Internet Trolling as a hybrid warfare tool: the case of Latvia

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INTERNET TROLLING AS A TOOL OF HYBRID WARFARE: THE CASE OF LATVIA

RESULTS OF THE STUDY

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FOREWORD

Social media has been used increasingly to support military actions. Recent conflicts have demonstrated that the fight for hearts and minds is as important as kinetic activity, and social media plays a crucial role in this process. Both state and non-state actors effectively exploit social media to gain support for their actions, recruit new members, deceive and intimidate the adversary, and even use it for traditional military activities such as intelligence collection or command and control. Given these conditions, the NATO Strategic Communication Centre of Excellence (NATO StratCom COE) was tasked to conduct a study on how social media can be used as a weapon of hybrid warfare.

The recent Russian-Ukrainian conflict demonstrated how fake identities and accounts were used to disseminate narratives through social media, blogs, and web commentaries in order to manipulate, harass, or deceive opponents. Several reports by investigative journalists have reported about the existence of so called troll farms in Russian cities, employing people to spread disinformation, rumours, or falsified facts, enter into discussions and flood topic-related web spaces with their own messages or abuse. Nevertheless, trolling is still a relatively unexplored phenomenon. Although such activities have been widely identified, their effects have not been measured, particularly due to the fact that is it difficult to distinguish between the paid trolls and people who are simply expressing their opinions.

In order to analyse how pro-Russian trolling is used to influence the public opinion in NATO-member countries the NATO StratCom COE commissioned the study ***Internet Trolling as a Tool of Hybrid Warfare: the Case of Latvia***. The study was conducted by the Latvian Institute of International Affairs in cooperation with Riga Stradins University[1], and was aimed at analysing organised pro-Russian trolling in internet media to measure its impact on public opinion in Latvia.

Latvia was chosen for the case study due to the specifics of its information environment (a strong division between the Latvian and Russian language information spaces), as well as the country's historical background and potentially vulnerability to Russian hybrid warfare tactics.

Communication science, social anthropology, political science, and information technology expertise was employed to gain a better understanding of the trolling phenomenon, and to develop methods to identify trolling and evaluate its impact on public opinion. Both quantitative and qualitative research methods were used. This research provides an opportunity to evaluate the risk potential of trolling, and it offers recommendations on how to mitigate the effects of trolling when used as a tool in hybrid warfare, beyond the specific case study.

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INTRODUCTION

From the perspective of the social sciences, 'cyber defence' is a relatively new field of research. The significance of understanding the term 'cyber' (involving, using, or relating to computers, especially the internet) and seeing it appear in much broader security and defence debate is growing because of several phenomena:

1. The rapid development of technology per se that is affecting every aspect and function of society;

2. The rapid development of hybrid-warfare techniques under the circumstances of today's security challenges;

3. And, as a continuation of the previous point, cyber serves as a channel to implement hybrid warfare in all its diversity – ranging from direct attacks on information systems to information warfare and influencing the mass media.

In this research, the authors emphasize the role of cyber within information warfare, with a particular focus on the role of hybrid-warfare tactics and trolling in internet media. Thus, the primary task of this particular research is to measure how and to what extent certain cyber activities influence public opinion. The research results provide an approach to evaluating the risk potential of trolling and outline recommendations on how to protect the state and society if trolling is used as an instrument of hybrid warfare. To understand the significance of trolling, the authors will use a multidisciplinary approach – theorization of the trolling phenomena is undertaken by communication science experts, while the impact assessment of trolling on public discussion is carried out by political scientists.

The two parts have applied different methodologies and scientific approaches, but both lead to practical results:

1. **Method for identifying** trolling in the internet-media environment;

2. **Impact assessment** of identified trolling on public opinion and public discussion.

Thus, the first part of this research outlines and develops a theoretical framework for analysing social and internet media as a weapon for achieving political and military goals under new geopolitical challenges. The second part includes the collection of empiric data from Latvia's most popular web news portals – ***delfi.lv, tvnet.lv*** and ***apollo.lv*** – in both the Latvian and Russian languages, and evaluation of the results obtained from both quantitative and qualitative perspectives.

Consequently, the study examines the following issues:

1. Trolling and Russia's military strategy: theoretical and legislative perspectives;
2. Trolling in Latvia: the media landscape and quantitative measures for the recognition and identification of trolls;
3. The impact of trolling: 'potential-to-reshape' public opinion;
    - Qualitative assessment of trolling as perceived by Latvia's Latvian-speaking society;
    - Qualitative assessment of trolling as perceived by Latvia's Russian-speaking society;
4. A tutorial for average internet users considering reacting to trolling.

Hence, the first part of this report sets out the theoretical background and defines key terms such as hybrid warfare, information warfare, trolling and hybrid trolling as they are applied in the research. Consequently, it is essential to analyse Russia's official military strategy on information warfare, assessing whether cyber defence and trolling are a defined, integral part of the country's strategy. Furthermore, particular attention is paid to discrepancies between Russia's official strategy and its practical implementation by scrutinising examples of pro-Kremlin trolling as experienced by countries including Ukraine, Poland and Finland.

The second part of the research turns its attention to the media landscape in Latvia and its potential for the utilisation of pro-Kremlin propaganda tools and trolling. It also sets out the quantitative measures required for the recognition and identification of trolls and pro-Kremlin trolling in particular. By employing a methodologically critical approach, this analysis is designed to test whether there actually are identifiable, paid pro-Kremlin trolls and, if so, to determine what share of online comments they are responsible for and what is their actual behaviour and potential impact.

The third part of the research is a qualitative analysis of the impact of trolling. By setting up a number of focus groups on the basis of socio-economic and linguistic criteria, the researchers test a number of actual comments that had been identified as posted by pro-Kremlin trolls. As well as labelling several types of trolling messages, the research estimates the efficiency of each type. Consequently, the researchers assess the societal groups that are most vulnerable and most resistant to trolling and particular types of troll messages, as well as to being influenced by online media in general. Hence, in the final part of this research, the authors attempt to provide a general evaluation of trolling as an information-warfare strategy as well as setting out workable strategies for counteracting pro-Russian trolling.

TROLLING AND RUSSIA'S MILITARY STRATEGY

The state of our society today is again approaching something like a civil war. Except before we fought these wars with sabres and revolvers, now we do it with retweets and memes.

/Alexander Fokin/

2.

There are several issues and questions that need to be discussed in positioning this research, on pro-Russian trolling in Latvia's online media, in a wider geopolitical context. First of all, it is crucial to outline the key theoretical concepts applied within the course of the research. Secondly, it is essential to discuss Russia's strategy on information warfare and the official and practical aspects thereof, as well as the role of trolling within this strategy. And finally, it is necessary to highlight the findings of other research projects that have analysed the success of pro-Russian trolling in targeted countries.

2.1 KEY CONCEPTS

It is essential to briefly outline the key concepts used for the purposes of this research on the weaponisation of online media and trolling. Recently the term ***hybrid warfare*** has been extensively used to describe the complex strategy of Russia in the Ukraine crisis. According to various political analysts hybrid warfare is usually a combination of regular warfare with intelligence and diversionary methods, as well as information and cyber warfare. However, ***hybrid warfare*** is neither a new concept nor a helpful one. As Damien Van Puyveld argues: "Any threat can be hybrid as long as it is not limited to a single form and dimension of warfare. When any threat or use of force is defined as hybrid, the term loses its value and causes confusion instead of clarifying the 'reality' of modern warfare"[1].

Information warfare (or *information war* as commonly used in the media) is a much more precise term describing a specific type of war strategy. According to John J. McCuen, *information warfare* is aimed at gaining "the support of the combat zone's indigenous population, the support of the home fronts of the intervening nations, and the support of the international community"[2]. However, information warfare, like hybrid warfare is not a new phenomenon. Shawn Powers argues that media has been used as a weapon since at least the beginning of the 20th century[3].

Another useful term in this context is that elucidated by Thomas Elkjer Nissen – ***psychological warfare***. It implies "influencing the target audience's values and belief system, their perceptions, emotions, motives, reasoning, and ideally, their behaviour. It is (...) aimed at maintaining the support of the loyal; convincing the uncommitted and undermining the opposition. This is achieved through influencing people's perception of what is going on and, in turn, influencing their online and offline behaviour by playing on emotional and logical arguments drawn from conversations and history, and by tapping into an existing narrative"[4]. An illustrative example of psychological warfare was recently reported by ***Radio Free Europe***. Just a day before Ukraine's snap presidential election on 26 October 2014, hackers accessed electronic billboards in Kyiv and broadcast gruesome images of what they portrayed as civilian losses caused by Ukrainian forces fighting pro-Russian separatists in eastern Ukraine.

1 Daniel Van Puyveld, *Hybrid war – does it even exist?*, NATO, 2015, http://goo.gl/zeHDRm

2 John J. McCuen, *Hybrid Wars, Military Review* (March-April 2008): 108.

3 Shawn Powers, *Weaponized Media, Legitimacy and the Fourth Estate: A Comment, Ethnopolitics* 9 (2010): 256

4 Thomas Elkjer Nissen, *The Weaponization of Social Media – Characteristics of Contemporary Conflicts* (Copenhagen: Royal Danish Defence College, 2015), 84.

However, at least one of those images was proven to pre-date the conflict in Ukraine by nearly two decades. Even more, it actually portrayed a Russian soldier standing over mass graves of civilians in Chechnya in 1995, during Russia's own war with Chechen separatists[5].

The novelty of current information and psychological warfare is the combination of the two through the **weaponisation of online media**. The factors that make this strategy so powerful are that this type of 'warfare' is continuously ongoing and hard to detect. It is complicated to identify its source, particularly as more often than not it is waged from several sources simultaneously. And finally, such a warfare strategy penetrates all levels of society at a very low cost. Even if the audience does not necessarily believe in the planted information, the abundance of unvetted information of itself leads to a persistent distrust of public information and the media.

With the growing significance of internet-based communication and **social network media** in nearly all walks of life, the role of social networks in warfare and their potential application as a weapon is also being discussed extensively. According to Thomas Elkjer Nissen, "Social network media seems to have become the weapon of choice because the effects that support the goals and the objectives of the multiple actors fighting in the social network media sphere can, in turn, inform decision-making and behaviours of relevant actors. Moreover, it is easily accessible and can create effects that are disproportionate in relation to the investment"[6].

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Nissen highlights several military activities that use social network media: intelligence collection, targeting, psychological warfare, offensive and defensive cyber-operations, and command and control activities[7].

For example: "Intelligence agencies have learned to use social media to their own advantage. By using fake identities, they are able to create an illusion of support for ideas. They are also able to challenge ideas on social-media platforms by inserting counter arguments that appear to come from the 'grass-roots' level of a movement"[8]. This practice is known as ***astroturfing***. Thorsten Hochwald, referencing Papic and Noonan, mentions that government agents are using trolling proficiently to search for paedophiles and would-be terrorists.

5 Carl Schreck, *Ukraine Unspun: Chechnya War Pic Passed Off As Ukraine Atrocity By Hackers, Russian TV, Radio Free Europe – Radio Liberty*, 27 August 2014, http://goo.gl/dX3M7x

6 Nissen, The Weaponization..., 9.

7 Nissen, *The Weaponization...*, 9

8 Thorsten Hochwald, *How Do Social Media Affect Intra-State Conflicts Other Than War?*, The Quarterly Journal 12 (2013): 31.

He concludes that "even though the majority of current literature on social media argues that it enhances the political power of the people, there is a shift in the balance under way. Governments have demonstrated great adaptability and are beginning to use social media to their advantage[9]".

Social media is an effective tool for disseminating (dis)information and influencing the population. According to Rebecca Goolsby et al., social media "are becoming sources of inflammatory information and disinformation"[10]. As an example, Goolsby mentions the 2010 social cyber-attack in Assam, when messages about and pictures of a fictitious pogrom against Muslims resulted in a panicked mass exodus. This illustrates that social media can be used for crowd manipulation and hysteria propagation, but also for propaganda, call-to-rebellion and hate messages. In cases of social cyber-attacks, she recommends the determination and identification of "who benefits from these social cyber-attacks and how they benefit, both politically and economically, and connecting the dots from beneficiary to crowd"[11].

In his monograph about the weaponisation of internet media, Nissen states that contemporary wars are "more about the control over populations, decision-making and the political space than they are about a geographical area"[12] and today's wars are more about identities and identity claims[13]. The struggle for influencing public opinion takes place in the information environment, to which social network media also belong[14]. As an example he mentions the case of flight MH17 that was shot down over Ukraine on 17 July 2014. In this case, social network media was extensively used to implicate multiple actors and to create confusion about what actually happened[15], although it is difficult to claim that this was all orchestrated.

Altering the story through user-generated content and gaining control over the narrative has been consciously applied by state and non-state actors in order to influence and manipulate the population of the opponent. According to Thorsten Hochwald: "social media [...] are not only useful to cover protests but also to help steer protests in certain directions through the use of misinformation, fake identities and cleverly placed counter-propaganda"[16]. They can be used for crowd manipulation and hysteria propagation, propaganda, call-to-rebellion and hate messages. In information warfare and psychological operations, social media can be applied in order to manipulate and influence the population by spreading rumours, scare-mongering, disinformation, astroturfing, trolling and provocation.

The final term that should be defined for the purposes of this research is ***trolling***. As a very recent and highly colloquial term it does not have a precise definition.

However, the Urban Dictionary defines a ***troll*** as a person who "posts a deliberately

9 Thorsten Hochwald, *How Do Social Media Affect Intra-State Conflicts Other Than War?*, The Quarterly Journal 12 (2013): 31

10 Rebecca Goolsby, Lea Shanley, and Aaron Lovell, *On Cybersecurity, Crowdsourcing, and Social Cyber-Attack*, Policy Memo Series 1 (2013): 3.

11 Ibid., 6.

12 Nissen, *The Weaponization...*, 32.

13 Ibid., 19.

14 Ibid., 23.

15 Ibid., 29.

16 Hochwald, 30.

provocative message to a newsgroup or message board with the intention of causing maximum disruption and argument"[17]. Some theorists have used a similar definition: Hardaker cites the more commonly recognized definition by Paul Baker[18], Ana Marie Cox[19] and Mary Brandel[20] who describe trolling as "the posting of incendiary comments with the intent of provoking others into conflict". Another definition goes a little bit further by highlighting trolling's apparent lack of purpose: "Online trolling is the practice of behaving in a deceptive, destructive, or disruptive manner in a social setting on the internet with no apparent instrumental purpose"[21].

Herein lies the difference: a classic troll acts with no apparent instrumental purpose, whereas purported ***hybrid trolls*** (as we have labelled hired, pro-Russian trolls), communicate a particular ideology and, most importantly, operate under the direction and orders of a particular state or state institution. In the context of the Ukraine crisis, the aim of ***hybrid trolls*** has been to promote the Kremlin's interests and portray Russia as a positive force against the 'rotten West' and the US hegemony. On 2 April 2015, the ***Guardian*** published Shaun Walker's article ***Salutin' Putin: inside a Russian troll*** house in which the journalist interviewed two former employees of an alleged headquarters of Russia's 'troll army', "where hundreds of paid bloggers work round the clock in order to flood Russian internet forums, social networks and the comment sections of western publications with remarks praising the president, Vladimir Putin, and raging at the depravity and injustice of the west"[22]. In order to give this research more objective grounds and understand the logic behind trolling as a component of Russia's warfare strategy, it is of interest to establish if and how trolling is reflected in Russia's military and information-war strategy, both officially and in practice.

"In the context of the Ukraine crisis, the aim of hybrid trolls has been to promote the Kremlin's interests and portray Russia as a positive force against the 'rotten West' and the US hegemony.

Focusing on the clarification of **terminology in the research context**, in this study the term ***troll*** is used extensively. The authors wish to clarify that, hereinafter, the term ***troll*** is used

[17] *Troll*, Urban dictionary, 22 September 2002, http://goo.gl/u4bnJC

[18] Paul Baker, *Moral panic and alternative identity construction in Usenet, Journal of Computer-Mediated Communication* 7, no. 1 (2001), http://goo.gl/opqYu5

[19] Ana Marie Cox, *Making mischief on the web, Time Magazine*, December 2006; http://goo.gl/rmTvOo

[20] Mary Brandel, *Blog trolls and cyberstalkers: How to beat them*, Computerworld (28 May 2007): 32

[21] Erin E. Buckels, Pauld D. Trapnell, Delroy L. Paulhus, *Trolls just want to have fun, Personality and Individual Differences* 67 (2014): 97

[22] Shawn Walker, *Salutin' Putin: inside a Russian troll house, The Guardian*, 2 April 2015, http://www.theguardian.com/world/2015/apr/02/putin-kremlin-inside-russian-troll-house

in the meaning of hybrid ***troll***, as described above. There is a simple reason for this – the main characteristic of ***classic internet troll***s is the causing of emotional fluctuations in their addressees. These ***classic trolls'*** only intention is to shock, enrage, scare, or threaten – or, simply, to emotionally provoke readers[23]. The secondary intention of ***classic trolls*** is to capture the attention of addressees for as long as possible (including massive sabotage with huge quantities of text); but inevitably, this leads back to the first intention – to harm emotionally[24]. For this reason, ***classic trolls*** are not aligned with any ideology, belief or set of true (or false) information – content is just an instrument in their hands to implement their main purpose – to provoke[25]. Returning to the authors' proposal to understand the term ***trolls*** in this report as ***hybrid trolls*** – their key difference from ***classic trolls***, an organic part of the internet commentary world, is that ***hybrid trolls*** have an inherent additional purpose. Born under the circumstances of hybrid war, ***hybrid trolls*** can be characterized as 'mutations' between the internet environment's rules and roles, and real information-warfare purposes, managed by a state[26].

The characteristics of ***hybrid trolls*** appear to be the same as ***classic trolls***; only their intentions are different.

[23] Buckels et al., 97–102.

[24] Jonathan Bishop, *Representations of 'trolls' in Mass Media Communication: A Review of Media-Texts and Moral Panics Relating to 'Internet Trolling'. International Journal of Web Based Communities* 10, no. 1 (2014): 7.

[25] Claire Hardaker. *Trolling in Asynchronous Computer-Mediated Communication: From User Discussions to Academic Definitions. Journal of Politeness Research: Language, Behavior, Culture* 6, no. 2 (2010): 215–42.

