. To show the different categorizations (news or non-news, Dutch or non-Dutch, types of news), they were visualized in treemap diagrams using the software RAWGraphs (Mauri et al., 2017).

Needle to Haystack

Next, the *needle to haystack* approach was used to analyze the prevalence of Dutch junk news in the entirety of Reddit and 4chan/pol/, now by starting with a list of URLs that were already identified as questionable. This list was constructed by combining an edited list by *De Hoax-Wijzer* ('Valse Nieuwssites', n.d.) with websites found through engagement analysis by researchers in this volume (see Appendix 6.2). The list refers to Dutch domains known to present news of questionable validity, with an overwhelming partisan

tone but also occasionally showing traits of conspiracism. The list was coded by the researchers who compiled it and contains the categories hyperpartisan, clickbait, conspiracy, and disinformation.[9] We fetched all the posts containing these domains with 4CAT, resulting in 1714 posts on Reddit and 443 on 4chan/pol/.

We then 'scoped' how often junk news appears over time, plotting it as histograms. To compare these junk posts to *all* of Reddit, Google BigQuery was used. The total number of posts within subreddits where at least one Dutch junk domain appears was fetched to calculate the relative presence of junk news. Additionally, the 'size' of the Dutch Reddit sphere and the entirety of Reddit was retrieved through fetching the total number of posts on Dutch subreddits and on Reddit overall. The data was mapped as circle-pack diagrams with RAWGraphs. For 4chan/pol/, we used 4CAT to fetch all posts (both opening posts and replies) mentioning one of the domain names from the expert list in the *full* timeframe. In order to identify temporal trends, the amount of posts with Dutch junk domains was plotted per month as histograms.

Characterizing junk news propagation on Reddit

Finally, to characterize the kinds of actors propagating Dutch junk news and the effectiveness of their activities, various metrics were calculated for (further anonymized) junk news posters on Reddit. A similar analysis was impossible for 4chan/pol/ owing to the imageboard's anonymity and lack of 'repurposable' objects to shine light on the posters. Taking the *needle to haystack* approach, 4CAT and the Pushshift API were used to retrieve all posts by Reddit accounts who posted a source from the expert list at least *twice*. The retrieved users were considered 'junk news propagators' for the purposes of this research. The following metrics were calculated for the total corpus as well as for individual users:

– Subreddits most posted often in.
– Average score of all posts as indicated by the Pushshift API.[10]
– Average score of posts referring to Dutch junk news domain as indicated by the Pushshift API.

9 It also has the category tendentious-hyperpartisan, which seeks to capture sources like *The Post Online* that have stories from press agencies as well as hyperpartisan columns and other contributions that could be described as 'edgy', anti-establishment and against political correctness (Tuters, this volume).

10 These scores might slightly differ from their latest number; Pushshift stores it only once, i.e., upon encountering the post.

- Most linked-to domains.
- Total posts with domains to Dutch junk domains.
- Percentage of posts linking to Dutch junk domains.
- Total posts by user.

The Reddit users' pseudonyms were (further) anonymized, since not the identity but rather the characteristics of the users is of importance here. The first four metrics in the list above were plotted for the whole corpus in histograms and circle diagrams, while all metrics were also visualized in a matrix for the ten most active Dutch junk news posters, i.e., those who linked to the domains from the expert list most often.

Following and categorizing YouTube links

YouTube emerged as one of the most popular websites linked to on 'Dutch Reddit' and 'Dutch 4chan/pol/'. Since the video platform is often described as offering alternative news consumption, we also followed the links to YouTube videos in all posts in Dutch subreddits and 4chan/pol/ posts with a country flag of the Netherlands. Having collected these links, we used 4CAT's 'YouTube metadata' module (in turn using YouTube's API) to retrieve metadata on the videos linked to, such as video title, views, and topics. We then plotted the thumbnails of the 1008[11] videos that were linked to most often on image walls with a custom Python script. To visualize what types of videos these concerned, we plotted YouTube's 'video categories' (selected by the uploaders) on top of the image wall. We finally ranked the most-linked to YouTube channels, derived from the full list of videos linked to on 4chan and Reddit, to gain a grasp of the type of video content posted.

Scoping Dutch junk news

This section explores the scope of Dutch junk news on both platforms under study. We do so by showing the volume of posts linking to one of the URLs in the expert list (i.e., the needle to haystack approach). These are then compared to the overall volume of (Dutch) posts on Reddit and 4chan/pol/.

---

11   We settled on the peculiar number of 1008 since it would make the image wall adhere to the common 18:9 screen aspect ratio.

Figure 6.3   Total amount of posts and comments on one of the Dutch subreddits (see Appendix 6.1)

Posts and comments in Dutch subreddits over time
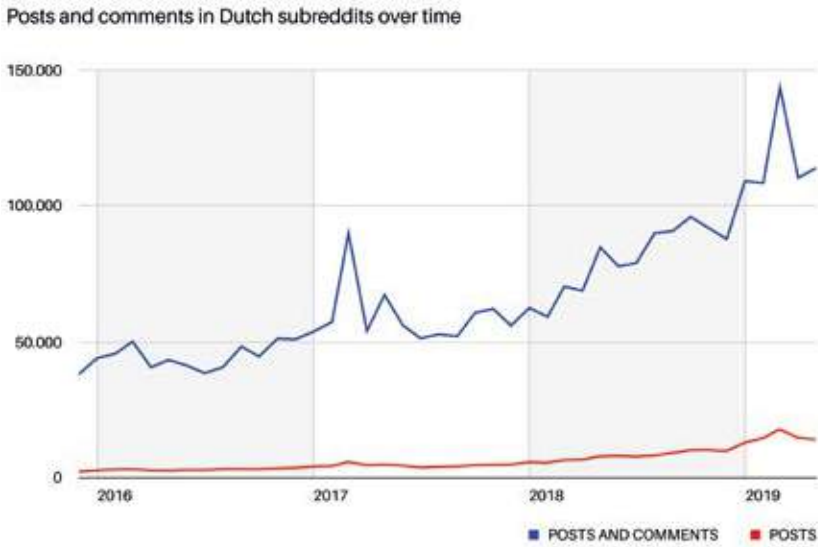
Data source: 4CAT and Pushshift; timeframe: 1-Dec-2015 to 1-Jun-2019; line graph

Scoping junk news on Reddit

First, as a way to ground the corpus, Figure 6.3 shows the total amount of posts made on one of the Dutch subreddits (Appendix 6.1). Just like activity on Reddit in general, Dutch activity is increasing: in December 2015 there were just over 2,000 posts and comments per month, whereas in January 2019 this number had grown to 14,000 and seems to be rising.

Does this increase in activity also mean an increase in Dutch junk news linked to on Dutch subreddits? As is evident in Figure 6.4, the amount of posts linking to one of the domains from the expert list started at a maximum of just eighteen instances in 2016. Two subsequent spikes can be observed. The first one, in April to July 2017, speak to the 'spammy' nature of some areas of Reddit, since one user frequently posted a Dutch junk news domain (ninefornews.nl) to an English subreddit. The second spike is more varied, however, showing a range of websites like boinnk.nl, worldunity.me, and ninefornews.nl. Upon closer inspection, these were again posted by a single account, mrthirdeye, the closest one will find to a 'fake news troll', though its posts received little to no engagement (discussed in more detail in section 4). The subsequent dip in November

Figure 6.4   Frequency of posts linking to Dutch junk news domains on Reddit
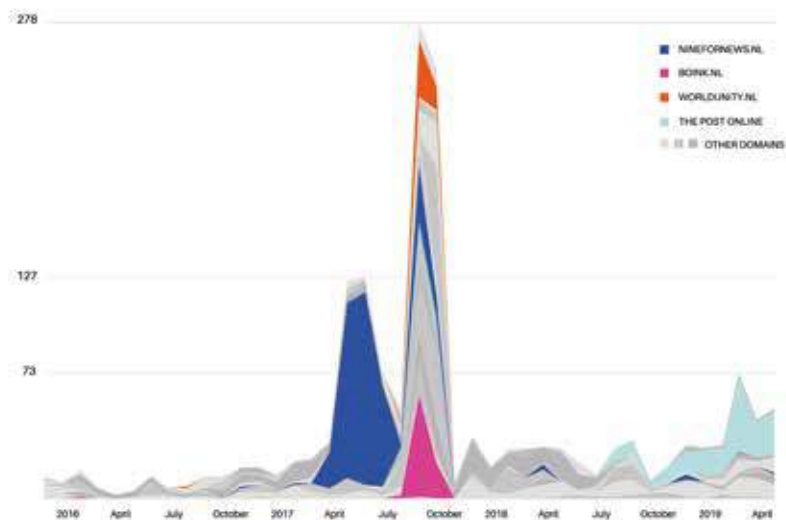
Data source: Google BigQuery; timeframe: 1-Dec-2015 to 1-Jun-2019; stream graph

can be attributed to a content policy change in 2017, possibly leading to the banning of this malicious account (Alexander 2017). In subsequent months, junk news sharing increased somewhat compared to 2016 but remained fairly consistent with around fifty instances per month. An increase of posts linking to (at the time) a tendentious-hyperpartisan website, *The Post Online*, can be seen in 2019, although no significant spikes during the 2019 Dutch provincial elections and 2019 European elections can be discerned. In perspective, these numbers do not seem extremely troubling, especially since most posts link to hyperpartisan sources instead of outright disinformation (see section 3), and furthermore do not receive a lot of engagement (see section 4).

To further put the scope of Dutch junk news on Reddit in perspective, Figures 6.5 to 6.8 contain circle pack diagrams that show its amount compared to the entirety of Reddit, as measured in terms of posting activity (excluding comments). Figure 6.5 shows the size of all subreddits where a link to a Dutch junk news source was shared at least once. The Dutch subreddits are tiny in comparison to non-Dutch subreddits (Figure 6.5), given the dominance of English-language subreddits on the site. There are a few occasions when Dutch junk news was shared on very large subreddits, such as r/viral, r/news, and r/worldnews, as well as the infamous pro-Trump subreddit, The_Donald. Notably, however, in the Dutch subreddits, the proportion of junk news is

Figure 6.5   Dutch versus non-Dutch subreddits in which Dutch junk news appears. Size of circle represents the overall number of posts in that subreddit within the timeframe, and colour represents the relative amount of posts with junk news.

Data source: Google BigQuery. Timeframe: 1-Dec-2015 to 31-Jan-2019; circle pack diagram

Figure 6.6   Dutch subreddits where Dutch junk news appear compared to the size of all Dutch subreddits. Size of circle represents the overall number of posts in that subreddit, and colour represents the relative amount of posts with junk news.

Data source: Google BigQuery. Timeframe: 1-Dec-2015 to 31-Jan-2019; circle pack diagram

Figures 6.7 and 6.8   **All Dutch and non-Dutch subreddits where Dutch junk news appear compared to the size of all of Reddit. Size of circle represents the overall number of posts in that subreddit, and colour represents the relative amount of posts with junk news.**
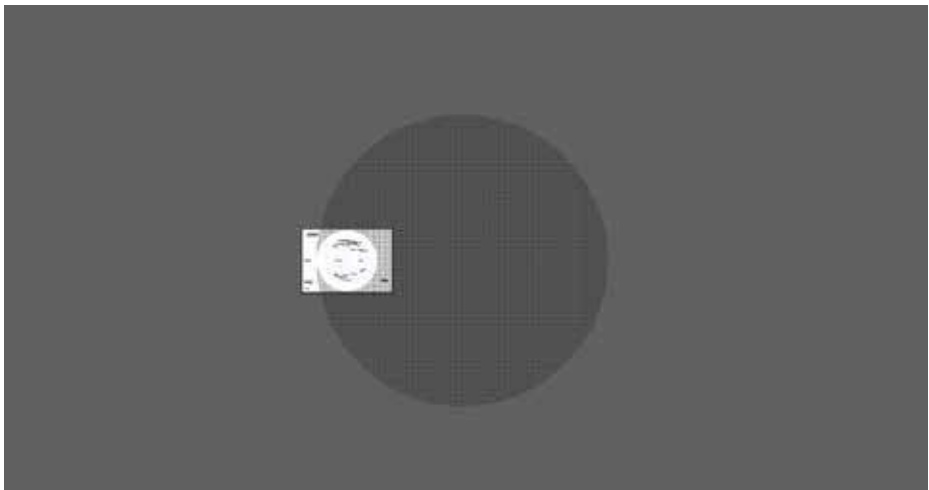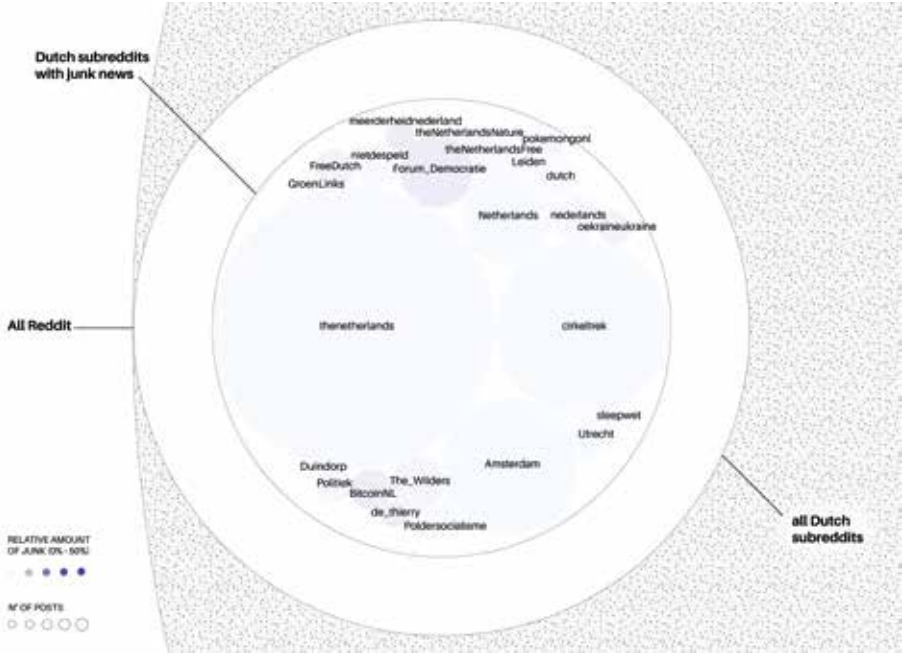
Data source: Google BigQuery. Timeframe: 1-Dec-2015 to 31-Jan-2019; circle pack diagram

very low as well. As will be touched on, only occasionally does a subreddit have over 5% of its posts linking to Dutch junk news. For the majority of subreddits, this figure is less than 1%.

When zooming in on Dutch subreddits (Figure 6.6), a clearer variation in the volume of junk news is observable. For the subreddits where these sources appear, they are still in small amounts, with the highest percentages appearing in r/Forum_Democratie (5,37% of all posts), r/meerderheidnederland (5,67%), r/de_thierry (4,93%), r/Duindorp (13%), r/The_Wilders (1,97%), and r/FreeDutch (3,04%). Most of these subreddits are related to right-wing political parties, ideologies or politicians, such as Geert Wilders or Thierry Baudet. These subreddits appear mostly because of the frequent posting of links to hyperpartisan websites such as *De Dagelijkse Standaard*.

When compared to the overall Dutch sphere on Reddit (Figure 6.6), quite a large area of the Dutch subreddits has at least *some* presence of junk news from the expert list. Still, the largest and most mainstream Dutch subreddits (r/thenetherlands, r/cirkeltrek, r/Amsterdam) contain a negligible amount. Dutch junk news can most notably be seen within already polarized or partisan spaces, such as the right-wing subreddits listed above. Larger and less partisan subreddits like r/thenetherlands seem fairly immune, likely because of a different user base and content moderation.

Lastly, Figures 6.7 and 6.8 provide a zoomed-out visualization of the relative amount of Dutch junk news in the entirety of posts on Reddit. While some Dutch junk news appears in a number of both Dutch and non-Dutch subreddits, it pales in comparison to the total number of posts in other subreddits in the research timeframe. Moreover, even though some Dutch junk news appears on a number of large international subreddits (in turn, making the sphere appear large), the *relative* number of appearances of Dutch junk news in those subreddits is close to zero. Concluding, then, in terms of frequency, links to questionable Dutch-language news sources on Reddit is a small issue outside of a few partisan subreddits.

Scoping junk news on 4chan/pol/

4chan's infrastructure allows less of a comparative approach than that of Reddit, but some metrics can shine light on the relative appearance of Dutch junk news on /pol/. First, to scope the Dutch sphere, the amount of posts with the country flag of the Netherlands is fairly stagnant since late 2015 (Figure 6.9). Each month, around 40,000 'Dutch flagged' posts are made. The amount increased in March 2017, owing to the Dutch general elections. While these numbers are lower in comparison to Dutch users on

Figure 6.9   Line graph of posts with Dutch country flags on 4chan/pol/

Posts on 4chan/pol/ with a Dutch country flag
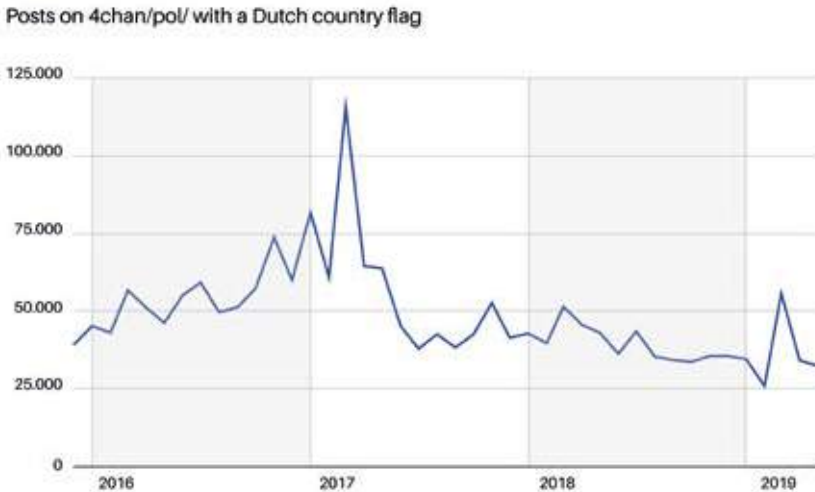
Data source: 4CAT; timeframe: 1-Dec-2015 to 01-Jun-2019; line graph

mainstream platforms like Facebook, they are at times comparable to Reddit, and a non-negligible number – a fairly significant insight considering the extreme political ideas present on /pol/. It is impossible to tell how many individual people these numbers of posts denote, however.

Despite the frequent Dutch posts on /pol/, the amount of posts linking to Dutch junk news is quite low (Figure 6.10). Links to Dutch junk news domains appear only around ten times per month. One significant spike occurs in March 2017, caused by links mostly to *The Post Online* and *De Dagelijkse Standaard*, again concerning the general election on March 15. Interestingly, a similar spike associated with the elections is absent from Reddit. Afterwards, however, the amount of posts linking to Dutch junk news drops, remaining low for both the 2019 Dutch provincial elections and the 2019 European elections. Considering the total amount of posts by Dutch /pol/ users (averaging around 40,000 posts per month), the amount of references to junk news URLs should be considered negligible. This should not be equated with a lack of problematic news content, however, as is discussed below.

Categories of Dutch junk news

How sizable of a role do online news media play within 4chan/pol/ and Reddit? What types of domains are linked to when categorizing news domains

Figure 6.10   Frequency of posts linking to Dutch junk news domains on 4chan/pol/
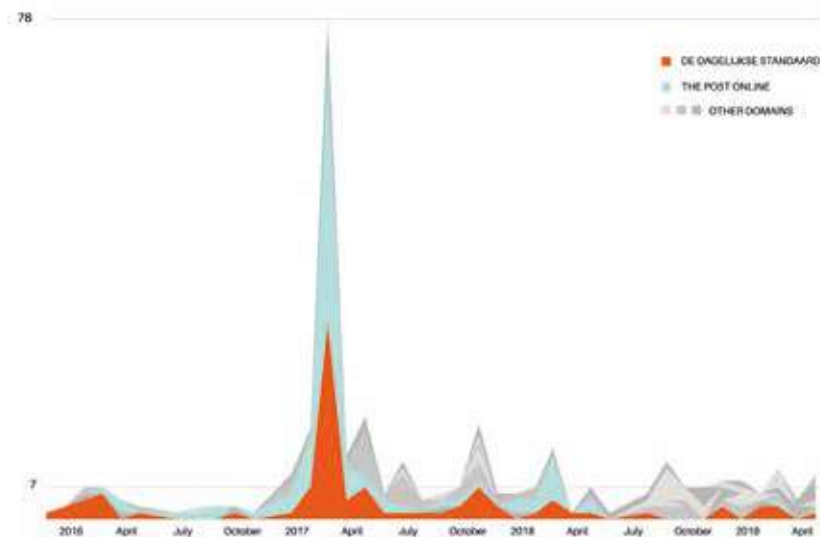
Data source: 4CAT; timeframe: 1-Dec-2015 to 01-Jun-2019; streamgraph

posted in these forums? What types of junk news can we discern? This
section uses the *haystack to needle* approach to walk through a number of
tree maps, each showing a different categorization of the most-linked to
domains. First, the proportion of news websites is compared to non-news
domains. Afterwards, the news websites are sorted by Dutch or non-Dutch.
Finally, the categories of these news sources are outlined and discussed
(mainstream, hyperpartisan, disinformation, etc.).

Firstly, Figures 6.11 and 6.12 show which domains from the most-posted
domain sample are categorized as 'news'. For Reddit (Figure 6.11), 21,6% of
all posts on Dutch subreddits refer to 'news' websites. Notably, tweedekam-
er.nl appears 15,694 times, caused by the bot u/kamerstukken-bot posting
parliamentary texts to the subreddit r/kamerstukken. Removing this bot
increases the news proportion to 50% – quite a considerable number.
Other non-news websites include reddit.com itself, often used to host
images and text, and youtube.com and youtu.be, appearing 951 times
cumulatively.

4chan/pol/ paints quite a different news/non-news picture. At 16.6% the
proportion of links to news websites is lower than Reddit's 50%. After twitter.
com and en.wikipedia.org, a staggering 50% of URLs point to YouTube.
Considering this major presence of Google's video service, it is further
scrutinized as an alternative news sphere in section five.

Figure 6.11   Links to news (red) and non-news (blue) sources in posts in Dutch subreddits

Data source: 4CAT and Pushshift; timeframe: from 1-Dec-2015 to 01-Jun-2019; treemap diagram

Figure 6.12   Links to news (red) and non-news (blue) sources in Dutch posts on 4chan/pol/
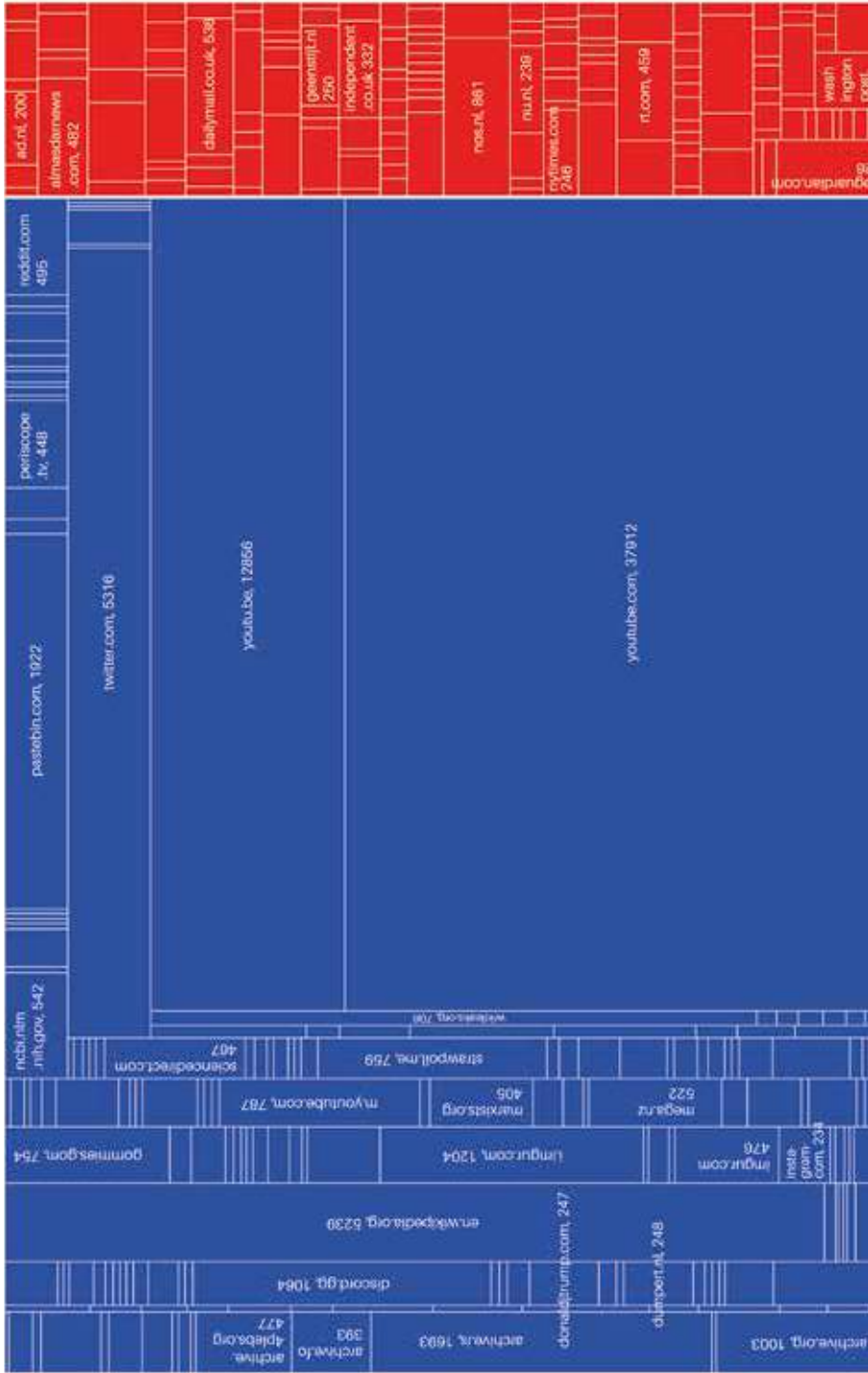
Data source: 4CAT; timeframe: 1-Dec-2015 to 1-Jun-2019; treemap diagram

Figure 6.13   Links to Dutch (orange) and non-Dutch (blue) news on Dutch subreddits
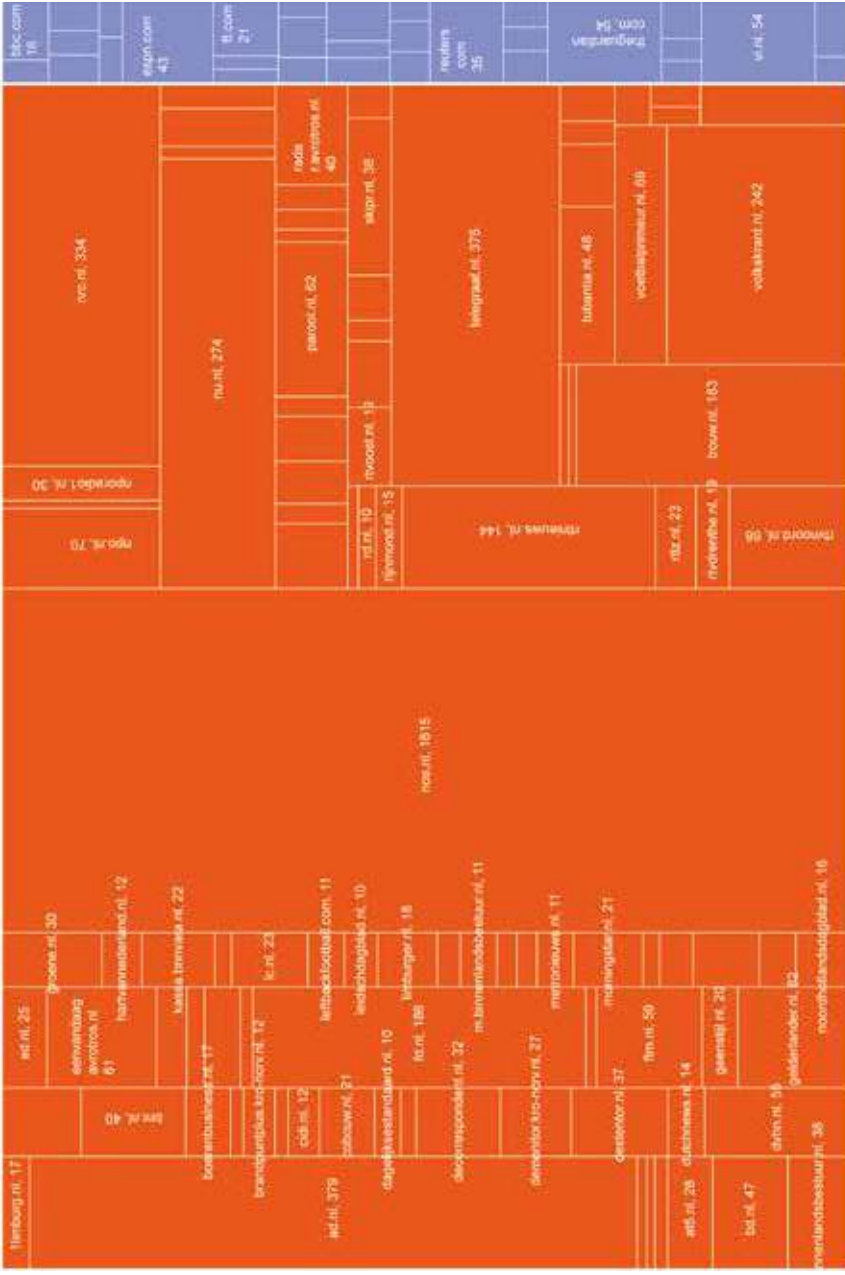
DUTCH NEWS   NON-DUTCH NEWS

Data source: 4CAT and Pushshift; timeframe: 1-Dec-2015 to 01-Jun-2019; treemap diagram

Figure 6.14   Links to Dutch (orange) and non-Dutch (blue) news on Dutch subreddits

DUTCH NEWS   NON-DUTCH NEWS

Data source: 4CAT; timeframe: from 1-Dec-2015 to 01-Jun-2019; treemap diagram

Figure 6.15   Categories of news domains in posts on Dutch subreddits

Data source: 4CAT and Pushshift; timeframe: 1-Dec-2015 to 01-Jun-2019; treemap diagram

MAINSTREAM   HYPERPARTISAN   OTHERS

Figure 6.16 Categorized types of news from news sources posted 4chan/pol/
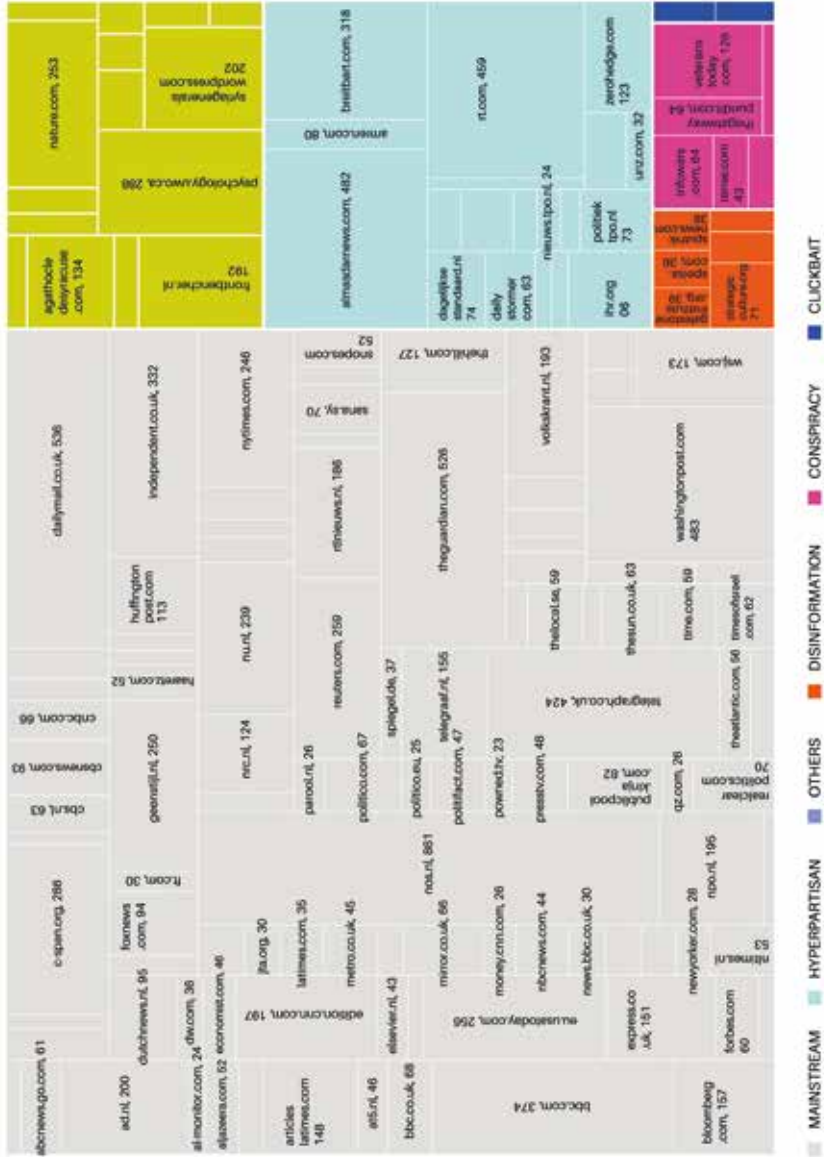
Data source: 4CAT; timeframe: 1-Dec-2015 to 1-Jun-2019; treemap diagram

Figures 6.13 and 6.14 show the news domains on Reddit and 4chan/pol/, respectively, according to their origin (Dutch or non-Dutch). On Reddit, the domains shared on Dutch subreddits are almost exclusively of Dutch origin. This is likely due to content moderation in these spaces, requiring posts to be specifically about the Netherlands (e.g. on r/thenetherlands). The news sources on 4chan/pol/ (Figure 6.4), on the other hand, are predominantly from Anglophone sources, such as *The Daily Mail*, *The Guardian*, *BBC*, and *Reuters*. This is fairly unsurprising considering 4chan/pol/'s designation as an English language space, unlike the Dutch subreddits. Still, it is worth noting that Dutch users on 4chan/pol/ are mostly concerned with English sources and are thus more internationally oriented in terms of news propagation than users on Dutch subreddits. This also implies foreign news sources might significantly influence their news consumption. As shown below, English junk news is indeed posted by these Dutch 'anons'.

