ARTICLE



The cyberspace war: propaganda and trolling as warfare tools

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Abstract Russian President Vladimir Putin's regime has taken control of the traditional media in Russia: TV, radio and newspapers. As Russian Defence Minister Sergei Shoigu has stated, the Kremlin sees the mass media as a 'weapon'. Now Russia's leadership is trying to take control of social media too, and for this massive operation a new information warfare tool has been mobilised—an army of fake social media Putinfans, known as 'trolls'. My investigation has discovered that coordinated social media propaganda writers are twisting and manipulating the public debate in Finland, too. Trolls and bots distribute vast amounts of false information in various languages, and target individual citizens for aggressive operations. Aggressive trolls have created a feeling of fear among some of my interviewees, causing them to stop making Russia-related comments online. Trolling has had a serious impact on freedom of speech, even outside Russia. Thus, it should be viewed as a national security threat that needs to be addressed accordingly. The question is: how should the Kremlin's trolls and disinformation be countered?

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Introduction

Aggressive pro-Russia troll campaigns have manipulated the public debate and silenced citizens. As trolling, hacking and other oppression techniques will only get worse in the future, governments need to find ways to defend individuals from information attacks.

It was in September 2014 that I first began to investigate what was then the latest trend in Russia's information warfare: paid anonymous and aggressive social media commentators and their impact on Finnish public debate. Information warfare has various definitions, and in this article I use the most common one: a state-conducted, strategic series of information and psychological operations that influences the target's opinions, attitudes and actions in order to support the political goals of the state's leaders. In 2000, the Russian Foreign Ministry defined 'information security' as the 'protection of [Russia's] national interests in the information sphere' (Russian Ministry of Foreign Affairs 2000). In recent years the Russian state's information warfare capabilities have developed rapidly to match its intentions (Giles 2016).

'Trolls' are part of the Kremlin's propaganda system and technique of information warfare: these recruited commentators distribute the messages of Russia's political leaders online. The Russian investigative journalist (Garmazhapova 2013) who went undercover in a pro-Putin social media commenting office in St Petersburg in 2013 dubbed the commentators 'trolls' and their office a 'troll factory'. Prior to this discovery, the Kremlin had already taken the traditional media under its control to serve its interests, with Russian Defence Minister Sergei Shoigu calling the media a 'weapon' (*Interfax* 2015). These recruited online bloggers are being used to take social media under the Kremlin's control, too. The Kremlin has denied any connection to the troll factories.

As soon as I opened my investigation, I became the target of an info-war. The Finnish pro-Kremlin propagandists' activities against me—disinformation campaigns and open-source surveillance—are a text-book example of a Russian information—psychological operation. The goal is to discredit me, make my work seem unreliable and ultimately stop me from disclosing facts about social media propagandists. Similar operations are used in Russia to oppress political dissidents, journalists and others publishing facts that show Russia's authoritarian regime in an unfavourable light. Over the past 18 months, my character and my journalism have been smeared in ways that no journalist in Finland has ever experienced before. The systematic attacks on my work continue today.

In this article, I comment on the results of my investigations into the Kremlin trolls' tactics and their impact. Additionally, I provide an example of a new pro-Kremlin disinformation site. At the end of the article I suggest solutions that should be applied by the international community, governments, journalists and Internet companies to counter aggressive online disinformation.



The troll campaign begins with a falsified narrative

The Finnish Public Broadcasting Company Yle's online news site published my crowd-sourcing article on 15 September 2014. In it I asked readers to provide me with information and their experiences of anonymous and aggressive pro-Russia propaganda trolls on Internet sites used by Finns. I wanted answers to specific questions: which tactics and forums do the trolls use, and how do Finns react to troll disinformation attacks? I specifically asked the readers not to name individual trolls (Aro 2014).

Pro-Kremlin propagandists operating in the international information sphere immediately mobilised against my work. They created their own falsified narrative of me and my article, and spread lies on fake news sites about me 'persecuting Russians living in Finland and putting together an illegal database of Putin's supporters' (Antropova 2014). I was named as a 'famous assistant of foreign security services' and said to 'cooperate with NATO' (*Russkaja Narodnaja Linya* 2014). In the Kremlin's narrative the US Central Intelligence Agency as well as other foreign security services and NATO are portrayed as hostile enemies of Russia.