[26] Chris Elliott, *The Readers' Editor On… pro-Russian trolling below the Line on Ukraine Stories, The Guardian*, May 4, 2014, http://goo.gl/uxKlhD

And, knowing their purposes, there is also a chain of differences in the actions of ***hybrid trolls*** that differentiate them from ***classic trolls.*** Putting it more simply, at first sight, it is hard to distinguish ***hybrid trolls*** from ***classic trolls***, but in trying to understand the main purpose of ***classic trolls***, we see that ***hybrid trolls*** 'stand out', because they make diversions from typical trolling. These diversions are fundamentally connected with disinformation, the dissemination of conspiracy theories and controversies, etc. Nevertheless, the ***hybrid troll*** never stops being a ***troll*** – meaning that emotional provocation is present, also the disinformation messages and spreading of conspiracy theories most probably serve simultaneously as a tool for threatening[27].

2.2 RUSSIA'S MILITARY STRATEGY AND HYBRID TROLLS

2.2.1 Russia's official military strategy

In December 2014, the Security Council of the Russian Federation published the new **Russian Military Doctrine**[28]. The doctrine highlights the immense geopolitical threats that Russia is currently facing and the new methods that the West is using against Russia.

According to the strategy, these threats have forced Russia to react and create a new response strategy consisting of military and non-military measures and to incorporate

[27] Catherine Van Reenen, *From Trolling for Newbs to Trolling for Cheezburger: An Historical Analysis of the Communicative Strategies of Trolling.* Bowling Green, Ohio, 2013.

[28] Военная доктрина Российской Федерации (утверждена Президентом Российской Федерации 25 декабря 2014 г., № Пр-2976, *Russian Federation Security Council*, 25 December 2014, http://goo.gl/JoIYpO

new, non-traditional methods[29]. The importance of information operations in contemporary conflicts is emphasised as one of the state's defence tools[30], which protect the country from both: external threats (such as actions against international law, peace and regional stability and actions aimed at ousting legitimate regimes in neighbouring countries[31], etc.) and internal threats (such as activities aimed at destabilising the ruling regime, information activities targeting the general population with the intent of undermining patriotic and historic traditions, provoking inter-ethnic and social tensions, etc.)[32]. The Doctrine concludes that the only efficient way to ensure information security is a "joint [counter-] effort by all internet users, journalists, local authorities, civil-society organisations, etc."[33].

Another relevant policy document, the **Russian Information Security Doctrine**, was last published back in 2000[34]. However, according to an *Interfax* report of April 2015, the Russian Security Council has started work on developing a new doctrine that would take the current situation into consideration. However, the aims of both the current and the upcoming doctrines are formulated in a strictly defensive manner. They are focused on organising counterattacks rather than active engagement in the dissemination of information that would serve Russian interests and endanger those of adversaries[35].

Interestingly, the **Russian Strategy for Counteracting Extremism** is the one state document that does define internet and online forums, etc. as spheres of utmost importance for state security, as they can be used to promote ethnic, religious and national hatred. They are also considered to be the most common tools for spreading extremism and organising and promoting terrorist activities. Importantly, online-based extremism and terrorism are labelled as exceptionally dangerous forms because of the lack of any overview of the online environment. Therefore, the strategy emphasizes the necessity for Russian law-enforcement bodies to cooperate so as to contain these threats through the control of online media[36].

The Russian State National Policy Strategy, on the other hand, sets out several tasks for ensuring information support for state policy. These tasks include: financial support for national, municipal and private television and radio companies, printed and online media; encouragement of journalists reporting on the implementation of state policies; communication of state strategy to a wider audience; control over media to avert ethnic

[29] Военная доктрина Российской Федерации (утверждена Президентом Российской Федерации 25 декабря 2014 г., № Пр-2976, *Russian Federation Security Council*, 25 December 2014, http://goo.gl/JoIYpO.; Darczewska, Jolanta The Devil is in the Details. Information Warfare in the Light of Russia's Military Doctrine, Point of View. Centre for Eastern Studies, May 2015, http://goo.gl/UUrYux, 9.

[30] Darczewska, 10.

[31] A clear reference to the overthrow of Victor Yanukovich's administration in Ukraine in 2014.

[32] Darczewska;
Военная доктрина, Пр-2976

[33] Darczewska, 31.

[34] Доктрина информационной безопасности Российской Федерации (утверждена Президентом Российской Федерации В.Путиным 9 сентября 2000 г., № Пр-1895), *Russian Federation Security Council*, 9 September 2000, http://goo.gl/XAawcf

[35] "В РФ началась подготовка новой редакции доктрины информационной безопасности", *Interfax*, 7 April 2015, http://goo.gl/jv64pl

[36] Стратегия противодействия экстремизму в Российской Федерации до 2025 года (утверждена Президентом РФ 28.11.2014 г., Пр-2753), *Russian Federation Security Council*, 28 November 2014, http://goo.gl/j17r23

> By constantly referring to information threats from the US, NATO and other Western powers in their policy documents, the Russian authorities justify intervention in the information space of its own population.

or national hatred, etc. However, similarly to the policy documents mentioned above, the National Policy Strategy takes a defensive stance, and does not call for the execution of active information campaigns against other countries[37].

The Concept for the Russian Armed Forces' Activities in the Information Space (Russian Cyber-warfare Strategy[38]), published by the Russian Ministry of Defence in 2011, is the only one of the policy documents examined that also discusses an active response to threats in the virtual environment. According to this strategy: "Upon escalation of a conflict in the information space and its entering a critical phase [the state] should employ its rights to individual and collective defence and use any chosen methods and means that do not contradict the universally recognized norms and principles of international law"[39]. Most importantly, the Concept also provides for, in the interests of individual and collective security, the state deploying its forces and means of information security in the territory of other states[40].

However, in general these documents, like the public discussion in relation to them, portray Russia as holding a defensive position. According to them, it is only fighting "for the demilitarisation of [...] the global information network, because it cannot permit the country and its surrounding areas to come under American 'quasi-occupation'" [41]. Furthermore, despite the dramatically changing information environment, threats and available tools, the official information-warfare strategy described in Russia's national security documents has not changed significantly.

For example, Russia's Information Security Doctrine has not been updated since 2000[42]. As can be seen, official Russian state policy documents do not refer to the potential use of trolling as an information-warfare strategy. However, it would be naïve to expect the Russian military doctrines to include references to or strategies on the active waging of information warfare, especially because the core value of information/

[37] Стратегия государственной национальной политики Российской Федерации на период до 2025 года (утв. Указом Президента РФ от 19 декабря 2012 г. N 1666), *Russian Federation Security Council*, December 19, 2012, http://goo.gl/FnnQhA

[38] В России создана стратегия кибервойны, *CNews*, March 11, 2012, http://goo.gl/7GfmoT

[39] Концептуальные взгляды на деятельность вооруженных сил российской федерации в нформационном пространстве, *KM.ru*, 2011, http://goo.gl/wcW96x; МинОбороны РФ разработало стратегию кибервойны, *Lukatsky Blogspot*, February 10, 2012, http://goo.gl/Ppsjoo

[40] Концептуальные взгляды.

[41] Darczewska, 11.

[42] Nikola Schmidt, *Neither Conventional War, nor a Cyber War, but a Long-Lasting and Silent Hybrid War, Defence & Strategy* (2014), http://goo.gl/H3C2gH, p. 82.

psychological warfare lies in its covert nature, aimed at complicating the identification of threats. Simultaneously, by constantly referring to information threats from the US, NATO and other Western powers in their policy documents, the Russian authorities justify not only their response to these threats, but also intervention in the information space of its own population. The recent restrictions on the independence and operations of social media in Russia illustrate such aspirations.

Returning to the topic of hybrid trolling, there is practical evidence that, despite the lack of an officially published strategy, Russia does endorse trolling activities. Meanwhile, the fact that trolling is not outlined in any official state strategy enables Russia to plausibly deny any accusations of trolling activities. Russia can also claim that accusations of trolling are a part of the Western information war against it. Of itself, hybrid trolling is a very useful information-warfare tool as it so difficult to link it to the regime that has sanctioned it.

2.2.2 In practice

Hybrid trolling as a strategy is not aimed at achieving decisive victories. Instead it targets the credibility and stability of adversaries' governments as well as public support for them. Discrediting an adversary's government, in turn, justifies the waging of a conventional war campaign[43]. We can see how such a two-stage strategy was applied in Crimea – by first accusing the Ukrainian government of mistreating the Russian minority in Crimea and sowing doubt in Western societies about potential breaches of human rights, Russia justified its annexation of the peninsula. The discrediting of the Ukrainian regime was also organised in a hierarchical manner, very similar to a conventional war. However, the involvement of the Russian state and military authorities is almost unprovable. The obscure nature of trolling, in addition to the free flow of information as one of the key values of Western societies, makes any defence against trolling almost impossible. "In that perspective, information operations using current communication systems, social networks or deliberately created propaganda portals conducted to undermine a state's sovereignty by spreading hatred, fear, resentment and bad blood are an immense power that is indefensible under current international legal and security regimens."[44]

As early as February 2012, the ***Guardian*** reported on Russia's attempts to manipulate the media[45]: "A pro-Kremlin group runs a network of internet trolls, seeks to buy flattering coverage of Vladimir Putin and hatches plans to discredit opposition activists and media, according to private emails allegedly hacked by a group calling itself the Russian arm of Anonymous"[46]. According to Paul Roderick Gregory, Putin has used a troll army throughout his presidency, only trolling was somewhat less evident prior to the Ukraine crisis. Furthermore, Gregory claims that his policy articles had always been under attack, often from semi-literate, pro-Russian commenters, but these attacks have multiplied since the annexation of Crimea[47]. According to another policy analyst, Jolanta Darczewska: "Information warfare in Russia is a systemic phenomenon; no other country deals with this issue on such a scale; no-one invests so

[43] Ibid., 77.

[44] Ibid., 79.

[45] Miriam Elder, E*mails give insight into Kremlin youth group's priorities, means and concerns, The Guardian*, 7 February 2012, http://goo.gl/MIk2OL

[46] Peter Himler, *Russia's Media Trolls, Forbes*, 5 June 2014, http://goo.gl/V0SbOi

[47] Paul Roderick Gregory, *Putin's New Weapon In The Ukraine Propaganda War: Internet Trolls, Forbes*, 9 December 2014, http://goo.gl/Jpsxwe

much organisational and financial effort in it. Information warfare, as it has been conducted for decades, reveals enduring, long-term qualities based on Russian strategic culture"[48].

Interestingly, there is some proof to the claim that pro-Russian trolling is indeed mandated by the Russian authorities. Some evidence results from leaked, potentially official policy documents, while other evidence has been obtained by investigative journalists. In early 2015, a Russian newspaper ***Novaya Gazeta*** published excerpts from a leaked Russian Presidential Administration planning document, which implied a takeover of Eastern Ukraine. The document foresaw the fall of the Yanukovich regime and Russia's strategy of accusing Western countries of staging an illegal coup, and the breaching of the rights of Ukraine's Russian minority. The plan provided for the supplementing of traditional information-warfare strategies with a "significant effort to corrupt social-media postings with controlled posting generated by hired internet 'trolls'"[49]. The plan of action was to create confusion and obstruct any mobilisation attempts by the adversary.

According to another document leaked by an identified Russian hacker, one of the online-trolling project leaders Svetlana Boiko stressed that "Foreign media are currently actively forming a negative image of the Russian Federation in the eyes of the global community. [...] Additionally, the discussions arising from comments to such articles are also negative in tone. Like any brand formed by popular opinion, Russia has its supporters ('brand advocates') and its opponents. The main problem is that in the foreign internet community, the ratio of supporters and opponents of Russia is about 20/80 respectively"[50].

Researcher Mark Galeotti highlights the so-called Gerasimov Doctrine, which had already outlined trolling as a Russian strategy back in March 2013. In a largely unnoticed article[51] for ***Voenno-Promishlenniy Kuryer***[52], Russian Chief of General Staff[53] Valery Gerasimov analysed then-current security threats and potential solutions.

Referring to the experience of the Arab Spring in Northern Africa and the Middle East, Gerasimov stressed that a perfectly functioning state faced by non-traditional, non-military strategies can fall into chaos and civil war within the span of a few days. Special-operations forces, internal opposition and information actions are used to create a continuously operating war front within the adversary state. "The information space **opens wide asymmetrical possibilities for reducing the fighting potential of the enemy**. In North Africa, we witnessed the use of technologies to influence state structures and the population with the help of information networks. **It is necessary to perfect activities in the information space, including the defence of our own facilities**"[54].

[48] Darczewska, 39

[49] *Russian Federal Security Service (FSB) Internet Operations Against Ukraine, TAIA Global Report*, April 2015, https://goo.gl/DBl8Ar

[50] Max Seddon, *Documents Show How Russia's Troll Army Hit America, BuzzFeed News*, June 2, 2014 http://goo.gl/lhGE7q

[51] Valery Gerasimov, *Ценность науки в предвидении, Voenno-Promishlenniy Kuryer*, 27 February – 5 March 2013, http://goo.gl/9DNezV

[52] Military-Industrial Courier *(translated from Russian)*

[53] Gerasimov was appointed by Vladimir Putin in 2012

[54] Gerasimov;
Mark Galeotti, *The 'Gerasimov Doctrine' and Russian Non-Linear War, In Moscow's Shadows*, 6 July, 2014, https://goo.gl/eDa25u

Additionally, several reputable online media outlets (***Radio Free Europe***[55], ***the Guardian***[56], ***the Wall Street Journal***[57], ***Business Insider***[58], ***Forbes***[59], etc.) have published interviews and investigative-journalism articles referring to interviews with former trolls or claim to have proof of the location of one of the headquarters of the purported troll army.

One of the journalists reporting on Russian trolling attempts is Max Seddon, whose investigative report for ***Buzzfeed*** details a day at a Kremlin-funded troll agency engaged in posting online comments and ***Twitter*** feeds. "On an average working day, the Russians are to post on news articles 50 times. Each blogger is to maintain six ***Facebook*** accounts publishing at least three posts a day and discussing the news in groups at least twice a day. By the end of the first month, they are expected to have won 500 subscribers and get at least five posts on each item a day. On Twitter, the bloggers are expected to manage 10 accounts with up to 2 000 followers and tweet 50 times a day"[60]. According to Luke Harding, the comments are not necessarily aimed at persuading people but mainly to

> **"Russia applies manipulation, disinformation and provocation in the same manner as it has been doing in traditional media.**

complicate informed journalism by polluting the public domain with false or useless information.

For example, after the downing of Malaysia Airlines flight MH17, ***the Guardian*** news page on the issue was flooded by approximately 40 000 comments per day in a troll attack that is considered to have been ordered by the Kremlin[61].

Journalists from Finnish online magazine ***Yle Kioski*** investigated a company named ***Internet Research Agency***, which is allegedly behind a troll factory in St. Petersburg[62]. Through a Russian job website, the investigators discovered that the company had posted ten job advertisements for positions such as "social-media specialists", "internet operators", "content managers", etc. for both day and night shifts. The journalists' attempt to interview any former employees failed as they all refused to talk about their work. Nevertheless, ***Yle Kioski*** managed to get in touch with a journalist from Russian opposition newspaper ***Novaya Gazeta*** who worked as an undercover troll in 2013. According to her, trolls were

[55] Dmitry Volchek, Daisy Sindelar, *One Professional Russian Troll Tells All, Radio Free Europe – Radio Liberty,* March 25, 2015, http://goo.gl/9fPMmt

[56] Walker.

[57] L. Gordon Krovitz, *Putin Trolls the U.S. Internet, The Wall Street Journal*, 7 June 2015, http://goo.gl/pGrctH

[58] Marina Koreneva, *Here's what it's like being a paid internet troll for the Russian government, Business Insider*, 5 April 2015, http://goo.gl/PQZCfv

[59] Gregory.

[60] Seddon;

Peter Pomerantsev, Michael Weiss, *The Menace of Unreality: How the Kremlin Weaponizes Information, Culture and Money, The Interpreter, Institute of Modern Russia*, 2014, http://goo.gl/M2Sw9s

[61] Pomerantsev, 31.

[62] Seddon.

given daily tasks, such as defamation of the Russian opposition[63]. Furthermore, when ***Yle Kioski*** journalists were photographing the ***Internet Research Agency*** building, they were stopped by security guards who claimed it was a government building. In Russia, that description is typically applied to FSB (Federal Security Service) buildings, military and administrative buildings, etc.[64].

It is clear that Russia does utilise social media to disseminate its position in the West. Various analyses have demonstrated that, for online media, Russia applies manipulation, disinformation and provocation in the same manner as it has been doing in traditional media. The anonymity of the online environment allows this approach to be even more ruthless and less provable. Apart from in Russia itself, pro-Kremlin trolling has been identified in countries including Ukraine, the US, Great Britain, Germany, Poland and the Baltic States[65] . Although there is no comprehensive in-depth research available, the experiences of some of these countries nevertheless deserve to be addressed briefly.

2.3 INCIDENCES OF PRO-RUSSIAN TROLLING

2.3.1 Ukraine

Ukraine is the central and the most obvious case of Russia's trolling. The trolling in Ukraine, however, was only a part of a larger hybrid-war strategy against the country. Trolling is seen by some analysts as a logical first step in a war aimed at territorial conquest and the discrediting of the interim (and current) Ukrainian government in the eyes of the local and international public.

Indeed, the pro-Russian narrative against Ukraine is outlined in this well-known account: "Neo-Nazi extremists unseated a democratically elected president in the Maidan ***coup d'état*** of February [2014]. Russia, aware that the new Ukrainian 'junta' was planning genocide in the east, had no choice but to protect ethnic Russian 'separatists', who were spontaneously mounting a counter-Maidan revolt.

Crimea, with its large Russian population, was most at risk, so Russian forces had to enter and accept the popular will of the Crimean people to be annexed. Nor could Russia prevent patriotic volunteers and military-intelligence officers crossing the Russian-Ukraine border (with their heavy military equipment) to aid their 'Russian World' brethren in their 'civil war' against Ukrainian extremists. Throughout, Russia has been an innocent bystander rooting for peace, with little control over its separatist allies"[66].