Next, we explore the types of news sources, and if 'junky', how they can be categorized. Figures 15 and 16 show the categorization of the shared news domains as mainstream, other (mainstream), conspiracy, disinformation, hyperpartisan, and clickbait, as defined in section 1.3.1. As is evident in the visualizations, mainstream or special interest (other mainstream) sources make up the largest share of URLs posted on both platforms: 99,6% for Reddit and 81% for 4chan/pol/. Despite the frequent characterization of pseudonymous spheres like Reddit as 'alternative', these results are thus somewhat counterintuitive since mainstream sources make up the dominant proportion links shared. On both sites, NOS.nl is the most linked-to news source, meaning the established source is highly relevant. For Reddit especially, the lack of problematic content in Dutch spaces is remarkable, as in these most-posted domains almost no websites from the expert list can be found, save for a few instances of dagelijksestandaard.nl and tpo. nl. Indeed, the platform and Dutch users show they seem to be inoculated against 'pulpnieuws'.

Dutch-flagged posts on 4chan/pol/ show a more problematic, hyperpartisan nature. Here, 21% of top news domains are 'junk', with hyperpartisan sources making up most of these. Some of these are foreign state-influenced and/or hyperpartisan, such as rt.com and breitbart.com, and others are outright extremist, like the neo-Nazi website, The Daily Stormer. As alluded to above, *Dutch* junk news seems to play less of a role here. A few sporadic instances of far-right disinformation appeared in the Dutch posts (shown in orange), all originating outside of the Netherlands. These include links to sputniknews.com, the large Russian news website that has been known to propagate disinformation (MacFarquhar, 2016; EUvsDisinfo, 2017), as well

as two far-right websites that post a large amount of Islamophobic stories, Speisa.com and the Gatestone Institute. In posts linking to Russian sources, like rt.com and sputniknews.com, the top URLs are usually referring to refugee slander, particularly in Sweden (see Appendix 6.4). It is impossible to tell who posted these links considering 4chan's built-in anonymity, but it could potentially point to foreign interference.

Characteristics of Dutch junk news propagation on Reddit

What are the characteristics of online actors who share Dutch junk news? And are their actions effective? While these questions are nearly impossible to answer for 4chan, considering its anonymity, Reddit does afford 'natively digital' (Rogers, 2013) objects to explore the characteristics and effectiveness of junk news propagators. This section will therefore discuss a range of metrics and lists concerning Dutch junk news on Reddit.

298 Reddit accounts were found within the timeframe that linked to domains from the expert list of Dutch junk news domains. Out of those, 193 accounts only posted a Dutch junk news URL once. Only sixteen accounts did so ten times or more, meaning there is a long tail of occasional junk news posters. When these junk news sources are linked to, they furthermore receive a lower score on average than other posts these propagators make (Figure 6.17). To reiterate, Reddit scores are created by users' 'upvoting' or 'downvoting' a post, with a high score meaning a post will move to a higher position on a subreddit, thus receiving more visibility. As can be seen in Figure 6.17, posts to non-junk news by these propagators outperform posts linking to one of the sites in the expert lists, with the propagators' mean score being 9.8 and the mean for their posts linking to a Dutch junk source being 5.6. This is mostly caused by automated, 'spammy' posts. The median for each of these is 1 and overall, 1.24 of the 1.72 of junk news posts have a score of 1 or less (72%), meaning the Dutch junk news posts receive little visibility and approval on average.

These low average scores do not mean that junk news stories are totally void of success, however. 33 of the 1,761 posts received a score of 50 or more. Reddit's infrastructure stimulates a snowball effect of 'rich get richer' posts, and some of these even scored higher than 1,000. Zooming in on a URL instead of a domain level, it shows that most of these stories are hyperpartisan of tone. Table 6.1 shows the top three highest-scoring posts on Reddit linking to a domain from the expert list. All three best-performing spots are 'junky' and Islamophobic in tone. The first concerns a story by *De Dagelijkse Standaard* on rape and refugees. The second and third are both linking to

Figure 6.17   Mean Reddit posts scores by Dutch junk news propagators (users who posted a link to a Dutch junk news domain at least twice) as reported by Pushshift API

Mean post scores for Dutch junk news propagators on Reddit

9.168438067	9.180822104	5.60592686
MEAN SCORE OVERALL	MEAN SCORE FOR NON-JUNK	MEAN SCORE FOR JUNK
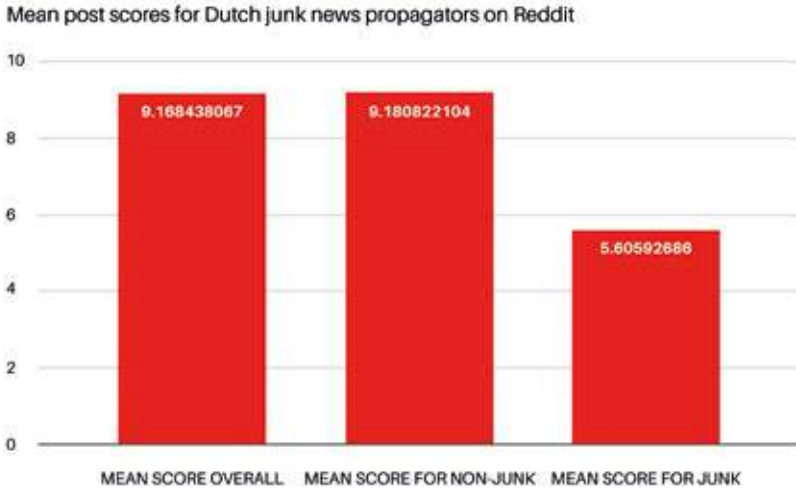
Data source: 4CAT and Pushshift; timeframe: 1-Dec-2015 to 01-Jun-2019; bar graph

Table 6.1   The top 3 best performing posts linking to a Dutch junk domain on Reddit

subject	URL	subreddit	timestamp	score
Amsterdam Square driver (terrorist) before declared a confused and sick Dutch national is now revealed to be KHALID K. from Casablanca. The media cover up doesn't stop!	dagelijksestandaard. nl/2017/08/onthulling-werkelijke-naam-van-de-amserdamse-stationsrammer-blijkt-dus-khalid-karmaoui/	The_Donald	22/08/2017 13:31	1811
Japan ONLY Admits 27 Muslim 'Refugees', Two Already Arrested For Gang Rape.	fenixx.org/2017/05/14/ japan-only-admits-27-muslim-refugees-two-already-arrested-for-gang-rape/	The_Donald	15/05/2017 06:02	1211
Japan ONLY Admits 27 Muslim 'Refugees', Two Already Arrested For Gang Rape.	fenixx.org/2017/05/14/ japan-only-admits-27-muslim-refugees-two-already-arrested-for-gang-rape/	CringeAnarchy	10/08/2017 5:13	936

Data source: 4CAT and Pushshift. Timeframe: 01-Dec-2015 to 01-Jun-2019

Figure 6.18   Subreddits where Dutch junk news domains are most often posted

Subreddits ● where Dutch junk news appears most often
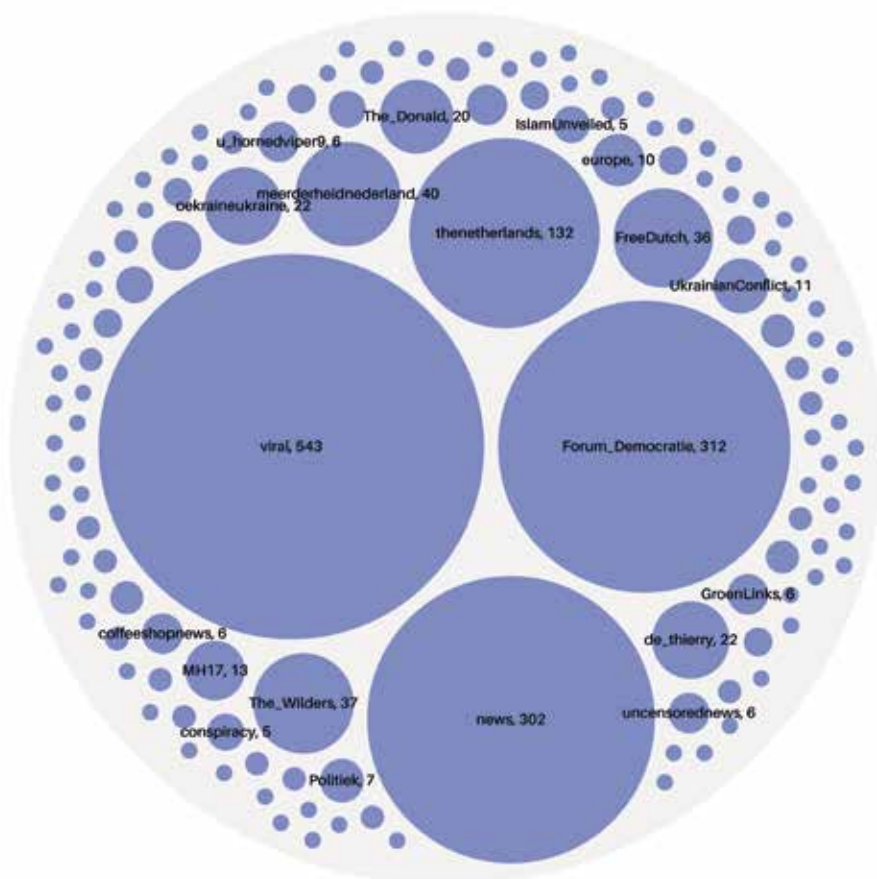
Data source: 4CAT and Pushshift; timeframe: from 1-Dec-2015 to 31-Jun-2019; circle pack diagram

the same story by *Fenixx* that framed a man who drove a car into a group of people at Amsterdam Central Station as a Moroccan terrorist, even though he was officially declared as unwell and confused. Interestingly, these stories are posted in English-language subreddits, notably the pro-Trump r/The_Donald and the now-banned r/CringeAnarchy, showing how junk news *from* the Netherlands spreads *to* foreign spaces.

In summary, the overall performance of Dutch junk news throughout Reddit is fairly weak. Moreover, the high-scoring stories are usually hyperpartisan instead of clear-cut disinformation. Dutch junk news thereby *can* garner considerable engagement on Reddit, but it does not do so on a

Figure 6.19   Most linked to Junk news domains on all of Reddit

Dutch junk domains ● on Reddit
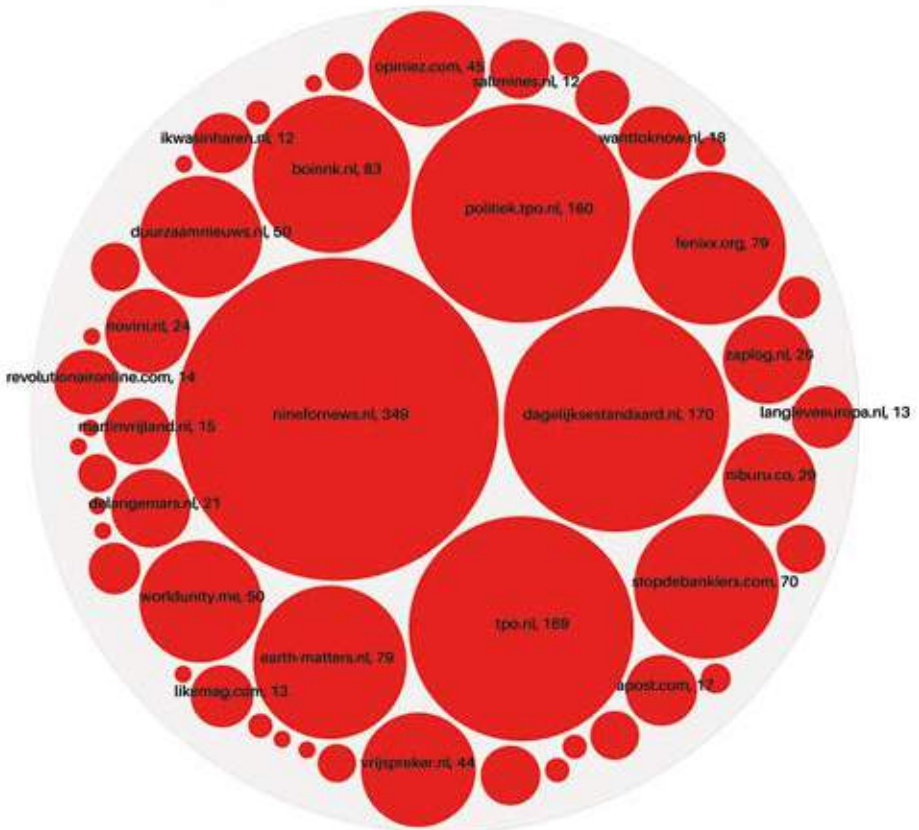
Data source: 4CAT and Pushshift; timeframe: from 1-Dec-2015 to 1-Jun-2019; circle pack diagram

regular basis. In this sense, Reddit is more 'resistant' to junk news than (for example) Facebook is said to be (Burger et al., 2019).

In which subreddits are Dutch junk news domains posted? Figure 6.18 shows that r/viral links to most Dutch junk news with 543 instances, but much of the prevalence is caused by a single 'spam' account, receiving no engagement whatsoever. More interestingly, r/Forum_Democratie, the unofficial subreddit for the currently the largest party in the Dutch Senate, comes in second with 312 posts to junk news sites. Other right-wing partisan and hyperpartisan subreddits appear further down the long tail, such as r/The_Wilders, r/FreeDutch, r/meerderheidnederland, r/The_Donald, and r/de_thierry. This is mainly caused by posts on these subreddits linking to *The Post Online* and *De Dagelijkse Standaard.*

Table 6.2   Metrics of users who shared the Dutch junk news on Reddit

author	Avg. score with Dutch junk source	Avg. score	% Dutch junk posts	Dutch junk posts	Top domains	Top Dutch junk domains	Top subreddits	Total posts
user1	1	1	13.5	591	youtube.com: 416 welingelichtekringen.nl: 153 rt.com: 125	boinnk.nl: 82 earth-matters.nl: 77 stopdebankiers.com: 61	viral: 4390	4390
user2	1	1	100	294	ninefornews.nl: 294	ninefornews.nl: 294	news: 294	294
user3	1	1.1	0.1	70	112.international: 9891 unian.info: 6238 liveuamap.com: 6210	dagelijksestandaard.nl: 23 fenixx.org: 9 politiek.tpo.nl: 4	russiawarinukraine: 6470 meerderheidnederland: 788 oekraineukraine: 707	66860
user4	11.2	28	3.9	60	i.redd.it: 431 twitter.com: 352 imgur.com: 106	dagelijksestandaard.nl: 22 tpo.nl: 19 politiek.tpo.nl: 12	Forum_Democratie: 1337 FreeDutch: 83 The_Donald: 21	1525
user5	16	18.2	12.7	62	twitter.com: 126 youtu.be: 60 tpo.nl: 50	tpo.nl: 50 opiniez.com: 10 tpook.nl: 1	Forum_Democratie: 489	489
user6	11.5	74.7	16.8	48	geenstijl.nl: 52 twitter.com: 42 tpo.nl: 28	tpo.nl: 28 politiek.tpo.nl: 12 tpook.nl: 2	Forum_Democratie: 263 The_Donald: 11 FreeDutch: 9	286
user7	8.4	9	3	29	youtube.com: 118 twitter.com: 91 i.redd.it: 64	dagelijksestandaard.nl: 13 tpo.nl: 11 opiniez.com: 3	Forum_Democratie: 954 test_forum: 3 JFVD: 2	961
user8	25.6	23.7	7.7	19	youtube.com: 32 imgur.com: 14 twitter.com: 14	verenoflood.nu: 6 politiek.tpo.nl: 5 opiniez.com: 4	The_Wilders: 113 The_Europe: 60 The_Donald: 46	246
user9	1.5	1.5	0.1	19	youtube.com: 5859 gellerreport.com: 1698 bitchute.com: 1677	fenixx.org: 19	news: 5813 worldnews: 5537 worldpolitics: 4232	22477

Data source: 4CAT and Pushshift. Timeframe: 01-Dec-2015 to 01-Jun-2019

According to Figure 6.19, the junk domains that are linked to often are mostly the well-known right-wing tendentious and hyperpartisan blogs, with *The Post Online* and *De Dagelijkse Standaard* ranking on top. The 'alternative' news website NineForNews, which has been host to conspiracies and hyperpartisanship (Roermund, 2017), is also amongst the most shared domains, but this is mostly due to an automated bot posting links to the website (u/ninefornews). As such, most of the shared junk news domains can be categorized as hyperpartisan, often with an 'alternative', right-wing stance. Signs of disinformation or coordinated Russian influence are fairly marginal, with Novini appearing 22 times, a website known for pro-Putin sentiment (Heck, 2017). As such, from this *needle to haystack method*, partisan and hyperpartisan content is easy to find, but disinformation appears to be less of an issue.

Finally, we highlight the Reddit accounts most active in propagating junk news to profile actor types. Table 6.2 shows various metrics on the ten accounts ranked by the amount of posts linking to one of the domains in the expert list. As indicated by total posts and average score, some of the accounts post frequently but receive no engagement. Most of these are 'spam' accounts or automated bots. Interestingly, user 1, the aforementioned *u/mrthirdeye68*, has posted many URLs to Russian and pro-Russian websites as RT.com and novini.nl, as well as mainstream sources and hyperpartisan websites like Red Ice TV'. It is possible that user 1 is a Russian 'troll'. It received no upvotes, however, and only posted links to the obscure subreddit r/viral, meaning it did not garner any engagement. As such, it is likely this user is an automated bot, or some hybrid. Other bots seem more effective, however. User 2, for instance, is the abovementioned ninefornews.nl bot, posting a hundred percent of posts to this website in the global news subreddit r/news. Of interest here is that user 2 does receive engagement, with a fairly high average post score of 570 and a junk news post score of 50. As such, Reddit is at least somewhat susceptible to manipulation, depending on the 'strategy' of its users.

In terms of issues, it can be discerned that the most active accounts are either concerned with Dutch right-wing parties or topics surrounding Ukraine. Despite their frequent linking to junk news websites, the most active accounts still link most often to platforms like YouTube and Twitter.[12] A cohort of four right-wing partisans can be observed, who are most active on r/Forum_Democratie and frequently link to websites like *GeenStijl* and *The Post Online*. Most of the accounts actually use the Dutch language, and, upon

---

12   Further research might scrutinise what YouTube videos or Tweets are linked to, for instance to identify further 'newsy' sources or influencers.

closer inspection, are also likely Dutch natives. As such we may conclude that there is not a significant attempt of foreign accounts meddling with Dutch affairs, with the possible exception of the now-banned u/mrthirdeye68.

YouTube as an alternative news network

Thus far, this text has handled 'news' in the conventional sense of designated outlets publishing on current affairs. As discussed in the introduction, however, the consumption of both amateur and professional reporting increasingly occurs *on* social media. These modern, alternative ways of news consumption cannot be identified when the 'needle' is formulated as traditional news outlets. As we have identified in section 3, URLs linking to YouTube are frequent, especially on 4chan. As discussed elsewhere in this volume, the video hosting site is host to various spheres of alternative news commentary and opinions, leading Zeynep Tufekci to describe it as 'the Great Radicalizer' (2018). Can we indeed outline an 'alternative news network' working in tandem with 4chan/pol/ and Reddit? This section briefly touches on this question by visualizing and categorizing the most-posted videos on 4chan/pol/ and Reddit, as well as the most popular channels.

Figures 6.20 and 6.22 display the thumbnails of the 1008 most-posted YouTube videos within our Dutch Reddit and 4chan/pol/ corpora. Figures 6.21 and 6.23 show the 'video categories' for each of these videos. For the top videos on Dutch subreddits, 161 are concerned with 'People and Blogs', 129 with 'Entertainment', and 118 with 'News & Politics'. From this, the type of content shared is fairly diverse. 4chan/pol/ is more concentrated on news and politics, with 196 videos categorized as such, with 'People & Blogs' following at 95 and 'Entertainment' at 64.

The number of missing videos for 4chan (the black labels) is notable, comprising almost half of the total, indicating 4chan's extremism as well as YouTube content moderation. The number of deleted videos is visibly less on Reddit.

If one takes the videos labelled as 'News & Politics' as an indicator of a 'news source', as we categorized in the sections above, it becomes possible to quantify the role of YouTube as a news source on the two platforms. The 'News & Politics' category comprises 11.7% of the still-online videos for Reddit in the sample above, and 19.4% for that of 4chan/pol/. Considering the total amount of links to still-online YouTube videos in this timeframe – 7,667 for Reddit and 26,635 for 4chan/pol/ – one can estimate that around 896 'News & Politics' videos were posted on Dutch subreddits and 3,748 on 4chan/pol/

by users with a Dutch flag.[13] Comparing these numbers to those presented in section 3, for YouTube news videos would constitute the largest and second largest source of news content. On Reddit, they would form the second-largest news source, only behind NOS.nl with 1,615 mentions. For 4chan, YouTube is by far the largest player in relation to news circulation, since the next most popular source, NOS.nl (861 mentions), comprises only one-third of the amount YouTube news videos. As such, the role of YouTube as a new player in the circulation and consumption of news should not be understated.

Is this dominant presence of YouTube of great significance in the study of junk news? Table 6.3 shows the 25 most-occurring channels from all of the YouTube links in our two Dutch corpora. Here, the platforms differ significantly. On Reddit, some partisan channels can be discerned, like the one for Forum voor Democratie and PVV pers, but the list mostly consists of 'established' sources like NOS, *GeenStijl*, and VPRO Zondag met Lubach. On 4chan/pol/, however, they are far more extreme and potentially harmful. The most-posted channel is SouthFront, dedicated to videos on the Syrian civil war. Below that is Stefan Molyneux, a popular Canadian YouTuber who promotes 'scientific racism' and white supremacist views. Further down the list are (hyper)partisan news channels like *Fox News* as well as the Russian RT and Ruptly. Other far-right YouTubers and channels also appear, like Paul Joseph Watson and Rebel Media, as well as some left-leaning channels like The Young Turks and VICE. Together, the channels referred to by Dutch posters are thus of a hyperpartisan, sometimes with a far-right makeup. As such, YouTube videos on Dutch subreddits seem to align with consumption of 'established' and 'traditional' news media outlets, while those on 4chan/pol/ show a highly hyperpartisan and polarized landscape.

Conclusions

Despite the frequent characterization of Reddit and 4chan as 'alternative' zones on the Web, the results presented in this text generally do not reveal a large share of alternative news networks spreading disinformation *within* the platforms, at least in a Dutch context. Despite a few instances of pro-Russian websites like Novini and one suspicious Reddit account, coordinated campaigns of malicious users posting links to disinformation seem largely absent. Dubious content can certainly be discerned but compared to overall activity (as shown in section two) it should be considered fairly marginal within the spaces we

---

13   In reality, these numbers will be somewhat lower because not every YouTube URL points to videos (they can also refer to channels), although the vast majority in our corpus does.

Figure 6.20   The top 1008 most posted YouTube videos in Dutch subreddits. Black labels denote deleted videos/channels. Ranked left to right, top to bottom

Data source: 4CAT, Pushshift, and YouTube API; image wall

Figure 6.21   The top 1008 most posted YouTube videos in Dutch subreddits, with video categories as an overlay. Black labels denote deleted videos/ channels. Ranked left to right, top to bottom
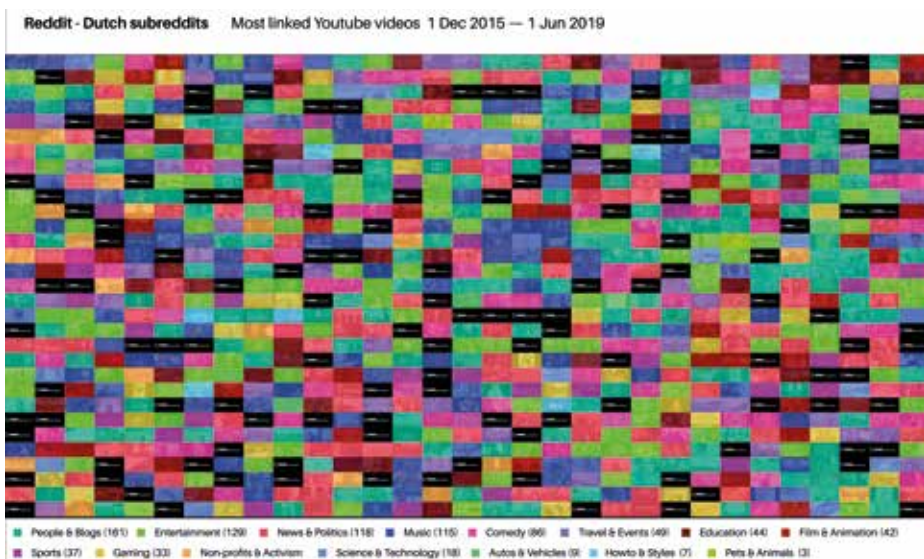
Data source: 4CAT, Pushshift, and YouTube API; image wall

Figure 6.22   The top 1008 most posted YouTube videos in 4chan/pol/in posts with a Dutch country flag. Black labels denote deleted videos/channels. Ranked left to right, top to bottom

4Chan /pol/ · Dutch country flags   Most linked Youtube videos 1 Dec 2015 — 1 Jun 2019

Data source: 4CAT and YouTube API; image wall

Figure 6.23   The top 1008 most posted YouTube videos in 4chan/pol/in posts with a Dutch country flag, with video categories as an overlay. Ranked left to right, top to bottom. Black labels denote deleted videos/channels

4Chan /pol/ · Dutch country flags   Most linked Youtube videos 1 Dec 2015 — 1 Jun 2019

Data source: 4CAT and YouTube API; image wall

**Table 6.3   The most occurring YouTube channels from all YouTube links posted in
            the Dutch Reddit and 4chan/pol/ samples. Data source: 4CAT, Pushshift,
            and YouTube API. Timeframe: 01-Dec-2015 to 01-Jun-2019**

4chan/pol/ – top 25 most-occurring channels				Reddit – top 25 most-occurring channels			
channel	count	channel	count	channel	count	channel	count
South Front	191	FOX 10 Phoenix	49	AFC Ajax	476	AT5	38
Stefan Molyneux	177	sanderson1611	46	VitesseTV	269	FvD Meems	37
Fox News	156	PewDiePie	41	Forum Democratie	143	De Speld	36
RT	155	Paul Joseph Watson	39	Omroep PowNed	107	Football-Oranje	32
The White House	136	Acts17Apolo-getics	38	Politie #PRO247	95	LISSAUER	31
Ruptly	125	Rebel Media	37	BRAXATORES	82	vpro.nl	30
Right Side Broadcasting Network	112	VICE	37	VPRO Zondag met Lubach	69	De Telegraaf	30
Omroep PowNed	108	Fullwhiskey	36	GeenStijl	67	NOS op 3	30
U.S. Department of State	76	VICE News	34	Cafe Weltschmerz	51	Hoop Stront	29
CNN	68	ABC News	34	NOS	51	PVVpers	28
Forum Democratie	67	DeroVolk	33	WNL	48	RTL Z	27
Fox Business	65	corbettreport	31	Xbox	47	Politie Den Haag	24
The Young Turks	56			TopNotch	43		

scrutinized. Reddit seems especially resilient against the circulation of junk
news. In turn, the characterization as actors within 4chan and parts of Reddit as
influential 'agenda setters' should therefore likely be taken with a grain of salt.