Facebook and Twitter trolls (and actual people following their example) questioned my investigations and mental health, and started conducting their own 'investigations' into my social media postings and other information about me. As my contact information was disclosed alongside the disinformation about me, my phone's messaging and email inboxes were filled with messages from people angry at me for 'persecuting Russians'. I received a phone call in which someone fired a gun. Later someone texted me, claiming to be my dead father, and told me he was 'observing me' (Aro 2015a).

Associates of propagandists are now publishing smear songs which support the narrative of me being a 'NATO troll' waging an info-war against Russia. In one YouTube music video, an actress plays me: a lady wearing a blonde wig is waving NATO and US flags in President Putin's face in a space resembling the Yle newsroom.

Info-attacks are spiced up with 'intel' about my personal history. In February 2016, my privacy was brutally violated: over 12 years ago I was given a 300 euro fine for drug use. The details of this fine were dug up from court archives, and propagandists started to publish 'scandal' stories containing libellous fantasies about me selling drugs, having written my articles under the influence of illegal substances, being a 'NATO information expert drug dealer' and suffering from mental illness. The stories were published on fake sites that incite racism and on several anonymous far-right and conspiracy-theory sites. Twitter trolls link these filth articles to Russian media.



The trolls' impact: people silenced, people confused

Despite the spread of disinformation about my work, I continued to investigate the troll phenomenon. I published new details and footage from the secretive St Petersburg-based troll factory where workers, pretending to be opinionated citizens, write about given 'political themes', including in English. The employees did not want to disclose information about their work, and the 'news agency' boss working at the factory claimed that 'troll accusations are propaganda war' (Aro and Mäkeläinen 2015).

I studied the data my Finnish audience was sending me and investigated online sites and troll groups. I listed online forums that were systematically visited by pro-Russia trolls or were spreading disinformation (Aro 2015c). Now, well over a year since the results of my crowdsourcing article were published, that list is even longer, even though Sputnik, a 'news agency' owned by the Russian government, has stopped publishing in Finnish.

My results proved that aggressive pro-Russia propaganda trolls had had an impact on many Finns, on their attitudes and even their actions: some had stopped discussing Russian politics online; others had lost touch with what was true or false, for example, about the war in Ukraine.

More concerningly some Finns had started to spread aggressive pro-Kremlin disinformation without checking their facts after being exposed to the propaganda (Aro 2015b). In addition, one of the goals of info-war is to create chaos not only in the information sphere but also within society itself. In line with this aim, some people had protested outside Yle headquarters in Finland after being agitated by disinformation on social media.

Disinformation is targeted at a variety of audiences

As with all professional media systems, pro-Russia online disinformation is designed to meet the needs of as many different target audiences as possible. The primary target group for the St Petersburg troll factory seems to be ordinary citizens, but politicians and other public figures are targeted as well. Spreading disinformation online is cheap compared to television or print methods. It can also be multiplied and spread across borders very efficiently, as Putin's former adviser, now a US-based researcher, Andrei Illarionov has stated (Illarionov 2014).

Pro-Kremlin disinformation material is first published on unreliable and non-journalistic media, including Russian state media websites, Vkontakte, YouTube, Twitter,



Facebook, blogs and special websites. Comments without links are also posted straight to forums, and each troll has to produce hundreds of comments during a 12-hour shift.

Disinformation is designed to manipulate the receiver's feelings. Younger and more visually oriented people are lured in with memes, caricatures and videos. The messages conveyed by trolls' memes are simple: Western political leaders are often depicted as 'Nazis' or 'fascists'. Images of corpses and alleged war crimes committed by Ukrainian soldiers are distributed, as well as photos of Ukrainian teenage girls wearing t-shirts with Nazi symbols on them—in reality these have been edited in Photoshop.