In March 2015, the Ukrainian Security Service officially announced that the Russian Federal Security Service (FSB) was behind the propaganda efforts against Ukraine. These efforts reportedly comprised social-media postings by FSB-controlled trolls and news postings from ostensibly Ukrainian news portals, which were actually controlled by Russia[67]. Indeed, it is clear that the information war against Ukraine has been overwhelming. That is not to say

[63] Jessika Aro, *Yle Kioski Traces the Origins of Russian Social Media Propaganda – Never-before-seen Material from the Troll Factory, Yle Kioski*, 20 February 2015, http://goo.gl/W8u07T

[64] Ibid.

[65] Jessika Aro, *Yle Kioski Investigated: This is How Pro-Russian trolls Manipulate Finns Online – Check the List of Forums Favored by Propagandists, Yle Kioski*, June 24, 2015, hhttp://goo.gl/2YYbBg

[66] Gregory.

[67] *Russian Federal Security Service (FSB) Internet Operations, TAIA Global Report.*

that pro-Russian trolls have succeeded in turning everybody pro-Russian, but they have definitely succeeded in creating a completely unreliable information space at all levels of society. For example, on 14 July, the Twitter accounts of Petro Poroshenko's Presidential Administration and Interior Minister Arsen Aavkov were hacked. The hackers used the accounts to post tweets against the Ukrainian nationalist organization Pravy Sektor, which is actively engaged in fighting in Ukraine. Such actions were most likely aimed at causing controversy among pro-Ukrainian forces[68].

A very dangerous trend, which proves the success of the trolling strategy in Ukraine, is the very low credibility of any attempts to portray the situation in the country. Not only Ukrainian and Russian, but even credible western media outlets are at risk of reporting false information. For example, ***the Guardian*** journalist John Pilger used a quote from the Facebook page of a Dr. Rozovsky who claimed to be a doctor treating separatists after a confrontation with pro-Ukrainian forces in Odessa. The quote supported Pilger's argument, but soon after the Facebook page was exposed as fake and it was established that there was no such person as Dr. Rozovsky[69]. Although ***the Guardian*** later added a disclaimer, the information had already been disseminated and, given the good reputation of the medium, accepted as true.

> **"Not to say that pro-Russian trolls have succeeded in turning everybody pro-Russian, but they have definitely succeeded in creating a completely unreliable information space at all levels of society.**

2.3.2 Poland

In April 2015, the Polish Security Agency's Governmental Computer Emergency Response Team (CERT) published its annual report[70]. According to its findings, Poland came under a record number of cyberattacks in 2014 – 7 498. In comparison, it experienced 5 670 attacks in 2013 after a mere 457 in 2012. According to the report, the collusion between attacks had also increased, often pointing to the involvement of state actors. Additionally, the report identified, for the first time, information warfare as a threat directed at Poland via the internet. "As CERT notes, examples of such efforts include the dissemination of foreign 'propaganda-disinformation' by bloggers and contributors to online discussion forums or website comment sections. Many such individuals,

[68] *Hackers break into Twitter of Ukrainian Presidential Administration and Interior Minister, Ukrainskaya Pravda*, 14, 2015, https://goo.gl/Hxzrd3

[69] Pomerantsev, 32.

[70] For the full text of this report in Polish, see: http://goo.gl/YnPP0d

the report states, are on the payroll of a foreign state; while others may simply be naïve, misinformed or ideologically driven 'useful idiots' whose viewpoints or standing can be exploited"[71]. Although the report does not single out the Russian government as the coordinator of these trolling activities, it does stress the abundance of pro-Russian trolling comments in Poland's online information space, especially following the annexation of Crimea.

Additionally, as a part of the information war, ***Facebook*** pages dedicated to potential Vilnius and Lviv 'People's Republics' were set up. This step was taken to create the illusion of separatist inclinations within the large Polish minorities in Lithuania and Ukraine[72].
The aim behind this strategy was to sever Poland's relationships with its neighbours and impede the region's ability to take concerted action in response to security threats. Although the Polish government immediately denounced the Facebook page, the Lithuanians remained wary because of Lithuania's sizeable Polish minority, who are largely pro-Russian.

2.3.3 Finland

Recently, the Finnish online medium ***Yle Kioski*** produced an investigative report on pro-Russian trolling activities in Finland. During the investigation ***Yle Kioski*** compiled information from various experts, Finnish websites and individuals who had been targeted by alleged pro-Russian trolls, as well as following the activities of several secret profiles used for conducting pro-Russian information warfare. Additionally, a Finnish security-politics blogger, Janne Riihelainen, assembled approximately 2 500 photographs reflecting the Ukraine crisis that had appeared in social media. According to him, these photographs are a significant part of a well-organised Russian propaganda campaign. For example, there is a photograph allegedly portraying Eastern Ukrainian children suffering from poverty and starvation. The picture also features a question written across it "Mom, why are they killing us?" and a hashtag ***#SaveDonbassPeoplefromUkrArmy***. It is clear that the photograph aims to send a message about the inhumanity of the Ukrainian army, accusing it of killing children and indirectly justifying Russia's involvement in resolving the crisis[73] .

Yle Kioski also identified the presence of pro-Russian trolls in various social networking platforms, as well as in Finnish discussion forums, and news and video platforms. Interestingly, the investigation revealed that there is much more propaganda on Russian and English websites than there is on Finnish ones, probably because of the trolls' linguistic limitations. Typical examples of troll messages used in Finland's online space include the following: "There was an unlawful fascist coup in Kiev and an unlawful military junta has taken power"; "Putin wants peace and negotiations but the President of Ukraine is a crazy militarist"; "Finns are racists who hate Russians. Russia is a good neighbour to Finland and more important than any other neighbour"[74]. The journalists' research also revealed that trolls try to pick fights on Russian-speaking discussion forums. However, Veronika Slovian, the administrator of one of such forum ***russia.fi***, correctly claimed that it is "extremely problematic that nobody can unambiguously identify or

[71] Matthew Czekaj, *Russia's Hybrid War Against Poland, Eurasia Daily Monitor* 12, no. 8 (April 2015), http://goo.gl/qyQyWN

[72] Ibid.

[73] Aro, *Yle Kioski Investigated.*

[74] Aro, *Yle Kioski Investigated.*

point out conversationalists distributing pro-Russian propaganda as paid writers. [As] some of them may be ordinary private citizens"[75].

That said, however, according to the web news moderator at the ***Helsingin Sanomat***, it is clear that a large proportion of the comments are orchestrated. Identical messages criticising NATO and the US are often posted over a hundred times. According to the Managing Editor of ***Helsingin Sanomat*** Petri Korhonen: "There is a distinct peak whenever a bigger news story about Russia or Ukraine is published: the number of trolling messages multiplies in comparison with the amount of messages prior to the war in Ukraine"[76].

2.3.4 The US

According to Max Seddon's report of June 2014, Russia recruited and trained online trolls in order to target top US-based websites such as ***Fox News, Huffington Post, Politico,*** etc. The Russian daily business newspaper ***Vedomosti***, quoting sources close to Putin's administration, added that this campaign was orchestrated by the government and involved Russian bloggers not only in Russia, but also in countries such as Germany, India and Thailand. According to Vassily Gatov, the former head of Russia's state newswire's media analytics laboratory, the Russian information-warfare strategy is based on the assumption that "Western media, which specifically have to align their interests with their audience, won't be able to ignore saturated pro-Russian campaigns and will have to change the tone of their coverage of Russia to placate their angry readers"[77]. According to another media analyst, Matt Kodama, such a strategy is not new – a similar disinformation campaign, led by Russia, was also observed during the Syrian civil war.

Surprisingly, the study of the influence of pro-Russian trolling on leading US media outlets demonstrated the opposite outcome to that expected. Most users of online media and forums, upon seeing a clearly pro-Russian comment, assumed it was either paid-for or written for ideological reasons[78].

2.4 CONCLUSIONS

The official Russian-government online-information warfare strategy is based on a dual-objective defensive approach – on the one hand the government is 'forced' to counteract foreign attacks, on the other hand, the government 'has to' act in order to protect its information space from disseminating extremist and terrorist ideas. This approach justifies Russia's current attack on the freedom of the press at home. That said, Russia's official strategy is outlined in almost entirely defensive terms and portrays Russia and its information space as being under constant attack from western and, particularly, US propaganda and trolling.

However, leaked policy documents and statements from high-level authorities, as well as empirical evidence gathered by analysts and investigative journalists seem to prove that behind the smokescreen of its official defensive stance, Russia is actively waging information warfare against its adversaries in order to sway international opinion in its favour and create confusion

[75] Ibid.

[76] Ibid.

[77] Seddon.

[78] Seddon.

and mistrust in public information as such. "The effect is not to persuade (as in classic public diplomacy) or earn credibility, but to sow confusion via conspiracy theories and proliferate falsehoods [...] the aim is to exacerbate divisions and create an echo chamber of Kremlin support"[79]. Furthermore, Russia has been smart in finding a strategy that western countries find almost impossible to counteract effectively. The fundamental values of freedom of speech and freedom of the press are in absolute contradiction to state-imposed control over traditional or online media.

Because trolling is not an official state strategy, there is also no publicly available impact assessment, on Russia's part, on the efficiency of trolling. However, there are analyses on the occurrence and success of pro-Russian trolling in various countries that are acknowledged to have been targets of trolling. For example, in Ukraine pro-Russian trolling has been used as a part of a multi-stage war, and as a tool to set up grounds for justifying military intervention. In Poland, trolling has been mainly aimed at severing the country's relations with its neighbours and impeding the potential for concerted action against Russia. In Finland, trolling has succeeded as a tool for creating confusion and misinforming society, while in the US, trolling has been less efficient and the US public asserts that hybrid trolls are easily identified. However, most of the above-described research that has been done in the past, focuses on general terms – the presence of hybrid trolling, numbers of attacks, forms of trolling. There is very little scientific and in-depth research addressing the impact of trolling activities on individuals' world view and its success in swaying individual opinion in the intended direction. Hence, the research on the impact of pro-Russian trolling activities in Latvian- and Russian-language online media seeks to address these questions, and establish how vulnerable individuals, and consequently states, are to the activities of hybrid trolls.

[79] Pomerantsev, 4-42.

TROLLING IN LATVIA'S NEWS PORTALS: OCCURRENCE, FREQUENCY AND POSSIBLE INFLUENCE

3.

The following is a detailed description of the search for the possible activities of paid pro-Russian internet trolls in Latvia's news portals. A widely held opinion in both general-public and professional circles holds that the Russian government maintains a troll army (or even several armies[80]) that operate in Latvia's cyberspace. It is worth noting that news items are not generally produced on the basis of meticulous and methodologically transparent research.

This analysis employs a literature content analysis, qualitative and quantitative empirical data to test whether there actually are identifiable, paid internet trolls and if so, to determine their actual behaviour and potential impact. The quantitative data obtained demonstrate that, although the proportion of trolls' messages in some cases can even exceed half of all posted comments, overall they do not reach more than 4%, even when only those articles with troll activity are taken into account. Furthermore, the qualitative analysis shows that, although the purported trolls employ various techniques to convince readers, these techniques are not particularly successful. The analysis fails to identify any detectable change of attitude. Moreover, the public's exposure to potential trolls is relatively limited. Apart from getting little exposure because of small numbers, the trolls are being trolled back by other users and portal censors, which further limits their exposure.

It is, however, important to note that the impact of traditional media (and even of the internet portals themselves) may prove to be far larger in spreading pro-Russian messages than that of the trolls. In the context of the media already being weakened by various market factors, the vulnerability of the media to outside influences is quite high, especially in a society divided by language, where the two segments have very different media-usage patterns.

3.1 MEDIA LANDSCAPE IN LATVIA

In order to evaluate the influence of trolling comments in internet news portals on internet-media users and the general public, important characteristics of the media system, population structure and media-usage patterns, as well as the working practices of news portals should be taken into account. These characteristics have been determined and described in a series of studies in Latvia, especially at the time there was lively public discussion on the establishment of a Russian-language public TV channel to counter the one-sided information broadcast by the Russian state-controlled ones.

The influence of information from the Russian government can be reviewed in the context of Latvia's media system. Over the past decade, this environment has been diverse, with many outlets fiercely competing for the same segment of economically active residents. The audience is divided by the language that media consumers speak at home. Analysis of the media system reveals that the independence and professionalism of Latvia's media is questionable. There are few attempts to synchronise media messages across Latvian-speaking and the large Russian-speaking parts of population. Latvia's traditional Russian-language media has been devastated by market forces and the Russian-speaking population is mainly served by news produced in Russia. Russian-language electronic-media outlets (mostly TV) are also popular amongst ethnic Latvians.

[80] *Latvijā uzdarbojas vairākas interneta troļļu armijas, vēsta LNT Ziņas. apollo.lv*, 14 July 2015, http://goo.gl/xkXcb5

A number of studies in the Baltics have shown that the influence of Russian TV channels is comparatively high[81]. The review of the editorial policies of internet news portals demonstrates that the information published by them is already heavily influenced by sources disseminating messages aligned with Russian interests. Such successful penetration of pro-Russian messages via the online media **casts doubt on the meaningfulness of using internet trolls** to further reinforce those messages.

3.1.1 Media system

The independence and professionalism of Latvian media is questionable. An evaluation of Latvia's media system on the basis of criteria proposed by Daniel Hallin and Paolo Mancini[82] reveals that the media market is fragmented, media regulations are liberal, and the state's ability to interfere in the work of the media is limited. There is, however, clear political parallelism, as seen in the fact that media owners or directors are often linked to politicians or political parties, with the media trying to obtain resources for their survival by providing services to specific political interests. The main goal of these media directors and founders is to generate profit[83] and, in pursuit of this goal, the media enters into long- or short-term agreements with politicians. This is an imitation of independent media operations. Some media outlets only pretend to be independent while actually working in support of specific political and, often, business interests. This situation has crippled the quality of journalism, forcing media professionals to combine independent, neutral and balanced information with content that is created to service the interests of media owners. Various studies have emphasised a client-related relationship between journalists and sources[84], as well as problems with the media's sense of responsibility in Latvia's media environment.

> "Some media outlets only pretend to be independent while actually working in support of specific political and, often, business interests.

3.1.2 Russian-language media in Latvia

The situation specific to Latvia's media environment is that more than one-third of the country's residents (37.2%)[85] speak Russian as their first language.

[81] Lence, Sandra (2008) *Krievvalodīgo mediju vidū – jauni spēlētāji. Nozare.lv* (27.06.2008.) (30.06.2008.); Novicka 2009.

[82] Daniel C. Hallin, Paolo Mancini, *Comparing Media Systems: Three Models of Media and Politics*. Cambridge and New York: Cambridge University Press, 2004.

[83] Anda Rožukalne, *Who Owns the Latvian Media? A Monograph on Latvia's Media System and the Most Influential Media Owners*, Riga: Turība, 2013.

[84] Aukse Balcytiene, *Market-led Reforms as Incentives for Media Change, Development and Diversification in the Baltic States, The International Communication Gazette* 71, no.1-2 (2009): 39-49.

[85] *Etniskais sastāvs un mazākumtautību kultūras identitātes veicināšana, Ministry of Foreign Affairs of the Republic of Latvia*, 2 December 2014, http://goo.gl/DkBbgP

> Russian-language newspapers became marginalised, while other media outlets did not choose to address the modern, active and educated segment of the Russian-speaking audience, hoping that these people would automatically join the Latvian-language media audience.

For a long time, Latvia had no media outlets that addressed Latvian and Russian speakers equally effectively. In recent years, more or less successful attempts to address both audiences have been made by major internet news portals such as *Delfi.lv*. The economic recession saw consolidation and concentration of Russian-language newspapers and they have been acquired by Russian citizens hidden behind offshore companies[86]. This consolidation has seen the circulation and influence of traditional newspapers decline sharply.

There are several influential local newspapers in Latvia's second city Daugavpils in Latgale, and there are Russian-language TV channels and internet portals that provide information specifically for the residents of this region (Eastern Latvia, bordering with Russia and home to a large Russian-speaking population). Radio Latvia 4, a public media outlet, broadcasts in Russian and is the most popular radio channel among the Russian-speaking audience. Public TV broadcaster Latvian Television (LTV), in contrast, has not managed to develop content for non-Latvian speakers in an effective way, because that has not been seen as a priority.

The content of Latvia's commercial TV includes popular serials and films from Russia, but it can be said that the content of channels emanating from Russia has, for a long time, filled an empty niche that has not been considered important by Latvia's media policies or media businesses. Some Russian-language media outlets (mostly newspapers) sought market share by addressing the segment of the Russian-speaking population that had been unable to deal with the change in its status after the restoration of Latvia's independence, cultivating the idea that Russian speakers were victims[87], emphasising shortcomings in Latvian politics, demanding social benefits and complaining about the country's large proportion of non-citizens.

Since the advent of the 21st century, such content has proved to be old-fashioned and irrelevant.

[86] Anda Rožukalne, *Who Owns the Latvian Media? A Monograph on Latvia's Media System and the Most Influential Media Owners*, Riga: Turība, 2013.

[87] Anda Rožukalne, *The Construction of Ethnic Political Identity and the Mechanisms of Exclusion in the Latvian-Language Media*. In M. Golubeva, and R. Gould, eds. Shrinking Citizenship: Discursive Practices that Limit Democratic Participation in Latvian Politics, Amsterdam: Editions, 2010.

Russian-language newspapers became marginalised, while other media outlets did not choose to address the modern, active and educated segment of the Russian-speaking audience, hoping that these people would automatically join the Latvian-language media audience. This did not happen, because the Russian-speaking audience continued to utilise Russian-language media. Local information about events in Latvia and the national media environment have become less and less important for this audience, while Russian TV channels have lost neither their role nor their audience. As the international situation was exacerbated and the conflict in Ukraine developed, the influence of Russian channels in Latvia was seen through very different eyes. The recognisable cultural and linguistic environment that is offered by the Russian channels rebroadcast in Latvia has, over an extended period, made them powerful agents for shaping public opinion about events in Latvia, Russia or elsewhere in the world.

3.1.3 The influence of Russian TV channels on the population

The influence of Russian government-controlled TV channels, broadcast from neighbouring countries, on Latvia's residents is clear, particularly on Russian speakers, who can obtain news content that is advantageous for Russia's interests as well as Russian films, serials and entertainment shows. The long-term presentation of homogeneous information creates the effect of cultivation[88], as manifested in trust in the delivered content. Several dozen Russian television channels are available in Latvia via cable and satellite providers or the internet. Audience figures, however, are only measured for a small segment of these channels – those that wish to attract local advertising investment. The Russian-language channels are broadcast by companies registered in Latvia or elsewhere in the EU, with agreement being reached with channel owners on their rebroadcasting for specific fees; these channels have received rebroadcasting permits in Latvia.