What can be observed, however, are the types of junk news that can be
characterized as hyperpartisan, especially on 4chan/pol/. This appeared
mostly through links to popular tendentious and hyperpartisan blogs like
The Post Online and *De Dagelijkse Standaard*, but also the more clearly 'fake'
(in the sense of conspiratorial) NineForNews. This right-wing bias is expected
for 4chan/pol/ due to its infamy as a far-right hub; for Reddit it is more
notable because we took a politically diverse range of URLs and subreddits

as a starting point. While labelling these websites as 'fake' is problematic, they do indicate a non-negligible presence of polarizing content. Indeed, section four showed that the most engaged-with articles from these websites often concern topics like migration and Islam, instead of other geopolitical events like Russian interference.

Nonetheless, mainstream sources such as NOS.nl remain popular linked-to domains on both Reddit and 4chan/pol/. This is somewhat counterintuitive since it has been argued the 'fringe' characterization of these pseudonymous and anonymous spaces implies their users find knowledge in different epistemological drawers. Despite these assumptions, the prevalence of mainstream sources shows they have at least *some* authority within these online spaces. It is important to note, however, that we have not considered *how* these mainstream websites are discussed. Likely, domains like NOS. nl are considered on Reddit as a trustworthy source, while on 4chan/pol/ it might be referenced purely to ridicule it or to portray it as 'fake news' itself – as is discussed elsewhere in this volume.

One should furthermore not be blinded by exclusively considering websites devoted to reporting on current affairs as the sole source of news, as YouTube emerged as a particularly big 'new' player in relation to news consumption and circulation, especially on 4chan/pol/. On Reddit, 'News & Politics' videos on YouTube are estimated to form the second-largest source, while on 4chan/pol/, they are estimated to strongly outperform any other news source. From a brief exploration of the YouTube channels posted on both platforms, it seems Dutch Reddit is largely linking to fairly established sources, like PowNed, Zondag met Lubach, and NOS, while on 4chan/pol/, alternative, hyperpartisan, and problematic information channels emerged, like Mike Cernovich and RT. As such, non-Dutch YouTube content might have a 'radicalizing' role on Dutch users within certain Internet forums.

Since this report concerns the news sources *linked to* by actors on Reddit and 4chan, it does not shed light on the grassroots *production of* alternative news or conspiracies within these spaces. As Tuters et al. (2018) show in relation to the Pizzagate conspiracy, the wildest theories can be cooked-up in these spaces through a short burst of a 'butterfly effect' of 'bullshit', unobservable when merely considering the prominence of URLs. A more holistic approach, also taking into account text and images, could thus aid in further contextualizing the current 'fake news' debate. Instead of identifying isolated issues of 'fake news', such broader approaches could tackle the interwoven problematics surrounding the circulation of 'junk news' (Venturini, 2019) and 'network propaganda' (Benkler et al., 2018), from the conspiracist mindset of 'virality-oriented subcultures' to the prevalence of polarizing hyperpartisan content.

References

Alexander, Julia (2017) 'Reddit's New Policy Won't Affect Some of Its Most Notorious, Hate-Filled Subreddits', Polygon (blog). 2 November. https://www.polygon.com/2017/11/2/16591508/reddit-content-policy-update-subreddit-ban-the-donald-kia.

Baumgartner, Jason (2018) 'Pushshift API (version 1.0)', API Documentation, *Pushshift*. https://pushshift.io/api-parameters/.

Benkler, Yochai, Robert Faris and Hal Roberts (2018) *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*, Oxford: Oxford University Press.

Bos, Menno van den (2018) 'Nee, Jíj Bent Een Cultuurrelativist! Hoe Academische Begrippen Strijdwapens Werden', *Vrij Nederland*, 12 December. https://www.vn.nl/identiteitspolitiek-cultuurmarxisme-intersectionaliteit/.

Burger, Peter (2016) 'Moslims vernielen kerstmarkt in Litouwen? Nee: rellen in de VS', *De Gestolen Grootmoeder blog* (blog), 14 December. http://www.gestolengrootmoeder.nl/wordpress/moslims-vernielen-kerstmarkt-in-litouwen-nee-rellen-in-de-vs/.

Collins, Ben and John Russell (2018) 'Russians Used Reddit and Tumblr to Troll the 2016 Election', *The Daily Beast*, 2 March. https://www.thedailybeast.com/russians-used-reddit-and-tumblr-to-troll-the-2016-election.

De Hoax-Wijzer (n.d.) 'Valse Nieuwssites'. https://sites.google.com/site/dehoaxwijzer/valse-nieuwssites.

Dupuy, Lisa (2018) 'GeenStijl Staat Niet Meer Op EU-Lijst Nepnieuws', *NRC Handelsblad*, 29 January. https://www.nrc.nl/nieuws/2018/01/29/geenstijl-staat-niet-meer-op-eu-lijst-nepnieuws-a1590216.

EU vs Disinfo. 2017. 'Sputnik's Short-Lived Presence in the Slovak Press Agency', *EU vs Disinfo* (blog), 1 April. https://euvsdisinfo.eu/sputniks-short-lived-presence-in-the-slovak-press-agency/.

Hagen, Sal, Daniël de Zeeuw, Stijn Peeters, Emilija Jokubauskaitė and Ángeles Briones (2019). 'Understanding Normiefication: A Cross-Platform Analysis of the QAnon Conspiracy Theory', *Digital Methods Initiative*, 21 February.https://wiki.digitalmethods.net/Dmi/WinterSchool2019Normiefication.

Hankes, Keegan and Alex Amend (2018) 'The Alt-Right Is Killing People', *Southern Poverty Law Center*, 5 February. https://www.splcenter.org/20180205/alt-right-killing-people.

Heck, Wilmer (2017) 'Rusland Beïnvloedt Ons Vooral Online', *NRC Handelsblad*, 8 January.

Helmond, Anne (2015) 'The Platformization of the Web: Making Web Data Platform Ready', *Social Media + Society* 1(2):1-11. https://doi.org/10.1177/2056305115603080.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August. https://

www.nytimes.com/2016/08/28/magazine/inside-facebooks-totally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August. https://www.nytimes.com/2016/08/28/magazine/inside-facebooks-totally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html.

Huet, Bob van (2018) 'QAnon Rukt Op in Amerika: Complotgekkies of Wakkere Patriotten?' *Algemeen Dagblad*, 3 August. https://www.ad.nl/buitenland/qanon-rukt-op-in-amerika-complotgekkies-of-wakkere-patriotten~aa24a2ab/.

Kranenberg, Annieke and Hassan Bahara (2018) 'Hoe alt-right online Jodenhaat verspreidt', *de Volkskrant*, 9 November. https://www.volkskrant.nl/gs-b1714693.

Lagorio-Chafkin, Christine (2018) 'Reddit Confirms New Russian Meddling Efforts', Inc., 4 October.https://www.inc.com/christine-lagorio/reddit-finds-new-russian-interference-campaign.html.

MacFarquhar, Neil (2018) 'A Powerful Russian Weapon: The Spread of False Stories', *The New York Times*, 20 January. https://www.nytimes.com/2016/08/29/world/europe/russia-sweden-disinformation.html.

Marwick, Alice and Rebecca Lewis (2017) 'Media Manipulation and Disinformation Online', *Data & Society*, New York.

Mauri, Michele, Tommaso Elli, Giorgio Caviglia, Giorgio Uboldi and Matteo Azzi (2017) 'RAWGraphs: A Visualisation Platform to Create Open Outputs', in *Proceedings of the 12th Biannual Conference on Italian SIGCHI Chapter*, 28:1-28:5. CHItaly '17, New York, NY: ACM.https://doi.org/10.1145/3125571.3125585.

Muirhead, Russell and Nancy L. Rosenblum (2019) *A Lot of People Are Saying: The New Conspiracism and the Assault on Democracy*, Princeton, NJ: Princeton University Press.

Oudenampsen, Merijn (2013) 'Met de Tjoeki Tjoeki Naar Takki Takki'. *De Groene Amsterdammer*, 3 July. https://www.groene.nl/artikel/met-de-tjoeki-tjoeki-naar-takki-takki.

Peek, Simone (2018) 'NOS-Hoofdredacteur Over Bericht Soros: "Zo Had Het Niet Gemoeten"', *NRC Handelsblad*, 24 October.

Phillips, Whitney (2018) 'The Oxygen of Amplification: Better Practices for Reporting on Extremists, Antagonists and Manipulators Online', *Data & Society*, New York.

Roermund, Jannes van (2017) 'Wie Zijn de Mensen Achter Het Nepnieuws in Nederland?' *Nieuwe Revu*, 26 April.

Roig-Franzia, Manuel (2019) 'Inside the Spectacular Fall of the Granddaddy of Right-Wing Conspiracy Sites', *The Washington Post*, 2 April. https://www.washingtonpost.com/lifestyle/style/inside-the-spectacular-fall-of-the-granddaddy-of-right-wing-conspiracy-sites/2019/04/02/6ac53122-3ba6-11e9-a06c-3ec8ed509d15_story.html.

Rogers, Richard (2013) *Digital Methods*, Cambridge, MA: MIT Press

RTL Nieuws (2018) 'Alles Over Complottheorie QAnon – #TrumpUpdate 77', *RTL Nieuws*, 15 September. https://www.rtlnieuws.nl/nieuws/laatste-videos-nieuws/video/4417801/alles-over-complottheorie-qanon-trumpupdate-77.

Shieber, Jason (2017) 'How Reports from 4chan on the Las Vegas Shooting Showed Up on Google Top Stories', *TechCrunch* (blog), 2 October. http://social.techcrunch.com/2017/10/02/how-reports-from-4chan-on-the-las-vegas-shooting-showed-up-on-google-top-stories.

Southern Poverty Law Center (n.d.), 'WorldNetDaily', *Southern Poverty Law Center* (blog). https://www.splcenter.org/fighting-hate/extremist-files/group/worldnetdaily.

Thomas, David R. (n.d.) 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation* 27 (2): 238-46. https://doi.org/10.1177/1098214005283748.

Tufekci, Zeynep (2018) 'YouTube, the Great Radicalizer', *The New York Times*, 10 March. https://www.nytimes.com/2018/03/10/opinion/sunday/youtube-politics-radical.html.

Tuters, Marc, and Daniël De Zeeuw (2019) 'Teh Internet Is Serious Business: On the Deep Vernacular Web Imaginary', *ANSOC Working Paper*.

Tuters, Marc, Emilija Jokubauskaitė and Daniel Bach (2018) 'Post-Truth Protest: How 4chan Cooked Up the Pizzagate Bullshit', *M/C Journal* 21(3). http://journal.media-culture.org.au/index.php/mcjournal/article/view/1422.

Venturini, Tommaso (2019) 'From Fake to Junk News, the Data Politics of Online Virality', in Didier Bigo, Engin Isin, and Evelyn Ruppert (eds), *Data Politics: Worlds, Subjects, Rights*. London: Routledge. https://hal.archives-ouvertes.fr/hal-02003893.

Wendling, Mike (2018). *Alt-Right: From 4chan to the White House*. London: Pluto Press.

Zannettou, Savvas, Tristan Caulfield, Emiliano De Cristofaro, Nicolas Kourtelris, Ilias Leontiadis, Michael Sirivianos, Gianluca Stringhini and Jeremy Blackburn (2017) 'The Web Centipede: Understanding How Web Communities Influence Each Other through the Lens of Mainstream and Alternative News Sources', *17th ACM Internet Measurement Conference*, 405-17.

About the authors

Sal Hagen is a Ph.D. candidate at the University of Amsterdam and co-founder of OILab. His research focuses on anonymous and pseudonymous online subcultures and their political engagements. Methodologically, his work combines media theory with data-driven methods.

EMILIJA JOKUBAUSKAITĖ is a Ph.D. candidate and lecturer in Media Studies at the University of Amsterdam as well as co-founder of the Open Intelligence Lab. Her main research interests consist of fringe online spaces and platforms as well as the scrutiny of research tools and techniques.

Appendices

Appendix 6.1   Compiled list of Dutch Subreddits

Table 6.4   Compiled list of Dutch subreddits

ADODenHaag,AjaxAmsterdam,Alkmaar,Aluhoedjes,Amersfoort,Amsterdam,AmsterdamEnts,Appiememes,Arnhem,Aruba,Assen,avd,AZAlkmaar,Bassie_en_Adriaan,BeermoneyNL,BeNeLux,Bier,Binnenhof,BitcoinNL,Boeken,Bonaire,BuurmanEnBuurman,CariceVanHouten,CelebsNL,Cirkeltrek,CreatieveKoppen,Curacao,de_thierry,de_thierry,DeCorrespondent,DeGraafschap,Delain,Delft,Depressie,DeSpeldOfNietDeSpeld,DeStaat,DeStagiair,DeTandenborstel,DirkJan,Dordrecht,DoucheGedachten,DoutzenKroes,Drenthe,Duindorp,Dumoulin,Dunglish,dutch,Dutch,DutchBoardgames,DutchComedy,DutchDesign,DutchEnts,DutchFIRE,DutchHipHop,DutchHouse,DutchKeto,DutchMusic,DutchPoetry,DutchProblems,DutchSkincare,DutchTech,Eindhoven,Elfstedentocht,Enschede,Epica,Eredivisie,Ethtradernl,FCGroningen,FCTwente,FCUtrecht,Feyenoord,Formule1,Forum_Democratie,FreeDutch,Frisia,Frysk,GekkeJongens,Geldzaken,Geschiedenis,Gezellig,Glitterplaatjes,groenlinks,Groningen,Haarlem,HanzeMemes,HeilzameMeems,Hulpdiensten,ik_ihe,JuridischAdvies,Kamerstukken,KatholiekeNederlanden,Kibbeling,KNVB,Koffie,Kut_Doen_Op_Tinder,Kutleven,Kutreclames,LearnDutch,LeCutInsideMan,Leiden,Leraren,LimburgMan,Lowlands,Maastricht,MamaAppelsap,Marktplaats,MaxV,Medejongeren,meerderheidnederland,Metal_NL,Motorfietsen,NACBreda,NEC,Nedercringe,Nederporn,NepParlement,netherlands,NetherlandsPics,NietDeSpeld,Nijmegen,NLvsFI,Nuenen,NuJijInActie,oekraineukraine,ossem,otonde,Papgrappen,ParadoxPlaats,PECZwolle,PodcastNed,PokemonGoNL,Poldersocialisme,Politiek,Politiekmemes,PSV,RijmenDichten,RMTK,RodaJC,RomeeStrijd,Rotterdam,Saba,SCCambuur,SCHeerenveen,ScoutsNL,SportNL,Spyker,StefanieJoosten,Strips,Stroopwafels,StudyInTheNetherlands,SXM,SylvieMeis,Tenenkrommend,The_Klaver,The_Wilders,TheHague,theNetherlands,theNetherlandsFree,theNetherlandsNature,Tiesto,tokkiefeesboek,tokkiefeesboek,TokkieFeesboek,Top2000,TUDelft,TuurlijkIsDatEenDing,Twente,Utrecht,VeganNL,Veluwe,VitesseArnhem,Voetbalnieuws,VraagDerNederlanden,VraagHetAanTonyQuark,Wetenschap,WIDM,WithinTemptation,XboxNederland,Zitkamer,ZonderContext,Zwolle

Appendix 6.2   Expert List of Dutch Junk News Domains

Table 6.5   Junk news categorization. Edited and enhanced list originating from
***Hoax-Wijzer*. 23 March, 2019**

name	domain_name	category
Opiniez	opiniez.com	hyperpartisan
Stop de Bankiers	stopdebankiers.com	hyperpartisan
t Pallieterke	pallieterke.net	hyperpartisan
E.J. Bron	ejbron.wordpress.com	hyperpartisan
Dagelijkse Standaard	dagelijksestandaard.nl	hyperpartisan
Climategate	climategate.nl	hyperpartisan
De Staat van het klimaat	destaatvanhet-klimaat.nl	hyperpartisan
JDreport.com	jdreport.com	hyperpartisan
tpook.nl	tpook.nl	clickbait
Nine for news	ninefornews.nl	conspiracy
Daily Paper	dailypaper.org	hyperpartisan
Parra	parra.nu	clickbait
Viraaltjes	viraaltjes.nl	clickbait
about media	aboutmedia.nl	clickbait
Martin Vrijland	martinvrijland.nl	conspiracy
The Loyalist	loyalist.nl	conspiracy
desportgek	desportgek.nl	clickbait
Even Delen	evendelen.net	clickbait
nietbarkie.nl	nietbarkie.nl	clickbait
hardewaarheid.nl	hardewaarheid.nl	clickbait
The Post Online	tpo.nl	tendentious-hyperpartisan
Saltmines.nl	saltmines.nl	hyperpartisan
eunmask.wordpress.com	eunmask.wordpress.com	hyperpartisan
novini.nl	novini.nl	hyperpartisan
niburu.nl	niburu.nl	conspiracy
React nieuws	reactnieuws.net	hyperpartisan
DMLplus	dlmplus.nl	conspiracy
martinvrijland.nl	martinvrijland.nl	conspiracy
world unity	worldunity.me	conspiracy
cultuur onder vuur	cultuurondervuur.nu	hyperpartisan
volks nieuws uit Amsterdam noir	volksnieuwsuitamsterdamnoir.com	conspiracy
stop pas familie drama	stoppasfamiliedrama.blogspot.com	conspiracy
Obed Brinkman	obedbrinkman.noblogs.org	hyperpartisan
veren of lood	verenoflood.nu	hyperpartisan
De fouten van Rutte	defoutenvanvvdrutte.nl	hyperpartisan
Finding voices	finding-voices.blogspot.com	conspiracy
ik was in haren	ikwasinharen.nl	hyperpartisan

name	domain_name	category
Piet Kei	pietkei.nl	conspiracy
bewiseman	bewiseman.nl	hyperpartisan
Alternatieve Media Nederland	alternatievemedianederland.com	hyperpartisan
Apokalypsnu	apokalypsnu.nl	conspiracy
Don Quijotte	donquijotte.wordpress.com	conspiracy
Drimble	drimble.nl	hyperpartisan
Fenixx	fenixx.org	hyperpartisan
Hector Reban	hectorreban.wordpress.com	hyperpartisan
Herstelde Republiek	herstelderepubliek.wordpress.com	hyperpartisan
Kremlin Troll	kremlintroll.nl	hyperpartisan
Magilando	magilando.wordpress.com	conspiracy
Niburu	niburu.co	conspiracy
Absolute Duality	nl.absoluteduality.com	conspiracy
Stan van Houcke	stanvanhoucke.blogspot.com	hyperpartisan
Stelling	stelling.nl	conspiracy
Tref	tref.eu	hyperpartisan
Want to know	wanttoknow.nl	conspiracy
Xandernieuws	xandernieuws.punt.nl	hyperpartisan
APost	apost.com	clickbait
Best Gezond	bestgezond.nl	clickbait
Bewust Nieuws	bewustnieuws.nl	conspiracy
Blik Op NOSjournaal	blikopnosjournaal.blogspot.nl	hyperpartisan
Bovendien	bovendien.com	conspiracy
Brekend Nieuws	brekendnieuws.nl	conspiracy
Dagelijks.nu	dagelijks.nu	clickbait
Dagelijkse Krant	dagelijksekrant.nl	clickbait
De Stille Waarheid	destillewaarheid.nl	hyperpartisan
Earth Matters	earth-matters.nl	conspiracy
Ella'ster	ellaster.nl	conspiracy
Health Bytes	healthbytes.me	conspiracy
Healthwatch gezondheidswaakhond	healthwatch.nu	conspiracy
Leeshetnu	leeshetnu.nl	clickbait
Lekkerwonen	lekkerwonen.org	clickbait
LikeMag	likemag.com	clickbait
Lijstverse	lijstverse.nl	clickbait
Live kijken	livekijken.nl	clickbait
Nieuwsdump	nieuws-dump.nl	clickbait
Not100	not100.nl	clickbait
Ongelooflijke Verhalen	smullen-maar.nl	clickbait
Prankster	prankster.nl	clickbait
Revolutionair Online	revolutionaironline.com	hyperpartisan
Snuggerd	snuggerd.nl	clickbait
Time 2 Wake Up	time2wakeup.me	hyperpartisan

name	domain_name	category
Tips & Weetjes	tipsenweetjes.nl	clickbait
Tis Wat	tis-wat.nl	clickbait
TrendBuzz	trendbuzz.nl	clickbait
Trendnieuws	trendnieuws.nl	clickbait
Trendnova	trendnova.nl	clickbait
United-Lightworkers	united-lightworkers.be	conspiracy
Vaccinatieraad	vaccinatieraad.nl	conspiracy
Viraalpunt	viraalpunt.nl	clickbait
Viral Mundo	viralmundo.nl	clickbait
Viraaltje	Viraaltje.nl	clickbait
Vrouwen Dingen	vrouwendingen.com	clickbait
Vrijspreker	vrijspreker.nl	hyperpartisan
The Post Online – Politiek	politiek.tpo.nl	tendentious-hyperpartisan
Erkenbrand	erkenbrand.eu	hyperpartisan
Das Kapital	daskapital.nl	hyperpartisan
Glop	glop.nl	hyperpartisan

Appendix 6.3   Metrics on domains shared on Reddit and 4chan/pol/

Table 6.6   **Metrics for the proportions of news, Dutch news, Dutch junk news, and categories in posts on Dutch language subreddits, 01-Dec-2015 to 01-Jun-2019**

Reddit 01-12-2015 to 01-06-2019	OPs			Category	Count	Percentage
	Positive	Negative	Percentage	*Mainstream*	5255	89.9%
News	5959	27594	21.64%	*Other*	580	9.7%
Dutch news	5557	402	93.3%	*Hyperpartisan*	24	0.4%
Dutch junk news	24	5935	0.4%	*Disinformation*	0	0%
				Clickbait	0	0%
				Conspiracy	0	0%

Table 6.7   Metrics for the proportions of news, Dutch news, Dutch junk news, and categories in posts on 4chan/pol/ with a country flag from the Netherlands, 01-Dec-2015 to 01-Jun-2019

Reddit 01-12-2015 to 01-06-2019		OPs	Category	Count	Percentage
	Positive	Negative	Percentage		
News	14541	87301	16.6%	*Mainstream*	10399	71.5%
Dutch news	3403	11138	23.41%	*Other*	1414	9.5%
Dutch junk news	2809	11732	19.3%	*Hyperpartisan*	2091	14.4%
				Disinformation	241	1.7%
				Clickbait	45	0.3%
				Conspiracy	351	2.4%

Appendix 6.4   Most-posted URLs from posts containing links to RT.com and Sputnik on 4chan/pol/

Table 6.8   Most occurring URLs from posts containing links to RT.com and Sputnik by posts with a Dutch country flag on 4chan/pol/. Derived with 4CAT

Title	URL	Amount of appearances
Stabbing death of 15yo schoolboy by 'Arab migrant' classmate in Sweden sparks outrage	https://www.rt.com/news/329243-sweden-migrant-stabbed-teenager/	9
Sweden: Rape Capital of the West	https://www.gatestoneinstitute.org/5195/sweden-rape	9
Sweden charges 5 teenage refugees with beating, gang-raping boy for over an hour	https://www.rt.com/news/369415-sweden-refugees-rape-afgan-boy/	9
Belgian prosecutor's office denies terrorist track in murder of guard at nuclear centre	https://www.rt.com/news/337276-belgium-nuclear-guard-killed/	8
Sex Slave Found Chained in Base-ment of Immigrant Cafe in Sweden	http://speisa.com/modules/articles/index.php/item.3584/sex-slave-found-chained-in-basement-of-immigrant-cafe-in-sweden.html (now offline)	8

7 Fake news and the Dutch YouTube political debate space

Marc Tuters[1]

Abstract

Fake news is a contested concept. In the wake of the Trump insurgency, it has been reclaimed by "hyperpartisan" news providers as a term of derision intended to expose perceived censorship and manipulation in the "mainstream media". As patterns of televisual news consumption have shifted over the past several years, YouTube has emerged as a primary source for "alternative" views on politics. Current debates have highlighted the apparent role of YouTube's recommendation algorithms in nudging viewers towards more extreme perspectives. Against this background, this chapter looks at how YouTube's algorithms frame a Dutch "political debate space". Beginning from Dutch political parties' YouTube channels, we find the existence of an "alternative media ecology" with a distinctly partisan political bias, the latter which is resonant with the populist-right critique of the mainstream media as the purveyors of "fake news".

Keywords: YouTube, hyperpartisan media, right-wing populism, comment culture, Forum voor Democratie

Introduction: YouTube as radicalizing platform

On 1 February 2019, *de Volkskrant* and *De Correspondent* published a much-anticipated report on YouTube as a radicalization platform: 'Leidt het algoritme van YouTube je naar extreme content?' (Translated: Does the YouTube algorithm lead you to extreme content?) (Bahare et al., 2019).

---

1   The research was undertaken with Camille Godineau, Daniel Jurg, Lieve Keizer, Dana Lamb, Aikaterini Mniestri and Ashley Snoei. (Special thanks to Daniel Jurg.)

Drawing on data analysis produced by some of the same authors of this cur-rent report, it sought to investigate the extent to which YouTube functioned as an engine for online 'radicalization' (Tufekci, 2018; Holt, 2017). As these and other reports claimed, YouTube appears to be playing a significant role in the development of a new antagonistic culture of debate, in which an 'alternative influence network' is said to have the capacity to shape public opinion, especially amongst a demographic of young and politically rightward leaning men (Lewis, 2018). Amongst the figures who have risen to prominence through this YouTube debate culture, is for example the now internationally well-known, Canadian academic psychologist Jordan Peterson. Peterson is often viewed as a conservative political figure, even as a member of the so-called 'alt-right' (Lynskey, 2018). This latter term, which stands for 'alternative right', gained popularity in the aftermath of the 2016 US election as a means of describing a seemingly new breed of conservative online activism that brought together a diverse array of actors united against the perceived hegemony of 'politically correct' liberal values, often through a jokey and transgressive style (Hawley, 2017; Heikkilä, 2017; Nagle, 2017). Whilst Peterson has refuted an association with the alt-right, in consulting how the YouTube algorithm itself categorizes Peterson it would appear that the platform nevertheless still views him in this light. How exactly this categorization works is inscrutable to all but the owners of the platform. And while it should not be taken as definitive proof of what a given channel is about, we can nevertheless assume that YouTube's categorization does reflect some essential aspect of its bottom line, which is to keep the most people watching for the longest time possible.

The present research report uses the same platform-centric categorization method as introduced above, applying it to studying the space of Dutch parliamentary political debate on YouTube. While initially motivated by the question of how this space engages with the issue of 'fake news', the report however moves away from defining fake news as disinformation (which is to say the deliberate manipulation of facts) towards conceiving of it in terms of a form of 'hyperpartisan' information as produced by 'openly ideological web operations' (Herrman, 2016). This latter conception of fake news is furthermore also resonant with the redefinition of the term as it has begun to be appropriated by politicians around the world in order to describe news organizations whose coverage they find 'disagreeable' (Wardle and Derakshan, 2017: 16) – notably by Donald Trump who often refers to 'establishment' media outlets such as CNN and the *New York Times* as fake news (Weisman, 2018). In the European context, where laws such as the German Netz DG have been passed at the national level rendering platforms

responsible for policing this problem, such critics have framed the attempt at regulating fake news as a 'blueprint' for state censorship (Wardle and Derakshan, 2017: 71). In spite of these controversies, the bewildering issue of fake news, entangled as it is together with broader changes in political and media spheres at a variety of levels, remains relatively understudied outside of the American context – the latter which is in many ways quite unique for a variety of factors (Benkler et al., 2018: 381-387).

Whilst the precise mechanisms of YouTube's algorithms are unknown, what is clear is that they are designed to optimize 'engagement,' defined in terms of 'views' as well as the number of 'comments', 'likes', and so forth (Covington et al., 2016). In recent years, YouTube's algorithm has been critiqued as creating a so-called 'rabbit-hole effect' (Holt, 2017), whereby the platform's algorithms, as mentioned above, have been accused of recommending ever more extreme content, in an effort to keep viewers engaged. It has thus been argued that this particular environment has helped to draw audiences from the mainstream towards the fringe. Along these lines, it has indeed been argued that, on YouTube, 'far-right ideologies such as ethnonationalism and anti-globalism seem to be spreading into subcultural spaces in which they were previously absent' (Marwick and Lewis, 2017: 45). Academic researchers exploring this phenomenon have, for instance, found that YouTube's 'recommendation algorithm' has a history of suggesting videos promoting bizarre conspiracy theories to channels with little or no political content (Kaiser and Rauchfleisch, 2018). Beyond this current 'radicalization' thesis, for some years new media scholars have observed that YouTube appears to multiply extreme perspectives rather than facilitating an exchange or dialogue between them – as for instance observed in an earlier audience reception study of a polemical documentary produced by the Dutch parliamentarian Geert Wilders and published to YouTube (van Zoonen et al., 2011).

We may perhaps want to consider the growth of a new combative and conspiratorial culture of debate on YouTube, as documented by these more recent YouTube studies, in the context of broader global political shifts that have been picking up pace in the latter part of the 2010s, the latter which may be referred to under the umbrella term of 'national populism' (Eatwell and Goodwin, 2018). Referred to as 'thin ideology' (Mudde and Kaltwasser, 2017), populism is characterized by a suspicion of the 'elite' as well as a purist notion of the 'general will' of the true people, the latter which is not necessarily equivalent to the democratic electorate (Muller, 2016). Recent new media scholarship has convincingly demonstrated how such populist anti-elite sentiment translated readily into an embrace of alternative news media,

particularly in the US context in which the rise of an 'alternative partisan news system' is said to have played a crucial role in the last presidential election (Benkler et al., 2018). While there exists right and left variants of the concept, right-wing populists tend to have an advantage in speaking to nationalist issues (Goodwin and Eatwell, 2018). In the analysis of political scientists Matthew Goodwin and Roger Eatwell, national populism can be characterized by four factors, that they call the 'four D's'. These are a *distrust* in the liberal 'establishment', the *destruction* of long-held communal identity owing to forces of globalization, the relative *deprivation* as 'neoliberal' economics leads to a rise in inequality and finally the political *de-alignment* from traditional political parties. Whatever the political valence of national populism going forward, Goodwin and Eatwell conclude that these four factors are destined to have 'a powerful effect on the politics of many Western countries for many years to come' (Goodwin and Eatwell, 2018).