Social media attacks can be seemingly small, for example a 140-character tweet. My investigations have shown that this can be enough: some Finns told me that they had stopped commenting on Russia-related matters online because aggressive trolls had called them names (e.g. 'Russophobe', 'Nazi' etc.) and used threatening language. The influence of a small message can grow when it is repeated, and some trolls have called tweeters the same nasty names hundreds of times.

More sophisticated psychological tactics are used to brainwash people. On Facebook, people's need to belong to a community is taken advantage of. Troll group administrators manipulate group members to accept their agenda by bullying or blocking all who oppose the leaders. Members' comments that support the leaders' agenda are encouraged by positive feedback from the administrators ('likes' and similar-minded comments). The only option for a troll group member is to accept administrators' views or face being left out. Members are tricked into believing that the offensive language used is a 'normal use of free speech'.

An allegedly citizen-sourced project that looks more like a suspicious information operation

Tailor-made disinformation is also provided for people who prefer in-depth 'analyses'. The needs of this target audience are met with lengthy blog articles containing seemingly accurate lists of sources underlining the credibility of the text. The references, however, usually lead to other disinformation sites.

Many fake news sites, such as Sputnik, describe their content as 'alternative'. In reality this usually means 'pro-Russian', 'conspiracy theoretical' and 'anti-Western'. Articles critical of Putin's regime are not published.

In January 2016, while Russia's warplanes were bombing civilian targets such as hospitals in Syria, Twitter activists founded a new pro-Kremlin domain, Southfront.org, titled 'South Front, Analysis and Intelligence'. This site promises its readers that it 'digs out the truth in issues which are barely covered by the states concerned and mainstream media' (South Front 2015). South Front seems to have a special target group: conflict news enthusiasts attracted to conspiracy theories and action films.

The content of the South Front website is a fascinating hybrid of revealingly detailed military intelligence and totally bogus stories. The site has published a series of articles titled 'Russia Defence Reports', which visualise the actions in Syria of the insurgents and the armies of Russia and Syrian President Bashar al-Assad in a 'text analysis' format, as well as through Hollywood-style 'video reports' with exciting action film music. The content focuses on the success of Russia's armed forces, and showing off Russia's weapons. The videos have titles such as 'Russian Airspace Defence Forces', '(Russian) Anti-Missile Shield', and 'Russia Develops Military Infrastructure and Facilities in Latakia'. Versions of the South Front website are available in other languages too. Nothing about Russia attacking civilians is published (see South Front 2016).

South Front uses Facebook to share its contents (Facebook 2016). It has over 17,500 fans and troll profiles liking, commenting on and sharing its posts. These include articles, photos (for example, of Russian military equipment in action in Syria) and other items, such as caricatures of US President Barack Obama promoting gay marriage. As on most pro-Kremlin and disinformation Facebook sites, the quality of the comments made by South Front readers is low. It reveals the commenters' lack of knowledge of both military issues and international politics. This lack of understanding is often taken advantage of by the pro-Kremlin propagandists. South Front portrays itself as being a crowdsourced project, but it looks more like a professional info-war project run or backed by the Russian military.

The scariest propaganda trap: subtle disinformation

The good news of my investigation was that some Finns had experienced or witnessed trolling activities but had not been influenced by them. Aggressive pro-Russia propagandists often use such ridiculous Soviet-style argumentation that the majority of the audience is not interested in what they have to say at all.

Subtle and intelligent content is the most problematic to counter: not everyone recognises it as the product of an aggressive foreign influencer. Thus many people let it affect them cognitively or psychologically. For example, the high-level parliamentary official Peter Saramo has been found to frequent a pro-Russia troll Facebook group and to spread false allegations. In addition, some Finnish MPs have accepted 'bikini trolls' 1 as friends on Facebook and have thus exposed themselves to influence through social media.

My investigation has established that foreign political propaganda influences parts of the Finnish population. This is worrying because Finland has a good school system and Finns are highly educated. This leads to the conclusion that even worse damage could

¹ NATO has categorised the owners of fake profiles that post trolling comments and use a photo of a beautiful woman as their profile picture as 'bikini trolls'.



be caused in societies with a less well-educated population. Currently in Finland, there are education projects underway that aim to provide people with improved media literacy skills and a better understanding of disinformation and cyber-threats.