The Russian TV channels can be divided up into three groups in terms of content – general-interest channels aimed at large audiences and offering diverse programming (***PBK, NTV Mir Latvia, REN Baltija, RTR Planeta Baltija***); film channels with a diversity of entertainment programming and films (***CTC Latvija, CTS International***); and music channels (***TVOE***). Most of the Russian television channels that are available in Latvia have altered or regionally adapted names, which means that they have slightly modified programming. ***PBK (First Baltic Channel)***, for instance, basically offers the content of the Russian First Channel, but produces a news broadcast and other original formats. ***Planeta RTR*** is part of the Russian government-owned ***All-Russian State Television and Radio Broadcasting Company***.

Television is still by far the most popular medium among the Latvian population[89]. According to market-survey company ***TNS Latvia***, ***PBK*** and ***REN Baltija*** have the largest share of viewers of the Russian TV channels in Latvia, followed by ***NTV Mir Baltija***, broadcast by joint-stock company ***Baltic Media Alliance (BMA)***. ***RTR Rossija*** is almost identical to ***RTR Planeta*** and is authorised by SIA ***Baltic Media Union***.

[88] George Gerbner. *Against the Mainstream: The Selected Works of George Gerbner (Media and Culture).* Peter Lang Publishing, Inc., 2002.

[89] *TNS LATVIA Media Research Yearbook 2013/2014*, 2014, http://goo.gl/5zl9Uf

> The same messages are reported again and again – Latvia is a failed state dominated by social problems, it treats non-Latvians in an unfriendly manner, the rights of non-citizens are being violated, the armed conflict in Ukraine was caused by external forces, and Russia feels sorry for Ukraine, but is not involved in the conflict.

Unfortunately, there are no precise data about the overall media-usage habits of these specific channels' audiences which makes it harder to make assumptions about the ability of these channels to influence the views of Latvia's residents on events in Russia, the war in Ukraine, and the way in which Russia annexed Crimea in March 2014.

The most thorough provision of information from the Russian government arrives in the Baltic States via the ***PBK*** current affairs programme ***Time***. PBK has a news headquarters in Latvia, with staff producing the local news programme ***Latvian Time***, while identical news programmes for Russian speakers in Lithuania and Estonia are produced in Vilnius and Tallinn and broadcast from Riga.

Time presents news from Russia, while ***Latvian Time*** is a local news broadcast. Examining the audiences for both broadcasts shows that they overlap almost completely, and the structure of the two broadcasts is very similar. The number of viewers of the news broadcasts increased in 2014. It is typical that there is increased interest in the news during military conflicts or other events that endanger public security, because information can help viewers feel a greater sense of security[90].

PBK news in Russian is of most interest to Russian speakers (95% of the total audience), with more women than men watching. Young people do not watch ***PBK*** very much, the channel's audience comprises equal groups of people aged between 40 and 70, and those aged 71 and more, although the largest group is aged 50 to 59. Hardly anyone in rural areas watches the ***PBK*** news, and most of the channel's audience lives in Riga and other Latvian cities.

Stable news-watching habits indicate that Russian-speaking residents of Latvia are equally interested in Russian and Latvian news. ***Latvian Time*** only reports on local issues, ignoring international ones. These viewers have no access to different versions of events in Russia or elsewhere. During the spring of 2014, ***Time*** was extended substantially in Russia, and it was often devoted entirely to information about events in Ukraine that were advantageous to the Russian position; in contrast, ***Latvian Time*** did not even mention these events.

[90] McQuail, D. *Mass Communication Theory*, 5th ed. London: Sage Publications, 2005.

The editorial policy of the latter programme indicates a selection of news that cannot provide diverse, balanced and pluralistic content that also conforms to other principles of professional journalism. The content basically tracks the practices of Russian-language newspapers such as ***Vesti Segodniya***, republishing or interpreting the versions of events presented by the Russian media. The same messages are reported again and again – Latvia is a failed state dominated by social problems, it treats non-Latvians in an unfriendly manner, the rights of non-citizens are being violated, the armed conflict in Ukraine was caused by external forces, and Russia feels sorry for Ukraine, but is not involved in the conflict.

In 2014 and 2015, when Russian media and official new agencies were disseminating uniform information about the events in Ukraine, most Latvian media providing Russian-language news utilised information already prepared by Russian media. By republishing it indiscriminately, Latvia's media (including Russian-language online news portals) became multiplicators of Kremlin propaganda. Therefore, it can be said that a part of Latvia's Russian-speaking media audience has limited access to unbiased information as they receive only the official Russian viewpoint on current affairs.

The Department of Communications of Riga Stradiņš University has studied the attitudes of Latvia's audience to media quality and determined differences between Latvian and Russian speakers. The desire to obtain different views from different media outlets is seen in answers to the statement "I only use those media outlets that have political views that coincide with mine." 35.9% of respondents agreed, 51.8% disagreed, and 12.3% had no answer. Young people, people aged 45 to 74, non-Latvians, non-citizens, people with low and medium-high incomes, and residents of Riga were more likely than others to agree with the statement.

All of this means that the messages coming from Russia's influential channels are quite important in the agenda of their most stable audience and this influences the emergence of pseudo-public opinion[91], based on media content, not on informed debate. The scale of Russian-media influence can also be seen in data from two different public opinion surveys. A study in March 2014 found that 21% of Latvia's residents fully or partly supported Russia's actions in Ukraine, with much greater support (41%) among Russian speakers and among middle-aged Russian speakers (49%)[92]. The second study[93], showed similar trends – one-third of Latvia's residents see Russia as having reasons for its military invasion of Ukraine, with twice as many Russian speakers holding that view as Latvian speakers.

3.1.4 Data about the internet usage of Latvia's media audience

The following background data from recent surveys on internet usage patterns is useful in contextualising the primary data about the influence of internet trolling in Latvia.

- News portal ***Delfi.lv*** attracts 66% of all internet users in Latvia (845 633 unique users); ***tvnet.apollo***.lv[94] attracts 58% of all internet users in Latvia (822 687 unique users)[95].

[91] Elisabeth M. Perse, *Media Effects and Society.* New Jersey: Lawrence Erlbaum Associates, 2001.

[92] *Aptauja: Krievijas rīcību Ukrainā atbalsta 21% Latvijas iedzīvotāju, Focus*, 1 April 2014.

[93] *Aptauja: Trešdaļa Latvijas iedzīvotāju ir par Krievijas karaspēku Ukrainā, Žurnāls Ir*, 11 March 2014.

[94] tvnet.lv acquired apollo.lv in March 2014, but continues to operate a separate portal tvnet.apollo.lv only in the Latvian language

[95] Data from *gemiusAudience* survey, March, 2015.

- Rating the professional quality of news in the most popular news portals, 61% of respondents agree that "news items are diverse, news portals provide genuine and understandable information about actual events" (26% disagree, 13% had no opinion)[96];
- 56% of the Latvian population read news published by the largest news portals[97];
- News portals *delfi.lv* and *tvnet.apollo.lv* are the main sources of information for 21% of the Latvian population;
- According to the survey, 9% of respondents from the minority population have posted a comment on political events or tried to discuss them with other people in the internet[98];
- People from Russian-speaking minorities utilise the following news portals to obtain information about events in Latvia: *rus.delfi.lv* (25% of all respondents), *delfi.lv* (24%), *tvnet.lv* (11%), *rus.tvnet* (10%), *apollo.lv* (8%), *rus.apollo.lv* (8%) and *mixnews.lv* (6%). Almost half of these respondents (48%) admit that they do not use any news portals to obtain information about events in Latvia.

[96] Data from SKDS national survey (July 2014) carried out for the Riga Stradiņš University research project: *Overcoming the crisis in Latvia: economic, social and communication aspects*, 2013 – 2015.

[97] TNS LATVIA.

[98] *Sense of belonging to Latvia. Latvian minority population survey. SKDS,* May-June 2014, http://goo.gl/Y5zqFN

3.1.5 Working practices of the largest news portals

The results of the impact analysis of trolls should also be interpreted in the context of the working practices for news preparation at Latvia's largest news portals.

Content analysis of the topics, sources and media that have been used in news stories about Russia and Ukraine in the *delfi.lv*, *rus.delfi.lv*, *apollo.tvnet.lv*, *tvnet.lv*, *rus.tvnet.lv* portals leads to the following conclusions[99]:

Information about events in Ukraine is relatively sparse in online news portals, with slightly more for Russian speakers. Of the 42 to 56 news stories posted daily on *delfi.lv*, two to four are dedicated to Ukraine. Almost the same, three to five articles, are posted daily on *rus.delfi.lv*.

On the Latvian version of *Tvnet*, of 50 to 72 daily articles, again, three or four are about Ukraine, with *rus.tvnet.lv* having the most information – at least seven Ukraine news items every day (of 90-100 daily articles).

- The articles offered to Latvian readers are created in a few Russian and Ukrainian media and news agencies. All the news portals republish items from the same sources – lenta.ru, gazeta.ru, unian.ua, Russian government agency ITAR-TASS and RIA Novosti news.

[99] *Content analysis of the news for the period 17 to 24 September 2014 was done by Anda Rožukalne.*

- News-portal articles have 'Latvian' and 'Russian' themes. Latvian readers are mainly offered statements by officials and analytical viewpoints, while Russian-language readers have access to news about language and ethnic-minority education issues, Russian and Latvian business relations.

- The selection of articles appearing in news portals is not neutral. Each language version is different in terms of persons, themes, messages, opinions and the selection of sources. As online-news articles are often biased, because many news stories consist of a single quote or a statement about an event by one of the parties involved, problems with differences in opinion depending on the language of the article, become even more noticeable.

- Analysis of online-news portal content suggests that Russian statesmen – Putin, Lavrov, Medvedev – are the most important characters in the Russian news in Latvia's news portals. Russian-language portals are dominated by quotes by influential Russians sourced from ***RIA Novosti***.

- The information selection and publishing practices of Latvia's independent news portals indicate that they are aligned with Russia and the daily agendas of its official media. Therefore, the influence of official Russian propaganda can also be increased by Russian-language media not controlled by the Russian government. Such media outlets become distributors of messages favourable to Russia.

The quality of Latvia's media environment and the structure of the media audience is favourable for the distribution of Russian propaganda messages. This is one of the reasons why extensive, paid trolling activities are not necessary. A proportion of media consumers are already in accord with the propaganda messages on a variety of issues – economic and political issues being blamed on the European Union and the United States, believing that EU media also disseminates propaganda, passionately supporting Russian president Putin's policy in Ukraine and Russia, regarding independent Latvia and the EU as failed projects. Qualitative analysis of news portal comments shows that a proportion of commenters (especially users of Russian-language news portals) supports the opinions expressed by trolls or express such opinions themselves, although their behaviour does not resemble trolling.

3.2 ANALYSIS OF POSSIBLE TROLLING ACTIVITIES IN THREE INTERNET NEWS PORTALS

The following analysis presents information on the possible activities of paid pro-Russian internet trolls in Latvia's three main internet news portals, in both Latvian- and Russian-language versions. The results and the data used do not enable the undisputed identification of such trolls. However, during the observed period (29 July to 5 August 2014), **48 different IP identifiers** (each identifier designated an IP address) that generated messages raising suspicion of paid trolling were identified with some degree of confidence. The overall scale of the messages posted from these IP identifiers was comparatively small (on average not reaching **more than 4% of the posted comments**, even when only articles with at least one troll message were taken into account).

Virtually all potential trolling activity was linked to articles somehow related to events in Eastern Ukraine (including the resulting sanctions and Russian embargo).

The hypothesis that paid trolls are flooding comment sections with identical messages posted from different IP addresses and that this could be used as a criterion for identifying trolls was also tested. However it was found that only 0.4% of all comments were repeated from more than one IP address. Only 14% of these were pro-Russian (see Chapter 3.2.1. for an explanation of the criteria for pro- and anti-Russian messages), while 40% were anti-Russian, but in the majority of cases, it is unlikely they were posted by paid trolls.

The nature of the quantitative data analysed (short period of time, shortage of on-going argumentation with trolls) does not allow the direct influence of trolling messages on other users' opinions to be determined. The qualitative part of the research however, reveals a more nuanced picture, showing that the Latvian-speaking environment is less subject to influence than the Russian one, but in both cases the pro-Russian trolls get little exposure (both because of the activity of other users and censorship by the portals themselves) and their capacity to influence public opinion is limited.

This part of the research failed to demonstrate any significant impact by trolls. More often than not, the trolls identified do not get enough exposure to exert any influence.

The analysis was divided into the quantitative part, which analysed the corpus of all posted comments, and the qualitative part which looked at the actual interaction and behaviour of the trolls identified during the quantitative analysis.

3.2.1 Methodology of the quantitative analysis

The raw data used for the analysis contained the following information:

- date comment published;
- title of the article;
- text of the comment;
- a unique identifier for the IP address from which the comment was posted (for privacy reasons, the real IP address was concealed during the transfer of data from the portals to the researchers' servers and transformed into a unique number);
- nickname of the author of the comment.

There are therefore two items that could identify the author – the IP identifier and the nickname. However, neither of them is sufficiently reliable. The IP address can be both shared by several authors (for instance, when a router only allocates a single IP address to all the users in an internal network) or one author can post from many different IP addresses (for instance, from home, office and telephone). Moreover, nothing can oblige a user to employ just one nickname. To complicate matters further, a single user can change both IP address and nickname at will. Therefore, the reliable identification of individual authors by mechanical means, based only on these two parameters, is impossible.

The identification of trolls poses further methodological difficulties. Trolls are a native species of the Web, i.e., they have been around since the beginning of internet communications.

Although the idea and indeed the etymology of the term has evolved over time, the traditional understanding of an internet troll is associated with different kinds of rude, abusive and irritating behaviour[100] or more specifically, online trolling can be defined as "the practice of behaving in a deceptive, destructive, or disruptive manner in a social setting on the internet with no apparent instrumental purpose"[101] . However, the aim of this research is to identify a particular type of internet troll, ones that are or can be used as targeted tactical weapons in hybrid warfare and more specifically – by pro-Russian forces. The background information suggests that Russian special forces maintain offices ('troll-farms' or 'troll-factories') from which paid workers post information online with the purpose of distracting the populations of Western countries and to further Russian ideological claims[102] (see also p14 of this report). Therefore, the task for the authors of this research was to identify possible pro-Russian internet trolls, to describe their distribution, behaviour and potential impact.

3.2.1.1 Research questions for quantitative part

1. Can any paid pro-Russian internet trolls be identified with certainty? A rigorous approach requires that a sceptical attitude be taken, rather than conforming to opinions expressed in the media and rumoured by the general public.
2. If 'yes', what are their relative numbers? This question is important for estimating the potential impact of trolling.
3. Which news topics attract trolls? This may be used as a means of identifying the political agenda of the trolls' possible employers.
4. Do the above questions have different outcomes in Russian- and Latvian-language portals?

3.2.1.2 Background assumptions

Several background assumptions about trolls were made prior to the research, based on the information that was available and on some common-sense ideas about what kind of behaviour paid pro-Russian trolls would exhibit:

1. Trolls should post many comments (because they are paid on the basis of the amount of work that they perform, therefore small quantities would not be acceptable);
2. Trolls should be consistently one-sided (sustaining a clever 'good cop – bad cop' conversation that moves users' opinions in a certain direction might again be a clever psychological move, but is difficult and costly to maintain);
3. Trolls should re-post Russian mass-media messages (to produce large quantities of comments, the most effective way of disseminating information is to re-post excerpts from pro-Kremlin media outlets or links to them);

[100] Amy Binns. *Don't feed the trolls!, Journalism Practice* 6, no. 4 (2012): 548.

[101] Buckels et al, 97.

[102] See for instance: Irina Titova, *Ex-Kremlin Internet 'troll' wins suit against ex-employer, Associated Press*, 2015.

4. Trolls should not engage in conversations or do so only occasionally (conversations are time-consuming, although may be most effective psychologically. However, altering an opponent's opinion requires particular sophistication and is very time-consuming – both qualities that an average student being paid to generate many messages would lack);

5. Trolls should not comment on random and mundane topics (such as how to repair a car radiator or whether picking red mushrooms is safe) that are totally unrelated to their ideological task and/or on comments that are not ideological.

Moreover the following was assumed:

1. A good many legitimate users who are critical of the Latvian government and sympathise with the Russian government may be exercising their freedom of speech by posting pro-Russian comments or anti-Western and anti-Latvian comments because they actually feel that way and not because they are paid pro-Russian trolls. Classic trolls may also be involved "just wanting to have fun[103]" by causing confusion and frustration among other users;

2. There may not be any paid pro-Russian trolls at all and the information about them may itself be a part of deception and disinformation;

3. Pro-Western, pro-Latvian or anti-Russian trolls may be operating.

[103] Buckels et al, 97-102.

3.2.1.3 Identification of trolls

On the basis of the above background assumptions, the research team set the following criteria that trolls should conform to in order to be identified as such (hereinafter referred to as *Criteria for Trolls*):

1. Must have posted more than 15 comments during the period under investigation;

2. Must be consistently pro-Russian;

3. Must either post links to pro-Russian websites or large chunks of copy-pasted information from such sites;

4. Must generally not engage in conversations with other users;

5. Must not comment on mundane and non-political topics unless such comments are political and pro-Russian;

6. Must be repetitive, reposting the same message multiple times rather than crafting purpose-made comments that are content specific (i.e., related to what other users are saying or putting forward an original argument);

7. For the majority of the research, authors/comments that conform to the above criteria but are anti-Russian will be ignored[104].

[104] Even a brief glance at the comment environment shows that there is a large quantity of such comments. A proper analysis of the trolling environment should be analysing all such 'cyberspace warriors'. However, because of the limited time and other resources and because the primary task of this research was to identify pro-Russian trolls and their potential, the anti-Russian trolls were ignored for the majority of the study.

3.2.1.4 Design of the quantitative research

The following steps were taken in order to obtain a list of possible trolls:

1. **Sorting by IP**. The data was sorted by IP identifiers thus obtaining a table where all the comments that were posted from one IP address were displayed together.