Fakeness and hyperpartisanship

Thus far the problem of fake news has primarily been studied in the context of Anglo-American national populism, specifically the political communication surrounding the Brexit referendum and the insurgent Trump campaign and subsequent presidency. Furthermore, most current studies of fake news have tended to focus on the US context, where institutional trust levels in media and in the government are said to be at an all-time low (Edelman, 2018) and political polarization stands at an all-time high (boyd, 2017). In that context, it has been noted that the standard designation of 'fakeness', as a diagnosis to be remedied by 'fact-checking', fails to acknowledge a much more profound epistemological problem. As has long been argued in the literature on the sociology of scientific knowledge, 'facts' are better understood as products of negotiated settlements amongst domain experts (Latour and Woolgar, 1976). The atmosphere of general suspicion towards expertise that underpins the rise of national populism thus poses a fundamental epistemological problem. This same general atmosphere of suspicion furthermore works to undermine trust in professional media institutions as the arbiters of facts. It is argued that this particular context plays into an innate psychological tendency to seek out bias-confirming information.[2]

2   Indeed, from the social psychology perspective, 'fake news' would arguably represent a more 'natural' human preference than 'facts', insofar as the former more readily provides support that conforms to the 'moral foundations theory' of human values (see Haidt, 2012).

A leading scholar in the field recently posed the dilemma thusly: in the US, somewhere between '25 and 30 percent of Americans willingly and intentionally pay attention to media outlets that consistently tell that audience what it wants to hear, and *what that audience wants to hear is often untrue*' (Benkler et al., 2018: 367, emphasis added). In the aforementioned context, such scholars furthermore suggest that technocratic solutions designed to regulate and censor this fake news would be 'neither feasible nor normatively attractive as they would certainly generate heated protest from a large spectrum of the populace' (367). Even in less politically polarized contexts the problem of regulation is extremely challenging. It is not isolated cases of fake news that are at issue but the larger problem of what these scholars refer to as 'network propaganda', which constructs 'materially misleading' narratives from a tissue of facts (102). Because it is extremely difficult to establish 'ground truth', reliable technological solutions to the problem of fake news are thus unlikely at present (377).

In light of the former diagnosis, the empirical study below reframes the issue of 'fake news' in the Dutch-language YouTube space by profiling the emergence of a network of channels engaged in political debate and commentary. It conceptualizes elements of this network as hyperpartisan, in the sense that they are 'openly ideological web operations' (Hermann, 2016). Whilst marginal in comparison to mainstream Dutch news organizations these channels nevertheless appear highly engaging, at least from the perspective of the YouTube algorithm. As alternative news organizations almost all of these channels are unique to YouTube, making them 'natively digital objects' (Rogers, 2013: 1). The empirical research that follows is thus concerned with understanding how these channels work, what their issues are, how they 'do' Dutch national politics, and how they differ from the mainstream.

YouTube's 'related channels' and Dutch political space

Following the 'digital methods' approach (Rogers, 2013), 'the discussion that proceeds here can be considered as an endeavour to 'repurpose' YouTube as a research device by thinking along those lines that the platform makes available to the public. In particular the approach uses YouTube's 'related channel' algorithm as the basis for an analytical method that takes a set of Dutch alternative news channels as its primary site of study. As a forewarning, it is important to recognize the contrived or 'artificial conditions' with which the medium frames the object (Rieder et al., 2016: 3). These conditions effectively make it impossible for the digital methods researcher to identify where the medium ends and where in turn the social begins. Though we do have a sense

**Figure 7.1   Related channels on YouTube. Table where the top row displays the
                name of each Dutch political party and the columns below each
                of these are the media organizations associated with each party's
                YouTube channel. 29 March 2019**

LIST OF MOST IMPORTANT NEWS ORGANIZATIONS (RELATED CHANNELS)

Source: YouTube[3]

of how some of YouTube's algorithms work from both the official corporate
statement (Press, 2019), as well as from attempts by scholars to 'reverse engineer'
or 'teardown' the platform (Bessi et al., 2016), the precise functioning is unknown
and in any case likely to change, thus frustrating the exact reproducibility
of any of our findings. At any time, YouTube may furthermore suddenly and
unaccountably change its algorithms, which are in any case invisible to all but
certain engineers at YouTube. Needless to say, *the capriciousness of platforms*
renders the effective control of variables practically impossible. Whilst the
latter is axiomatic to digital methods it should also be recognized as an inherent
limitation of the methods as well. For these reasons the present report is thus
best approached as 'snapshots' of a milieu that is constantly in flux.

The empirical research focuses primarily on repurposing YouTube's
'related channels' for the purpose of analysis of the Dutch political space.
In order to delineate what we are here calling the Dutch 'political debate
space' in YouTube, we started from the channels corresponding to the Dutch
political parties. Since all 13 Dutch national political parties currently in

---

3   Note that the Dutch labour party visualized on the far right of the graph did not return any
related channels.

the parliament have a YouTube presence, we used these channels as a 'seed list', or set of starting points, for the subsequent research. Starting then from this seed list the first technique compares all of the channels that YouTube classified as related to those of the Dutch political parties. This particular approach to categorization in all likelihood involved no human oversight; rather, it should be understood as an artefact of how the algorithm 'values' the object, in relation to the aforementioned 'engagement' metrics. Following the digital methods approach, the analytical gambit here is that the channels that YouTube suggests may be treated as a measure of how the platform views those parties.[4]

The most unusual finding is that the algorithm relates one particular channel to almost all parties across the political spectrum: Forum voor Democratie (FvD). As a new 'Eurosceptic' party with a younger demographic than the established nationalist populist Partij Voor de Vrijheid (PVV), FvD and its agenda seem to dominate discussion in political debate in a network of 'alternative' channels discussed below, several of which YouTube relates to the parties, most notably 'TheLvkrijger'. Before going on to discuss these alternative news channels in detail, the next most striking finding here is how the algorithm seems to organize the political spectrum in relation to different 'establishment' news organizations. One cluster of parties is associated with CNN, ABC, NOS[5] and another around *De Telegraaf*, media organizations that may be considered as relative liberal and conservative/populist, respectively. While it is not necessarily easy to arrange the Dutch political parties on a left-right axis – as many smaller parties are more issue-based – it is worthy to note how the algorithm groups the Groen Links and Denk parties with centre-right and right-of-centre parties. In addition to *De Telegraaf*, the algorithm also relates all of the parties in this latter cluster to alternative Dutch news organization: Omroep PowNed, a public radio and TV broadcast renowned for its satirical news show, PowNews, which often ridicules politicians with provocative questions. In what follows we will categorize Omroep PowNed, along with *GeenStijl*, a blog popular for its similarly abrasive style, as members of the *established anti-establishment* alternative news organizations.

That the algorithm also relates the parties to a smattering of large Dutch commercial and public media channels (WNL, RTL Nieuws, NPO Radio 1,

---

4   One should note here that social media use machine learning for predictive consumption in which 'success' is a measure of how correctly the algorithm predicts what a user will engage with. A well-known critique here is the notion of the 'filter bubble' (Pariser, 2011), which argues that algorithmic categorization can have the effect of narrowing the range of alternate viewpoints that one is exposed to.

5   Note that we removed most US channels from Dutch media network visualization below.

Figure 7.2   TheLvkrijger post: Translated into English: 'He who is silent agrees!
Don't shut up anymore! This is your country! Claim it!'

Veronica Inside), is unsurprising as these would be an expected part of an
average Dutch media diet. What is likely surprising to those unfamiliar with the
Dutch political space in YouTube is the network of alternative or 'alt' channels
that YouTube relates to the parties, notably the aforementioned 'TheLvkrijger',
but also 'Arnews', 'Leukste YouTube fragmenten', 'Lissauer' and 'Rafiek de
Bruin.' With the possible exception of 'Arnews', all of these channels could be
categorized as 'openly ideological web operations'. As we will see, these Dutch
political debate channels are 'natively digital objects [...] "born" in the new
medium' (Rogers, 2013: 19), as opposed, for example to Omroep PowNed. While
some of these channels, like TheLvkrijger, are transparently partisan, national
populist sentiments seem common in this space, as for example captured in a
post by TheLvkrijger encouraging viewers to vote in the upcoming elections,
which featured the slogan 'He who is silent agrees! This is your country! Claim it'.

The Dutch YouTube media sphere

In an effort to create a panoramic graph of the larger Dutch YouTube media
sphere that would also remain connected to the Dutch political sphere on
the platform we used YouTube's related channels algorithm to 'snowball' out
from the seed list of the 13 parties to 3 degrees of relations. We subsequently
visualized the related channel network with network analysis software,

Figure 7.3   Related channels on YouTube. Panoramic graph of larger Dutch YouTube media sphere. This graph was produced two months apart on 29 March 2019 and again on 22 May 2019 with identical outcomes.
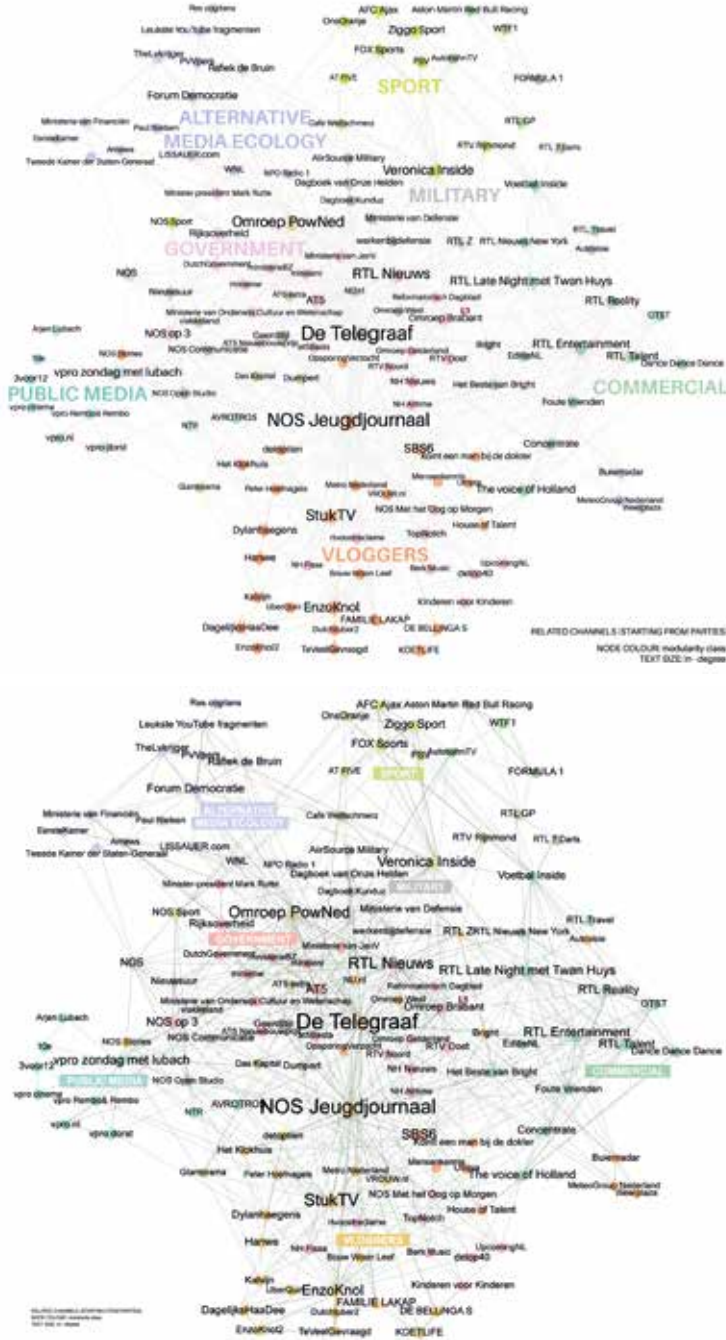
Visualization by Federica Bardelli using Gephi (Basian et al., 2009)

where nodes represent channels and edges represent relations according to YouTube's algorithm. The size of the text represents a measure of their relative importance within the network. Finally, relative similarity between channels determines their colouration, clusters which we have then labelled as *government*, *military*, *commercial*, *vlog*, *public*, *sport* and, finally, our specific *alternative media ecology.* The largest nodes in the graph are all 'establishment' media organizations with NOS Jeugdjournaal, RTL Nieuws and *De Telegraaf* at the centre. Slightly outside of the centre another large node is the established, anti-establishment channel Omroep PowNed, known once again for its 'edgy' confrontational style of reportage. If one continues along this same line one encounters the cluster labelled *alternative media ecology* at the centre of which the most connected node is FvD but which also includes a few government channels (for example Eerste Kamer) as well as a number of the aforementioned 'alt' political debate channels which we encountered earlier (for example 'Leukste YouTube Fragmenten'). In the next steps of the analysis we will delve more deeply into these 'alt' debate channels by performing some qualitative analyses of their content.

In both the panoramic map as well as in the prior analysis (based on only a single degree of relations to the seed list), we find the presence of a number of 'natively digital' political debate channels, such as 'Leukste YouTube Fragmenten' and TheLvkrijger. In considering these channels as a type of mini-genre, we can thus compare their style and how they 'do' Dutch politics. At the outset it should be noted that, by certain measures, some of these channels appear quite marginal. 'TheLvkrijger', for example, which YouTube related to half the parties, only has 6.5 thousand subscribers. CNN, which YouTube also related to half the parties, has 6.5 million subscribers. The Dutch political space on YouTube is not that large, however, and in any case, despite differing by orders of magnitude, YouTube related channels algorithm places CNN and 'TheLvkrijger' on the same footing. One degree of relations gives us a collection of 'alt' political debate channels including 'TheLvkrijger', 'Leukste YouTube Fragmenten', 'Rafiek de Bruin', 'LISSAUER.COM', 'Res Cogitans', 'Omroep PowNed', 'Arnews', to which we can add a few more by exploring their relations including 'GeenStijl', 'AllePolitiek' and 'Deweycheatumnhowe'. In analyzing their style, we can observe that 'TheLvkrijger', 'Leukste YouTube Fragmenten', 'Rafiek de Bruin', 'AllePolitiek' and 'Deweycheatumnhowe' are all of a sort, in that all post debate clips or interviews. Furthermore, sites as 'Arnews' and 'LISSAUER' use 'meme' graphics – a style also employed, and in fact pioneered to an extent, by PowNed and *GeenStijl*. Somewhat like Omroep PowNed in style, *GeenStijl* is famed for its provocative anti-PC tone. Settled in the Dutch media landscape (and with PowNed receiving

structural funds from the government), they can thus fairly be labelled as 'established anti-establishment'. Using clickbait tactics to attract attention, with the notable exception of AllePolitiek, the aim of these channels seems to be to amplify dissensus in the Dutch political space. Whilst this of course stands in marked contrast to the country's long history of consensus politics, where one normatively stands on this depends on one's democratic political theory. Furthermore, whilst several channels are transparently partisan, what is remarkable is that the majority of the most viewed videos in most of the channels focuses on figures from the FvD and PVV.

To provide a synoptic view of the natively digital debate channels' issues one can look at the most commonly used words in the titles of all of the channels in the form of 'word clouds' with words colour-coded and sized by frequency. Those appearing in black are issues such as referendum, climate agreement, dividend tax and Brexit, whist those in colour are the names of parties and their spokespeople. At first glance, what one notices is that 'Arnews' and 'AllePolitiek' appear primarily issue driven, whilst the other channels seem more engaged with Dutch political personalities. One can also observe the relative similarity between 'ResCogitans' and 'Leukste YouTube Fragmenten', as channels that both appear partisan towards FvD – on closer inspection this is indeed the case (and in fact they even appear to be run by the same person). Similarly, 'TheLvkrijger' appears to be partisan towards the PVV, which is also the case on closer inspection. As with the thumbnails, discussed above, the names of the figures from both these parties commonly appear in all these channels video titles. Further scrutiny reveals all of these channels to be at least somewhat sensationalistic, with 'Arnews', often using terms like heated debate ('verhit debat') in order to describe content. The more partisan of the channels follow an antagonistic logic when commenting on parliamentary debates, identifying the winner or loser of a given debate, at times resembling a debate genre familiar on YouTube, for example in videos featuring Jordan Peterson, often labelled in the style: *Jordan Peterson DESTROYS so and so.*

Alongside the related channels findings, the fact that official Dutch parliament channels, along with Forum voor Democratie (but not the other Dutch political parties), are clustered alongside these 'alt' debate channels seems peculiar. Given the aforementioned capriciousness of platforms, might these findings be attributable to an *excited algorithm* in the aftermath of FvD's surprising success in the senate elections? If so, then one would expect these findings to differ when reproduced at another point in time, either revealing an underlying stable state of network composition or else another excited state. With this question in mind we reproduced these first two methods, that were initially explored prior to the provincial (senate)

Figure 7.4   Thumbnail diagram of the 'fringe channels" top ten most popular videos
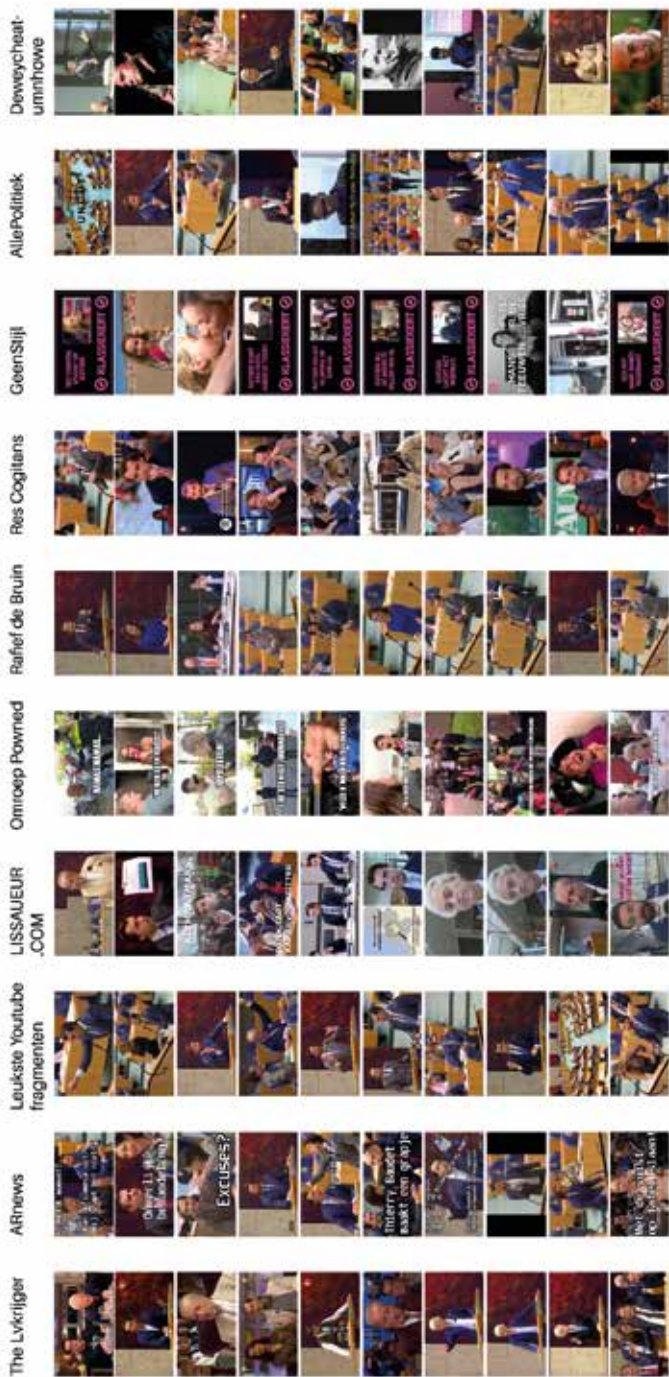
TOP 10 MOST POPULAR VIDEOS AMONG THE RELATED NEWS ORGANIZATIONS CHANNELS

Visualization by Federica Bardelli

Figure 7.5   Screenshot from the 'About' page on Cafe Weltschmertz's YouTube channel which includes a sarcastic 'trigger warning' for viewers who might be angered by its frank approach to political debate, as well as crypto-normative espousal of 'democratic hygiene processes'[7]

election, at the time of the EU parliamentary elections. Remarkably, we found no substantial difference in either the channels that YouTube considered as related to the parties (see Appendix 7.1). Moreover, the panoramic graph remained *identical*,[6] suggesting that it may thus reflect an underlying stable state of how the algorithm currently categorizes the larger Dutch YouTube media sphere (see Figure 7.3). Because the EU elections did involve several other parties, we did however identify the presence of two new clusters in the panoramic graph: one of which, associated with the new pan-European Volt party, floats on its own completely disconnected from the overall network; and another, associated with Dutch Pirate Party, which is connected to the larger network via a channel 'talking-head chat show' called 'Cafe Weltschmertz'. In close proximity to the alternative media ecosystem discussed above, Cafe Weltschmertz seems to frame its political debates in a *tendentious style* similar to some of the channels profiled above – referring to its approach, for example, as 'politically incorrect'. In this same cluster we also however find leftist investigative journalism channels including 'Follow the Money' and *De Correspondent* as well as the expected channels focused on the issue of privacy, 'Bits of Freedom', 'Privacy First' and finally a debate channel called 'Potkaars Podcast' featuring a video on its front page, entitled 'Potkaars praat met iedereen' (Potkaars speaks with everybody). In light of our subsequent discussion of fake news as a topic of debate, the video's description is worth quoting at length: 'If you want real news, you have to cut through the smoke -smoke & mirrors- to get to information and demand a controllable government. Dismissing information as 'fake news' is easy. But what do you replace it with?'

6   YouTube disabled the related video feature shortly after we completed this analysis (YouTube, 2019).

On fake news as issue

The final analysis concerns how channels in the Dutch political space 'do' the one issue in particular: fake news. We begin with a video from 'TheLvkrijger' of PVV representative Martin Bosma confronting the government minister of Internal Affairs, Kajsa Ollongren in a Tweede Kamer debate on the fake news that became central to her portfolio. In the video Bosma accuses Ollongren of 'playing a strange game' with 'what is truthful and what is not'. Bosma points to a fundamental lack of consensus of what's at issue in the fake news controversy more generally as well as alleging that Ollongren has seemingly tended to change her own definition of what constitutes fake news in order to suit her political purposes. When examining the comment section below this video we see commenters echoing Bosma's sentiments and questioning Ollongren's integrity, expressing the need for a concrete definition of fake news (45 likes). Commenters furthermore speak of Dutch public broadcasting as fake news that does 'nothing but mislead citizens' (78 likes).[8] This latter use of the concept of fake news echoes Trump's use of the term as means of attacking the establishment media.

Another video of interest, also published by 'TheLvkrijger', features a PVV-organized populist-type debate with pundits on the topic of fake news ('nepnieuws') and the European Union. Similar to the aforementioned Trumpian framing of fake news, the debate discusses the supposedly left-wing bias in the establishment media, as represented in one participant's statement that 'media serve the ideology of the establishment'. Again, we see positive reception in the comment section where a commenter writes about the Dutch public broadcaster 'NOS = FAKE NEWS', and advocates viewers to seek their news from alternative sources on YT.[9]

In another video on the topic, this time published by *GeenStijl*, a reporter asks politicians leaving the Tweede Kamer about the issue of 'fake news'. This time the reporter's questioning revolves around proposed European

7   Without offering any analysis of this particular unique term, for reasons of brevity and focus, it is nevertheless worth noting here that one of the signature accomplishments of some of the American alternative partisan news system, especially those on the far-right, has been to introduce new terminology in the hopes of normalizing certain formerly radical conceptual frames (Hatewatch Staff, 2015; Benkler et al., 2018: 128-132). In political punditry this technique is sometimes called 'opening the Overton window' (Marwick and Lewis, 2017: 11)

8   The number of likes on a comment can be treated here as a measure of agreement with these sentiments expressed therein.

9   This theme of framing of 'NOS is fake news' and 'NOS is left-wing propaganda' came up in multiple comments of multiple videos.

Figure 7.6   Weighted word lists of the titles of all the videos from the political commentary channels
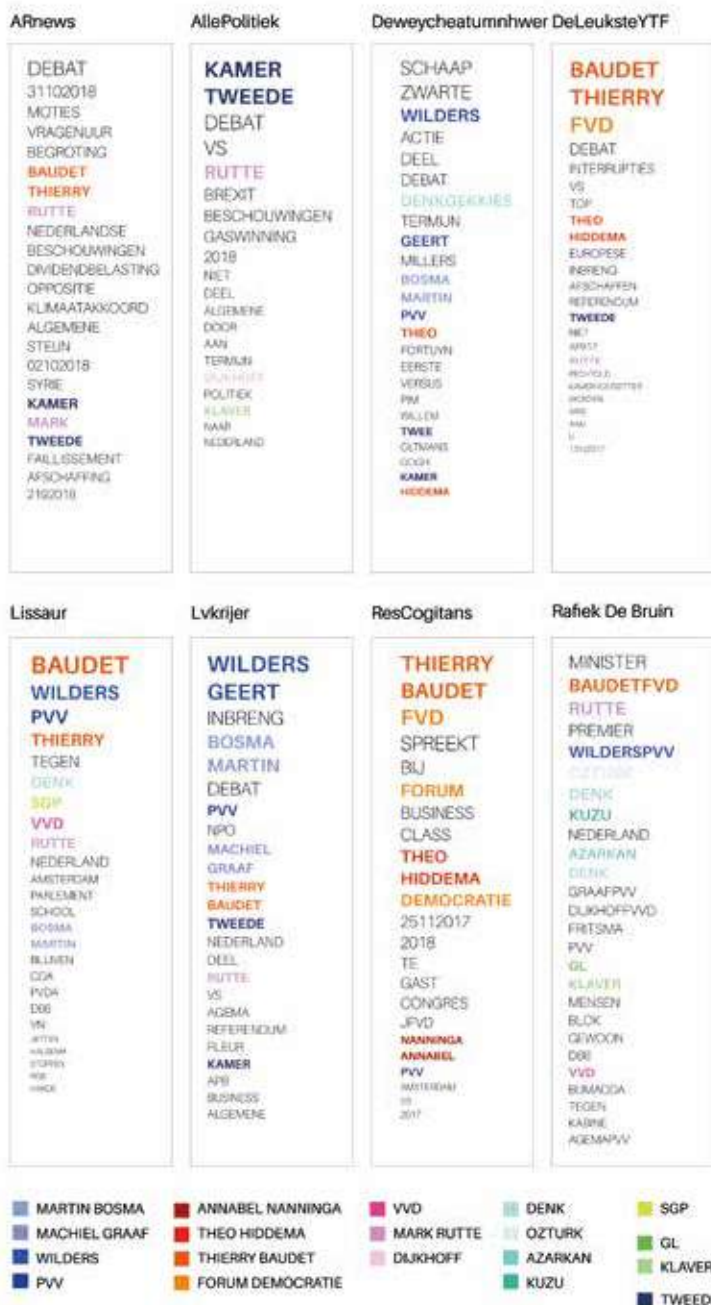
Visualization by Federica Bardelli

**Figure 7.7   Screenshot of a comment under the video of 'Leukste YT Fragmenten',
referring to a 'hopeless debate' and the lack of consensus on the
definition of 'nepnieuws'**

legislation, rather than Ollongren's engagement with the issue. As per the
channel's provocative style, the video does not hide its partisan stance on the
issue, titling the video: 'Brussels is censoring free speech'. Again, representa-
tive Bosma appears, this time with an attack on liberal political correctness
emanating from the liberal technocrats in Brussels, stating 'everything
that is not politically correct will be tackled'.[10] By contrast other politicians
interviewed by the journalist see the necessity of government action in
response to the 'crisis' of fake news. In the comments section multiple com-
menters reiterate the theme of the Dutch Government itself being 'fake news'.

A video published on 'Leukste YouTube Fragmenten' features a Tweede
Kamer debate fragment, once again on the concept of freedom of speech, this
time by FvD leader Thierry Baudet. In this clip Baudet makes a sophisticated
conceptual point on the alethiological (the study of truth). Using logic, Baudet
tries to refute Ollongren's concept of fake news as fallacious. He argues that
if for an atheist god is not true, then that would not make preaching a form
of disinformation. Based on this argument he then claims that Ollongren
would 'accuse the teachings of Catholicism of being untrue' and thus 'a form
of disinformation'. After his sophistry, Baudet then goes on to make the point
that state actors should *not* be allowed to decide what is true and what is
not true. 'You cannot trust the state', he says, what 'we need', he argues is
'free press'. In the comments section commenters state that all politicians,
besides Baudet, define fake news subjectively in particular falling back on the
Russian 'evil actor' narrative, which a commenter characterized as 'Orwellian'.

Although our analysis in the report did not include any left-of-centre
Dutch political commentators, this is not to say that they do not exist on
YouTube. Rather, the methods we used did not bring them to the fore. Indeed,
alongside the 'alt' channels profiled above we can in fact find a video of Arjen
Lubach's Zondag met Lubach, the VPRO broadcast in which the commentator,

10   Political correctness is a very popular straw man amongst 'dark intellectual web' figures
like Jordan Peterson on the right (Weiss 2018), but also left-wing figures such as Slavoj Žižek.

as with the one on the Green Style video, critiques the Russian 'evil actor' narrative. In Lubach's opinion the real threat is in fact an alt-right conspiracy theory, in the style of Pizzagate, which Russian actors merely amplify.

Conclusions: Left-leaning bias?

Academics are often accused by conservatives of having a left-leaning bias; indeed, apparently evidence reflects these allegations (Abrams, 2016). This narrative of 'liberal bias' has been one of the central themes of the American new right, extending from contemporary 'neo-reactionaries' (Malice 2019), to 1990's 'culture warriors' (Nagle 2017), and back to the 1960's 'messengers of the right', who pioneered new media formats in order to disseminate their message (Hemmer 2016). And whilst accusations of such perceived liberal bias may be offered against this report, the fact remains that we came by the data underlying our findings by merely following the platform and the way that it categorized the Dutch political parties. In doing so we identified a series of 'alternative' debate channels many of which appeared hyperpartisan – following Hermann's initial definition of the concept as 'openly ideological web operations'. If we were to locate the political bias of these 'alternative' political debate channels in relation to 'establishment' media organizations in the Netherlands, then many would seem to be roughly aligned with the conservative and populist tone of *De Telegraaf*. Closer still to the antagonistic debate style that we observed in many of these channels is the transgressive style of reportage pioneered by the 'established anti-establishment' of *GeenStijl* and Omroep PowNed.

The Netherlands is also well known for having innovated new media formats, notably reality TV. Additionally, one might also say that the Netherlands has been innovative in developing new positions and issues on the right – notably the issue of homo-nationalism (Aydemir 2011). What we may however also be seeing in this research is the possible emergence of US-style right-wing punditry in the Dutch sphere. While it still seems marginal in the current 'alternative' debate space on YouTube space, exemplary here is the channel of 'Paul Nielsen' (24,531 subscriptions), an English language Dutch 'alt-lite' channel which features such titles as: 'NOS is the Dutch CNN | Biased News in Holland' and 'How Marxists took over the Netherlands'. The site claims to be endorsed by Prof. Dr. Paul Cliteur, expert witness at Geert Wilders' hate speech trial and Ph.D. supervisor to Thierry Baudet. This channel may be a bridging node to the figures in what has been called YouTube's 'dark intellectual web' (Weiss, 2018) or its 'alternative influence network' (Lewis, 2018), such as for

example Stephan Molyneux who features a video with the title: 'The Truth About Immigration and Crime in the NL'. At the same time, in scrutinizing a network one should be careful of the guilt by association fallacy. The point is rather to acknowledge the proximity to an active and controversial area of debate within the platform.