The Russian-style impunity of trolls is not an option: legal measures and support are needed

Journalists covering conflicts are often the first targets for info-war campaigns and propagandists, as journalism undermines the effects of propaganda, and propagandists want to use reporters to spread disinformation among a larger audience. Both in Finland and internationally there have been various cases in which pro-Kremlin influencers have intimidated citizens, journalists and researchers who have attempted to uncover Russian info-war tactics or espionage.

In Finland strong legislation forbids mass media crimes, such as libel, making threats (death fantasies, for example, are considered threats by the courts), stalking and publishing private information with the aim of defaming an individual. Legally, social media is considered mass media.

The persecution of me by propagandists is being investigated by the police, and it is important that other disinformation targets report harassment to the police too. If politically motivated intimidation is not stopped at an early stage, it may have serious consequences—not only professionally but personally, too.

In Russia, independent investigative journalists, citizen activists and opposition politicians often face harassment, threats and physical violence, and in the most tragic cases have been murdered. The intimidators of journalists and citizen activists can act with almost complete impunity in Russia. As Western countries have better justice systems and legislation, it is advisable to counter the illegal threats, libel and harassment of pro-Russia propagandists—as well as other hate speech agitators—with legal action. In Britain new legislation was passed in 2014 that means that online trolls there can face up to two years in jail.

If current national legislation is powerless to act on disinformation, with enough political will it can be changed to protect the targets of hate speech. The rules of public debate cannot be placed in the hands of disinformation agitators, as they will use them to further their own political goals and not society's best interests.

Most civilians are not psychologically prepared to operate in an info-war climate. In the workplaces of the targets of disinformation and hate speech, it is crucial that employers and workers' unions take protective measures. Fear of being attacked is a natural reaction, but without proper support it could cause self-censorship. Some journalists and researchers have told me that they are too scared to publish their findings

because they fear the hate speech that will follow, and some citizens have already been silenced by the trolls.

Aggressive trolling is a threat to the organisation and its functions, not just individual journalists or researchers. In this regard, Finland has seen a positive development: in February 2016 the chief editors of the Finnish media put out a joint statement saying that they will protect their reporters from threats.

Suing online propagandists is the 'easiest' legal way of tackling disinformation. A much trickier question is what should be done about the international blogs and fake news sites run by the anonymous middlemen who abuse the Western freedom of speech and mask pro-Kremlin hate speech as 'alternative opinions'.

From the perspective of journalism and freedom of speech, the best solution is to investigate suspicious sites and other info-war activities and to publish detailed articles about them. That is the way to raise awareness and to ensure that fewer people are in danger of falling into the propaganda trap. Many journalists and projects, including the Ukrainian 'Stop Fake' project and the @EUvsDisinfo Twitter account, do this by regularly exposing propaganda as such.

If propaganda sites break the law, the police need to find the people running the sites. Latvia recently blocked the Latvian Sputnik site because it spreads Russian propaganda. Foreseeably, Russia opposed the move as 'censorship', which is an absurd and 'trolling' statement coming from Russia.

Finland has also taken action to counter disinformation: the Prime Minister's office has set up a group that exchanges knowledge about disinformation targeted at Finland and has started to train government officials on the subject of information war.

Social media giants should take a strict approach to hate speech

The key enablers and thus the potential solvers of the troll problem are the international social media companies Facebook and Twitter. Both provide harassers and propagandists with a platform on which to publish death fantasies, libel and lies, but leave crimes for the victims and local police to tackle. Making user reports about hate speech trolls does not currently help much, as Facebook replies to many such reports with the automatic reply 'user/content is not breaking the community standards'. At the same time, we have seen real people's profiles temporarily shut down after false waves of reports. For Facebook, Finnish language trolling seems to be a new business opportunity: Facebook has even sold ads to an anonymous disinformation site. However, there are positive developments too: in spring 2016 Facebook did close down the page of one pro-Russia disinformation agency, DONi News (Donbass International News Agency), which is run by the Donetsk-based information warrior Janus Putkonen.