2. **Manual scanning**. The data was manually scanned and all the messages posted from one IP address that conformed to the *Criteria for Trolls* were marked as possibly generated by trolls.

3. **Filtering the cases**. Additional filtering was applied to remove those messages or IP addresses that displayed behaviour not consistent with the above criteria. For instance IP 219 consistently displayed anti-Russian sentiments when posting in Latvian-language portals and pro-Russian ones when posting in Russian-language portals. Although the case is unclear, only the Russian-language comments were included in the selection.

3.2.1.5 Testing the hypothesis that trolls operate from multiple addresses

It was assumed that paid internet trolls could apply technologies that switch the public IP address during operation thus concealing their identity. One prospect for identifying this would be a nickname. However it is hardly likely that a troll would want to conceal his/her IP address (visible only to portal administrators, not to readers) while keeping the same nickname. It is common for legitimate users to have a number of IP addresses because they can post from different locations. Thus in this aspect, ordinary users (even classic trolls) are no different from paid trolls. Another option for identifying trolls is if the same ideologically loaded message is copy-pasted and posted from different IP addresses and nicknames. This would still not be 100% certain because re-posting information is customary in the online environment, but the likelihood that this is a paid troll is somewhat larger. Therefore the assumption that there might be attempts to widely disseminate links and pre-fabricated opinions was tested.

The following procedure was used:

1. **Obtaining a list of identical messages**. All the data was sorted and compared for the content of comments; comments that were published more than once were marked.

2. **Obtaining a list of identical messages posted from different IP addresses**. From the list obtained in step 1, only those messages that were posted from more than one IP address were marked. Those that were posted from identical IP addresses were not specifically marked because they had already been scrutinised in examining the IP addresses.

3. **Content analysis of messages**. To determine if the identical messages could have come from paid pro-Russian trolls and if they had any influence, a simple content analysis of the messages was performed, by assigning messages to four categories: pro-Russian, anti-Russian, Latvian internal political wrangling, and other. This was the only case where anti-Russian attitudes were also analysed.

4. **Searching for additional trolls**. IP addresses that were re-posting pro-Russian messages were also inspected for conformity with the *Criteria for Trolls*.

3.2.1.6 Identifying the intensity of trolling

In order to estimate the capacity of the paid pro-Russian trolls to influence opinion, the percentage of trolling messages compared to other messages was calculated. This was done in two contexts:

1. The percentage of trolling comments in all posted comments. However, this placed the trolling in a mass of comments (including those on sports or romance), therefore a second percentage was calculated;
2. The percentage of trolling comments in only those messages posted in the same conversation as the troll's comments. This enabled the density of trolling comments in the environment where the trolls operate to be determined.

3.2.1.7 Identifying fields of interest to trolls

To determine which topics are most infiltrated by paid pro-Russian trolls, a simple content analysis of the articles attracting troll activity was performed, noting the overall topic of the article. The topics were not pre-determined, but selected during the analysis process. Table 1 lists the 13 different categories that were used to classify the article topics and gives explanations of the article types included. It is clear that some categories are quite narrow (e.g., Western sanctions against Russia) while others encompass a wide range of topics.

Table 1. Categories for content analysis of topics commented on by suspected paid trolls.

No	CATEGORY	DESCRIPTION
1	**Events in Ukraine**	News about the war in Ukraine and all related information, including Rada (parliamentary) decisions, casualties, etc.
2	**Latvian news in the context of Russian aggression**	News about all events in Latvia related to Russian aggression or the war in Ukraine (including protests against Russian participation in the Jurmala Music Festival), also news about Latvia's armed forces
3	**Latvian news (other)**	All other Latvian news
4	**MH17**	News related to the shooting down of Malaysia Airlines flight MH17 over Ukraine
5	**Mundane topics**	Topics related to very mundane issues, e.g., how to repair engines
6	**International news related to Ukraine**	News about NATO's response to Russian aggression, including the scrambling of planes, condemnation of actions, organising of military exercises; world leaders expressing views on events in Ukraine; other anti-Russian activities; news about what might happen globally, analysis of global processes in relation to the Ukraine conflict (e.g., that China will be the winner of this conflict)

No	CATEGORY	DESCRIPTION
7	**Russian news related to Ukraine**	All Russian military activity that Russia is not denying, e.g., exercises, concentration of troops, flights; news about Russian political events, including opposition activities and opinions; news about Russian actions cited as a reaction to those of NATO; Russian information-war activities, including hacker attacks
8	**Russian news (other)**	All other news from Russia
9	**International news (other)**	All other international news
10	**Russian embargo**	News about the Russian embargo on foreign goods
11	**Sanctions against Russia**	News about sanctions against Russia
12	**US news (not political)**	Any news from within US
13	**US political news**	News about political events in the US

3.2.1.8 Limitations of the methods used

Because of the particular nature of internet communication and the limits of the available data, certain insuperable limitations must be kept in mind:

- Identification of possible trolls (equally for inclusion or exclusion from the list) involved a great deal of subjectivity. The researchers did their utmost to evaluate whether authors were paid trolls or not, but the possibility remains that not all trolls were correctly identified or that some ordinary commenters were falsely identified as paid trolls;
- The larger context of internet communication was not properly investigated because the anti-Russian and other users clearly displaying troll-like behaviour but who equally clearly were not paid pro-Russian trolls, were not included in the calculations through lack of time and other resources. Consequently, the opposition to pro-Russian propaganda is not adequately represented in this research.
- It is possible that a group of anti-Russian trolls are operating in Latvia's cyberspace, but confirming that would require more research.
- The original data set for this research comes from a short time period. Consequently, it is impossible to draw any quantitative conclusions about overall changes in mood, because that would require a longitudinal method. Moreover, the overall mood and change in opinions (even if detected) could not be reliably linked to trolling activity because of other possible influences.

3.2.2 Results of the quantitative analysis

The corpus of analysed comments consists of 207 707 items (see Table 2). These comments were posted from 20 006 IP addresses. By analysing the content of the comments and posting patterns, 48 unique IP identifiers demonstrating commenting activity that corresponded to the ***Criteria for Trolls*** were found (as opposed to 'classic' or 'amateur' trolls engaging in trolling for personal gratification). The 48 unique IP addresses generated a total of 2 967 comments, of which 1 721 were posted in Latvian-language news portals and 1 242 were posted in Russian-language ones. Because of a technical importing error, information about the article's language was missing in some cases, but only four such trolling comments were considered.

The percentage of trolling comments in the entire corpus of comments constituted 1.45%.

This number, however, relates to all comments that were posted during the studied period on the three portals, including articles about sports, cooking and other topics that were not related to anything that might trigger the interest of hired internet trolls. Therefore it was important to determine the proportion and intensity of trolling comments in relation to non-trolling comments in the articles in which identified trolls have been active (see Table 3).

Table 2. General numbers characterising the data corpus

	No OF ITEMS
Number of posted comments (all comments from all IP identifiers):	207 707
Number of unique IP identifiers	20 006
Number of potential trolling IP identifiers	48
Number of comments from trolling IP identifiers	2 967
Number of comments from the trolling IP identifiers in Latvian-language portals	1 721
Number of comments from the trolling IP identifiers in Russian-language portals	1 242
Number of comments from the trolling IP identifiers in other, non-Latvian or Russian portals, for instance: international blogs, etc.)	4
Number of other (non-trolling) comments	204 740
Percentage of trolling comments from entire corpus of comments	1.45

Table 3. Total numbers of trolling and non-trolling messages posted in relation to articles attracting at least one comment by

NUMBERS RELATED TO TROLLED ARTICLES ONLY	No OF ITEMS
All languages	
Number of trolling comments	2 967
Number of non-trolling comments	79 808
Percentage of trolling comments (trolled articles only)	3.72
Russian-language portals	
Number of trolling comments	1 243
Number of non-trolling comments	31 149
Percentage of trolling comments (trolled articles only)	3.99
Latvian-language portals	
Number of trolling comments	1 721
Number of non-trolling comments	48 499
Percentage of trolling comments (trolled articles only)	3.55

Table 3 shows that the percentage of trolling messages in articles attracting the attention of trolls is significantly higher, but is still below 4%. Russian-language portals have experienced slightly higher troll activity, reaching almost 4%, but overall the difference is insignificant.

Figure 1. Comparison of percentages of trolling messages in the total number of messages (100%=total number of comments posted during the period)

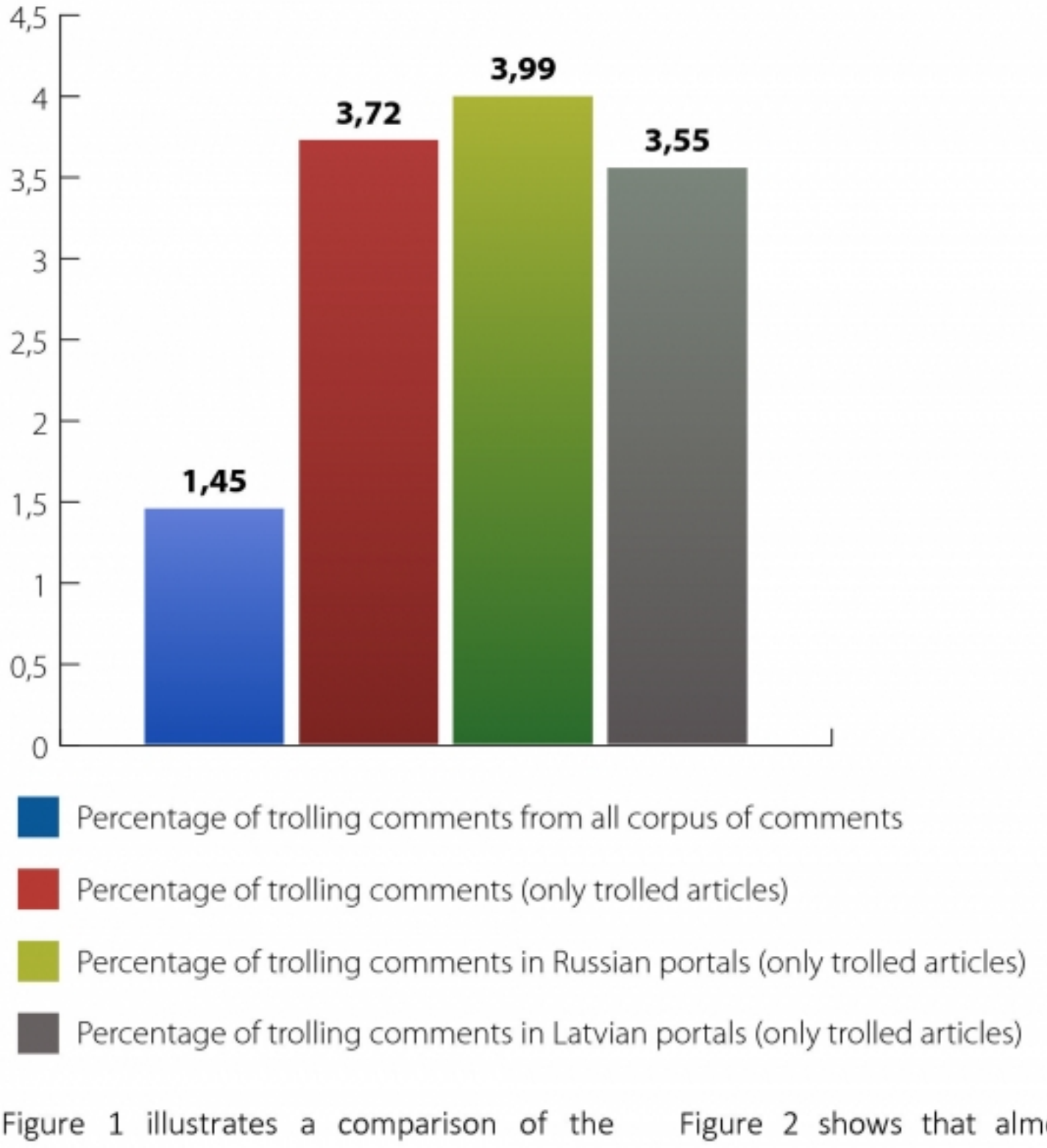


Figure 1 illustrates a comparison of the percentages of trolling messages in the total number of messages.

The information above demonstrates that, although there are some variations across languages, the total percentage of messages posted by hired trolls is very small.

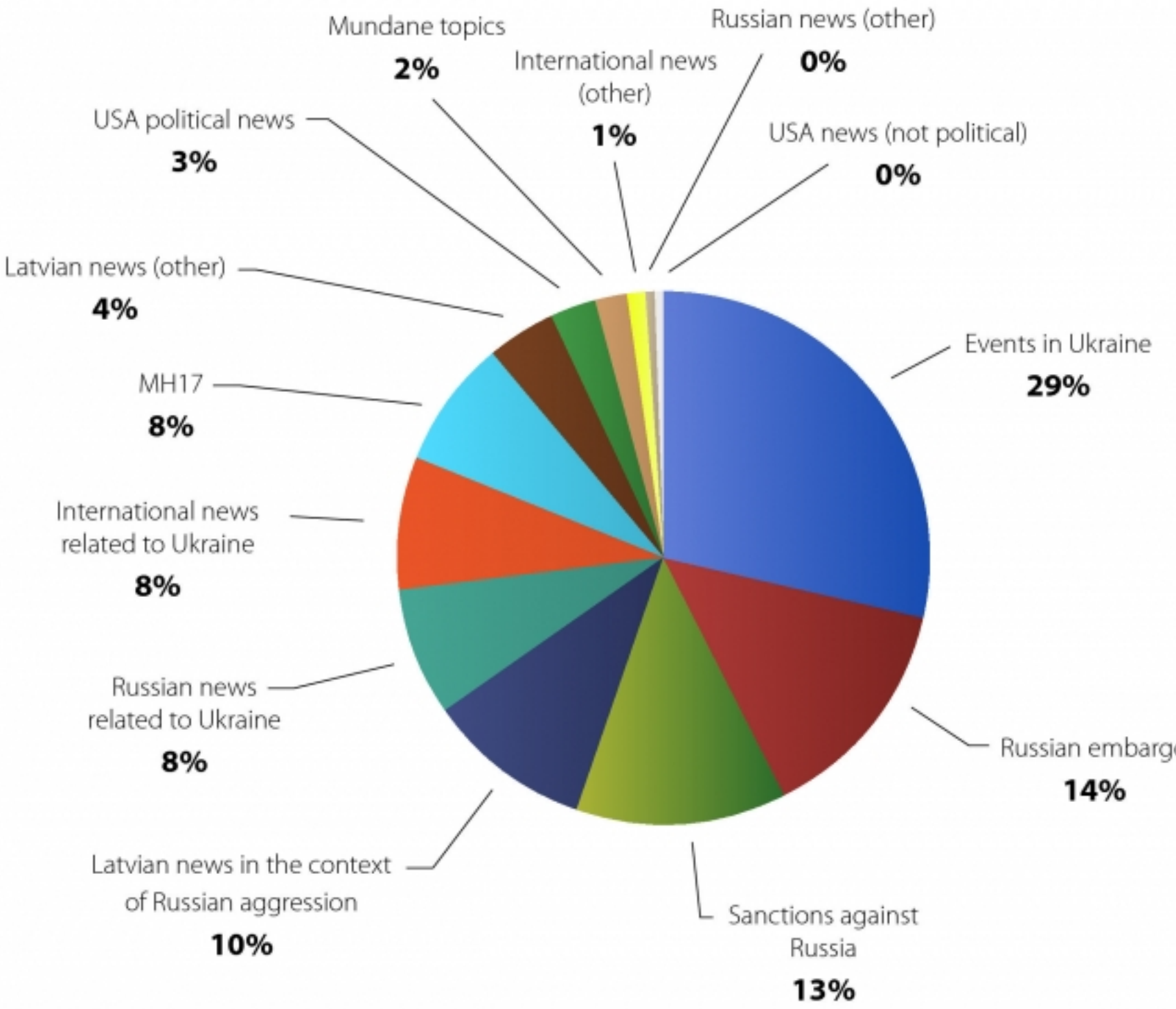
3.2.2.1 Topics attracting pro-Russian trolls

The activity of hired trolls across different topics was not uniform. The distribution of trolling messages across various article topics is illustrated in Figure 2.

Figure 2 shows that almost all activity is related to news linked to events in Ukraine and various reactions to these events. Almost one-third of all troll comments were posted in relation to this topic. A closely linked topic, the shooting down of Malaysia Airlines flight MH17 over Eastern Ukraine, also attracted a comparatively high proportion of trolling messages. If these two categories were merged into one, they would comprise 37% of all the messages posted by suspected hired trolls.

The second largest section that attracted troll attention is related to the Western sanctions against Russia and Russia's counter measures in the form of an embargo on products from

Figure 2. Distribution of trolling comments by article topic



Western countries, including Latvia. This topic attracted 27% of all comments.

Although for the purpose of the analysis, topics were divided as can be seen in Figure 2, it is clear that troll activity is concentrated around events in Ukraine and reactions to those events. A very small proportion of comments were also posted in relation to various mundane topics (such as repairing cars or what to wear in warm weather). The comments posted in relation to mundane topics may indicate either boredom on the part of some trolls or an error in identifying these authors as hired trolls.

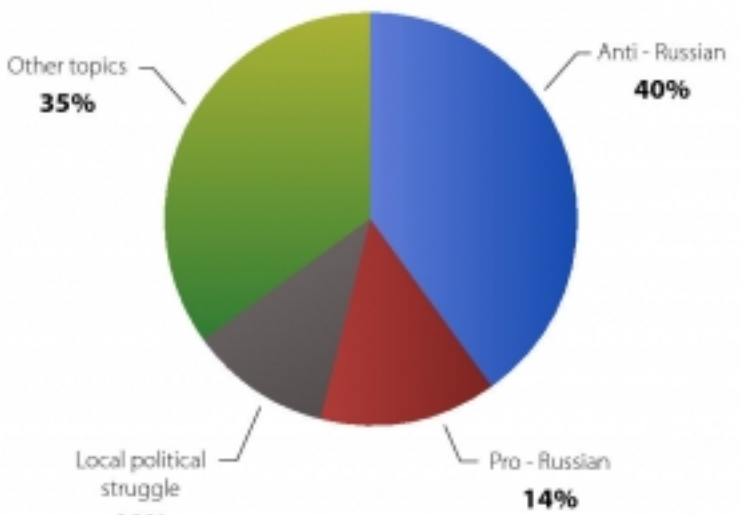
3.2.2.2 Testing the hypothesis that trolls operate from multiple addresses

Overall, there are 9 784 messages that have been repeated at least once. Many of them were posted from the same IP addresses and therefore already scrutinised when the corpus was analysed in terms of IP identifiers. However, it was also found that 924 messages were repeated by being posted from more than one IP address. This is a relatively small number (only 0.4% of all comments).