While the possible intervention of 'Russian trolls' as a factor in 2016 US elections has been convincingly made (Jamieson, 2018), the Dutch case is different. In addition to the absence of an Anglo-American 'first-past-the-post' electoral system there is a very different media ecosystem in the Netherlands, which for example still has a much higher trust in the general 'establishment' than in the US (Edelman, 2018). Furthermore, as opposed to the 'neutrality' axiom that has characterized 20th-century US news media, Dutch news media have always been partisan. This having been said what we see in YouTube suggests the emergence of a hyperpartisan Dutch new media political space. Currently it is mostly dominated by one party, but other parties may take this as a challenge. Insofar as YouTube represents a media source in the Netherlands, especially for youth, the Dutch YouTube 'alt' political debate space may represent a re-politicization of youth, which runs counter to neoliberalism's historical project of pre-emptive depoliticization (Foucault, 2008). If political pluralism advocates peaceful coexistence of different interests the combative and anti-politically correct tone of much of political debate on YouTube may militate against this. Can the long tradition of consensus in Dutch culture be brought to bear on this new debate culture or is the Netherlands on the path to Americanized Trump-style polarization? In terms of final takeaways, we can say that an inquiry into fake news, which defines the latter as the deliberate manipulations of facts, must also consider the inherently problematic aspects of this very conception as well. For this reason, regulating disinformation can be portrayed as Orwellian 'thought control', which in turn resonates with populists' anti-establishment, conspiratorial frameworks.

References

Aydemir, Murat (2011) *Dutch Homonationalism and Intersectionality*, ARC-GS Lecture, https://arcgs.uva.nl/videos/video-artikelen/dutch-homonationalismand-intersectionality.html?1556011447190

Bahara, Hassan, Annieke Kranenberg and Dimitri Tokmetzis (2019) 'Leidt het Algoritme van Youtube je Naar Extreme Content?', *de Volkskrant*, 11 February, https://www.volkskrant.nl/nieuws-achtergrond/leidt-het-algoritme-vanyoutube-je-naar-extreme-content~bea101e3/

Benkler, Yochai, Robert Faris and Hal Roberts (2018) *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*. Oxford: Oxford University Press.

Bessi, Alessandro et al. (2016) 'Users Polarization on Facebook and Youtube', *PLoS ONE*, (11)8, pp. 1-13. Open WorldCat, doi:10.1371/journal.pone.0159641.

boyd, danah (2017) 'Did Media Literacy Backfire?', *Data & Society Points*, 5 January, https://points.datasociety.net/did-media-literacy-backfijire-7418c084d88d

Eatwell, Roger, and Matthew Goodwin (2018) *National Populism: The Revolt Against Liberal Democracy*. London: Penguin Books.

Edelman (2018) *2018 Edelman Trust Barometer*. https://www.edelman.com/sites/g/fijiles/aatuss191/fijiles/2018-10/Edelman_Trust_Barometer_Employee_Experience_2018_0.pdf

Foucault, Michel (2008) *The Birth of Biopolitics: Lectures at the College De France, 1978-1979*, Edited by Michel Senellart, Translated by Graham Burchell. New York: Palgrave Macmillan.

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine.' *The New York Times Magazine*, 24 August, https://www.nytimes.com/2016/08/28/magazine/inside-facebookstotally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html.

Holt, Jared (2017) 'White Supremacy Figured Out How to Become YouTube Famous', *Right Wing Watch*, October. http://www.rightwingwatch.org/report/white-supremacy-fijigured-out-how-to-become-youtube-famous/.

Jamieson, Kathleen Hall (2018) *Cyberwar: How Russian Hackers and Trolls Helped Elect a President*. Oxford: Oxford University Press.

Kaiser, Jonas and Adrian Rauchfleisch (2018) 'Unite the Right? How YouTube's Recommendation Algorithm Connects the U.S. Far-Right.' *Data & Society Media Manipulation*, 11 April. doi:10.1093/acprof:oso/9780199641260.001.0001/acprof-9780199641260.

Lewis, Rebecca (2018) 'Alternative Influence: Broadcasting the Reactionary Right on YouTube,' *Data & Society*. https://datasociety.net/wp-content/uploads/2018/09/DS_Alternative_Influence.pdf.

Lynskey, Dorian (2018) 'How Dangerous Is Jordan B Peterson, the Rightwing Professor Who 'Hit a Hornets' Nest'?' *The Guardian*, 7 February. https://www.theguardian.com/science/2018/feb/07/how-dangerous-is-jordan-b-petersontherightwing-professor-who-hit-a-hornets-nest.

Mudde, Cas and Crist.bal Rovira Kaltwasser (2017) *Populism: A Very Short Introduction*. Oxford: Oxford University Press.

Muller, Jan-Werner (2016) *What Is Populism?* Philadelphia: University of Pennsylvania Press.

Pariser, Eli (2011) *The Filter Bubble: What the Internet Is Hiding From You.* New York: Penguin.

'Press – YouTube'. YouTube, 2018, https://www.youtube.com/intl/en-GB/yt/about/press/.

Rieder, Bernhard et al. (2016) 'Data Critique and Analytical Opportunities for Very Large Facebook Pages. Lessons Learned from Exploring "We Are All Khaled Said". *Big Data & Society* 2(2), pp. 1-22.

Rogers, Richard (2013) Digital Methods. Cambridge, MA: MIT Press.

Tufekci, Zeynep (2018) 'YouTube, the Great Radicalizer', *New York Times,* 10 March. https://www.nytimes.com/2018/03/10/opinion/sunday/youtube-politics-radical.html.

Wardle, Claire and Hossein Derakhshan (2017) 'Information Disorder: Toward an interdisciplinary framework for research and policy making', Council of Europe. 27 September.

Weisman, Jonathan (2018) (((*Semitism*))): *Being Jewish in America in the Age of Trump.* New York: St. Martin's Press.

Weiss, Ben (2018) 'Meet the Renegades of the Intellectual Dark Web', *New York Times*, 8 May. https://www.nytimes.com/2018/05/08/opinion/intellectualdark-web.html.

About the author

MARC TUTERS is Assistant Professor in New Media & Digital Culture at the University of Amsterdam. He has graduate degrees from Concordia (Canada) and the University of Southern California (USA), and has worked as an artist and researcher in organizations including the Annenberg Centre, the Banff Centre, National University of Singapore, and Waseda University.

Appendix 7.1

Figure 7.8   Related channels on YouTube, 22 May 2019

Table where the top row displays the name of each Dutch political party who ran candidates in the EU election. As with Figure 7.1, the columns below each of these are the media organizations associated with each party's YouTube channel. The related channels for the parties are identical to Figure 7.1 apart from a few minor differences and the fact that D66 now no longer returns any related channels, as with PvdA. Note also that of the two EU parties that return channels are categorized quite differently than the other national Dutch political parties. Source: YouTube.

8   Conclusions

Mainstream under fire

Richard Rogers and Sabine Niederer

Abstract

To what extent do (foreign) disinformation and so-called fake news resonate in political spaces online within social media around the 2019 provincial elections and the European parliamentary elections in the Netherlands? We found no foreign disinformation, fake advocacy groups or imposter news organizations, but we did take notice of a polarised media landscape, where problematic information, including extreme content, is engaged with (liked, shared, retweeted, etc.) or returned in search engines when querying political parties, political leaders as well as social issues. The study ultimately recommends media training as well as disengagement with extreme content, together with a call for continued access to social media platform data for media monitoring purposes.

Keywords: fake news, disinformation, polarisation, extreme content, media monitoring

Separating disinformation and fake news and developing other notions further

Disinformation and fake news are contemporary phenomena with rich histories. Disinformation, or the wilful introduction of false information for the purposes of causing harm, recalls infamous foreign interference operations in national media systems, such as the Russian campaign 'Operation Infektion' that in the early 1980s effectively publicly linked the HIV virus with a supposed, secret US bioweapons lab. Outcries over fake news, or dubious stories that have the trappings of news, have occurred repeatedly with the introduction of new media technologies that disrupt

the publication, distribution and consumption of news – from the so-called
rumour-mongering broadsheets centuries ago to the blogosphere more
recently. Social media are only the most recent 'truthless' media. Designating
a news organization as fake, or calling it *der Lügenpresse*, however, has a
darker history, associated with authoritarian regimes or populist bombast
diminishing the reputation of 'elite media' and the value of inconvenient
truths more generally.

These days social media platforms have been implicated in both the
practice of disinformation as well as the rise of these two varieties of fake
news. As discussed in the theoretical and empirical scholarship to date,
social media have enabled the penetration of foreign disinformation opera-
tions, the widespread publication and spread of dubious content as well as
extreme commentators with considerable followings attacking mainstream
media as fake.

Worldwide, disinformation and fake news are increasingly under study
together, but the argument could be made to separate them. Indeed, in the
Netherlands evidence of foreign disinformation campaigning is scant; cases
of domestic actors employing the 'Russian playbook' of disinformation tactics
are also seldom documented. Unlike in the case of the US, to which much of
the scholarship is dedicated, in the Netherlands one has not witnessed the
rise of imposter news organizations or the formation of advocacy groups
purporting to represent social groups or causes. Indeed, when employing
narrow definitions of disinformation and fake news, there is hardly any to
be found in the Netherlands.

But definitions of fake and its next-of-kin 'junk' news often extend
to clickbait, conspiracy, hyperpartisan and tendentious sources as well
as artificially amplified social media content and accounts. As a case in
point, when *Buzzfeed News* famously reported in 2016 that 'fake news' was
outperforming mainstream news on Facebook, included in its definition
were clickbait and hyperpartisan sources, such as *Breitbart News*. Expand-
ing the definition in such a manner would have consequences in that the
Netherlands has all of them in relative abundance.

Initial studies have found that the Dutch are great consumers of clickbait
and 'pulp' content; there is a well engaged-with set of tendentious and highly
partisan news-like organizations especially on the right of the political
spectrum, and the artificial amplification of social media accounts, including
those of certain politicians and musicians, has been well documented.
Their sway varies. Clickbait is said to be consumed more often than main-
stream news, though there is also more of it. Conspiracy is perhaps the
least clicked on, at least according to our findings per platform, discussed

below. In political spaces online, news furnished by commercial and public broadcasting are still referenced, liked or shared in greater quantities than tendentious and hyperpartisan sources, though the latter has been present in the most engaged-with lists of sources around election issues. Artificial amplification both burnishes one's image but also has led to mini-scandals when fake followers are revealed through new online detection tools and news reporting.

Whether any of them is particularly persuasive is a question increasingly posed. The first wave of scholarship on the production and spread of disinformation has yielded to the next wave on its effects. Given people's hardened attitudes the question concerns whether the influence of disinformation and fake news is ever more than 'minimal'.

In that regard, the rise of extreme content (including extreme clickbait), circulated on social media platforms, is one source of continuing consternation and measurement, leading to calls for platform regulation and prompting social media companies to hire more content reviewers and work on automated detection. Another source of concern is the mainstreaming of doubt and trust in public institutions and media, concomitant with the rise of both 'alternative facts' and 'alternative fact infrastructures'. The post-truth condition, as it is termed, is discussed as both first-order 'fact fights' as well as second-order competitions between 'sectarian knowledge' regimes and competing media ecologies. Is the authority of mainstream news and knowledge institutions declining for increasing segments of society that consume the alternatives? One finding often related is that older consumers are 'available audiences' for fringe media and are relatively 'heavy users'.

The consuming and sharing of so-called fake news have been the subject of media literacy initiatives, including quizzes, serious games and public service campaigns. Through heightened awareness, especially around the time of elections, the impact on consumers of any disinformation and dubious content may be mitigated and the institutions made resilient, it has been argued. Voluntary and professional fact-checking are also discussed in this regard, as are (automated) content flagging, together with the need for human review. The question regularly posed is whether the sheer amount of platform junk will overwhelm the capacity to review it, together with the related issue of who will review the reviewers.

Finally, there is widespread scholarly concern about the restrictions to public access of social media data, otherwise known as the issue of 'locked platforms'. Future research should address the extent to which disinformation and 'fake news' (in all its more exacting definitions) continue to thrive

online, and whether there are monitoring capacities in place so that its overall consumption and persuasive capacity may be measured, and the wider societal implications may be studied and acted upon.

Empirical findings concerning junk news around the Dutch elections of 2019

The present study consists of a series of empirical case studies concerning the engagement with junk news, including hyperpartisan and tendentious sources, in Dutch political spaces in social media in the run up to two elections in 2019. These spaces were demarcated using queries of politicians' and political party names as well as social issues, some related to the elections (such as climate and EU) and others more controversial (such as Zwarte Piet). Here the findings are summarized, and subsequently put into perspective in a discussion of their implications, also for policy.

The overall research question driving the study is as follows. To what extent do disinformation and so-called fake or junk news resonate in political spaces online within social media (and search engine returns) around the 2019 provincial elections and the European parliamentary elections in the Netherlands?

Here the findings are provided in brief:

1) We found neither foreign disinformation (campaigning) nor fake advocacy groups operating around the Dutch provincial and European parliamentary elections of 2019.

2) Mainstream news is consumed and engaged-with more than junk news, but not for all platforms in all periods under study (8 February-25 March 2019, 26 April-24 May 2019 or longer durations). The issue spaces around Zwarte Piet and MH17 have proportionately higher quantities of junk news than election issues and are also 'year-round' issues, so to speak, rather than seasonal or event-based.

3) With respect to social media manipulation, troll-like users are active across Dutch political issues spaces (on Twitter). We also suspect there is (rather light) artificial amplification taking place (fake followers on Instagram).

4) There is the emergence of a hyperpartisan/tendentious alternative media ecology, competing with the mainstream news and also mainstreaming, in the sense that these sources include newswire content and are spread by regular (non-flagged) social media users as well as flagged, troll-like users.

5) Proportionately, Facebook has the greatest amount of junk news com-
   pared to other platforms, followed by Twitter. YouTube is a significant
   extreme news space generally, and a cultural commentary and debate
   space for 'fake news' as issue.
6) Dutch 4chan and Reddit circulate far more Dutch mainstream than
   junk news, with 4chan users likely commenting upon rather than
   taking over its narratives. 4chan is an incubator of far-right activ-
   ity in the Netherlands as seen through the types of YouTube videos
   referenced.

Facebook: Fertile ground for junk news

The method behind the research presented here derives from data journal-
ism, particularly that of *Buzzfeed News*, and later the *NRC Handelsblad*, which
both ascertained the most engaged-with stories on Facebook in the run-up
to national elections. Whereas *Buzzfeed News* found that 'fake news' on
Facebook outperformed mainstream news in the months preceding the US
federal elections of 2016, leading in part to the overall 'fake news crisis', the
NRC Handelsblad, deploying a far stricter definition, found scant presence
of such material prior to the 2017 Dutch national elections. Our study found
that Facebook is a fertile ground not for disinformation and fake news in
the Netherlands but rather for junk news, a roomier definition than fake
news as discussed above. Whilst it is not outperforming mainstream news,
it is far from marginal, and in a few periods under study its presence in
the top stories on Facebook (judged from engagement measures) equals or
outperforms the mainstream. Engagement, measured by such interaction
as shares and likes, requires further study, however, for it should not be
equated in each case with support or agreement.

   While Facebook contains a significant stream of junk news, including
hyperpartisan and conspiracy sources, foreign disinformation and fake
news – such as organizations pretending to be news sources or advocacy
groups – were found to be absent, at least for the most engaged-with stories
related to the elections gathered through keyword queries of political lead-
ers, parties and social issues (or in longer longitudinal studies of certain
issue spaces on Twitter as well as in Dutch spaces on Reddit and 4chan).
Disinformation and fake news may have not been encountered, but junk
news is a factor in Dutch political spaces on social media and its impact
should be critically studied.

Google Web Search: vernacular search queries result in junk news

The Google Web Search study involved locating junk news within the top twenty results in Google.nl for queries of Dutch political parties and significant social issues prior to the Dutch provincial and European parliamentary elections of 2019. The queries were formulated by combining the names of the political parties with social issue keywords. The keywords derive both from the 'official' issue language collected from the party platforms as well as vernacular terms distilled from the comments on political party Facebook pages. Of the junk news found nearly all originate from hyperpartisan and tendentious sources rather than disinformation, conspiracy theory or clickbait. For particular groups of issue queries, up to 25% of the results were hyperpartisan. As on the other platforms under study, in the 'top content' no foreign disinformation, fake news organizations or fake advocacy groups were present during the election periods.

The social issue keyword queries in combination with right-of-centre political parties resulted in junk news sources in greater quantities than that of left-of-centre party names. It was also found that the presence of junk news is not stable over time. Prior to the provincial elections the quantities rose, only to decline the day of the election and in its immediate aftermath, as witnessed by the issue of migration. The inverse was witnessed during the European parliamentary elections. When comparing the two types of search queries, the official and the vernacular, the latter results in a higher percentage of junk news in the results.

Twitter: junk news and troll activity around polarizing subject matters

The Twitter study examined the presence of junk news as well as troll-like activity during the campaign periods around the Dutch provincial and European parliamentary elections of 2019. There was troll-like activity encountered around the provincial elections around political terms such as the tag for the elections themselves ('PS2019'), certain party leaders as well as potentially polarizing issues such as MH17, Zwarte Piet and the Utrecht tram shooting of March 2019. Troll-like activity refers to a series of behavioural indicators, including targeting politicians with unusually high bursts of tweets in short periods of time or through a set of accounts created at about the same time. The analysis found fourteen troll-like Twitter users were active around all issues studied and twenty-nine around most of them.

Four of these profiles remained active (or became active again) around the European parliamentary elections. They all spread mainly hyperpartisan and tendentious sources, followed in quantity by conspiracy websites.

In answering the question of the extent to which junk news is present in the Dutch political Twittersphere, we ascertained the most shared sources, finding a steady resonance of junk news, paling in comparison however to mainstream sources. One finding of note is that during the Provincial elections both Zwarte Piet and MH17 witnessed proportionately high amounts of activity, in spite of the fact that the Santa Klaus holiday (where Zwarte Piets make their appearance) does not take place until December and there was no particular MH17 news, for example concerning the investigations into the cause of the crash of the airliner. Troll-like users shared mostly hyperpartisan and tendentious sources, followed by conspiracy websites putting forward theories concerning MH17 and the Utrecht tram shooting. The pro-Russian site, novini.nl, which on a story level oscillates between hyperpartisan and conspiracy, also was circulated by troll-like users for all social issues under study, but only rarely in relation to political leaders. During the European Parliamentary elections junk news occasionally resonated more than mainstream news around such polarizing issues as Zwarte Piet and MH17. It outperformed mainstream news largely owing to the lack of news coverage of these issues during the periods under study, when junk news remains steady.

Based on the findings, it appears that the Dutch Twittersphere does not have a disinformation problem; no professional or large-scale disinformation or fake advocacy campaigns were encountered. Troll-like users, whether in the form of bots, semi-automated users auto-retweeting and posting original content or unusually active users targeting politicians, do lend some symbolic power to divisive points of view around several social issues. Polarizing issue activity, fuelled by reference to hyperpartisan news, remains rather stable (albeit marginal) throughout both periods of study, suggesting that these issues do not resonate at expected times of the year only, but rather throughout.

Instagram: a separate extreme media ecology and signs of artificial amplification

The Instagram study inquired into the presence (and absence) of disinformation and junk news in three ways: on a post-level, a source-level and that of followers. On a post-level, we examine the circulation of junk news in

political spaces, on a source-level we compare the audiences of junk news and political leaders and parties, and finally we study the follower bases of the political entities, searching for signs of inauthentic behaviour. In all we found a relatively healthy Dutch political arena on Instagram with only small amounts of junk news and fake followers. The vast majority of liked content in Dutch political Instagram, demarcated through political keyword queries, is not junk news, though around certain political leaders (at the far end of the political spectrum) and divisive issues small amounts of hyperpartisan news appear. Mainstream news was more prominent than junk news in the posts related to political parties and leaders in both periods under study. The most active users of the platform in the Dutch political Instagram arena are seemingly authentic with little sign artificial manipulation.

Within this relatively healthy political space online the only suspicious activity encountered was on the far right of the political spectrum, where the circulation of junk news takes place and where those who follow the parties and leaders also follow the junk news sources. Here there are also indications of artificial manipulation. Certain party leaders (as well as the personal account of the Prime Minister) show signs of a significant fake follower base. The artificial activity found is in line with the 2015 fake follower incident when Twitter announced the deletion of fake followers that affected certain Dutch politicians (and celebrities) disproportionately.

Reddit and 4chan: YouTube videos as news source contribute to polarization

Despite their characterizations as alternative spaces on the web, the 'Dutch' Reddit and 4chan, following from our findings, do not appear to spread alternative news sources, but rather refer more often (even overwhelmingly) to mainstream news sources. Apart from witnessing examples of circulating the pro-Russian site, novini.nl, and the activity of one particularly suspect Reddit account, there does not appear to be any coordinated disinformation or fake news campaigning. There is certainly junk news to be found but compared to the overall spreading of sources the proportion is marginal. Particularly Reddit seems to be 'resistant' to disinformation.

The research found the presence of junk news, especially of the hyperpartisan variety, particularly in 4chan/pol/. These are largely links to tendentious and hyperpartisan sources such as *The Post Online* and *De Dagelijkse Standaard*, but also to the conspiracy site, NineForNews. A right-wing orientation was to be expected in 4chan/pol/, given its reputation

as a hub of the extreme right, but it was perhaps less likely for Reddit, as the 'Dutch' Reddit that we took as a starting point contains a number of politically diverse subreddits. The articles that have gained the greatest salience concern migration and Islam rather than such geopolitical content as the Russian involvement in MH17. Whilst it may be problematic to label these sources as 'fake', they could be characterized as polarizing.

Nevertheless, the vast majority of the links to news sources are directed at mainstream outlets such as NOS.nl, both on 4chan/pol as well as Reddit. These findings are counterintuitive in that the platforms are often described as alternative, as was said, and the anonymous and pseudonymous users point to marginal or alternative knowledge sources such as alternatives to Wikipedia. Our findings dispute such a characterization, for mainstream sources enjoy some authority on these platforms, but we did not as of yet research how they are discussed, e.g., as the starting point for a discussion or ridicule. On Reddit it could be that the mainstream NOS.nl is considered a reliable source and on 4chan/pol/ 'fake news'.

Finally, it is important not to regard mainstream and junk news as the only sources of news on the web. In both the Reddit and 4chan research but also in the YouTube study, we found that YouTube has emerged as a major news source. That can be said particularly for 4chan/pol/ but also for Reddit, where 'News & Politics' videos are a significant source. On 4chan/pol/ they may be the most significant, quantitatively leaving other sources well behind. From a small explorative study of the YouTube channels posted on Reddit we found established sources referenced such as PowNed, Zondag met Lubach and NOS, while on 4chan/pol/ alternative, foreign and political (hyperpartisan) sources are pointed to, such as Mike Cernovich and Russia Today. Should such linking and engagement continue, such polarizing content could have a polarizing effect in the Dutch political space.

From findings to implications: Mainstream under fire

There is a small, but growing literature concerning how fake news could be considered a moral panic (Morozov, 2017; Hirst, 2017). The term refers to recurring episodes in history when 'right-thinking people' (defined seminally by Stanley Cohen as 'editors, bishops and politicians') spot a condition that is supposedly prompting a decline in societal standards and values (1972). When fake news is viewed through that lens, the concern is about how traditional journalism as a pillar or '4th estate' of democracy is being hollowed out by social media and replaced by low-quality clickbait as well as openly ideological

commentary, both formatted in manners that drive their consumption not so unlike sugary junk food. The overall health of media as social fabric is said to be at stake, for citizens using social media as source for political information are disadvantaged in their capacity to form judgements about social issues and politics more broadly (Carlson, 2018). There is a second set of literature describing how the media coverage of so-called fake or junk news, and especially its relationship to the growth of an alternative, right-wing media ecology, gives it 'oxygen' (Phillips, 2018). More poignantly, it has been argued that journalistic coverage should turn its attention to the victims, rather than to the fascinating subcultural milieu online where the far right cultivates itself. There are also cases of politicians' forwarding extremist and divisive content, which also gives it oxygen in the sense that it contributes to its spread and perhaps to its normalcy. Along all these lines, the recommendations concern identifying and acting upon threats to the mainstream, be they from social media platforms or from within the professions and practices of journalism, online content creation and political leadership.

As we have found there are particular platforms and subject matters where the threats to the mainstream appear more acute. Whilst not a space where Dutch junk news sources are spread on a massive scale, the Dutch 4chan is an incubator of extremist sentiment, especially with respect to anti-Semitism and anti-immigration. Other platforms are problematic for different reasons. Dutch political spaces in Facebook and Twitter, demarcated through politician, party and issue queries, have the largest quantities of junk news that is engaged with, though they are still smaller than mainstream news consumption overall in those same spaces. Among the junk news, hyperpartisan sources (rather than disinformation or conspiracy) are amongst the more popular, and for divisive subject matters such as climate change, MH17 and Zwarte Piet their stories occasionally outperform those in the mainstream press. On Twitter during the European parliamentary election campaign period, for example, a pro-Nexit story in the hyperpartisan newspaper, *De Dagelijkse Standaard*, about the Netherlands leaving the EU outperformed a counterpart article in the mainstream *NRC Handelsblad*. A more general polarized media ecology is also in evidence. On YouTube an alternative media sphere has formed, where extreme YouTubers, or micro-celebrities, hold sway. Instagram also has a new-right, alternative media space, analytically detected through shared followers of politicians at the far end of the political spectrum and hyperpartisan media organizations. These are largely 'alt lite', meaning anti-establishment and anti-political correctness, with content that also could be considered anti-Islam. There are no discernible left-wing equivalents. Rather, these spaces compete with more mainstream ones.

In contrast to the situation in other countries during the European Parliamentary elections, in our study we did not find foreign disinformation but rather so-called junk news, especially around particular issues, such as Zwarte Piet, MH17, climate and the European Union (Peel, 2019). We also found it around the topic of 'fake news', studied in this instance as a social issue. Although decent quantities of junk news were in evidence, mainstream news largely outperformed it. The largest quantities of junk news circulated not so much around political parties and leaders (with some exceptions), but around specific polarizing issues. Junk news activity around these issues sometimes appeared during the election periods, but for other issues there was year-round activity, even for such seasonal issues as Zwarte Piet. Thus, the question is not only whether there is junk news around election time, but also more generally when it manifests itself, and with which intensity and duration.

The following policy implications of our work are directed specifically at the phenomenon of junk news, rather than at foreign disinformation and fake news from organizations feigning to be news organizations or fake advocacy groups, of which we found none, at least in the top or most engaged-with content related to Dutch politics across the web and social media platforms. Our recommendations concern the recognition and monitoring of the polarization of the media landscape, the devitalization or disengagement with extreme content, a national conversation about issues that appear frequently in junk news (such as Zwarte Piet) rather than one about disinformation or fake news generally, training for professionals that produce online content, and enabling access to the (increasingly inaccessible) data on social media platforms for research and media monitoring.

Policy themes in brief

1) The monitoring of the polarization of the media landscape, and the mainstreaming of polarizing media with extreme content on social media platforms.

Social media platforms rely on software, their users as well as content reviewers to detect extreme content. More and more of it is subsequently removed. But historically the attention paid by social media companies to extreme content has been uneven, and definitions unstable. It thereby remains desirable to institute independent monitoring. Such work could be taken up by academic researchers, non-governmental organizations,

governmental agencies specialized in extremism and polarization as well as media watchdogs.

2) Media training for professional content makers – from journalists to digital media producers – concerning online source criticism as well as amplification or 'oxygen-giving' of extreme speech actors in society.

The Netherlands has existing media literacy training programs, designed for example for senior citizens as well as primary and secondary school students. This recommendation is made specifically for professional content-makers such as journalists and editors. It could be made a part of existing or new media literacy programs dedicated to online source criticism and dealing with polarizing content (see also point three below). Such a training program is also of use to lecturers in higher education, policymakers and civil society.

3) No oxygen-giving to extreme actors and their (online) content by media organizations.

In our study we found that tendentious news stories circulate well during the election campaign periods and beyond. The articles are shared and liked by troll-like users but also by regular news consumers, which we found for example on Twitter during the Provincial elections. In the same spaces we also found users sharing and liking discriminatory, anti-Semitic, misogynist and xenophobic content, albeit it to a lesser degree.

It is important not to equate tendentious and extreme media, even when they appear to share standpoints without using the same words. Similarly, that tendentious media is on the rise and mainstreaming does not mean that similar weight should be given to extreme media. The recommendation is that no oxygen should be given to extreme media sources and their content, meaning no sharing, liking, reacting, commenting, retweeting or YouTube-debating. Any form of engagement with such content increases the attention and the metrics and contributes to its spread, ranking and normalization. Such a recommendation goes for public broadcasting and commercial media organizations, but also for the tendentious media. Instead of journalists' writing about far-right subcultures, attention could be spent on their victims (Philips, 2018).

4) Recognition of polarizing issues such as Zwarte Piet and the facilitation of national and regional conversations.

The research found that attention to polarizing issues such as Zwarte Piet is year-round rather than seasonal. Such recognition of increasing polarization in society should lead to discussions about how common ground may be found. The Netherlands has a tradition of collective discussion concerning major societal issues through such mechanisms as the Brede Maatschappelijke Debat (society-wide debate) and interactive policy making. There are other contemporary forms of citizen participation and discussion that could be instrumental in dealing with polarizing issues and cultural contestation. Institutions experienced in organizing societal discussion and debate should be called upon and supported to do so, and bottom-up initiatives should be facilitated.

5) Advocacy for social media data access for researchers, journalists and watchdogs, and creation of research archives of deleted content.

The current issue of 'locked platforms' concerns the extent to which social media companies are making their data inaccessible to researchers, journalists and non-governmental organizations. As an answer to governmental concern about 'dark political posts' (political ads directed only at a segment of users in their newsfeeds) and other political ads without clear provenance, Facebook has launched a political ad archive tool and API. But at the same time Facebook has removed in part or in whole access to services such as the Pages API and Graph Search, which had been in widespread use by researchers. Social media companies should take up the task of making available the data that researchers, journalists and non-governmental organizations would like to use for the purposes of research, monitoring and archiving. Governmental agencies, in consultation with the users and use types mentioned above, have a facilitative as well as a regulatory role to play here.

References

Carlson, Matt (2018) 'Fake news as an informational moral panic: the symbolic deviancy of social media during the 2016 US presidential election', *Information, Communication & Society*, DOI: 10.1080/1369118X.2018.1505934, published online on August 1.

Cohen, Stanley (1972) *Folk Devils and Moral Panics*. London: Routledge.

Hirst, Martin (2017) 'Towards a political economy of fake news', *The Political Economy of Communication* 5(2), 82-94.