Twitter is almost as passive as Facebook: it lets pro-Kremlin bots and fake profiles operate quite freely—even though fake identities and the use of Twitter for illegal activities are forbidden.

Both Facebook and Twitter need to start 'cleaning up' the fake profiles that are coordinating nasty operations against citizens. Both companies are US-based and probably find it difficult to check the authenticity of suspected trolls, but this effort has to be made for the sake of freedom of speech and information peace. At the moment, an individual user is quite helpless against an orchestrated hate campaign. The same applies to You-Tube, which provides a platform for propaganda videos and hate speech.

The normal news media should also take a stricter approach. Media news comment sections are filled with trolls questioning the news reports. Some international media have even closed the comment sections because of trolls. In this situation a very simple solution is to ensure that comment sections are properly moderated.

Another Internet giant, Google, also needs to address the issue of trolling. As things currently stand, Google searches for 'Russia' or 'Ukraine' bring up many results for disinformation websites. This is another goal accomplished for the propagandists: search engines are becoming filled with nonsense and being used to build a digital footprint, for example, for the imaginary state of the People's Republic of Donetsk. If Google does not organise and check the relevance of the search results it offers, who will?

Information defence is needed—and soon

In 2015, Finnish cybersecurity expert Jarno Limnéll stated that the phenomenon of pro-Russia information influencing will continue to grow (Aro 2015b). From the results of my investigations and experiences, I agree. Russia is increasing its control of the Internet and pouring money into info-war operations—as long as its failing economy remains manageable, the Kremlin will continue to 'protect its interests' in the infosphere.

Brutal privacy breaches and personal 'black PR' campaigns combining elements of social media stalking are not restricted to journalists or researchers, but also target private citizens. An indicative example of this is the experience of a private Finnish Twitter activist, who commented on and criticised Russia's actions in Ukraine (Twitter activist, who wants to stay anonymous, pers. comm.). Details of this activist's profession and workplace, as well as clear hints about his employer, were later published in an anonymous English-language Sputnik online 'report'.

Currently, many citizens face and counter organised trolling and disinformation campaigns without assistance from security officials. I am not aware of any cases in which the Finnish social media police have actively protected pro-Russia abuse targets on troll sites.

Among the countermeasures needed is a proper information defence mechanism that protects people and societies from troll attacks and disinformation. Finnish researcher and author Saara Jantunen, who has a Ph.D. in military science, is currently researching modern information defence methods. Jantunen became a target for pro-Russia propagandists in September 2014, after she publicly stated that the St Petersburg troll factory might be conducting an Internet war and described the factory operations. Last year Jantunen published a book on modern information warfare titled *Infosota* (Infowar), and she has stated that the Finnish public debate concerning Russia is the result of decades of targeted psychological operations (Jantunen 2016). If an information defence mechanism is not developed, the propagandists will gain new victories with their operations: they will oppress and confuse even more people, and gain the ability to mobilise people to commit serious actions outside the information sphere.

It is important to bear in mind that information operations against citizens might only be one phase in this form of warfare—cyber-espionage and cyber-attacks against citizens may follow. Today, Russian cyber-espionage is conducted by hacker groups that are seemingly unconnected to the Kremlin and target high-level government agencies. As the St Petersburg troll factory is suspected of having connections with the Russian security services, will we see citizens becoming the targets of cyber-espionage or hacking too? If the pro-Russia activists and their associates are willing to face criminal charges for their actions in Finland, what else are they capable of? If Western governments do not already have their best cyber-experts on the case then they should ensure that they soon do.

President of Finland Sauli Niinistö has made the interesting point that countering disinformation is the duty of every citizen in the furtherance of national defence (Hallamaa 2015). In contrast, I want to emphasise—as a journalist and the target of an info-war campaign—that Western countries should defend their citizens when they are in need of defence. Information defence cannot be outsourced to the public—if it is, there is a high risk that there will be new victims, as every free citizen silenced, confused or manipulated by a Kremlin troll can be seen as a casualty of info-war. The St Petersburg troll factory (and possibly similar factories elsewhere), alongside the Russian state media, is up and running, creating an 'alternative' pro-Kremlin online reality and producing fake comments and news 24/7—at full speed.

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