However, a preliminary review led the researchers to believe that repeated posting from different addresses is more characteristic of anti-Russian commenters rather than of pro-Russian users (whether trolls or not). Consequently, a simple content analysis was performed to test this hypothesis. The results of this analysis showed that most multiple postings coming from different IP addresses took an anti-Russian stance, only 14% being pro-Russian.

To test the hypothesis further, all the IP addresses that had generated copy-pasted comments were examined for their conformity with the Criteria for Trolls, but this did not reveal any new, convincingly identified trolls. Therefore the authors failed to confirm this hypothesis.

Figure 3. Attitude towards Russia in comments that were posted multiple times from more than one IP address.



3.2.3 Answers to research questions in the quantitative part

Are there any identifiable paid pro-Russian internet trolls?

It is difficult to give an unambiguously positive answer to this question. However, following the methodological principles, 48 different IP addresses were identified that have generated messages that provide grounds for assuming that **paid pro-Russian internet trolls might be operating in Latvia's news portals.**

What is the relative quantity of the paid trolls?

The total number of individual IP addresses that could be identified as paid trolls is tiny in comparison to the overall number of unique IP addresses considered (48 of 20 006, which is 0.2%). However the proportion of messages that these potential trolls generated in relation to the articles within which they operate can increase to 4% of all posted messages (this number is an overall average, a few individual articles may contain significantly larger proportions).

Which news topics attract trolls?

The suspected trolls operated almost exclusively around articles that were either directly or indirectly related to events in Ukraine (for instance sanctions against Russia).

Do the above questions have different outcomes in Russian- and Latvian-language portals?

Russian-language portals display slightly higher activity by potential pro-Russian trolls, but the difference is not large. Other assumptions might be relevant such as the overall tone of news items re-posted from Kremlin-controlled Russian media outlets or the overall mass-media environment in which this pro-Russian sentiment plays out.

3.3 CASE STUDY ANALYSIS OF THE BEHAVIOUR OF THE MOST ACTIVE TROLLS[105]

3.3.1 Design of the qualitative part of the research

Given the analysis of the quantitative data, a case study was chosen as a synthetic method providing opportunities to expand and deepen the understanding of the complexity of communication situations in the context of the likely behaviour of paid internet trolls within the comment sections of the Latvian- and Russian-language versions of internet news portals ***delfi.lv***, ***tvnet.lv***, and ***apollo.lv***.

The case study method is appropriate for analysing various communication situations through a combination of quantitative and qualitative data because this research method helps to investigate a phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident. Kathleen Eisenhard states that the case study method focuses on understanding the dynamics present within a single setting[106] . In this particular research, the case study approach helps understand data linking different discourses and interpret it without the risk of drawing value-laden conclusions. A case study was considered most suitable for this study because the trolling phenomenon cannot be evaluated only by quantitative means, individual cases needed to be assessed to draw objective conclusions.

During the first research phase, an enormous amount of quantitative data was collected from news-portal comment sections, therefore, the case-study approach is used with the aim of combining various data and going beyond initial impressions.

The case study approach is used to describe the content generated by pro-Russian hybrid trolls and their behaviour.

3.3.2 Selection of cases for investigation

Given the analysis of the quantitative data, the most important criteria for selecting trolls for the case study analysis were the following:

- number of comments posted in portals;
- number of comments posted in comment sections of articles about events in Ukraine, Russian politics, EU sanctions;
- number of IP addresses used;
- content of comments;
- specific behaviour.

3.3.3 Case study research questions

The research questions and selection of cases for the qualitative part of the research were constructed in line with the data and theoretical explanations derived from other studies of internet trolling. Trolling is one aspect of antisocial online behaviour that includes flaming, bullying, and harassment[107]. Internet trolling is characterized by hyperactive behaviour that presents as intensive posting of comments, the presence of insults, and continuous attempts to upset other users[108].

[105] Period of analysis: from 29 to 5 August 2014.

[106] Kathleen M. Eisenhardt, *Building Theories From Case Study Research. Academy Of Management Review* 14, no. 4 (1989): 532-550.

[107] Buckels et al, 97-102.

[108] Justin Cheng, Cristian Danescu-Niculescu-Mizil and Jure Leskovec, *Antisocial Behavior in Online Discussion Communities*, 2014, https://goo.gl/8vpSwP

According to the quantitative data obtained by this research, pro-Russian trolls use similar communication strategies, but differ in the content of their comments. As noted above, pro-Russian trolls mostly post excerpts from Russian media content, links to various Russian media outlets or propaganda videos on YouTube, they combine the said content with negative evaluations of or insults to individuals and authorities in the news. The pro-Russian internet trolls selected for the case study research popularise the ideological messages of official Russian policies by criticizing the policies, institutions and processes of the EU and the US.

The case study research questions were the following:

1. What are the communication models of pro-Russian hybrid trolls?
2. What content is generated by pro-Russian hybrid trolls?
3. Sub-questions:
    - How do pro-Russian hybrid trolls interact with other news portal commenters?
    - How technical means (software) and human action (editors of comment sections) influence the content generated by pro-Russian hybrid trolls?

3.3.4 Important steps in and structure of the case study

A similar case-study structure (research steps, data-collection sequence and categories) was applied to analysing all the cases (trolls) selected. The case-study research process consists of several interrelated steps that characterize communication content and communication forms.

Step 1. During the first phase of the case study, the seven most active (users that posted more than 100 comments to more than 20 news articles within one week) pro-Russian hybrid trolls were selected. Because several trolls exhibited similar behaviour, the four most typical trolls have been selected to illustrate the results of the case study.

Step 2. The design of the case study is based on the quantitative and qualitative categories that include the troll's nickname, number of comments, number of articles, news portals in which comments were posted, forms and topics of the posted comments' content; and an interactivity analysis of the trolls, including the reactions of other users.

Step 3. In order to describe the content and behaviour of the trolls, all comments and all communication elements related to particular trolls were analysed by using the file with all the comments they posted during the given period.

Step 4. The data from the preliminary analysis was compared with data from the comment sections of the news portals to investigate interactivity models, behaviour and the reactions of other users to the trolls' comments. The most important examples have been used to illustrate these trolls' behaviour and the content of their posts.

Step 5. All of the case study data was compared and analysed in the context of secondary data relating to the internet media audience and various communication theories.

3.3.5 Limitations of the case study research:

1. The research period was too short (one week) to draw conclusions on the possible influence of the content generated by trolls on the news-portal audiences, because communication effects depend on long-term interrelations between the message and the recipient (audience member).

2. The greater part of the most active trolls' comments are deleted from the comment sections of the news portals or the activities of the researched trolls have been banned by news-portal administrators. Therefore the analysis of trolls' interactions with other users and the impact of their messages is restricted by the lack of precise data showing the number and forms of contact between the trolls and other commenters.

3. In order to explain comment deletion and user-banning policies, the data from the interviews with news-portal editors on comment-editing strategies was only added in the last phase of the case study research.

4. The research method and data collected for this study combine information on the content of internet comment sections and media usage patterns, including interactions between users and their reactions to messages and other news portal readers. But the data are not useful for explaining changes in public opinion or media effects related with the long-term influence of particular content, messages and ideas.

3.3.6 Case study analysis No 1.

Troll's nickname:	Ново-россия (novorossiya, i.E., New russia)
IP address identifiers	472386; 642096; 727365; 773718; 775430
Number of comments and articles	472386: 11 articles, 51 comments 642096: 15 articles, 48 comments 727365: 8 articles, 10 comments 773718: 9 articles, 26 comments 775430: 5 articles, 21 comment **Total: 49 articles, 156 comments**
News portals	Comments only on ***delfi.lv***, but covers both Latvian and Russian news.
Characteristics of behaviour	Actively republishes excerpts from Russian media. Criticises opinion articles on Russia-related topics in Latvian politics by making personal attacks. Combines personal expression with information from Russian official news agencies and internet-media sites, for example http://goo.gl/JeAkcx and http://goo.gl/4Bl9Br Disputes the content of news stories by defending Russian versions of events. Mostly reacts to news content, but sometimes just randomly publishes excerpts from Russia's media.
Characteristics of generated content (form and topics)	Ukraine events. Investigations of Malaysia Airlines flight MH17 catastrophe that prove the involvement of Russia. Opinions of Latvian politicians relating to events in Ukraine. EU sanctions.
Interactivity models	472386: all comments erased from the comment section of ***rus.delfi.lv***. by site administrators within periods ranging from a couple of minutes to several days (no uniform approach to deleting of comment).

Important examples
Example 1.

News story: ***"США показали снимки, доказывающие обстрел Украины из России (the US shows photographs proving Ukraine has been attacked from within Russia)"***. Content of this comment supplies information from internet portal communitarian.ru which insists that the said photographs have been fabricated:

"Фотографии подверждают: в украинском небе был подбит самолет рейса MH-370, исчезнувший в марте. Издание Veterans Today представило фотодоказательства, что фрагменты разбившегося малазийского Боинга на Украине на самом деле принадлежат Боингу, «бесследно исчезнувшему в Южно-Китайском море» марте этого года

Издание высокопоставленных ветеранов госдепа и американской разведки Veterans Today сообщает о странных нестыковках на фотографиях разбившегося рейса MH-17 малазийского Боинга на Украине

Посмотрите внимательно на положение флага на обломке самолета на Украине. Видно, что задняя кромка флага (сторона с красными и белыми полосами) находится непосредственно над оконным отверстием, покрытым металлической пластиной. Там нет окна.

Теперь внимательно посмотрите на вторую фотографию, где запечатлены и MH-17 (9M-MRD), и MH-370 (9M-MRO). На фотографиях MH-17 вы можете ясно видеть, что задняя кромка флага выстроилась НАД СУЩЕСТВУЮЩИМ ОКНОМ! (поскольку в интернете начали уже начала исчезать информация, проверяйте по этой сохранившейся фотографии) http://goo.gl/wt7A4M*"*

Approximate translation:

"The photos confirm: the airplane of flight MH-370, which disappeared in March, was shot down in Ukraine

The Veterans Today magazine provided photographic proof that fragments of the crashed Malaysian Boeing actually belong to the Boeing aircraft which disappeared in the South China Sea in March this year.

Veterans Today, a publication by high-ranking veterans of the State Department and US Intelligence reported strange inconsistencies in the photographs of the crashed Malaysian Boeing of flight MH-17 in Ukraine.

Look carefully at the position of the flag in the wreckage of the plane in the Ukraine. It is evident that the trailing edge of the flag (the side with the red and white stripes) is directly above the window openings, covered with a metal plate. There is no window.

Now look carefully at the second photograph, which depicts both, MH-17 (9M-MRD), and MH-370 (9M-MRO). In the MH-17 photographs you can clearly see that the trailing edge of the flag lines up with an EXISTING WINDOW!

(since the information is already starting to disappear from the internet, check it in this saved photo). http://goo.gl/wt7A4M"

Example 2.

The major proportion of comments were posted to an article about Ukraine's Prime Minister Arseniy Yatsenyuk: ***"Яценюк вернулся на пост премьера Украины (Yatsenyuk returns to the position of Ukrainian Prime Minister)"***.

Ново-россия posted 21 comments, total number of comments to news story – 97; all comments by ***ново-россия*** were deleted.

Example 3.

News story: ***"В Донецке после серии взрывов началась эвакуация людей (обновляется) (Following a series of explosions in Donetsk, evacuation of the population has begun)"***.

Actively disseminated information published in different Russian sites about Ukrainian troops killing women and children. 10 comments, total number 197, all comments by ***ново-россия*** deleted.

Conclusions on ***ново-россия***'s comments:

- Reacts precisely to the content of news stories by choosing particular topics for comment.
- The main aim of commenting is to supply contradictory information about events and promote the Russian interpretation of the particular events.
- All of the analysed comments have been deleted from the comment environment of news portal.
- The reason for deletion may be the content of republished excerpts of news from various Russian-language portals. Parts of those comments can be interpreted as promotion of national and ethnic hatred.
- Active use of excerpts from Russian media in comments characterises this user and their behaviour as very typical of paid pro-Russian internet trolls.
- Republishing of information from Russian media outlets aids the pretence that the information provided in the comments is truthful and reliable.

3.3.7 Case study analysis No 2.

Troll's nickname:	jurmala and many others (e.g., kurmitis, vovan, kaiminjsh, etc.)
IP address(es)	513506
Number of comments and articles	66 news stories, 323 comments
Portals	Comments only on ***apollo.lv*** in Latvian
Characteristics of behaviour	Repeats the same comments several times. Published comments are similar to angry slogans. By adding an address as a nickname (for example: to US, to US Embassy, to Rinkevics (Latvia's Foreign Minister)) the commenter demonstrated a wish to speak to a particular institution or individual. Posts the same slogans – as comments – to different news stories. In general, all comments by jurmala are somehow related to the topics of the news stories. Provides a broad range of comments in terms of emotion, discourse, and opinion. Criticizes persons or organisations mentioned in the news stories. Sometimes jurmala's comments became hysterical in form and content. Posts very rude and offensive comments even containing xenophobic statements about Jewish people and others.
Characteristics of generated content (form and topics)	Comments mostly on Latvia's foreign policy, foreign news from US, sanctions, events in Ukraine.
Interactivity models	Commenter does not interact with other users.

Important examples
Example 1.

News story: *"Dombrovskis: Ir pāragri spriest par ekonomisko sankciju radītajām sekām/ Dombrovskis: It is too early to judge the consequences of economic sanctions"*

Comments by jurmala:

> *Dambrovski TU ESI NOZIEDZNIEKS, jo juusu partija VIENOTIBA PILDA ASV NORADES, un mums Latvieshiem jacies deelj JUMS DAMBROVSKI.*

Approximate translation:

"Dambrovski (Dombrovski's name spelled wrong) YOU ARE A CRIMINAL, because your party UNITY FOLLOWS US DIRECTIONS, and we, Latvians have to suffer because of YOU DAMBROVSKI."

> *Latvieshi padomajiet LOGISKI shis sankcijas ir izdevigas ASV, un vinju ZIDIEM ROKFELERIEM. Ne jau LATVIJAI !!! Krievija ir muusu kaiminji,un mums tieshi jasadarbojas ar KRIEVIJU,jo mees varam pirkt leetaku ENERGIJU neka to spej piedavat ASV,un ja kads mums sola tad tie MELO, jo ASV interese vienigi DOLARI nevis LATVIJAS IZAUKSME, un ar tadu ka DAMBROVSKA palidzibu vinji sasniedz savus MERKJUS. Neesiet vientiesigi,un domajat ar galvu, jo Latvija ir muusu, un mums par vinju jacinas. JO DAMBROVSKIS CINAS PAR SAVU KABATU!*

Approximate translation:

Latvians think LOGICALLY, these sanctions are profitable for the US and their JEWS ROCKEFELLERS. Not for LATVIA!!! Russia is our neighbour, and we have to cooperate with RUSSIA, because we can buy cheaper ENERGY than the US can offer, and if somebody promises us they are LYING, because the US is only interested in DOLLARS not in LATVIA'S DEVELOPMENT (spelling error in Latvian), and with the help of the likes of DAMBROVSKIS (Dombrovski's name spelled wrong) they achieve their TARGETS. Do not be naïve and think with your head, because Latvia is ours and we must fight for it. BECAUSE DAMBROVSKIS FIGHTS FOR HIS POCKET!

Example 2.

News story: *"Ukrainā apšaudē gājuši bojā vismaz 14 karavīri. (At least 14 soldiers have been killed in an exchange of fire in Ukraine)".* 18 comments, a total of 187 comments to this article.

All comments posted by ***jurmala*** were deleted by portal editors.

Conclusions on ***jurmala***:

- Posts very emotional comments, often using rude words and expressions;
- Behaves extremely aggressively and actively by posting several comments to the same article;
- Tries to dominate within the comment environment;
- Presents only a few ideas and tries to increase the visibility of those ideas;
- Constantly addresses comments to particular individuals and institutions;
- The content of comments is filled with hatred of the United States as a country, and of politicians or organisations in Latvia, EU or USA;
- Unwavering demonstration of irrational hatred and the xenophobic statements may be the reason for deletion of all the comments.

3.3.8 Case study analysis no 3.[109]

Troll's nickname:	ваирапулкстензагле or vairapulkstenzagle/ vaira the watch-thief and a few others (e.g.,a411, he, lol)
IP address(es)	605535 697187
Number of comments and articles	605535 – 6 articles, 76 comments 697187 – 19 articles, 43 comments Total: 25 articles, 119 comments
Portals	Comments only on ***apollo.lv*** in Latvian
Characteristics of behaviour	Uses rude and mocking remarks about the US and EU. Combines short comments with links to Russian propaganda videos, for example: https://goo.gl/rTejGD Many comments consist only of a link to a propaganda video where different people beg for help under the slogan "Save the people of Donbass from the Ukrainian army". The content of news topics is not important for this troll because the responses are not generally directed to the news content.
Characteristics of generated content (form and topics)	Comments mostly about Latvia's foreign policy, foreign news from US, EU sanctions, events in Ukraine.
Interactivity models	By quoting nicknames, responds to other users, criticising those commenters who support Ukraine, but does not participate in discussions.

Conclusions on ***ваирапулкстензагле***:

- Majority of comments are deleted;
- Actively tries to attract readers' attention to Russian propaganda videos that present the 'real truth' and suggests other sources of information should not be believed;
- Some of the videos are no longer available on YouTube;
- Content of the linked videos may be the reason for the deletion of the great majority of comments by ***ваирапулкстензагле***.

[109] The nickname is a reference to a scandal involving a former Latvian president which immediately indicates where this commenter's loyalties lie.