Morozov, Evgeny (2017) 'Moral panic over fake news hides the real enemy – the
    digital giants', *The Guardian*, 8 January.
Peel, Michael (2019) 'EU election suffered Russian disinformation, Brussels finds',
    Financial Times, 14 June.
Phillips, Whitney (2018) 'The Oxygen of Amplification: Better Practices for Reporting
    on Extremists, Antagonists and Manipulators Online', Report, New York: Data
    & Society Research Institute.

About the authors

RICHARD ROGERS is Professor of New Media & Digital Culture at the University of Amsterdam and Director of the Digital Methods Initiative, the group responsible for social media research tools. Among other works, Rogers is author of *Information Politics on the Web* (MIT Press, 2004), *Digital Methods* (MIT Press, 2013), and *Doing Digital Methods* (Sage, 2019).

SABINE NIEDERER is Professor of Visual Methodologies at the Amsterdam University of Applied Sciences. Her research focuses on the cartography of issues and online debates through visual and digital methods, with a particular interest in climate-related issues. In 2014, Niederer founded the Citizen Data Lab as an applied research lab specializing in participatory mapping of local issues.

9   Epilogue

After the tweet storm

Richard Rogers and Sal Hagen

Abstract
The publication of the study elicited reactions, especially on Twitter, where questions arose about the use of the notion of junk news, rather than 'pulp news', among other points. The analogy to junk food is emphasised. There was also the question of symmetry, and the treatment of both ends of the political spectrum. Why is the new populist right identified as the purveyors of extreme content? We found a polarised Dutch media landscape where hyperpartisan (and to a lesser extent conspiracy) content from new populist right (rather than the left or other orientations) circulates well on social media. Unlike in the US during the initial Trump insurgency, mainstream news in the Netherlands still outperforms what was hitherto known as 'fake news', across all platforms.

Keywords: Twitter, new populist right, junk news, mainstream news, Dutch media landscape

In line with the theme of our study, 'The Politics of Social Media Manipulation', commissioned by the Ministry of Internal Affairs and published in October 2019, most of the attention it has garnered since has been on social media rather than in the press. One reason is our report into so-called fake news and disinformation, was published on a Friday afternoon prior to the October holiday break. It also contains no scintillating findings concerning (Russian or foreign) disinformation campaigning in the Netherlands; during the run up to the two elections in 2019 no disinformation, front groups or fake news sources were found whose stories were circulating on Facebook, Instagram, Twitter, Google Web Search, YouTube, Reddit or 4chan, the multiple platforms under study. Since there was no disinformation in

circulation, at least not any that Facebook and other social media users engaged with in any significant degree, could the 'Echt?!' fake news public awareness campaign the Ministry ran be considered tilting at windmills? Is the study and monitoring of fake news and disinformation in the Netherlands a worthwhile endeavour, given that to date hardly any has been found?

These are some of the questions that have arisen in the one space where there has been considerable commentary on the study, Twitter. The reason is that the report found the rise of a growing alternative, new right media sphere in the Netherlands, without an equivalent on the left, which also manifests itself on Twitter. This media sphere contains stories (and sources) that are hyperpartisan, conspiracy-related and/or clickbait, which the study collectively defines as 'junk news', employing a term used by Oxford University researchers characterizing similar sources elsewhere. Junk news shares commonalities with junk food, in that it contains attractively packaged stories, of a low journalistic standard, that we know we probably should not consume, such as sensationalist clickbait, headlines and teaser texts designed to be clicked rather than actually read.

Especially on Facebook a great deal of such material circulated prior to the elections, and was liked or shared, tallying high engagement scores. Through the circulation of their stories on Facebook, particularly hyperpartisan sites, defined as 'openly ideological web operations', are on the rise in the Netherlands, certainly compared to the results of a smaller study published in the *NRC Handelsblad* on political stories that circulated on Facebook prior to the 2017 national elections, when there were relatively few. For example, the hyperpartisan site, *De Dagelijkse Standaard*, received more attention during both 2019 election periods than the mainstream media sites, RTL Nieuws and NU.nl. Openly extreme sites such as *Fenixx* nearly had the same engagement on Facebook for political news stories as the quality newspaper, the *NRC Handelsblad*. Hyperpartisan, left-wing sites with similar engagement scores were hardly in evidence. It should be pointed out that mainstream news, in total, still outperforms alternative, new-right (or, using the terminology of political scientist, Cas Mudde, 'populist radical right') sources for election-related subjects (Bahara, 2019), but not for every issue and not for every election period under study. For example, we found that whilst political issues, parties and leaders may wax and wane, there are particular issues in this alternative media sphere that are hot year-round, such as Zwarte Piet, climate change and the European Union itself. Both the high engagement scores for hyperpartisan content as well as the unceasing attention to divisive issues by the alternative media sphere could be viewed as indications of societal unrest.

Social media such as Twitter and the online comment space more broadly defined are sometimes described as increasingly toxic, and commentators as more and more uninhibited; indeed, hundreds of the online reactions to our study could be characterized as such. We also found, in the reactions, that there are (albeit very few) users who behave troll-like, active across divisive issues and ever-targeting politicians, and are actually battling misinformation.

In the recommendations of the report, which we entitled 'the mainstream under fire', we called for the (academic, non-governmental) monitoring of the growing polarization in the country that we identified in the rise of new-right alternative media. We also believe that continued study of the mainstreaming of hyperpartisan and extreme content remains important here, even if it is not the product of organized influence campaigning by foreign actors. For example, certain Dutch hyperpartisan sources are actively seeking to mainstream by adding newswire stories to supplement the pages of their otherwise fervent commentary. Through the circulation on Facebook and other social media as well as its large-scale engagement through likes and shares, certain extreme content also is gaining more exposure. We recommend that these stories, whether brought together with actual news or otherwise shared even if in gest, should not be given so much oxygen. Right-of-centre, self-described tendentious media sources but also other mainstream and transgressive media should consider refraining from rebroadcasting extreme content. Finally, we note that Facebook (and Instagram) have ceased allowing researcher access to its (API page) data, making such studies as ours increasingly arduous to undertake. Considering the important cultural and societal stakes, we need to be able to study Facebook and other social media platform data to understand the nature and scale of the problem now and in future.

References

Bahara, Hassan (2019) 'Politicoloog Cas Mudde waarschuwt voor de normalisering van radicaal rechts', *de Volkskrant*, 15 November. https://www.volkskrant.nl/nieuws-achtergrond/politicoloog-cas-mudde-waarschuwt-voor-het-normaliseren-van-radicaal-rechts~b33b602e/

About the authors

RICHARD ROGERS is Professor of New Media & Digital Culture at the University of Amsterdam and Director of the Digital Methods Initiative, the group

responsible for social media research tools. Among other works, Rogers is author of *Information Politics on the Web* (MIT Press, 2004), *Digital Methods* (MIT Press, 2013), and *Doing Digital Methods* (Sage, 2019).

SAL HAGEN is a Ph.D. candidate at the University of Amsterdam and co-founder of OILab. His research focuses on anonymous and pseudonymous online subcultures and their political engagements. Methodologically, his work combines media theory with data-driven methods.

References

Abbruzzese, Jason (2018) 'Facebook Became Your News Diet. Now, It's Going to Serve You Junk', *Mashable*, 17 January, https://mashable.com/2018/01/17/facebook-news-readers/ (accessed 1 April 2020).

Abrams, Sam (2016) 'Professors Moved Left Since 1990s, Rest of Country Did Not', *Heterodox Academy*, January 9, https://heterodoxacademy.org/professors-moved-left-but-country-did-not/ (accessed 1 April 2020).

Access Now, Civil Liberties Union For Europe, and European Digital Rights (2018) *Informing the 'Disinformation' Debate*, Report, Published online on October 18, https://edri.org/files/online_disinformation.pdf (accessed 1 April 2020).

Albright, Jonathan (2017) 'Itemized Posts and Historical Engagement – 6 Now-Closed FB Pages', Data set, *Tableau Public*, 5 October, https://public.tableau.com/profile/d1gi#!/vizhome/FB4/TotalReachbyPage (accessed 1 April 2020).

— (2016) 'The #Election2016 Micro-Propaganda Machine', *Medium*, 18 November, https://medium.com/@d1gi/the-election2016-micro-propaganda-machine-383449cc1fba (accessed 1 April 2020).

Alexander, Julia (2017) 'Reddit's New Policy Won't Affect Some of Its Most Notorious, Hate-Filled Subreddits', *Polygon blog*, 2 November, https://www.polygon.com/2017/11/2/16591508/reddit-content-policy-update-subreddit-ban-the-donald-kia (accessed 1 April 2020)

Allcott, Hunt and Matthew Gentzkow (2017) 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, 31(2): 211-236, https://doi.org/10.1257/jep.31.2.211.

Alvarez, R. Michael, Ines Levin, Alexander H. Trechsel and Kristjan Vassil (2014) 'Voting Advice Applications: How Useful and for Whom?', *Journal of Information Technology & Politics*, 11(1): 82-101, DOI: 10.1080/19331681.2013.873361.

Angwin, Julia, Madeleine Varner and Ariana Tobin (2017) 'Facebook Enabled Advertisers to Reach "Jew Haters"', *ProPublica*, 14 September, https://www.propublica.org/article/facebook-enabled-advertisers-to-reach-jew-haters (accessed 1 April 2020).

Aydemir, Murat (2011) 'Dutch Homonationalism and Intersectionality', ARC-GS Lecture, University of Amsterdam, 15 April, https://arcgs.uva.nl/videos/video-artikelen/dutch-homonationalism-and-intersectionality.html (accessed 1 April 2020).

Bahara, Hassan (2019) 'Politicoloog Cas Mudde waarschuwt voor de normalisering van radicaal rechts', *de Volkskrant*, 15 November. https://www.volkskrant.nl/nieuws-achtergrond/politicoloog-cas-mudde-waarschuwt-voor-het-normaliseren-van-radicaal-rechts~b33b602e/

Bahara, Hassan, Annieke Kranenberg and Dimitri Tokmetzis (2019) 'Leidt het algoritme van YouTube je naar extreme content?', *de Volkskrant*, February 11, https://www.volkskrant.nl/nieuws-achtergrond/leidt-het-algoritme-van-youtube-je-naar-extreme-content~bea101e3/ (accessed 1 April 2020).

Barbrook, Richard (1998) 'The Hi-Tech Gift Economy', *First Monday*, 3(12), https://doi.org/10.5210/fm.v3i12.631.

Bastian M., Heymann S., Jacomy M. (2009) 'Gephi: An Open Source Software for Exploring and Manipulating Networks', International AAAI Conference on Weblogs and Social Media, https://www.aaai.org/ocs/index.php/ICWSM/09/paper/view/154 (accessed 1 April 2020).

Baumgartner, Jason (2018) 'Pushshift API (Version 1.0)', API Documentation, Pushshift, https://pushshift.io/api-parameters/ (accessed 1 April 2020).

Beiler, Markus and Johanna Kiesler (2018) '"Lügenpresse! Lying Press!" Is the Press Lying?', in Otto, Kim and Andreas Köhler (eds.) *Trust in Media and Journalism*, Wiesbaden: Springer, 155-179.

Belk, Russell (2007) 'Why Not Share Rather Than Own?', *The ANNALS of the American Academy of Political and Social Science*, 611: 126-140, https://doi.org/10.1177/0002716206298483

Bell, Emily and Taylor Owen (2017) 'The Platform Press', Report, Columbia University: Tow Center for Journalism, https://www.cjr.org/tow_center_reports/platform-press-how-silicon-valley-reengineered-journalism.php (accessed 1 April 2020).

Bellingcat Investigation Team (2016) 'Behind the Dutch Terror Threat Video: The St. Petersburg "Troll Factory" Connection', *Bellingcat*, 3 April, https://www.bellingcat.com/news/uk-and-europe/2016/04/03/azov-video/ (accessed 1 April 2020).

Benkler, Yochai, Robert Faris, Hal Roberts, and Ethan Zuckerman (2017) 'Study: Breitbart-Led Right-Wing Media Ecosystem Altered Broader Media Agenda', *Columbia Journalism Review*, 3 March, https://www.cjr.org/analysis/breitbart-media-trump-harvard-study.php (accessed 1 April 2020).

Benkler, Yochai, Robert Faris and Hal Roberts (2018) *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*, Oxford: Oxford University Press.

Berg, Kati Tusinski (2017) 'Social Media, Hashtag Hijacking, and the Evolution of an Activist Group Strategy,' in Lucinda Austin and Yan Jin (eds.), *Social media and crisis communication*, London: Routledge, pp. 141-156.

Bergstrom, Kelly (2011) '"Don't Feed the Troll": Shutting Down Debate about Community Expectations on Reddit.Com', *First Monday*, 16(8), https://doi.org/10.5210/fm.v16i8.3498.

Bessi, Alessandro and Emilio Ferrara (2016) 'Social Bots Distort the 2016 US Presidential Election Online Discussion', *First Monday*, 21(11), https://firstmonday.org/article/view/7090/5653 (accessed 1 April 2020).

—, Fabiana Zollo, Michela Del Vicario, Michelangelo Puliga, Antonio Scala, Guido Caldarelli, Brian Uzzi, Walter Quattrociocchi (2016) 'Users Polarization on Facebook and Youtube', *PLoS ONE*, 11(8): 1-13. Accessed April 1, 2020, https://doi.org/10.1371/journal.pone.0159641.

Boczkowski, Pablo (2016) 'Fake News and the Future of Journalism', *NiemanLab*, December, https://www.niemanlab.org/2016/12/fake-news-and-the-future-of-journalism/ (accessed 1 April 2020).

Boghardt, Thomas (2009) 'Soviet Bloc Intelligence and Its AIDS Disinformation Campaign', *Studies in Intelligence*, 53(4): 1-24.

Borra, Erik (2013) 'DMI Tools', wiki, https://wiki.digitalmethods.net/Dmi/ToolDatabase (accessed 1 April 2020).

— and Bernhard Rieder (2014) 'Programmed Method: Developing a Toolset for Capturing and Analyzing Tweets', *Aslib Journal of Information Management*, 66(3): 262-278, https://doi.org/10.1108/AJIM-09-2013-0094.

—, Sabine Niederer, Johannes Preuß and Esther Weltevrede (2017) 'Mapping Troll-like Practices on Twitter', in Liliana Bounegru, Jonathan Gray, Tomasso Venturini and Michele Mauri (eds.), *A Field Guide to 'Fake News' and Other Information Disorders*, Amsterdam: Public Data Lab, pp. 161-196.

Bos, Menno van den (2018) 'Nee, jij bent een cultuurrelativist! Hoe academische begrippen strijdwapens werden', *Vrij Nederland*, 12 December, https://www.vn.nl/identiteitspolitiek-cultuurmarxisme-intersectionaliteit/ (accessed 1 April 2020).

Bounegru, Liliana, Jonathan Gray, Tommaso Venturini and Michele Mauri (eds.) (2018) *A Field Guide to 'Fake News' and Other Information Disorders*. Amsterdam: Public Data Lab.

Bowden, Ian (2016) 'How Google is Tackling Fake News, and Why It Should Not Do It Alone,' *Search Engine Land*, 30 November, https://searchengineland.com/google-tackling-fake-news-not-alone-264058 (accessed 1 April 2020).

boyd, danah (2017) 'Did Media Literacy Backfire?', *Points blog*, Data & Society, 5 January, https://points.datasociety.net/did-media-literacy-backfire-7418c084d88d (accessed 1 April 2020).

—, Scott Golder and Gilad Lotan (2010) 'Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter', *Proceedings of 43rd Hawaii International Conference on System Sciences,* Honolulu, HI: IEEE, January, pp. 1-10, DOI: 10.1109/HICSS.2010.412.

Boyd, Ryan, Alexander Spangher, Adam Fourney, Besmira Nushi, Gireeja Ranade, James Pennebaker and Eric Horvitz (2018) 'Characterizing the Internet Research Agency's Social Media Operations During the 2016 U.S. Presidential Election Using Linguistic Analyses', *DataCite*, DOI:10.31234/osf.io/ajh2q.

Bradshaw, Samantha (2018) 'Responding to Fake News Through Regulation and Automation', Report, London: Carter-Ruck, https://www.carter-ruck.com/images/uploads/documents/RESPONDING_TO_FAKE_NEWS.pdf (accessed 1 April 2020).

— and Phillip N. Howard (2018) 'Challenging Truth and Trust: A Global Inventory of Organized Social Media Manipulation', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/research/cybertroops2018/(accessed 1 April 2020).

Brattberg, Erik and Tim Mauer (2018) 'Russian Election Interference: Europe's Counter to Fake News and Cyber Attacks', White Paper, Washington, DC: Carnegie Endowment for International Peace, May, https://carnegieendowment.org/2018/05/23/russian-election-interference-europe-s-counter-to-fake-news-and-cyber-attacks-pub-76435 (accessed 1 April 2020).

Brennen, Bonnie (2017) 'Making Sense of Lies, Deceptive Propaganda, and Fake News', *Journal of Media Ethics*, 32(3): 179-181, https://doi.org/10.1080/23736992.2017.1331023.

Broderick, Ryan and Jules Darmanin (2018) 'The "Yellow Vest" Riots in France Are What Happens When Facebook Gets Involved With Local News', *Buzzfeed News*, 6 December, https://www.buzzfeednews.com/article/ryanhatesthis/france-paris-yellow-jackets-facebook (accessed 1 April 2020).

Bruns, Axel, Anja Bechmann, Jean Burgess et al. (2018) 'Facebook Shuts the Gate after the Horse Has Bolted, and Hurts Real Research in the Process', *Internet Policy Review*, 25 April, https://policyreview.info/articles/news/facebook-shuts-gate-after-horse-has-bolted-and-hurts-real-research-process/786 (accessed 1 April 2020).

Bump, Philip (2017) 'The Investigation Goes Digital: Did Someone Point Russia to Specific Online Targets?' *Washington Post*, 12 July, https://www.washingtonpost.com/news/politics/wp/2017/07/12/the-investigation-goes-digital-did-someone-point-russia-to-specific-online-targets/ (accessed 1 April 2020).

Burger, Peter (2016) 'Moslims vernielen kerstmarkt in Litouwen? Nee: rellen in de VS', De Gestolen Grootmoeder blog, 14 December, http://www.gestolengrootmoeder.nl/wordpress/moslims-vernielen-kerstmarkt-in-litouwen-nee-rellen-in-de-vs/ (accessed 1 April 2020).

—, Soeradj Kanhai, Alexander Pleijter, and Suzan Verberne (2019) 'The Reach of Commercially Motivated Junk News on Facebook'. *ArXiv:1901.07290* [*Cs*], 22 January. http://arxiv.org/abs/1901.07290.

Butac, Maicolengel (2018) 'The Reuters Institute for the Study of Journalism vs. Fake News', BUTAC blog, 8 February, https://www.butac.it/the-reuters-institute-for-the-study-of-journalism-vs-the-fake-news/ (accessed 1 April 2020).

Cadwalladr, Carole and Emma Graham-Harrison (2018) 'Revealed: 50 Million Facebook Profiles Harvested for Cambridge Analytica in Major Data Breach', *The Guardian*, 17 March, https://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election (accessed 1 April 2020).

— (2016) 'Google, Democracy and the Truth about Internet Search', *The Guardian*, 4 December, https://www.theguardian.com/technology/2016/dec/04/google-democracy-truth-internet-search-facebook (accessed 1 April 2020).

Canadian Security Intelligence Service (2018) 'Who Said What? The Security Challenges of Modern Disinformation', World Watch: Expert Notes series publication (No. 2016-12-05), Canada: Canadian Security Intelligence Service.

Carlson, Matt (2018) 'Fake News as an Informational Moral Panic: The Symbolic Deviancy of Social Media During the 2016 US Presidential Election', *Information, Communication & Society*, published online on August 1, DOI: 10.1080/1369118X.2018.1505934.

Cary, Stephen G. (1955) *Speak Truth to Power: A Quaker Search for an Alternative to Violence*. Philadelphia: American Friends Service Committee.

Chadwick, Andrew (2013) *The Hybrid Media System: Politics and Power*. Oxford: Oxford University Press.

Chen, Adrian (2015) 'The Agency', *The New York Times*, 2 June, https://www.nytimes.com/2015/06/07/magazine/the-agency.html (accessed 1 April 2020).

Claussen, Victor (2018) 'Fighting Hate Speech and Fake News. The Network Enforcement Act (NetzDG) in Germany in the Context of European Legislation', *Media Laws* 3, published online October 14, http://www.medialaws.eu/wp-content/uploads/2019/05/6.-Claussen.pdf (accessed 1 April 2020).

Cohen, Stanley (1972) *Folk Devils and Moral Panics*. London: Routledge.

Colbert Report (2005) 'The WØRD "Truthiness"', *Comedy Central*, 17 October.

Collins, Ben and John Russell (2018) 'Russians Used Reddit and Tumblr to Troll the 2016 Election', *The Daily Beast*, 2 March, https://www.thedailybeast.com/russians-used-reddit-and-tumblr-to-troll-the-2016-election (accessed 1 April 2020).

Collins, Keith and Sheera Frenkel (2018) 'Can You Spot the Deceptive Facebook Post?' *New York Times*, 4 September, https://www.nytimes.com/interactive/2018/09/04/technology/facebook-influence-campaigns-quiz.html (accessed 1 April 2020).

Confessore, Nicholas and Daisuke Wakabayashi (2017) 'How Russia Harvested American Rage to Reshape U.S. Politics', *New York Times*, 9 October, https://www.nytimes.com/2017/10/09/technology/russia-election-facebook-ads-rage.html (accessed 1 April 2020).

Covington, Paul, Jay Adams, and Emre Sargin (2016) 'Deep Neural Networks for YouTube Recommendations', *Proceedings of the 10th ACM Conference on Recommender Systems*, New York, NY: ACM, pp. 191-198, https://doi.org/10.1145/2959100.2959190.

Dahlgren, Kristen and Daniel Arkin (2017) '11-Year-Old Texas Boy Invents Device to Prevent Hot Car Deaths', *NBC News*, 29 June, https://www.nbcnews.com/storyline/hot-cars-and-kids/11-year-old-texas-boy-invents-device-prevent-hot-car-n777876 (accessed 1 April 2020).

Dan, Ovidiu and Brian D. Davison (2016) 'Measuring and Predicting Search Engine Users' Satisfaction', *ACM Computing Surveys*, 49(1), art. 18.

Daniels, Jessie (2018) 'The Algorithmic Rise of the Alt-right', *Contexts*, 17(1): 60-65, https://doi.org/10.1177/1536504218766547.

Darnton, Robert (2010) *Poetry and the Police: Communication Networks in Eighteenth-Century Paris*. Cambridge, MA: Harvard University Press.

— (2017) 'The True History of Fake News', *New York Review of Books*, 13 February, https://www.nybooks.com/daily/2017/02/13/the-true-history-of-fake-news/ (accessed 1 April 2020).

Day, Amber and Ethan Thompson (2012) 'Live from New York, It's the Fake News! Saturday Night Live and the (Non)politics of Parody,' *Popular Communication* 10(1-2): 170-182, https://doi.org/10.1080/15405702.2012.638582.

DeAmicis, Carmel (2014) 'Facebook Shifts its Algorithm to Fight Clickbait. Will it Kill off Upworthy and Buzzfeed?', *GIGAOM*, Austin: Giga Omni Media, https://gigaom.com/2014/08/25/facebook-shifts-its-algorithm-to-fight-clickbait-will-it-kill-off-upworthy-and-buzzfeed/ (accessed 1 April 2020).

De Hoax-Wijzer (n.d.) 'Valse Nieuwssites', https://sites.google.com/site/dehoaxwijzer/valse-nieuwssites (accessed 1 April 2020).

Digital Methods Initiative (2015) 'Instagram scraper', https://wiki.digitalmethods.net/Dmi/ToolInstagramScraper (accessed 1 April 2020).

DiResta, Renee, Kris Shaffer, Becky Ruppel, et al. (2018) 'The Tactics & Tropes of the Internet Research Agency', Report, New Knowledge, https://disinformationreport.blob.core.windows.net/disinformation-report/NewKnowledge-Disinformation-Report-Whitepaper.pdf (accessed 1 April 2020).

Drewe, Nick (2016) 'The Hilarious List of Hashtags Instagram Won't Let You Search', *The Data Pack*, 10 May, http://thedatapack.com/banned-instagram-hashtags-update/ (accessed 1 April 2020).

Drog (2018) 'Slecht Nieuws: Serious game over propaganda', Website, https://www.slechtnieuws.nl/ (accessed 1 April 2020).

Duke Reporters Lab (2019) 'Fact Checking News', website, https://reporterslab.org/fact-checking/ (accessed 1 April 2020).

Dumont, P. and Kies, R. (2012) 'Smartvote.lu: Usage and impact of the First VAA in Luxembourg', *International Journal of Electronic Governance* 5(3/4): 388-410, http://hdl.handle.net/10993/21881 (accessed 1 April 2020).

Dupuy, Lisa (2018) 'GeenStijl staat niet meer op EU-lijst nepnieuws', *NRC Handelsblad*, 29 January, https://www.nrc.nl/nieuws/2018/01/29/geenstijl-staat-niet-meer-op-eu-lijst-nepnieuws-a1590216 (accessed 1 April 2020).

Edelman (2018) '2018 Edelman Trust Barometer', Report, https://www.edelman.com/sites/g/files/aatuss191/files/2018-10/Edelman_Trust_Barometer_Employee_Experience_2018_0.pdf (accessed 1 April 2020).

Ellick, Adam B. and Adam Westbrook (2018) 'Operation Infektion', *New York Times*, 12 November, https://www.nytimes.com/2018/11/12/opinion/russia-meddling-disinformation-fake-news-elections.html (accessed 1 April 2020).

EU HLEG (2018) *A Multi-dimensional Approach to Disinformation*, Report of the Independent High-level Group on Fake News and Online Disinformation, Luxembourg: Publications Office of the European Union, http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=50271(accessed 1 April 2020).

EU vs Disinfo (2017) 'Sputnik's Short-Lived Presence in the Slovak Press Agency', *EU vs Disinfo* blog, 1 April, https://euvsdisinfo.eu/sputniks-short-lived-presence-in-the-slovak-press-agency/ (accessed 1 April 2020).

Fandos, Nicholas (2017) 'White House Pushes "Alternative Facts." Here Are the Real Ones', *New York Times*, 22 January, https://www.nytimes.com/2017/01/22/us/politics/president-trump-inauguration-crowd-white-house.html (accessed 1 April 2020).

Faris, Robert M., Hal Roberts, Bruce Etling, Nikki Bourassa, Ethan Zuckerman, and Yochai Benkler (2017) 'Partisanship, Propaganda, and Disinformation: Online Media and the 2016 U.S. Presidential Election', Berkman Klein Center for Internet & Society Research Paper, https://cyber.harvard.edu/publications/2017/08/mediacloud (accessed 1 April 2020).

Farkas, Johan and Marco Bastos (2018) 'IRA Propaganda on Twitter: Stoking Antagonism and Tweeting Local News', SMSociety '18, Copenhagen, DOI: 10.1145/3217804.3217929.

Feldman, Brian (2017) 'In Russia, You Can Buy Instagram Likes From a Vending Machine', N*ew York Magazine*, 8 June, https://nymag.com/intelligencer/2017/06/you-can-buy-instagram-likes-from-a-russian-vending-machine.html (accessed 1 April 2020).

Feuz, Martin, Matthew Fuller, and Felix Stalder (2011) 'Personal Web Searching in the Age of Semantic Capitalism: Diagnosing the Mechanisms of Personalisation', *First Monday* 16(2), 7 February, https://doi.org/10.5210/fm.v16i2.3344.

Fink, Christina (2018) 'Dangerous Speech, Anti-Muslim Violence, and Facebook in Myanmar', *Journal of International Affairs* 71(1.5): 43-52, https://jia.sipa.columbia.edu/dangerous-speech-anti-muslim-violence-and-facebook-myanmar (accessed 1 April 2020).

Finkel, Jacob, Steven Jiang, Luo Mufan, Rebecca Mears, Danaë Metaxa-Kakavouli, Camille Peeples, Brendan Sasso, Arjun Shenoy, Vincent Sheu, and Nicolás Torres-Echeverry (2017) 'Fake News and Misinformation: The Roles of the Nation's Digital Newsstands, Facebook, Google, Twitter and Reddit', Stanford, CA: Stanford Law School, https://www-cdn.law.stanford.edu/wp-content/uploads/2017/10/Fake-News-Misinformation-FINAL-PDF.pdf (accessed 1 April 2020).

FireEye (2018) 'Suspected Iranian Influence Operation', Report, Milpitas, CA: FireEye, https://www.fireeye.com/blog/threat-research/2018/08/suspected-iranian-influence-operation.html (accessed 1 April 2020).

Fitts, Alexis Sobel (2017) 'Welcome to the Wikipedia of the Alt-right', *Wired*, 21 June, https://www.wired.com/story/welcome-to-the-wikipedia-of-the-alt-right/ (accessed 1 April 2020).

Fletcher, Richard, Alessio Cornia, Lucas Graves, and Rasmus Kleis Nielsen (2018) 'Measuring the Reach of "Fake News" and Online Disinformation in Europe', Reuters Institute for the Study of Journalism, Oxford University, February, https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2018-02/Measuring%20the%20reach%20of%20fake%20news%20and%20online%20distribution%20in%20Europe%20CORRECT%20FLAG.pdf (accessed 1 April 2020).

Flynn, Kerry (2018) 'Facebook Will Elevate "Trusted" News Outlets after Surveying U.S. Users', *Mashable*, 19 January, https://mashable.com/2018/01/19/facebook-news-feed-trusted-sources-fake-news/?europe=true (accessed 1 April 2020).

Foucault, Michel (2008) *The Birth of Biopolitics: Lectures at the Collège De France, 1978-1979*, New York, NY: Palgrave Macmillan.

Frenkel, Sheera, Kate Conger and Kevin Roose (2019) 'Russia's Playbook for Social Media Disinformation Has Gone Global', *New York Times*, 31 January, https://www.nytimes.com/2019/01/31/technology/twitter-disinformation-united-states-russia.html (accessed 1 April 2020).

Frenkel, Sheera, Nicholas Casey and Paul Mozur (2018) 'In Some Countries, Facebook's Fiddling Has Magnified Fake News', *New York Times*, 14 January, https://www.nytimes.com/2018/01/14/technology/facebook-news-feed-changes.html (accessed 1 April 2020).

Fubini, Federico (2018) 'Tweet populisti dalla Russia sulla politica italiana. Come negli Usa', *Corriere della Sera*, 1 August, https://www.corriere.it/politica/18_agosto_01/tweet-populisti-russia-voto-italiano-come-usa-f33df26c-95cc-11e8-819d-89f988769835.shtml (accessed 1 April 2020).

Gartenberg, Chaim (2018) 'Facebook is Going to Start Surveying Users to Determine Trustworthy News Sources', *The Verge*, 19 January, https://www.theverge.com/2018/1/19/16911284/facebook-news-sources-trustworthiness-survey-users-news-feed (accessed 1 April 2020).

Garzia, Diego and Marschall, Stefan (2012) 'Voting Advice Applications Under Review: The State of Research', *International Journal of Electronic Governance,* 5: 203-22, DOI: 10.1504/IJEG.2012.051309.