3.3.9 Case study analysis No 4.

Troll's nickname:	подполковник гоцман (Lieutenant-colonel Gotzmann)
IP address(es)	771323
Number of comments and articles	116 comments, 15 articles
Portals	Comments only in ***rus.delfi.lv*** and only on Russian news stories
Characteristics of behaviour	Criticizes US and others. Comments on flight MH17 defend the Russian version of events. Rationally criticizes the conclusions of experts. Responds to specific content of news stories, even uses excerpts of the article in the comment. Instigates discussion on the manipulation of information. Once made personal attack on another commenter. Explains his version of the 'truth' and manipulation of information by other sources.
Characteristics of generated content (form and topics)	Flight MH17
Interactivity models	Asks other users questions, some commenters respond, but does not participate in any ensuing conversations. Other commenters criticise and unmask comments by подполковник гоцман or suggest he is deceitful. Sometimes responds to comments by others.

Conclusions on ***подполковник гоцман***:

- The main aim of this commenter is to change the discourse around news about the flight MH17 catastrophe;
- Comments on few topics, actively participates in discussions by arguing with other users, but does not react to others' responses;
- Many postings are hidden within comment sections because of negative evaluations by other users – after negative evaluations, site administrators delete comments;
- The content and the tone of comments are polite and rational. This may be the reason that some comments are not deleted.

3.4 ANSWERS TO CASE STUDY RESEARCH QUESTIONS

What are the communication models of pro-Russian hybrid trolls?

The communication models used by the pro-Russian trolls are characterized by the typical form and content of their communications. These trolls practice one-sided communication; they try to dominate the comment sections of news portals through the form and content of their communications, but do not join discussions. A large proportion of the comments are hateful, xenophobic, attacking, therefore they are deleted. Rapid commenting in a short period of time (submitting several comments every few seconds) is disallowed by news portals,[110] who utilise technical tools and software to delete such comments. Because of these actions, few of these trolls' comments reach their intended audience.

The most important goals of these trolling activities within Latvia's news portals appear to be the following:

- to furnish massive amounts of information supporting Russian propaganda messages;
- to change the opinions of other readers about certain issues;
- to maintain an atmosphere of alarm and distrust;
- to create fear of the further development of events ("Russia is the most powerful state in the world", "Russia will seek revenge", "EU sanctions only benefit the US", "other EU countries benefit from the suffering of the Latvian population", "Latvians are hurting themselves by joining EU sanctions";
- to create doubt over whether information published by a news portal is the truth and not one-sided;
- to raise suspicion of a conspiracy, which the users of the site are party to, because they disagree with the opinions expressed in the trolls' comments;
- to keep an issue alive within commenters' daily agenda.

What content is generated by pro-Russian hybrid trolls?

Trolls choose to comment on news with content directly or partly aligned with the content of the comments (see Figure 2). This means that the trolls are looking to influence information about selected events, persons and viewpoints. During the time period analysed, most of the trolling comments were posted in news articles covering events in Ukraine (29% of the trolls' comments), sanctions against Russia (13%), the Russian embargo (14%), Latvia's news in the context of Russian aggression (10%) and the flight MH17 catastrophe over Eastern Ukraine (8%).

By adding excerpts from Russian news media articles with references, the trolls are trying to create the impression that the information they post is true and reliable, that it can provide useful lessons to readers and change their perception of events. Content from other media or links are used as 'instruments of battle' or weapons within the information war.

How do pro-Russian hybrid trolls interact with other news portal commenters?

The majority of the pro-Russian trolls selected for the case studies exhibit robot-like behaviour, because they exclusively use the interactivity tools of news portals to post comments.

[110] Data from interviews with the editors-in-chief of *Tvnet* and *Apollo* news portals.

From time to time, the trolls' comments include rhetorical questions and some of the other users post answers to those questions or try to react to the content published by the trolls, but the trolls usually do not interact with other users, they avoid discussions. A few cases were observed of one of the selected trolls (e.g., Lieutenant-colonel Gotzmann) asking questions or replying to the comments of other users, but any real interactivity was discontinued because the troll did not then reply to the responding messages of other commenters. This means that the reciprocity[111] or bi-directionality essential for interactivity and engagement appeared only partly and the latter were not achieved during the communication process.

How do technical means (software) and human action (comment section editors) influence the content generated by the pro-Russian hybrid trolls?

The absolute majority (60-70%) of comments by the selected trolls were deleted by technical tools or news portal administrators. The research data confirms that the technical tools and strategies utilised by comment editors, to shun violence- and hate-inciting content, are effective in restricting internet-trolling activities. The main strategies of the comment administrators are related to the general laws regulating media content (violent content and incitement of ethnic hatred are prohibited) and the rules for commenting instituted by portal management. The main tactics used by comment administrators include: aggressive commenters are banned, similar comments that are posted many times over a short period of time (many similar and new posts within a few seconds) are deleted; comments with content not in line with the portals' principles are deleted immediately or within one or two working days, some of the rude and insult-filled comments are deleted by technical tools recognising designated key words.

> **Technical tools and strategies utilised by comment editors are effective in restricting internet-trolling activities.**

The majority of posts by particular trolls (for example, ***ново-россия***, who posts from several IP addresses) are completely deleted by administrators at ***rus.delfi.lv***, ***rus.tvnet.lv*** and ***apollo.tvnet.lv***. The nicknames of the deleted commenters are sometimes (very rarely) referred to in comments by other users.

The audience's perception of trolls' comments is markedly different in the news portals' two language versions.

Latvian-language versions of news portals:

- Most of the radical comments posted by trolls are deleted by technical tools or the editors of media outlets (*apollo.lv*, *tvnet.lv*), while *delfi.lv* has a more reactive administration policy;
- *apollo.tvnet.lv* deletes similar aggressive comments posted many times from the same IP addresses;

[111] Spiro Kiousis, *Interactivity: a concept explication, New Media & Society*, London: SAGE Publications 4, no. 3 (2002): 355-383; Sohn Dongyoung, Marina Choi Sejung, *Measuring expected interactivity: Scale development and validation*, New Media & Society 16, no. 5 (2014): 856–870.

- Most of the trolls' comments are hidden because they are negatively evaluated by readers[112];
- The analysis of the content and interactivity of the selected trolls' comments, in the context of other comments, suggests that these trolls' comments have no significant impact on the overall content of the remainder of comments in Latvian-language news portals.

Russian-language versions of news portals:

1. Readers give almost equal numbers of positive or negative evaluations to the selected trolls' comments. This can be explained by the assumption that the users of Russian-language portals include more individuals who support the opinions expressed by the trolls;
2. A few articles (in ***rus.tvnet.lv***) drew comments almost entirely from a few trolls (for example, ***"Торжества железной дороги могут омрачить санкции. (Celebrations of the new railway project may be overshadowed by sanctions)"***, had a total 29 comments of which 23 were by trolls);
3. The trolls most active in Russian-language news portals (***rus.delfi.lv***) are usually attacked by other commenters;
4. Other users that have replied or responded to trolls' comments maintain discussions on the following subtopics:
   - arguments with trolls;
   - attacks on trolls;
   - questioning the popularity of particular comments by trolls (comments on the general behaviour of readers and their positive attitude to the trolls' opinions);
   - commenting about the general audience in the context of their support for particular ideas of the trolls (opinions of audience members);
   - complaints about the news portals' practices in leaving radical comments visible to the public.

The analysis of the content and interactivity of the selected trolls' comments, in the context of other comments, suggests that trolls may have more significant impact on the overall content in Russian-language news portals. Readers of ***rus.delfi.lv*** and ***rus.tvnet.lv*** support trolls' messages and/or views more frequently than do readers of Latvian-language news portals.

3.5 THE POSSIBLE INFLUENCE OF THE CONTENT GENERATED BY PRO-RUSSIAN TROLLS

Detailed analysis of the communication models and communication content shows that there are a number of factors that can influence the impact of the trolls' communications.

The influence of internet trolling is increased by:

- intensive posting of the same messages;
- active republishing of excerpts from other media;

[112] Explanation: if other users evaluate a comment negatively (by clicking on its minus sign '-') rather than positively (clicking on '+'), the comment disappears and is replaced by the caption 'Hidden comment'; hidden comments can be seen by clicking on the caption – *Apollo.tvnet.lv*).

- repeated postings of the same message;
- active inclusion of links to 'alternative' sources of information;
- active attacks on particular topics, individuals, institutions;
- Discrediting of particular opinions, beliefs, interpretations of events, organisations (NATO, EU, OSCE), institutions (ministries, parliaments), individuals (mostly state spokespersons).

The influence of internet trolling is decreased by:

- Rude, hateful, xenophobic and racist comments are automatically deleted (through keyword recognition) immediately after submission, consequently most users cannot even read them;
- Users can rate commenters' posts and if a comment's rating is too negative, it is hidden from other users;
- Other users disagree with the trolls opinions and unmask them, characterising them as hateful and unacceptable.

Discussion on the possible influence of trolls' messages should be developed in the context of data on the readers of the selected internet news portals. Data provided by internet research company gemiusAudience reveals meaningful indicators on the proportion of internet users that could come into contact with content created by these trolls, and to what extent.

Analysis of audience data for ***delfi.lv***, ***rus.delfi.lv***, ***tvnet.lv***, ***rus.tvnet.lv***, ***apollo.lv*** (ANNEX 1, Table 7) shows that Latvian-language news portals attract larger audiences, but the average time spent by visitors differs between portals and by the language of the visitors. Users of ***rus.delfi.lv*** are more active than others because in total they spend more time in the site (average time spent per visitor on a daily basis is 48:41 minutes). They stay longer in the site each time (average time spent per visit is 12:49 minutes), but they visit the site fewer times (average visits per visitor – 3.80) than users of ***tvnet.lv*** (average visits per visitor – 4.15).

> "The contact between individual news-portal users with trolls' comments is brief and rare.

The average time spent by visitors at each site varies from 13 minutes (***rus.delfi.lv***) to 9 minutes (***delfi.lv***) and 6 minutes (***apollo.lv*** and ***rus.tvnet.lv***) per visit. Data on the average visits per visitor shows that users across all news sites visit them about 3 or 4 times each day. The most popular sections of the portals are their front pages presenting general news (see Annex 2, Figures 4, 5, 6 and 7) that have had comments posted by the pro-Russian trolls. Combining data on news-portal audiences with the survey on audience members' interest in actively posting comments (according to the SKDS study (2013), 3-4% of internet users in Latvia write comments every day; 16% write comments occasionally, about once a week) and the reading of comments (16-20% of internet users in Latvia read comments written by others) confirms the assumption that the contact between individual news-portal users with trolls' comments is brief and rare.

> The possible influence of pro-Russian internet trolling messages in the comment sections of Latvia's news portals is limited by a number of circumstances.

This interpretation is consistent with the conclusion that the trolls' messages and the communication in the analysed cases has not changed the opinions of other internet users.

The data from the case study analyses confirms the previous conclusions drawn from the quantitative and qualitative analyses, that the possible influence of pro-Russian internet trolling messages in the comment sections of Latvia's news portals is limited by a number of circumstances.

Most trolls post comments only on one site or section of a site, some of the trolls selected for the analysis commented on the same articles. This means that their messages do not reach all of the potential audience. Even in terms of the articles to which these trolls posted comments (usually two or three), the proportion of their comments is insignificant. According to the cultivation theory, the effects of specific media content are determined by regular and long-term influence that is related to the authoritative credibility of that content. Furthermore, the effect of received messages is indirect and cumulative, the cultivation effect can only exert stronger influence on those audience members who are heavy users of particular media content (e.g., one part of internet media) and exhibit resistance to the content of other media outlets.

Analysis of the quantitative and qualitative data from this study shows that the possible cultivation effect of trolls' messages is weak for both reasons: the audience has access to different content and its members are active. Such activity helps develop critical evaluation skills as regards content generated by internet commenters, including trolls.

Analysis of the content generated by the trolls shows, that they reflect the narrative maintained by some of Latvia's pro-Russian media (see Section 3.1 MEDIA LANDSCAPE IN LATVIA for more detail), which accentuate the existence of an external enemy (US, the EU as an institution), stressing that Latvia's population are victims of the relations between world superpowers, that Latvian politicians are selfish and don't care about the well-being of Latvians.

Paid pro-Russian trolls operating in Latvia can influence specific groups of news-portal readers by supporting particular opinions on Russia, US, EU policy and other significant socio-political events. Some commenters do not agree with the trolling messages in favour of Putin's policies, but do support criticisms of the EU, US and the Latvian government. Consequently, the additional study on the discussions about comment content generated within the news-portal comment environment requires elaboration.

By following the reactions of other users to the trolls' messages, it can be concluded that the communication effect – the spiral

of silence[113] – is occurring because other internet users regularly exclude trolls from the communication process by rating their points of view negatively or disputing their arguments. Also, the few situations when other users have uncovered trolls may stimulate the exclusion of the particular troll from the online community.

The stimulus-response model of communication is one of the initial cognitive models proposed by psychologists in the study of mass communication. It explains how a stimulus – a message – changes the cognition, attitude, and affects the communicative action of individuals involved in the communication where such messages have been circulated. This simple model is helpful for contemporary researchers of social media (including communication within news-portal comment sections) to explain how the initial communicators and what kind of messages affect actions and the messages sent in response[114]. In the current research project, this model is used to describe communication patterns and rules in interactive environments and the scale of messages' impact on further actions and responses. The stimulus is limited by technical means and negative reaction from other news-portal commenters, consequently the response (or the effect the message generates) is also weakened.

> **"The trolls' activities do not change the dominating opinion on certain topics in the content generated by other commenters.**

With the development of the internet, network logics have been described in social and media theory as a dynamic system model for understanding problems and processes in contemporary society[115]. This includes not only the relatively new phenomena of convergence, interactivity, flexibility, information richness, de-hierarchisation and de-centralization, but also a completely new kind of communication logic[116] is used to describe the ways power is exerted and its sources in society and the nodes and movements of the reaction against this power[117]. Using this theoretical approach to interpret the communication research data on pro-Russian trolls, a conclusion can be drawn on the instability of the power of different communication actors. Specifically, the distinct status of online community members and their behaviour (other internet users' attention to trolls and their messages; availability of different content) can erect barriers to the influence of trolls' messages even if they have more time and other resources to develop the communication.

[113] W. Donsbach, Charles T. Salmon, Yariv Tsfati, eds., *The Spiral of Silence: New Perspectives on Communication and Public Opinion*, London: Routledge, 2014, 67.
Social media and the 'spiral of silence', Pew Research Center, 2015, http://goo.gl/hMJJGf

[114] Christie M. Cheung, Dimple R. Thadani, *The impact of electronic word-of-mouth communication: A literature analysis and integrative model, Decision Support Systems* 54, no.1 (2012) 461-470.

[115] Manuel Castells, *The rise of the network society: The information age, Economy, society, and culture* 1 (1999): 9.

[116] Derek Ruths, Juergen Pfeffer, *Social media for large studies of behaviour, Science* 346, no. 6213 (2014): 1063-1064.

[117] Manuel Castells, *Communication Power*, Oxford University Press, 2009, 42.

By comparing the tactics of internet trolls with the content and number of comments generated by other users over an extended period, it can be concluded that the trolls' influence is not significant. Internet commenters belong to the more active part of the audience, therefore, according to the cultivation theory and the theory of audience gratification and media use[118], they are able to resist the influence of media content, as they can use their own experience for evaluation, as well as other sources of information. Judging by the content of internet news portals, most of the commenters have different opinions and dismiss the form of the trolls' comments – rudeness, hatred, aggressiveness, coarse language. The trolls' activities do not change the dominating opinion on certain topics in the content generated by other commenters.

3.6 CONCLUSIONS

The quantitative and qualitative analyses of the actual, though unconfirmed, activity of the paid pro-Russian internet trolls lead to the conclusion that, in this particular situation and context, both the quantity of the trolling comments and the impact they produced has been limited. Although in some cases the number of comments generated by the trolls were more than half of the total number of comments to an article, this was not typical. On average, the proportion of trolling did not exceed 4%. The limited scope of the research does not allow any actual changes in the opinions of other portal users to be determined. However, theoretical assumptions allow us to conclude that the amount of the comments generated is not great enough to bring about changes in opinions, especially given that the trolls' opinion was by no means the only one being expressed.

If the trolls that have been identified as such by this analysis are indeed paid hybrid trolls, they operate in a keen competitive environment with other activists, readers, portal censors and anti-spam software. Moreover, their exposure to actual readers is very small. On the other hand, the media situation in Latvia is favourable to pro-Russian propaganda seeping in through more traditional channels. In that context, the issue of trolls should be of comparatively minor concern.

On the basis of this analysis, it is difficult to speculate what could be achieved by increasing troll activity. However, having regard to the generally accepted 'tendency to conformity' and its effects on public opinion observed in other studies, such influence is possible. Whether it is financially viable to achieve it by means of trolling is another issue.

[118] Denis McQuail, *McQuails' Mass Communication Theory*. London: SAGE Publications, 2010, 204; Virginia Nigthingale, Karen Ross, *Critical readings: Media and the Audiences*, England: Open University Press, 2003.

IMPACT OF TROLLING: 'POTENTIAL-TO-RESHAPE' PUBLIC OPINION

4.

4.1 INTRODUCTION AND METHODOLOGY

In this chapter, the authors will focus on identifying the impact of troll messages on public perception. In order to gather data on this, several focus groups were organised. In extensive interviews, the groups discussed several issues: group members' capacity for identifying trolls, their attitudes toward messages posted by trolls, and their responses to troll activities, given the trolls' specific approach to politics and engagement in internet media. Respondents were asked to discuss not only the content of troll messages, but also the feelings that such content and form of expression create. That the emotional cannot be divided from the contextual is one of the fundamentals of propaganda theory. Within this study, hybrid trolls were considered an advanced instrument of propaganda, and this assumption underpinned the running of the focus groups. It also served as the basis for documenting the emotional attitudes of focus group members during the study[119].

Description of participants, focus groups, the interviewing process and messages tested.
During the research, two sets of focus groups were set up. In the first, 72 participants who use Latvian-language internet media in Latvia (***delfi.lv, tvnet.lv, apollo.tvnet.lv***) were interviewed. The second set comprised 40 participants who use the Russian-language versions of these media (***rus.tvnet.lv; rus.delfi.lv***). Participants were divided into groups in line with Elmo Roper's consumer style/lifestyle categorization, because this approach is recognised as the most efficient for internet-media analysis, recognised under the fast-changing circumstances of global information flow and sets of values[120]. The approach included determining group members' personal value systems and, on the basis of those values, their segmentation into focus groups aligned with their lifestyles. Each Latvian-speaking lifestyle group consisted of eight people, an ideal number to maintain fruitful discussion during the sessions. The interviews and discussions took three hours, with a 30 minute break between the two. One lifestyle type was represented in each discussion group. As a qualitative research method, discussion was based on fact finding (do participants register particular comments as threats, is there a response to that, etc.), on participants' motivation and the values underpinning their responses. The demography of each lifestyle group is described below (see Table 6).