German Federal Foreign Office (2018) 'Fake News, Bots and Provocative Statements – Disinformation on the Internet', Berlin: Federal Foreign Office, 7 August, https://www.auswaertiges-amt.de/en/aussenpolitik/themen/disinformation-on-the-internet/2125634 (accessed 1 April 2020).

Gessen, Masha (2018) 'Why the Russian Influence Campaign Remains So Hard to Understand', *The New Yorker*, 18 December, https://www.newyorker.com/news/

our-columnists/why-the-russian-influence-campaign-remains-so-hard-to-understand (accessed 1 April 2020).

Gitelman, Lisa (2006) *Always Already New: Media, History, and the Data of Culture*. Cambridge, MA: MIT Press.

Glowacki, Monika, Vidya Narayanan, Sam Maynard, Gustavo Hirsch, Bence Kollanyi, Lisa-Maria Neudert, Phil Howard, Thomas Lederer, and Vlad Barash (2018) 'News and Political Information Consumption in Mexico: Mapping the 2018 Mexical Presidential Election on Twitter and Facebook', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2018/06/Mexico2018.pdf (accessed 1 April 2020).

Goodwin, Matthew and Roger Eatwell (2018) *National Populism: The Revolt Against Liberal Democracy*, London: Penguin Books.

Gottfried, Jeffrey and Elisa Shearer (2016) 'News Use Across Social Media Platforms 2016', Washington, DC: Pew Research Center, https://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/ (accessed 1 April 2020).

Government Offices of Sweden (2017) 'A Practical Approach on How to Cope with Disinformation', webpage, Government Offices of Sweden, 6 October, https://www.government.se/articles/2017/10/a-practical-approach-on-how-to-cope-with-disinformation/ (accessed 1 April 2020).

Gramer, Robbie (2017) 'Denmark Creates the World's First Ever Digital Ambassador', *Foreign Policy*, 27 January, https://foreignpolicy.com/2017/01/27/denmark-creates-the-worlds-first-ever-digital-ambassador-technology-europe-diplomacy/ (accessed 1 April 2020).

Graves, Lucas (2016) *Deciding What's True: The Rise of Political Fact-Checking in American Journalism*. New York: Columbia University Press.

— and Federica Cherubini (2016) 'The Rise of Fact-checking Sites in Europe', Reuters Institute for the Study of Journalism, Oxford: University of Oxford, https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/The%2520Rise%2520of%2520Fact-Checking%2520Sites%2520in%2520Europe.pdf (accessed 1 April 2020).

Grinberg, Nir, Kenneth Joseph, Lisa Friedland, Briony Swire-Thompson and David Lazer (2019) 'Fake News on Twitter During the 2016 U.S. Presidential Election', *Science* 363(6425): 374-378, DOI: 10.1126/science.aau2706.

Groll, Elias (2018) 'Battling the Bots', *Foreign Policy*, 12 November, https://foreignpolicy.com/2018/11/12/battling-the-bots-ai-russia-disinformation-fake-news/ (accessed 1 April 2020).

Groot, Tim, Sophie Minihold, Jessica Robinson, Manuel Schneider, Joanna Sleigh and Dydimus Zengenene (2019) 'Russia, Twitter & Authenticity: Establishing Credibility Metrics', Winter School 2019, Digital Methods Initiative, https://

wiki.digitalmethods.net/Dmi/WinterSchool2019CredibilityMetrics (accessed 1 April 2020).

Guess, Andrew, Brendan Nyhan and Jason Reifler (2018) 'Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign', Report, Hannover, NH: Dartmouth College, https://www.dartmouth.edu/~nyhan/fake-news-2016.pdf (accessed 1 April 2020).

Haciyakupoglu, Gulizar, Jennifer Yang Hui, V. S. Suguna, Dymples Leong, and Muhammad Faizal Bin Abdul Rahman (2018) 'Countering Fake News: A Survey Of Recent Global Initiatives', report, Singapore: Nanyang Technological University, https://www.rsis.edu.sg/rsis-publication/cens/countering-fake-news-a-survey-of-recent-global-initiatives/ (accessed 1 April 2020).

Hagen, Sal, Daniël de Zeeuw, Stijn Peeters, Emilija Jokubauskaitė, and Ángeles Briones (2019) 'Understanding Normiefication: A Cross-Platform Analysis of the QAnon Conspiracy Theory', Winter School 2019, Digital Methods Initiative, https://wiki.digitalmethods.net/Dmi/WinterSchool2019Normiefication (accessed 1 April 2020).

Haidt, Jonathan (2012) *The Righteous Mind: Why Good People Are Divided by Politics and Religion.* New York: Pantheon Books.

Haim, Mario, Andreas Graefe and Hans-Bernd Brosius (2018) 'Burst of the Filter Bubble? Effects of Personalization on the Diversity of Google News', *Digital Journalism*, 6(3):1-14, https://doi.org/10.1080/21670811.2017.1338145.

Halavais, Alexander M. Campbell (2017) *Search Engine Society.* Cambridge, UK: Polity Press.

Hall, Jim (2001) *Online Journalism: A Critical Primer.* London: Pluto Press.

Hameleers, Michael and Toni van der Meer (2019) 'Fact-checks helpen tegen desinformatie! Maar dan moeten ze wel gezien worden', *De Nieuwe Reporter*, 29 January, https://www.denieuwereporter.nl/2019/01/fact-checks-helpen-tegen-desinformatie-maar-dan-moeten-ze-wel-gezien-worden/ (accessed 1 April 2020).

Hankes, Keegan, and Alex Amend (2018) 'The Alt-Right Is Killing People', Southern Poverty Law Center, 5 February, https://www.splcenter.org/20180205/alt-right-killing-people (accessed 1 April 2020).

Haque, Md Mahfuzul, Mohammad Yousuf, Zahedur Arman, Md Main Uddin Rony, Ahmed Shatil Alam, Kazi Mehedi Hasan, Md Khadimul Islam, and Naeemul Hassan (2018) 'Fact-Checking Initiatives in Bangladesh, India, and Nepal: A Study of User Engagement and Challenges', *ArXiv:1811.01806* [*Cs*], November, http://arxiv.org/abs/1811.01806.

Harsin, Jayson (2018) 'A Critical Guide to Fake News: From Comedy to Tragedy', *Pouvoirs*, 2018/1:164, 99-119, DOI: 10.3917/pouv.164.0099.

Harvey, Del and Yoel Roth (2018) 'An Update on Our Elections Integrity Work', Twitter blog, 1 October, https://blog.twitter.com/en_us/topics/company/2018/an-update-on-our-elections-integrity-work.html (accessed 1 April 2020).

Hatewatch Staff (2015) 'Getting Cucky: A Brief Primer On The Radical Right's Newest "cuckservative" Meme', Southern Poverty Law Center, 7 August, https://www.splcenter.org/hatewatch/2015/08/07/getting-cucky-brief-primer-radical-rights-newest-cuckservative-meme (accessed 1 April 2020).

Hawley, George (2017) *Making Sense of the Alt-Right*. New York: Columbia University Press.

Haynes, Gavin (2016) 'Can You Spot The 'Real' Fake News Story?' *The Guardian*, 28 December, https://www.theguardian.com/theguardian/2016/dec/28/can-you-spot-the-real-fake-news-story-quiz (accessed 1 April 2020).

Heck, Wilmer (2018) 'Nederlandse media dagen EU voor rechter na beschuldigingen desinformatie', *NRC Handelsblad*, 20 February, https://www.nrc.nl/nieuws/2018/02/20/nederlandse-media-dagen-eu-voor-rechter-na-beschuldigingen-desinformatie-a1592915 (accessed 1 April 2020).

— (2017) 'Rusland Beïnvloedt Ons Vooral Online', *NRC Handelsblad*, 8 January, https://www.nrc.nl/nieuws/2017/01/08/rusland-is-online-op-vriendenjacht-6122994-a154030 (accessed 1 April 2020).

Hedman, Freja, Fabian Sivnert, Lisa-Maria Neudert, Bence Kollanyi, Philip N. Howard and Vidya Narayanan (2018) 'News and Political Information Consumption in Sweden: Mapping the 2018 Swedish General Election on Twitter', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, 6 September, https://comprop.oii.ox.ac.uk/research/sweden-election/ (accessed 1 April 2020).

Hedrick, Ashley, Dave Karpf and Daniel Kreiss (2018) 'The Earnest Internet vs. the Ambivalent Internet', *International Journal of Communication*, 12:1057-1064, https://ijoc.org/index.php/ijoc/article/viewFile/8736/2284 (accessed 1 April 2020).

Heikkilä, Niko (2017) 'Online Antagonism of the Alt-Right in the 2016 Election', *European Journal of American Studies* 12(2): 1-23, DOI:10.4000/ejas.12140.

Helmond, Anne (2015) 'The Platformization of the Web: Making Web Data Platform Ready', *Social Media + Society* 1(2):1-11, https://doi.org/10.1177/2056305115603080.

Hemmer, Nicole (2016) *Messengers of the Right: Conservative Media and the Transformation of American Politics*. Philadelphia: University of Pennsylvania Press.

Hendricks, Vincent F. and Mads Vestergaard (2019) *Reality Lost: Markets of Attention, Misinformation and Manipulation*. Cham: Springer.

Herderscheê, Gijs, and Remco Meijer (2019) 'Kabinet krijgt bitter voorproefje van regeren zonder meerderheid in Eerste Kamer', *de Volkskrant*, 31 January, https://www.volkskrant.nl/gs-b378d420 (accessed 1 April 2020).

Hern, Alex (2017) 'Google Acts Against Fake News on Search Engine', *The Guardian*, 25 April, https://www.theguardian.com/technology/2017/apr/25/google-launches-major-offensive-against-fake-news (accessed 1 April 2020).

— and Jim Waterson (2018) 'Facebook Cracks Down on "Dark Ads" by British political Groups', *The Guardian*, 16 October, https://www.theguardian.com/technology/2018/oct/16/facebook-dark-ads-british-political-groups (accessed 1 April 2020).

Herrman, John (2016) 'Inside Facebook's (Totally Insane, Unintentionally Gigantic, Hyperpartisan) Political-Media Machine', *The New York Times*, 28 August, https://www.nytimes.com/2016/08/28/magazine/inside-facebooks-totally-insane-unintentionally-gigantic-hyperpartisan-political-media-machine.html (accessed 1 April 2020).

Hindman, Matthew Scott (2008) *The Myth of Digital Democracy*. Princeton: Princeton University Press.

Hirst, Martin (2017) 'Towards a Political Economy of Fake News', *The Political Economy of Communication* 5(2), 82-94, http://www.polecom.org/index.php/polecom/article/view/86/288 (accessed 1 April 2020).

Hirzalla, Fadi and Liesbet van Zoonen (2015) 'Online Voting Applications. Foci, Findings and Future of an Emerging Research Field' in Stephen Coleman and Dean Freelon (eds), *Handbook of Digital Politics*, Northampton, MA: Edward Elgar, pp. 87-103, https://doi.org/10.4337/9781782548768.00014.

Holt, Jared (2017) 'White Supremacy Figured Out How to Become YouTube Famous | Right Wing Watch', October, http://www.rightwingwatch.org/report/white-supremacy-figured-out-how-to-become-youtube-famous/ (accessed 1 April 2020).

Holzman, Michael (2008) *James Jesus Angleton, the CIA and the Craft of Counterintelligence*. Amherst: University of Massachusetts Press.

Honeycutt, Courtenay and Susan C. Herring (2009) 'Beyond Microblogging. Conversation and Collaboration', *42nd Hawaii International Conference on System Sciences*, Los Alamitos, CA: IEEE Press, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.692.9575&rep=rep1&type=pdf (accessed 1 April 2020).

House of Commons (2019) 'Disinformation and "Fake News": Final Report Eighth Report of Session 2017-19', Digital, Culture, Media and Sport Committee, London: UK Parliament, https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/1791/1791.pdf (accessed 1 April 2020).

Howard, Philip N., Gillian Bolsover, Bence Kollanyi, Samantha Bradshaw, and Lisa-Maria Neudert (2017) 'Junk News and Bots During the U.S. Election: What Were Michigan Voters Sharing Over Twitter?', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/research/working-papers/junk-news-and-bots-during-the-u-s-election-what-were-michigan-voters-sharing-over-twitter/ (accessed 1 April 2020).

—, Bharath Ganesh, Dimitra Liotsiou, John Kelly and Camille François (2018) 'The IRA, Social Media and Political Polarization in the United States, 2012-2018', Report, Computational Propaganda Research Project, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/wp-content/uploads/sites/93/2018/12/The-IRA-Social-Media-and-Political-Polarization.pdf (accessed 1 April 2020).

Hughes, Taylor, Jeff Smith, and Alex Leavitt (2018) 'Helping People Better Assess the Stories They See in News Feed with the Context Button | Facebook Newsroom', *Facebook Newsroom*, April, https://newsroom.fb.com/news/2018/04/news-feed-fyi-more-context/(accessed 1 April 2020).

Ingram, Matthew (2019) 'Researchers Say Fears About "Fake News" Are Exaggerated', *Columbia Journalism Review*, 7 February, https://www.cjr.org/the_media_today/researchers-fake-news-exaggerated.php (accessed 1 April 2020).

Instaloader (2019) Instaloader software, version 4.2.5, GitHub project, https://instaloader.github.io/ (accessed 1 April 2020).

Isaac, Mike (2016) 'Facebook, in Cross Hairs After Election, Is Said to Question Its Influence', *New York Times*, 12 November, https://www.nytimes.com/2016/11/14/technology/facebook-is-said-to-question-its-influence-in-election.html (accessed 1 April 2020).

Jack, Caroline (2017) 'Lexicon of Lies: Terms for Problematic Information', New York: Data & Society Research Institute.

Jamieson, Kathleen Hall. 2018. *Cyberwar: How Russian Hackers and Trolls Helped Elect a President*. Oxford: Oxford University Press.

Jankowski, Nicholas W. (2018) 'Researching Fake News: A Selective Examination of Empirical Studies', *Javnost – The Public*, 25(1-2): 248-255, https://doi.org/10.1080/13183222.2018.1418964.

Jansen, Bernard J. and Amanda Spink (2003) 'An Analysis of Web Documents Retrieved and Viewed', 4th International Conference on Internet Computing, Las Vegas, Nevada, 23-26 June, pp. 65-69, https://faculty.ist.psu.edu/jjansen/academic/pubs/pages_viewed.pdf (accessed 1 April 2020).

Java, Akshay, Xiaodan Song, Tim Finin and Belle Tseng (2007) 'Why We Twitter: Understanding Microblogging Usage and Communities', *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 Workshop on Web Mining and Social Network Analysis*, New York: ACM, pp. 56-65, DOI: 10.1145/1348549.1348556.

Jeangène Vilmer, Jean-Baptiste, Alexandre Escorcia, Marine Guillaume, Janaina Herrera (2018) 'Information Manipulation: A Challenge for Our Democracies', report by the Policy Planning Staff (CAPS) of the Ministry for Europe and Foreign Affairs and the Institute for Strategic Research (IRSEM) of the Ministry for the Armed Forces, Paris, August, https://www.diplomatie.gouv.fr/IMG/pdf/information_manipulation_rvb_cle838736.pdf (accessed 1 April 2020).

Johnson, Brett G., and Kimberly Kelling (2018) 'Placing Facebook', *Journalism Practice* 12(7): 817-33, https://doi.org/10.1080/17512786.2017.1349546.

Jonker, Jorn (2017) 'Nepnieuws gevaar voor Nederland', *De Telegraaf*, 14 November, https://www.telegraaf.nl/nieuws/1196666/nepnieuws-gevaar-voor-nederland (accessed 1 April 2020).

Kaiser, Jonas, and Adrian Rauchfleisch (2018) 'Unite the Right? How YouTube's Recommendation Algorithm Connects the U.S. Far-Right', *Medium*, New York: Data & Society Research Institute, April 11, https://medium.com/@MediaManipulation/unite-the-right-how-youtubes-recommendation-algorithm-connects-the-u-s-far-right-9f1387ccfabd (accessed 1 April 2020).

Kanne, Peter and Milan Driessen (2017) 'Desinformatie leidt tot verwarring bij nieuwsconsument', Amsterdam: I&O Research, https://www.ioresearch.nl/actueel/desinformatie-leidt-tot-verwarring-bij-nieuwsconsument/ (accessed 1 April 2020).

Kasteleijn, Nando (2017) 'Nepnieuws groot gevaar voor Nederland? Dat lijkt dus wel mee te vallen', *NOS*, 28 August, https://nos.nl/artikel/2190381-nepnieuws-groot-gevaar-voor-nederland-dat-lijkt-dus-wel-mee-te-vallen.html (accessed 1 April 2020).

van Keulen, Ira, Iris Korthagen, Paul Diederen en Pieter van Boheemen (2018) 'Digitalisering van het nieuws: Online nieuwsgedrag, desinformatie en personalisatie in Nederland', Den Haag: Rathenau Instituut, https://www.rathenau.nl/sites/default/files/2018-05/Digitalisering%20van%20het%20nieuws.pdf (accessed 1 April 2020).

King, Gary and Nathaniel Persily (2018) 'A New Model for Industry-Academic Partnerships', Working Paper, 9 April, http://j.mp/2q1IQpH (accessed 1 April 2020).

Kist, Reinier (2019) 'Factchecken Facebook loopt stuk op aansprakelijkheid', *NRC Handelsblad*, 26 February, https://www.nrc.nl/nieuws/2019/02/26/factchecken-facebook-loopt-stuk-op-aansprakelijkheid-a3655348 (accessed 1 April 2020).

— and Rik Wassens (2017) 'Ook Nederlandse media werden misleid door Russische trollen', *NRC Handelsblad*, 8 December, https://www.nrc.nl/nieuws/2017/12/08/media-nederland-citeerden-trollen-als-bron-a1584306 (accessed 1 April 2020).

— and Rik Wassens (2018a) 'Russische trollen actief in Nederland', *NRC Handelsblad*, 15 July, https://www.nrc.nl/nieuws/2018/07/15/russische-trollen-actief-in-nederland-a1610158 (accessed 1 April 2020).

— and Rik Wassens (2018b) 'Russisch trollenleger ook actief in Nederland', *NRC Handelsblad*, 15 July, https://www.nrc.nl/nieuws/2018/07/15/de-russische-trollen-zijn-anti-islam-en-voor-wilders-a1610155 (accessed 1 April 2020).

— and Peter Zantingh (2017) 'Geen grote rol nepnieuws in aanloop naar verkiezingen', *NRC Handelsblad*, 6 March, https://www.nrc.nl/nieuws/2017/03/06/fake-news-nee-zo-erg-is-het-hier-niet-7144615-a1549050 (accessed 1 April 2020).

Kitta, Andrea (2018) 'Alternative Websites and Fake News: Taking a Stab at Definition, Genre and Belief', *The Journal of American Folklore* 131(522): 405-412, DOI: 10.5406/jamerfolk.131.522.0405.

Komok, Anna (2018) 'How to Check Instagram Account for Fake Followers', *HypeAuditor*, 6 July, https://hypeauditor.com/blog/how-to-check-instagram-account-for-fake-followers/(accessed 1 April 2020).

Kouwenhoven, Andreas and Hugo Logtenberg (2017) 'Hoe Denk met 'trollen' politieke tegenstanders monddood probeert te maken', *NRC Handelsblad*, 10 February, https://www.nrc.nl/nieuws/2017/02/10/de-trollen-van-denk-6641045-a1545547 (accessed 1 April 2020).

Kranenberg, Annieke (2017) 'Wie weet nog wat er waar is?', *de Volkskrant*, 23 December, https://www.volkskrant.nl/cultuur-media/wie-weet-nog-wat-er-waar-is~befc3c42/(accessed 1 April 2020).

— and Hassan Bahara (2018) 'Hoe alt-right online Jodenhaat verspreidt', *de Volkskrant*, 9 November, https://www.volkskrant.nl/gs-b1714693 (accessed 1 April 2020).

Kwak, Haewoon, Changhyun Lee, Hosung Park and Sue Moon (2010) 'What is Twitter? A Social Network or a News Media?', *Proceedings of the 19th International Conference on World Wide Web*, New York: ACM, April, pp. 591-600, https://doi.org/10.1145/1772690.1772751.

Lagorio-Chafkin, Christine (2018) 'Reddit Confirms New Russian Meddling Efforts', *Inc.*, 4 October, https://www.inc.com/christine-lagorio/reddit-finds-new-russian-interference-campaign.html (accessed 1 April 2020).

Laquintano, Timothy and Annette Vee (2017) 'How Automated Writing Systems Affect the Circulation of Political Information Online', *Literacy in Composition Studies* 5(2): 43-62, http://dx.doi.org/10.21623/1.5.2.4.

Latour, Bruno (2008) *What is the Style of Matters of Concern?* Assen: Van Gorcum.

— and Steve Woolgar (1979) *Laboratory Life: The Social Construction of Scientific Facts.* Princeton, NJ: Princeton University Press.

Lazarsfeld, Paul F., Bernard R. Berelson and Hazel Gaudet (1948) *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign.* New York: Columbia University Press.

Lazer, David M.J., Matthew A. Baum, Yochai Benkler, Adam J. Berinsky, Kelly M. Greenhill, Filippo Menczer, Miriam J. Metzger, Brendan Nyhan, Gordon Pennycook, David Rothschild, Michael Schudson, Steven A. Sloman, Cass R. Sunstein, Emily A. Thorson, Duncan J. Watts and Jonathan L. Zittrain (2018) 'The Science of Fake News', *Science*, 359(6380):1094-1096, DOI: 10.1126/science.aao2998.

Lee, Alexis (2019) 'What is a 'Facebook Engagement'?', BuzzSumo Knowledge Base, https://help.buzzsumo.com/faqs-and-troubleshooting/product-faqs/what-is-a-facebook-engagement (accessed 1 April 2020).

Lewis, Rebecca (2018) 'Alternative Influence: Broadcasting the Reactionary Right on YouTube', New York: Data & Society Research Institute, https://datasociety.net/wp-content/uploads/2018/09/DS_Alternative_Influence.pdf (accessed 1 April 2020).

Liotsiou, Dimitra, Bence Kollanyi, and Philip N. Howard (2019) 'The Junk News Aggregator: Examining Junk News Posted on Facebook, Starting with the 2018 US Midterm Elections', *ArXiv:1901.07920* [*Cs*], January, http://arxiv.org/abs/1901.07920.

Lippmann, Walter (1922) *Public Opinion*. New York: Harcourt, Brace and Co.

Lomas, Natasha (2018) 'Google is Surfacing Texas Shooter Misinformation in Search Results – Thanks also to Twitter', *TechCrunch*, 11 June, https://techcrunch.com/2017/11/06/google-is-surfacing-texas-shooter-misinformation-in-search-results-thanks-also-to-twitter/(accessed 1 April 2020).

Lorenz, Taylor (2014) 'Instagram Rapture Claims Millions Of Celebrity Instagram Followers', *Business Insider*, 18 December, https://www.businessinsider.com/instagram-rapture-claims-millions-of-celebrity-instagram-followers-2014-12/ (accessed 1 April 2020).

— (2018) 'Instagram's Christmas Crackdown. No Meme Account is Safe – Not Even @God', *The Atlantic*, 27 December, https://www.theatlantic.com/technology/archive/2018/12/instagrams-christmas-crackdown-meme-accounts/579055/ (accessed 1 April 2020).

Louwerse, Tom and Martin Rosema (2014) 'The Design Effects of Voting Applications: Comparing Methods of Calculating Matches', *Acta Politica* 49(3):286-312, DOI: https://doi.org/10.1057/ap.2013.30.

Lüders, Marika, Lin Prøitz and Terje Rasmussen (2010) 'Emerging Personal Media Genres', *New Media & Society*, 12(6): 947-963, https://doi.org/10.1177/1461444809352203.

Lynskey, Dorian (2018) 'How Dangerous is Jordan B Peterson, the Rightwing Professor Who "Hit a Hornets' Nest"?' *The Guardian*, February 7, https://www.theguardian.com/science/2018/feb/07/how-dangerous-is-jordan-b-peterson-the-rightwing-professor-who-hit-a-hornets-nest (accessed 1 April 2020).

MacFarquhar, Neil (2018) 'A Powerful Russian Weapon: The Spread of False Stories', *The New York Times*, 20 January, https://www.nytimes.com/2016/08/29/world/europe/russia-sweden-disinformation.html (accessed 1 April 2020).

Maheshwari, Sapna (2018) 'Uncovering Instagram Bots With a New Kind of Detective Work', *The New York Times*, 12 March, https://www.nytimes.com/2018/03/12/business/media/instagram-bots.html (accessed 1 April 2020).

Malice, Michael (2019) *The New Right: A Journey to the Fringe of American Politics*. New York: All Points Books.

Marchal, Nahema, Lisa-Maria Neudert, Bence Kollanyi, and Philip N. Howard (2018) 'Polarization, Partisanship and Junk News Consumption on Social Media During

the 2018 US Midterm Elections', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/research/midterms2018/ (accessed 1 April 2020).

Margolis, Joseph (1995) 'Beyond Postmodernism: Logic as Rhetoric', *Argumentation*, 9(1): 21-31, https://doi.org/10.1007/BF00733098.

Marres, Noortje (2018) 'Why We Can't Have Our Facts Back', *Engaging Science, Technology, and Society* 4: 423-443, https://doi.org/10.17351/ests2018.188.

— and Esther Weltevrede (2013), 'Scraping the Social?' *Journal of Cultural Economy* 6(3): 313-35, DOI:10.1080/17530350.2013.772070.

Martens, Bertin, Luis Aguiar, Estrella Gomez-Herrera and Frank Mueller-Langer (2018) 'The Digital Transformation of News Media and the Rise of Disinformation and Fake News', *SSRN Electronic Journal*, DOI:10.2139/ssrn.3164170.

Marvin, Carolyn (1988) *When Old Technologies Were New*. New York, NY: Oxford University Press.

Marwick, Alice E. (2018) 'Why Do People Share Fake News? A Sociotechnical Model of Media Effects', *Georgetown Law Technology Review* 2(2): 474-512.

—, and Rebecca Lewis (2017) 'Media Manipulation and Disinformation Online', New York: Data & Society Research Institute, https://datasociety.net/wp-content/uploads/2017/05/DataAndSociety_MediaManipulationAndDisinformationOnline-1.pdf (accessed 1 April 2020).

Matsakis, Louise (2017) 'This Russian Vending Machine Will Sell You Fake Instagram Likes', *Motherboard Vice*, 7 June, https://www.vice.com/en_us/article/xw8yv3/russian-vending-machine-fake-instagram-likes (accessed 1 April 2020).

Mauri, Michele, Tommaso Elli, Giorgio Caviglia, Giorgio Uboldi, and Matteo Azzi (2017) 'RAWGraphs: A Visualisation Platform to Create Open Outputs', *Proceedings of the 12th Biannual Conference on Italian SIGCHI Chapter*, CHItaly '17, New York: ACM, https://doi.org/10.1145/3125571.3125585.

McGarry, Caitlin (2013) 'Twitter Bots, Fake Retweets Rake in Big Bucks', *PCWorld*, 10 April, https://www.pcworld.com/article/2033766/twitter-bots-fake-retweets-rake-in-big-bucks.html (accessed 1 April 2020).

McGonagle, Tarlach (2017) '"Fake News": False Fears or Real Concerns?', *Netherlands Quarterly of Human Rights* 35(4): 203-209, https://doi.org/10.1177/0924051917738685.

McKernon, Edward (1925) 'Fake News and the Public', *The Harper's Monthly,* October, pp. 528-536.

— (1928) 'News Fakers', *The Outlook* 149(4): 130-141.

McNeil, Maureen (2013) 'Between a Rock and a Hard Place: The Deficit Model, the Diffusion Model and Publics in STS', *Science as Culture* 22(4): 589-608, https://doi.org/10.1080/14636778.2013.764068.

McQueen, Sharon (2018) 'From Yellow Journalism to Tabloids to Clickbait: The Origins of Fake News in the United States', in Denise E. Agosto (ed.) *Information Literacies and Libraries in the Age of Fake New*s. Santa Barbara, CA: Libraries Unlimited, pp. 12-35.

Merrill, Jeremy B. and Ariana Tobin (2019) 'Facebook Moves to Block Ad Transparency Tools – Including Ours', *ProPublica*, 29 January, https://www.propublica.org/article/facebook-blocks-ad-transparency-tools (accessed 1 April 2020).

Milneil, Christian (2018) 'Data: Read the Tweets from Alleged Russian Troll Accounts Targeting Maine Politicians', *Portland Press Herald*, 2 August, https://www.pressherald.com/2018/08/02/data-read-the-tweets-from-alleged-russian-troll-accounts-targeting-maines-congressional-delegation/ (accessed 1 April 2020).

Mina, An Xiao (2019). *Memes to Movements: How the World's Most Viral Media Is Changing Social Protest and Power*. Boston, MA: Beacon Press.

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (2019) 'Campagne nepnieuws vandaag van start – Nieuwsbericht', *Rijksoverheid.nl*. March 11, https://www.rijksoverheid.nl/actueel/nieuws/2019/03/11/campagne-nepnieuws-vandaag-van-start (accessed 1 April 2020).

Misérus, Mark and Robert van der Noordaa (2018a) 'Het trollenleger van popartiest Dotan', *de Volkskrant*, 14 April, https://www.volkskrant.nl/kijkverder/2018/dotan/#/ (accessed 1 April 2020).

Misérus, Mark and Robert van der Noordaa (2018b) 'Dotan erkent aanmaken nepfans: "Ik was heel naïef, veel te ambitieus en onzeker"', *de Volkskrant*, 16 April, https://www.volkskrant.nl/nieuws-achtergrond/dotan-erkent-aanmaken-nepfans-ik-was-heel-naief-veel-te-ambitieus-en-onzeker~b80fb404/ (accessed 1 April 2020).

Monbiot, George (2019) 'Dark Money Is Pushing for a No-deal Brexit. Who Is Behind It?', *The Guardian*, 13 February, https://www.theguardian.com/commentisfree/2019/feb/13/dark-money-hard-brexit-targeted-ads-facebook (accessed 1 April 2020).

Morozov, Evgeny (2017) 'Moral Panic Over Fake News Hides the Real Enemy – the Digital Giants', *The Guardian*, 8 January, https://www.theguardian.com/commentisfree/2017/jan/08/blaming-fake-news-not-the-answer-democracy-crisis (accessed 1 April 2020).

Mosseri, Adam (2017a) 'Working to Stop Misinformation and False News | Facebook Newsroom', *Facebook Newsroom,* blog post, April, https://newsroom.fb.com/news/2017/04/working-to-stop-misinformation-and-false-news/ (accessed 1 April 2020).

— 2017b. 'Showing More Informative Links in News Feed | Facebook Newsroom,' *Facebook Newsroom*, blog post, June 30, https://newsroom.fb.com/news/2017/06/news-feed-fyi-showing-more-informative-links-in-news-feed/ (accessed 1 April 2020).

Mudde, Cas, and Cristóbal Rovira Kaltwasser (2017) *Populism: A Very Short Introduction.* Oxford: Oxford University Press.

Muirhead, Russell, and Nancy L. Rosenblum (2019) *A Lot of People Are Saying: The New Conspiracism and the Assault on Democracy.* Princeton, NJ: Princeton University Press.

Muller, Jan-Werner (2016) *What Is Populism?* Philadelphia, PA: University of Pennsylvania Press.

Nagle, Angela (2017) *Kill All Normies: Online Culture Wars From 4Chan and Tumblr to Trump and the Alt-Right.* London: Zero Books.

Neudert, Lisa-Maria N. (2017) 'Computational Propaganda in Germany: A Cautionary Tale', Computational Propaganda Working Paper, Oxford: Oxford Internet Institute, https://blogs.oii.ox.ac.uk/politicalbots/wp-content/uploads/sites/89/2017/06/Comprop-Germany.pdf (accessed 1 April 2020).

Neudert, Lisa-Maria, Bence Kollanyi, and Philip N. Howard (2017) 'Junk News and Bots during the German Parliamentary Election: What Are German Voters Sharing over Twitter?', Computational Propaganda Data Memo, Oxford: Oxford Internet Institute, https://comprop.oii.ox.ac.uk/research/junk-news-and-bots-during-the-german-parliamentary-election-what-are-german-voters-sharing-over-twitter/ (accessed 1 April 2020).

New Knowledge (2018) 'The Tactics & Tropes of the Internet Research Agency', White Paper, Austin, TX: New Knowledge, https://disinformationreport.blob.core.windows.net/disinformation-report/NewKnowledge-Disinformation-Report-Whitepaper.pdf (accessed 1 April 2020).

Newman, Michelle C. (2010) 'The Daily Show and Meta-Coverage: How Mock News Covers the Political Communications System', *The Elon Journal of Undergraduate Research in Communications*, 1(2), http://www.elon.edu/docs/e-Web/academics/communications/research/vol1no2/EJFall10_Full.pdf (accessed 1 April 2020).

NewsGuard (2019), 'Restoring Trust and Accountability', *NewsGuard* webpage, https://www.newsguardtech.com, (accessed 1 April 2020).

Niederer, Sabine (2018) 'The Study of Networked Content: Five Considerations for Digital Research in the Humanities', in Giovanni Schiuma and Daniela Carlucci (eds.), *Big Data in the Arts and Humanities: Theory and Practice,* Boca Raton, FL: CRC Press, pp. 89-100.

— (2019) *Networked Content Analysis: The Case of Climate Change*, Amsterdam: Institute of Network Cultures.

Nijmeijer, Bert (2018) 'Zelf nepnieuws maken om daarna de echte trollen te kunnen herkennen', *NRC Handelsblad,* 22 July, https://www.nrc.nl/nieuws/2018/07/22/zelf-nepnieuws-maken-om-daarna-de-echte-trollen-te-kunnen-herkennen-a1610863 (accessed 1 April 2020).

Noble, Safiya Umoja (2018) *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York, NY: New York University Press.

van der Noordaa, Robert and Coen van de Ven (2019) 'Het MH17 Complot', *De Groene Amsterdammer*, 29 May, https://www.groene.nl/artikel/het-mh17-complot (accessed 1 April 2020).

van der Noordaa, Robert and Coen van de Ven (2018a) 'Hoe Russische trollen inspelen op westerse angsten', *De Groene Amsterdammer*, 28 Augustus, https://www.groene.nl/artikel/hoe-russische-trollen-inspelen-op-westerse-angsten (accessed 1 April 2020).

van der Noordaa, Robert and Coen van de Ven (2018b) '3 Miljoen "trollentweets" onderzocht: hoe Rusland via sociale media ook in België verdeeldheid zaait', *Knack*, 27 November, https://www.knack.be/nieuws/belgie/3-miljoen-trollent-weets-onderzocht-hoe-rusland-via-sociale-media-ook-in-belgie-verdeeldheid-zaait/article-longread-1398723.html (accessed 1 April 2020).

NOS (2017a) 'Baby van 20 kilo heeft de primeur: eerste nepnieuws in Nederland', *NOS,* 8 June, https://nos.nl/artikel/2177218-baby-van-20-kilo-heeft-de-primeur-eerste-nepnieuws-in-nederland.html (accessed 1 April 2020).

NOS (2017b) 'Ollongren: Russische desinformatie bij Oekraïne-referendum', *NOS*, 15 November, https://nos.nl/artikel/2202937-ollongren-russische-desinformatie-bij-oekraine-referendum.html (accessed 1 April 2020)..

NOS (2018) 'Twitters grote schoonmaak: Wilders en Denk-politici verliezen volgers', NOS, 13 July, https://nos.nl/nieuwsuur/artikel/2241321-twitters-grote-schoon-maak-wilders-en-denk-politici-verliezen-volgers.html (accessed 1 April 2020).

Nuzzi, Olivia (2017) 'Kellyanne Conway Is a Star', *New York Magazine*, March, https://nymag.com/intelligencer/2017/03/kellyanne-conway-trumps-first-lady.html (accessed 1 April 2020).

Nyhan, Brendan, Ethan Porter, Jason Reifler and Thomas J. Wood (2019) 'Taking Fact-Checks Literally But Not Seriously? The Effects of Journalistic Fact-Checking on Factual Beliefs and Candidate Favorability', *Political Behavior*, published online 21 January, https://doi.org/10.1007/s11109-019-09528-x.

O'Brien, Chris (2019) 'Sheryl Sandberg says Facebook Is Now Blocking 1 Million Fake Accounts Every Day', *Venture Beat*, 21 January, https://venturebeat.com/2019/01/21/sheryl-sandberg-says-facebook-is-now-blocking-1-million-fake-accounts-every-day/ (accessed 1 April 2020).

O'Donovan, Caroline (2014) 'What Is Clickbait?', *Niemanlab*, 25 August, https://www.niemanlab.org/2014/08/what-is-clickbait/ (accessed 1 April 2020).

Omnicore. (2019) 'Twitter by the Numbers', *Omnicore Agency*, https://www.omnicoreagency.com/twitter-statistics/ (accessed 1 April 2020).

Opper, F. (1894) 'The Fin de Siècle Newspaper Proprietor', *Puck,* 35(887).

Oudenampsen, Merijn (2013) 'Met de Tjoeki Tjoeki Naar Takki Takki'. *De Groene Amsterdammer,* 3 July, https://www.groene.nl/artikel/met-de-tjoeki-tjoeki-naar-takki-takki (accessed 1 April 2020).

Panagopoulos, Costas (2016) 'All about that Base: Changing Campaign Strategies in US Presidential Elections', *Party Politics*, 22(2): 179-90, https://doi.org/10.1177/1354068815605676.

Pariser, Eli (2011) *The Filter Bubble: What the Internet Is Hiding From You.* New York: Penguin.

Parlapiano, Alicia and Jasmine C. Lee (2018) 'The Propaganda Tools Used by Russians to Influence the 2016 Election', *New York Times*, 16 February, https://www.nytimes.com/interactive/2018/02/16/us/politics/russia-propaganda-election-2016.html (accessed 1 April 2020).

Peck, Reece (2019) *Fox Populism: Branding Conservatism as Working Class.* Cambridge: Cambridge University Press.

Pedersen, David B. and Vincent F. Hendricks (2014) 'Science Bubbles', *Philosophy and Technology*, 27(4): 503-518, https://doi.org/10.1007/s13347-013-0142-7.

Peek, Simone (2018) 'NOS-hoofdredacteur over bericht Soros: "Zo had het niet gemoeten"', *NRC Handelsblad*, 24 October, https://www.nrc.nl/nieuws/2018/10/24/nos-hoofdredacteur-over-bericht-soros-zo-had-het-niet-gemoeten-a2752535 (accessed 1 April 2020).

Peel, Michael (2019) 'EU Election Suffered Russian Disinformation, Brussels Finds', *Financial Times*, 14 June, https://www.ft.com/content/bc4b65b0-8dfa-11e9-a1c1-51bf8f989972 (accessed 1 April 2020).

Persily, Nathaniel (2017) 'The 2016 U.S. Election: Can Democracy Survive the Internet?'. *Journal of Democracy* 28(2): 63-76, https://www.journalofdemocracy.org/wp-content/uploads/2017/04/07_28.2_Persily-web.pdf (accessed 1 April 2020).

Phillips, Whitney (2015) *This Is Why We Can't Have Nice Things: Mapping the Relationship Between Online Trolling and Mainstream Culture.* Cambridge, MA: MIT Press.

Phillips, Whitney (2018) 'The Oxygen of Amplification: Better Practices for Reporting on Extremists, Antagonists and Manipulators Online', New York: Data & Society Research Institute, https://datasociety.net/library/oxygen-of-amplification/ (accessed 1 April 2020).

Phillips, Whitney and Ryan Milner (2018) *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online.* Cambridge: Polity Press.

Pleijter, Alexander (2017) 'De nepnieuwslawine zonder nepnieuws', *Villamedia*, 17 November, https://www.villamedia.nl/artikel/pas-op-die-nepnieuwslawine-is-niet-meer-dan-een-sneeuwvlok (accessed 1 April 2020).

Pohjonen, Matti and Sahana Udupa (2017) 'Extreme Speech Online: An Anthropological Critique of Hate Speech Debates', *International Journal of Communication*, 11: 1173-1191.

Posetti, Julie and Alice Matthews (2018) 'A Short Guide to the History of 'Fake News' and Disinformation', Washington, DC: International Center for Journalists, https://www.icfj.org/sites/default/files/2018-07/A%20Short%20Guide%20to%20 History%20of%20Fake%20News%20and%20Disinformation_ICFJ%20Final. pdf (accessed 1 April 2020).

Poynter (2019) 'A Guide to Anti-misinformation Actions around the World', St. Petersburg, FL: The Poynter Institute, https://www.poynter.org/ifcn/anti- misinformation-actions/ (accessed 1 April 2020).

Puschmann, Cornelius (2018) 'Beyond the Bubble: Assessing the Diversity of Political Search Results', *Digital Journalism*, 7(6): 824-843, https://doi.org/10.1080/21670 811.2018.1539626.

Puschmann, Cornelius (2017) 'How Significant Is Algorithmic Personalization in Searches for Political Parties and Candidates?', *Digital Society Blog*, Alexander von Humboldt Institute for Internet and Society (HIIG), https://www.hiig.de/ en/personalized-search-results-elections/ (accessed 1 April 2020).

Ratkiewicz, Jacob, Michael D. Conover, Mark Meiss, Bruno Goncalves, Alessandro Flammini and Filippo Menczer (2011) 'Detecting and Tracking Political Abuse in Social Media', *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media*, Barcelona, Spain, July, https://www.aaai.org/ocs/index.php/ ICWSM/ICWSM11/paper/view/2850/3274 (accessed 1 April 2020).

Reid, John, Bastiaan Geleijnse and Jean-Marc van Tol (2018) 'Fokke en Sukke hebben zitting in de taskforce nepnieuws', Cartoon, 17 January, http://www.foksuk.nl/ nl/?cm=79&ctime=1516143600&cid=7814 (accessed 1 April 2020).

Renner, Nausicaa (2017) 'Memes Trump Articles on Breitbart's Facebook Page', *Columbia Journalism Review*, 30 January, https://www.cjr.org/tow_center/ memes-trump-articles-on-breitbarts-facebook-page.php (accessed 1 April 2020).

Rieder, Bernhard (2018) 'Facebook's App Review and How Independent Research Just Got a Lot Harder', *Politics of Systems* blog, 11 August, http://thepoliticsofsystems. net/2018/08/facebooks-app-review-and-how-independent-research-just-got-a- lot-harder/ (accessed 1 April 2020).

— (2012) 'The Refraction Chamber: Twitter as Sphere and Network', *First Monday*, 17(11), https://firstmonday.org/ojs/index.php/fm/article/view/4199/3359 (accessed 1 April 2020).

—, Ariadna Matamoros-Fernández and Òscar Coromina (2018) 'From Ranking Algorithms to 'Ranking Cultures': Investigating the Modulation of Visibility in YouTube Search Results', *Convergence: The International Journal of Research into New Media Technologies*, 24(1): 50-68, https://doi.org/10.1177/1354856517736982.

—, Rasha Abdulla, Thomas Poell, Robbert Woltering, Liesbeth Zack (2016) 'Data Critique and Analytical Opportunities for Very Large Facebook Pages. Lessons Learned from Exploring "We Are All Khaled Said"', *Big Data & Society,* 2.2: 1-22, https://doi.org/10.1177/2053951715614980.

Rieder, Bernhard (2015). YouTube Data Tools (Version 1.11), software, https://tools.digitalmethods.net/netvizz/youtube/ (accessed 1 April 2020).

RNTC (2019). 'Challenging fake news', webpage, Hilversum: RNTC, https://rntc.com/blog/challenging-fake-news (accessed 1 April 2020).

Roberts, Sarah T. (2016) 'Commercial Content Moderation: Digital Laborers' Dirty Work', in Safiya Umoja Noble and Brendesha M. Tynes (eds.) *The Intersectional Internet*. New York, NY: Peter Lang, pp. 147-160.

Robertson, Adi (2017) 'After Its 4chan Slip-up, Is It Time for Google to Drop Top Stories?', *The Verge*, 3 October, https://www.theverge.com/2017/10/3/16413082/google-4chan-las-vegas-shooting-top-stories-algorithm-mistake (accessed 1 April 2020).

RoBhat Labs (2017) 'Identifying Propaganda Bots on Twitter', *Medium*, 31 October, https://medium.com/@robhat/identifying-propaganda-bots-on-twitter-5240e7cb81a9 (accessed 1 April 2020).

Roeder, Oliver (2018) 'We Gave You 3 Million Russian Troll Tweets. Here's What You've Found So Far', *FiveThirtyEight*, 8 August, https://fivethirtyeight.com/features/what-you-found-in-3-million-russian-troll-tweets/ (accessed 1 April 2020).

Roermund, Jannes van (2017) 'Wie zijn de mensen achter het nepnieuws in Nederland?' *Nieuwe Revu*, 26 April, https://revu.nl/artikel/2933/wie-zijn-de-mensen-achter-het-nepartikel-in-nederland (accessed 1 April 2020).

Roig-Franzia, Manuel (2019) 'Inside the Spectacular Fall of the Granddaddy of Right-Wing Conspiracy Sites', *The Washington Post*, 2 April, https://www.washingtonpost.com/lifestyle/style/inside-the-spectacular-fall-of-the-granddaddy-of-right-wing-conspiracy-sites/2019/04/02/6ac53122-3ba6-11e9-a06c-3ec8ed509d15_story.html (accessed 1 April 2020).

Rogers, Richard (2019) *Doing Digital Methods.* Los Angeles: Sage.

— (2018a) 'Otherwise Engaged: Social Media from Vanity Metrics to Critical Analytics', *International Journal of Communication*, 12: 450-472.

— (2018b) 'Digital Methods for Cross-Platform Analysis', in Jean Burgess, Alice Marwick and Thomas Poell (eds.), *SAGE Handbook of Social Media*. London: Sage, pp. 91-110.

— (2017) 'Foundations of Digital Methods: Query Design' in Mirko Tobias Schäfer and Karin Van Es (eds.) *The Datafied Society. Studying Culture through Data,* Amsterdam: Amsterdam University Press, pp. 75-94.

— (2013) *Digital Methods*, Cambridge, MA: MIT Press.

— (2013). Debanalizing Twitter: The Transformation of an Object of Study, in *Proceedings of the 5th Annual ACM Web Science Conference*, New York, NY: ACM, pp. 356-365, https://doi.org/10.1145/2464464.2464511.

— (2005) 'Poignancy in the US Political Blogosphere', *Aslib Proceedings: New Information Perspectives*, 57(4): 356-368, https://doi.org/10.1108/00012530510612086.

Romero, Jessica (2019) 'Preventing Inauthentic Behavior on Instagram', *Facebook Newsroom*, 25 April, https://newsroom.fb.com/news/2019/04/preventing-inauthentic-behavior-on-instagram/ (accessed 1 April 2020).

Rone, Julia (2019) 'Why Talking about "Disinformation" Misses the Point when Considering Radical Right "Alternative" Media', *Inforrm's Blog*, The International Forum for Responsible Media Blog, 9 January, https://inforrm.org/2019/01/09/why-talking-about-disinformation-misses-the-point-when-considering-radical-right-alternative-media-julia-rone/ (accessed 1 April 2020).

Rony, Md Main Uddin, Naeemul Hassan and Mohammad Yousuf (2017) 'BaitBuster: Destined to Save You Some Clicks', *Proceedings of Computation+Journalism Symposium*, Northwestern University, October, https://northwestern.app.box.com/s/rim87qta59zgtykx7a149dzmldalm72p (accessed 1 April 2020).

Roozenbeek, Jon and Sander van der Linden (2018) 'The Fake News Game: Actively Inoculating Against the Risk of Misinformation', *Journal of Risk Research* 22(5): 570-580, DOI: 10.1080/13669877.2018.1443491.

RTL Nieuws (2018) 'Alles over complottheorie QAnon – #TrumpUpdate 77', *RTL Nieuws,* 15 September, https://www.rtlnieuws.nl/nieuws/laatste-videos-nieuws/video/4417801/alles-over-complottheorie-qanon-trumpupdate-77 (accessed 1 April 2020).

Ruusuvirta, Outi (2010) 'Much Ado About Nothing? Online Voting Advice Applications in Finland', in Cedroni, Lorella and Diego Garzia (eds.), *Voting Advice Applications in Europe: The State of the Art*, Napoli: ScriptaWeb, pp. 47-77.

Sängerlaub, Alexander, Miriam Meier and Wolf-Dieter Rühl (2017) 'Fakten statt Fakes: Das Phänomen "Fake News"', Berlin: Stiftung Neue Verantwortung, https://www.stiftung-nv.de/sites/default/files/snv_fakten_statt_fakes.pdf (accessed 1 April 2020).

Shane, Scott (2018) 'How Unwitting Americans Encountered Russian Operatives Online', *New York Times*, 18 February, https://www.nytimes.com/2018/02/18/us/politics/russian-operatives-facebook-twitter.html (accessed 1 April 2020).

Shao, Chengcheng, Giovanni Luca Ciampaglia, Onur Varol, Kai-Cheng Yang, Alessandro Flammini and Filippo Menczer (2018) 'The Spread of Low-Credibility Content by Social Bots', *Nature Communications* 9(4787), https://doi.org/10.1038/s41467-018-06930-7.

Shaw, Eugene (1979) 'Agenda-Setting and Mass Communication Theory', *International Communication Gazette* 25(2): 96-105, https://doi.org/10.1177/001654927902500203.

Shead, Sam (2019) 'Facebook Reacts to Live-Streamed Footage of the Deadly New Zealand Mass Shooting that was Posted on its Platform', *Business Insider Australia*, 15 March, https://www.thisisinsider.com/facebook-responds-to-alleged-live-stream-of-christchurch-shooting-2019-3 (accessed 1 April 2020).

Shieber, Jason (2017) 'How Reports from 4chan on the Las Vegas Shooting Showed Up on Google Top Stories', *TechCrunch* blog, 2 October, http://social.techcrunch.com/2017/10/02/how-reports-from-4chan-on-the-las-vegas-shooting-showed-up-on-google-top-stories/ (accessed 1 April 2020).

Silverman, Craig, J. Lester Feder, Saska Cvetkovska and Aubrey Belford (2018) 'Macedonia's Pro-Trump Fake News Industry Had American Links, and Is Under Investigation for Possible Russia Ties', *Buzzfeed News*, 18 July, https://www.buzzfeednews.com/article/craigsilverman/american-conservatives-fake-news-macedonia-paris-wade-libert (accessed 1 April 2020).

Silverman, Craig (2016) 'This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook', *Buzzfeed News*, 16 November, https://www.buzzfeednews.com/article/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook (accessed 1 April 2020).

Silverman, Craig and Lawrence Alexander (2016) 'How Teens in the Balkans are Duping Trump Supporters with Fake News', *Buzzfeed New*s, 3 November, https://www.buzzfeednews.com/article/craigsilverman/how-macedonia-became-a-global-hub-for-pro-trump-misinfo (accessed 1 April 2020).

Silverman, Craig and Jeremy Singer-Vine (2016) 'The True Story Behind the Biggest Fake News Hit of The Election', *Buzzfeed News*, 16 December, https://www.buzzfeednews.com/article/craigsilverman/the-strangest-fake-news-empire (accessed 1 April 2020).

Silverman, Craig, Lauren Strapagiel, Hamza Shaban, Ellie Hall and Jeremy Singer-Vine (2016) 'Hyperpartisan Facebook Pages are Publishing False and Misleading Information at an Alarming Rate', *Buzzfeed News*, 20 October, https://www.buzzfeednews.com/article/craigsilverman/partisan-fb-pages-analysis (accessed 1 April 2020).

Sismondo, Sergio (2017) 'Post-truth?', *Social Studies of Science*, 47(1): 3-6, https://doi.org/10.1177/0306312717692076.

Snyder, Timothy (2018) *The Road to Unfreedom: Russia, Europe, America*. New York: Tim Duggan Books.

Solon, Olivia and Sam Levin (2016) 'How Google's Search Algorithm Spreads False Information with a Rightwing Bias', *The Guardian*, 16 December, https://www.theguardian.com/technology/2016/dec/16/google-autocomplete-rightwing-bias-algorithm-political-propaganda (accessed 1 April 2020).

Sommer, Will (2018) 'Instagram Is the Alt-Right's New Favorite Haven', *The Daily Beas*t, 30 October.

Southern Poverty Law Center (n.d.), WorldNetDaily blog, *Southern Poverty Law Center,* https://www.splcenter.org/fighting-hate/extremist-files/group/world-netdaily (accessed 1 April 2020).

Srnicek, Nick (2017) *Platform Capitalism*. Cambridge: Polity Press.

Statista (2019) 'Most Famous Social Network Sites Worldwide as of January 2019, Ranked by Number of Active Users (in Millions)', *Statista* webpage, https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ (accessed 1 April 2020).

Still, Keith (2017) 'Inauguration Crowd Size', *Crowd Safety and Risk Analysis* blog, Manchester: Manchester Metropolitan University, http://www.gkstill.com/CV/Projects/Counting.html (accessed 1 April 2020).

Swedish Civil Contingencies Agency (2018) *Countering Information Influence Activities: A Handbook for Communicators*. Karlstad: Swedish Civil Contingencies Agency (MSB), https://www.msb.se/RibData/Filer/pdf/28698.pdf (accessed 1 April 2020).

Swedish Media Council (2019) *Källkritik – en utmaning,* Stockholm: State Media Council, 5 March, https://statensmedierad.se/larommedier/kallkritikvemvad-varfor/kallkritikenutmaning.422.html (accessed 1 April 2020).

Tan, Yvette (2017) 'There's a Vending Machine Selling Fake Instagram Likes, Because This is What We've Become', *Mashable*, 7 June, https://mashable.com/2017/06/07/instagram-likes-vending-machine/ (accessed 1 April 2020).

Tandoc Jr., Edson C., Zheng Wei Lim and Richard Ling (2018) 'Defining "Fake News": A Typology of Scholarly Definitions', *Digital Journalism* 2: 137-153, https://doi.org/10.1080/21670811.2017.1360143.

Thomas, David R. (2006) 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation* 27(2): 238-246, https://doi.org/10.1177/1098214005283748.

Timberg, Craig (2017) 'Russian Propaganda May Have Been Shared Hundreds of Millions of Times, New Research Says', *Washington Post*, 5 October, https://www.washingtonpost.com/news/the-switch/wp/2017/10/05/russian-propaganda-may-have-been-shared-hundreds-of-millions-of-times-new-research-says/ (accessed 1 April 2020).

Tripodi, Francesca (2018) 'Alternative Facts, Alternative Truths', *Points* blog, Data & Society, 23 February, https://points.datasociety.net/alternative-facts-alternative-truths-ab9d446b06c (accessed 1 April 2020).

Tucker, Joshua A., Andrew Guess, Pablo Barberá, Cristian Vaccari, Alexandra Siegel, Sergey Sanovich, Denis Stukal, and Brendan Nyhan (2018) 'Social Media, Political Polarization, and Political Disinformation: A Review of the Scientific Literature', Report, Menlo Park, CA: William and Flora Hewlett Foundation, https://hewlett.org/wp-content/uploads/2018/03/

Social-Media-Political-Polarization-and-Political-Disinformation-Literature-Review.pdf (accessed 1 April 2020).

Tufekci, Zeynep (2018) 'YouTube, the Great Radicalizer', *The New York Times*, 10 March. https://www.nytimes.com/2018/03/10/opinion/sunday/youtube-politics-radical.html (accessed 1 April 2020).

Turner, Stephen (2001) 'What is the Problem with Experts?', *Social Studies of Science* 31(1): 123-149, https://doi.org/10.1177/030631201031001007.

Tuters, Marc, and Daniël De Zeeuw (2020) 'Teh Internet Is Serious Business: On the Deep Vernacular Web Imaginary', *Cultural Politics*, forthcoming.

Tuters, Marc, Emilija Jokubauskaitė and Daniel Bach (2018) 'Post-Truth Protest: How 4chan Cooked Up the Pizzagate Bullshit', *M/C: A Journal of Media and Culture* 21(3), http://journal.media-culture.org.au/index.php/mcjournal/article/view/1422 (accessed 1 April 2020).

Vaidhyanathan, Siva (2018) 'Why Facebook Will Never Be Free of Fakes', *New York Times*, 5 September, https://www.nytimes.com/2018/09/05/opinion/facebook-sandberg-congress.html (accessed 1 April 2020).

Vaidhyanathan, Siva (2017) 'Facebook Wins, Democracy Loses', *New York Times*, 8 September, https://www.nytimes.com/2017/09/08/opinion/facebook-wins-democracy-loses.html (accessed 1 April 2020).

Vassil, Kristjan (2011) *Voting smarter? The Impact of Voting Advice Applications on Political Behavior*, PhD dissertation, European University Institute, Tartu, Estonia.

Venturini, Tommaso (2019) 'From Fake to Junk News: the Data Politics of Online Virality', in Didier Bigo, Engin Isin, and Evelyn Ruppert (eds), *Data Politics: Worlds, Subjects, Rights*. London: Routledge, pp. 123-144.

Volkova, Svitlana, Kyle Shaffer, Jin Yea Jang and Nathan Hodas (2017) 'Separating Facts from Fiction: Linguistic Models to Classify Suspicious and Trusted News Posts on Twitter', *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics*, 2: 647-653, DOI: 10.18653/v1/P17-2102.

Volpicelli, Gian (2019) 'This is How Facebook's News Feed Fact-Checking Will Work in the UK', *Wired*, 11 January, https://www.wired.co.uk/article/full-fact-facebook-fact-checking (accessed 1 April 2020).

Vosoughi, Soroush, Deb Roy and Sinan Aral (2018) 'The Spread of True and False News Online', *Science*, 359(6380): 1146-1151, DOI: 10.1126/science.aap9559.

Walgrave, Stefaan, Michiel Nuytemans and Koen Pepermans (2009) 'Voting Aid Applications and the Effect of Statement Selection', *West European Politics* 32(6): 1161-1180, https://doi.org/10.1080/01402380903230637.

Wang, Rong, Wenlin Liu, and Shuyang Gao (2016). 'Hashtags and Informa-
    tion Virality in Networked Social Movement: Examining Hashtag Co-
    occurrence Patterns', *Online Information Review* 40(7): 850-866, DOI: 10.1108/
    OIR-12-2015-0378.

Wardle, Claire (2018) 'Information Disorder: The Essential Glossary', Shorenstein
    Center, Cambridge, MA: Harvard Kennedy School, https://firstdraftnews.org/
    wp-content/uploads/2018/07/infoDisorder_glossary.pdf (accessed 1 April 2020).

Wardle, Claire and Hossein Derakhshan (2017) 'Information Disorder: Toward
    an Interdisciplinary Framework for Research and Policy Making', Strasbourg:
    Council of Europe, 27 September, https://rm.coe.int/information-disorder-toward-
    an-interdisciplinary-framework-for-researc/168076277c (accessed 1 April 2020).

Waters, Richard (2017) 'Facebook and Google Help Showcase Las Vegas Fake News',
    Financial Times, 3 October, https://www.ft.com/content/030184c2-a7f1-11e7-
    ab55-27219df83c97 (accessed 1 April 2020).

Weisman, Jonathan (2018) (((*Semitism*)))*: Being Jewish in America in the Age of
    Trump*. New York: St. Martin's Press.

Weiss, Ben (2018) 'Meet the Renegades of the Intellectual Dark Web', *New York Times*,
    8 May. https://www.nytimes.com/2018/05/08/opinion/intellectual-dark-web.
    html (accessed 1 April 2020).

Wendling, Mike (2018a) 'The (Almost) Complete History of "Fake News"', *BBC
    News*, 22 January.

— (2018b). *Alt-Right: From 4chan to the White House*. London: Pluto Press.

Wieringa, Maranke, Tim de Winkel and Callum Lewis (2017) 'Wie is de waakhond
    op sociale media?', report, Utrecht: Utrecht Data School.

Woolley, Samuel and Philip N. Howard (2016) 'Social Media, Revolution, and the
    Rise of the Political Bot', in Piers Robinson, Philip Seib and Romy Fröhlich (eds.),
    Handbook of Media, Conflict and Security. New York, NY: Routledge, pp. 282-292.

Wynne, Brian (1991) 'Knowledge in Context', *Science, Technology & Human Values*
    16(1): 111-121.

YouTube (2019) 'Related Channels Discontinued May 2019', https://support.google.
    com/youtube/answer/7216516 (accessed 1 April 2020).

— (2018) 'Press – YouTube', https://www.youtube.com/intl/en-GB/yt/about/press/
    (accessed 1 April 2020).

Zannettou, Savvas, Tristan Caulfield, Emiliano De Cristofaro, Nicolas Kourtelris,
    Ilias Leontiadis, Michael Sirivianos, Gianluca Stringhini, and Jeremy Blackburn
    (2017) 'The Web Centipede: Understanding How Web Communities Influence
    Each Other through the Lens of Mainstream and Alternative News Sources',
    17th ACM Internet Measurement Conference, 405-17, arXiv:1705.06947.

van Zijl, Frank and Huib Modderkolk (2017) 'Generaal: Nederland kan digitale
dreiging niet aan', *de Volkskrant*, 29 August, https://www.volkskrant.nl/nieuws-
achtergrond/generaal-nederland-kan-digitale-dreiging-niet-aan~b043212e/
(accessed 1 April 2020).

van Zoonen, Liesbet, Farida Vis and Sabina Mihelj (2011) 'YouTube Interactions
between Agonism, Antagonism and Dialogue: Video Responses to the Anti-Islam
Film Fitna', *New Media & Society* 13(8): 1283-300, DOI:10.1177/1461444811405020.

Index

References to illustration are in **bold**.