The 72 members of the Latvian-language groups were divided into eight groups of eight people, plus one mixed control group representing all the lifestyle types. The latter group was interviewed twice with a three-month gap in between. The Russian-language participant group was smaller in number, having eight groups of four people, plus one mixed control group, also interviewed twice with a three-month gap. This was because of the different dynamics of troll behaviour in Russian-language media (see sub-chapter 3.2 for an explanation).

The interview process was as follows, for both Latvian- and Russian-language participants:

Participants answered open-ended questions in order to determine their points of view, their personal-value sets and emotional fluctuations.

[119] Mariarosa Taddeo, *Information Warfare: A Philosophical Perspective, Philosophy & Technology* 25, No 1 (March 2012): 105–20.

[120] Eisenblätter Marion. *Adventurers, Realists and Dreamers*. Market Reserach World, 29 June 2015.

Table 4. Participant interview steps

Action	Content	Notes
1. Testing participants' value sets in the political context.	Open-ended questions: • Describe your attitude toward the EU sanctions against Russia • Describe your attitude toward Russia's actions as regards Ukraine • Describe your opinion on Latvia's reaction to the EU sanctions.	Moderator of focus group took notes on both contextual and emotional responses.
2. Testing participants' responses to articles from internet news portals.	Open-ended questions: • Do you agree/disagree with the article's content? • Why? • Would you express your views/emotions in comments?	
3. Testing participants' responses to comments posted to specific articles.	A randomly selected, genuine comment section with evidence of hybrid-troll messages was shown. Group members were asked to share their opinion of the comment section; on their wish to take certain actions (respond or not; leave or stay in the comment section).	Moderator took notes on the contextual and emotional responses of participants.
4. Testing participants' capacity for identifying trolls.	Moderator asked participants to identify, in their opinion, provocative comments in comment section and describe why these comments provoke them.	Moderator took notes on ability to identify hybrid-troll messages.
5. Testing shifts in values and emotions of participants after reading comments.	Repeat questions from 1st step.	Notes taken on shifts in value sets and emotions.

Action	Content	Notes
6. Responses to particular types of hybrid-troll comments.	Moderator showed troll messages one at a time (from real hybrid trolls and also those potentially from hybrid trolls) and asked participants to express their thoughts on each comment: • How would you describe the content of this message? • How would you describe the form of this message? • How would you describe the person who posted this message? • Is this message true or false from the perspective of your personal values? • Does it provoke you into taking particular action (reply, ignore intentionally, leave)? • Does it makes you feel differently? • Would you share this comment with other people? Why?	Notes taken on participants' attitudes and motivation to act in response to particular types of comment.
7. Testing shifts in participants' value sets after dealing only with comments posted by potential hybrid trolls in the previous step.	Repeat questions from 1st and 5th steps.	Notes taken on shifts in value sets and emotions.
8. Testing participants' ability to learn from experience.	Showed other articles with comments including some from trolls.	Notes taken on ability to recognize provocative messages after a 'day together' in the internet environment and other people's views on how to respond to trolls.

Action	Content	Notes
9. Conclusion of session	Moderator gave all participants time to express themselves freely on any issue they were keen to share their emotions and thoughts on after the focus-group day.	Noted all information as contextual for further interpretation.
10. Interpretation of data		
11. Same steps repeated with control group three months later.		Notes taken on long-term and memory effects on participants (also on the influence of the media environment).
12. Second interpretation of data and conclusions	See ANNEX 3 for focus-group results table	

The interview process was based on the testing of comments that had been posted to articles on the EU sanctions against Russia, between 29 July and 5 August 2014. This timeframe was chosen as a possible peak of troll activity because on July 29, the EU declared its third phase of sanctions against Russia, including the switch from narrowly-targeted sanctions to broad sanctions that included Russia's financial and manufacturing sectors. Within two weeks, Russia responded with its own counter-sanctions against Europe, so the issue had the potential to polarize society and open the door for troll activities to influence society. To broaden the field of research, the authors also looked at selected articles which touched on issues relating to NATO's assurance measures and Latvia's participation in NATO.[121]

To test the trolls' comments among the group members, the research authors grouped the comments and named the groups in line with their commenting style. It is important to recognise, that each of these troll 'styles' encompass various trolling techniques, including those used by classic trolls. Nevertheless, it is more likely that the styles listed below are used by hybrid trolls. All the same, in order to test the responses of society that are listed below, the trolling styles can be characterized as examples of the most common trolling texts (See ANNEX 4 for examples).

1. Blame the US conspiracy troll – the troll's texts are based on conspiracies which claim that everything is the fault of the US. To be more precise, this type of message is not necessarily the view of the individual troll. The same message can be expressed by many commenters for a year or longer (chronological data proves that one and the same message can be repeatedly posted over the course of a year or even longer).

[121] Hugo Rifkind, *Sorry, but Internet Trolling Will Be with Us Forever*, Spectator, August 2013.

Nevertheless, the long-term repetition of one message is also typical of classic trolls – only they engage in text transformation more actively. Conspiracy trolling comments are long-winded, attempting to put forward a logical argument and leading readers to the troll's version of the truth. But closer examination shows that there is no actual logic to these texts, and the end result is always the same – it is the fault of the US. Text length is the first sign that this is a troll – conspiracy trolls' messages are much longer than typical messages.

2. ***Bikini*** **troll** – this troll expresses an oversimplified world view in a brief and/or naïve manner. The troll was nicknamed ***Bikini*** because of the profile picture used – a young girl in a bikini (but, after more deeply analysing the source of these trolls' messages, the authors found actual posters to be very masculine with macho profile pictures who obviously felt the ***Bikini*** profile worked better in comments). The ***Bikini*** troll is more adaptive to the internet environment and thus hard to recognise – only the content can reveal it is trolling. And this content is simple – it contains one question and one suggestion – "Surely it is not only Russia that is bad? The world doesn't work like that – maybe we should look..." and then it returns to the "blame the US" motive. Other recognition patterns should be looked for in terms of content (see end of the chapter for more on recognition patterns). The ***Bikini*** troll, despite its primitive messages, does in fact influence a large part of the internet community, as was proven in the focus groups.

3. Aggressive troll – this troll is the closest relative of classic trolls. Posting only aggressively expressed messages, it is quite clear which positions it is defending. ***Aggressive*** trolls threaten their audience and it is pretty certain that their intention is to cause emotional responses. Classic trolls can be highly responsive, because they are interested in prolonging conflicts, or, very rarely, provoking society into real action[122]. In the case of hybrid trolls, this responsiveness is very low (logically, because responding in Latvian-language media requires fluent, grammatically correct Latvian, likely to be a problem). This is different for Russian-language media, which is analysed in Section 3.2.

4. ***Wikipedia*** **troll** – is a very specific hybrid-troll message design, where the troll re-posts some information from ***Wikipedia*** (or other reliable source such as historians' blogs, etc.), adding no emotional value to this information. The posted information is essentially true, however it is used in the wrong context, intending the audience to draw false conclusions. For instance, in the focus groups, the tested message was 'copy-pasted' from ***Wikipedia*** and carried information on US military campaign history – just a straightforward chronology of the 20th century. Outside of its context (why those campaigns happened, what was the outcome, with what intensity did other countries engage in campaigns in the same period), this information becomes value-laden if it is posted in the comment section of an article criticizing Russia for its military actions and interests in Ukraine. The ***Wikipedia*** troll is 'tricky', because in terms of actual text, the information is true, but the way it is expressed gives it a completely different meaning to its readers.

5. ***Attachment*** **trolling message** – these trolling messages are very brief in terms of words, but always contain some link attached and the audience is encouraged to follow

[122] Christopher Hopkinson, *Trolling in Online Discussions: From Provocation to Community-Building*, Brno Studies in English 39, no. 1 (2013): 5–25.

the link. The link might be information from a 'serious' Russian news platform, a ***YouTube*** clip from a TV news broadcast, a ***YouTube*** clip showing a video produced by local people on site, etc. It is important to recognise that the links lead to real platforms, not commercials, virus-program pages, etc. (which would be the case with classic trolls wanting to annoy their audience) – these hybrid trolls primarily want to 'educate' their audience with the attached information. Consequently, these trolls are hard to identify, because there is much less 'human content' in the message. With that also comes the risk that the audience will actually follow the link. The content of the link can be 'purely' information, or a continuation of trolling – for instance, video content that harms readers emotionally of itself[123], or a combination of both.

All of these troll-message designs can overlap with each other and 'borrow' characteristics from each other. Nevertheless, in the authors' view, they mostly stick to their chosen style. Theoretically, there can be several reasons for this. Firstly, from the point of view of hybrid trolling as an extension of propaganda: the basic purpose of propaganda is to reach all sectors of society, including those who are being 'blamed for' or 'guilty of' causing the conditions and critical situation, for the sake of total moral destabilization[124] . That is also the reason why propaganda should be 'total' in its coverage and thus is mainly openly used by totalitarian countries trying to implement total authority over their populations[125]. And, with such a variety of message designs, most audience groups are effectively covered – because every group in society has its own specific nature in terms of perception. This is the main reason for using the ***Elmo Roper*** consumer/lifestyle segmentation – because it explains which value sets belong to which group.

It is important to recognise that, in highly commented articles, all the hybrid-troll message designs are present, to ensure maximum coverage. The second, probably more practical, reason is that different messages create the illusion that there are many people behind them, but in cases like this they can be posted by one person with different profiles. Usually, all the message texts are formed in a way that makes them usable for any article that contains some contention between the West and Russia (of course, there is always a slight disconnect from the context, but given that one and the same message has to be replicated as much as possible, the texts are considerably effective). And with minor changes to their first sentence, changes of profiles, posting style (direct comment or reply to another comment) and chronology, the different message designs enable a 'fresh reality' to be created for every new article.

To measure focus group members' resistance to trolling messages, the authors introduced the **Risk Grade** and the **Risk Index**. The Risk Grade and Risk Index take into account: the link between belief in the content and the emotional fluctuations arising from that; the intention of the hybrid troll according to propaganda/disinformation principles; and the reader's possible response to the message. See Table 5 for a detailed description of the Risk Grade and the Risk Index.

[123] Anthony McCosker, *Trolling as Provocation: YouTube's Antagonistic Publics, Convergence* 20 (2013): 201–17.

[124] Taddeo, 105–20.

[125] A.M. Pyatigorskiy, *Философия одного переулка*. London, 1989.

Table 5. The Risk Index and the Risk Grade

RISK INDEX	RISK GRADE	EXPLANATION	NOTES
8	AA	The information presented is perceived as true and reshapes the world view of the reader – and triggers emotional fluctuations in the reader (fear, anger, etc.).	The most dangerous because it includes both reshaping of readers' value sets and their understanding of the 'truth', also emotionally compels them to action (for instance, disseminating this information more widely by sharing in social media, or engaging in long discussions with trolls).
7	A	The information presented is perceived as true and reshapes the world view of the reader.	Also dangerous, readers keep the information to themselves but their mind sets have been manipulated. May recover value sets in the long term.
6	BB	The information presented is perceived as true, but it is a view the reader cannot accept – and triggers emotional fluctuations in the reader (fear, anger, etc.).	Dangerous, because readers are still falling into a disinformation trap. They cannot accept the manner in which trolls present information or the conclusion(s) drawn from it, but nevertheless they have been manipulated. This contradiction between knowing and believing is particularly emotionally frustrating for readers.
5	B	The information presented is perceived as true, but it is a view that the reader cannot accept.	The same as the previous case, only without emotional attachment. This kind of grade is usually given to apolitical or ignorant people. It is not as dangerous, until the moment these people feel obliged to switch from passive to active mode and make decisions (for instance, in elections).
4	CC	The information presented is perceived as false, because of the ignorance of the author, but the existence of such a view triggers emotional fluctuations in the reader (fear, anger, etc.)	In this case, the main intention of the hybrid troll, to misinform, hasn't achieved its objective. But readers do feel emotionally violated. This is particularly important with regard to several groups in Latvian society which feel threatened by aggressive online texts and project this fear as aggression towards 'real, live Russians', including local minorities.

RISK INDEX	RISK GRADE	EXPLANATION	NOTES
3	C	The information presented is perceived as false, because of the ignorance of the author.	This is a safe grade, because readers perceive the information as illogical or just false, as the commenter clearly is ignorant. There is no emotional attachment. The only risk is that such authors may still be perceived a real people and, depending on the circumstances, readers may engage in discussion to educate these commenters. This can be considered a 'small victory' for trolls who have succeeded in capturing public attention, drawing readers' attention away from alternative views.
2	DD	The information presented is perceived as false, and the author is 'bogus' (troll, hybrid troll, etc.), but readers may respond with their own comment.	A very safe grade. There is no likelihood that readers will change their minds. They knows when comments have been posted by trolls and the only action they may take is to publicly identify the troll. It is not the safest grade because, to some extent, identifying troll is a very emotional experience. Sometimes, trolls' aggression, even while being identified, can 'rebound' and be used as a means of further provocation.
1	D	The information presented is perceived as false, the author is 'bogus' (troll, hybrid troll, etc.) and should be ignored, or identified by posting a comment.	Safe grade in all aspects.
0	E	Participant never reads any comments.	Of course, this is the safest grade, because engagement with trolls is not even possible. At the same time, no participants in this focus-group analysis received this grade, because the whole purpose of the focus group was for participants to engage with hybrid-troll messages. Also, absolute isolation from the media environment and its comments is not sustainable and spontaneous engagement may occur at any time.[128]

[126] William D. Wells, *Lifestyle and Psychographics: Definitions, Uses, and Problems*, in William D. Wells, ed. *Lifestyle and Psychographics*, Marketing Classics Press, 2011.

Each lifestyle group was also evaluated according to the said Index and Grade. This evaluation was given through a test of each group's vulnerability to each of the hybrid trolling message styles. The Table 6 presents an expanded description of each group's characteristics, including value sets and demographics, as well as providing an assessment of each group's vulnerability according to the Risk Index and Risk Grade.

Table 6. Lifestyle group evaluation according to the Risk Grade and Risk Index

CHARACTERISTICS OF CONSUMER/LIFESTYLE GROUPS	TROLLING MESSAGE NO 1 *BLAME THE US CONSPIRACY* TROLL	TROLLING MESSAGE NO 2 *BIKINI* TROLL	TROLLING MESSAGE NO 3 *AGGRESSIVE* TROLL	TROLLING MESSAGE NO 4 *WIKIPEDIA* TROLL MESSAGE	TROLLING MESSAGE NO 5 WITH *ATTACHMENT*
Open-minded ***Values***: individuality; intellectual enrichment; knowledge; a job that gives satisfaction; training; cosmopolitan and humane way of thinking; open-minded, socially responsible. ***Demographics***: young, unmarried, under 40 years of age; 'white-collar' workers or managers/professionals; high level of education; high income.	D (1)	D (1)	D (1)	D (1)	DD (2)
Adventurers ***Values***: life as a challenge, adventure, entertainment, focus on themselves, status display, varied life. ***Demographics***: full-time students and young unmarried people under 30 years of age, working in white-collar jobs; average level of education; medium/high income.	D (1)	D (1)	D (1)	D (1)	D (1)
Organics ***Values***: nature and its conservation; post-materialism; public accountability; save time with tested traditions; traditions; cultural clarity. ***Demographics***: Couples with older children, 'empty nesters'; 36 to 70 years old; all education and income levels.	AA (8)	AA (7)	AA (8)	B (5)	DD (2)

CHARACTERISTICS OF CONSUMER/LIFESTYLE GROUPS	TROLLING MESSAGE NO 1 *BLAME THE US CONSPIRACY* TROLL	TROLLING MESSAGE NO 2 *BIKINI* TROLL	TROLLING MESSAGE NO 3 *AGGRESSIVE* TROLL	TROLLING MESSAGE NO 4 *WIKIPEDIA* TROLL MESSAGE	TROLLING MESSAGE NO 5 WITH *ATTACHMENT*
Rational Realists ***Values***: faith in the future; ambitions to work in the public interest; isolation – the desire to preserve their cultural clarity under the threat of external forces; intellectual enrichment. ***Demographics***: Couples with older children; high level of education, high income; interested in how to save and invest money.	D (1)	D (1)	D (1)	D (1)	D (1)
Settled ***Values***: the past is important; traditions, respect for ancestors; orientation to secure trust and responsibilities, habits; family preservation; peace and internal harmony; moral society (reciprocity/repayment society); thrift, honesty. ***Demographics***: people of retirement age older than 50; married or widowed; the lowest level of education; lowest/average income level.	AA (8)	AA (8)	AA (8)	AA (8)	AA (8)
Demanding ***Values***: life means duties; supports the traditional; strong social and ethical awareness, social tolerance, internationalism; intellectual enrichment; discipline on a personal and state level. ***Demographics***: executives/ professionals, including of retirement age; business executives; high level of education, upper-middle income.	D (1)	D (1)	D (1)	D (1)	D (2)

CHARACTERISTICS OF CONSUMER/LIFESTYLE GROUPS	TROLLING MESSAGE NO 1 *BLAME THE US CONSPIRACY* TROLL	TROLLING MESSAGE NO 2 *BIKINI* TROLL	TROLLING MESSAGE NO 3 *AGGRESSIVE* TROLL	TROLLING MESSAGE NO 4 *WIKIPEDIA* TROLL MESSAGE	TROLLING MESSAGE NO 5 WITH *ATTACHMENT*
Dreamers ***Values***: narcissism, materialism; youthful lifestyle; diverse lifestyles along with creative people; individualism; appreciate beauty. ***Demographics***: students and full-time workers; unmarried but living together; average level of education; medium/high income.	D (1)	D (1)	D (1)	D (1)	D (1)
Homebodies ***Values***: have obligations and duties in order to achieve prosperity and material security; development of status/ image in the public eye; family preservation; lack of interest; . 'Housewife hobbies', TV watchers. ***Demographics***: working-class family aged 26 to 55 with several children; Low/average income.	AA (8)	AA (7)	AA (8)	B (5)	DD (2)

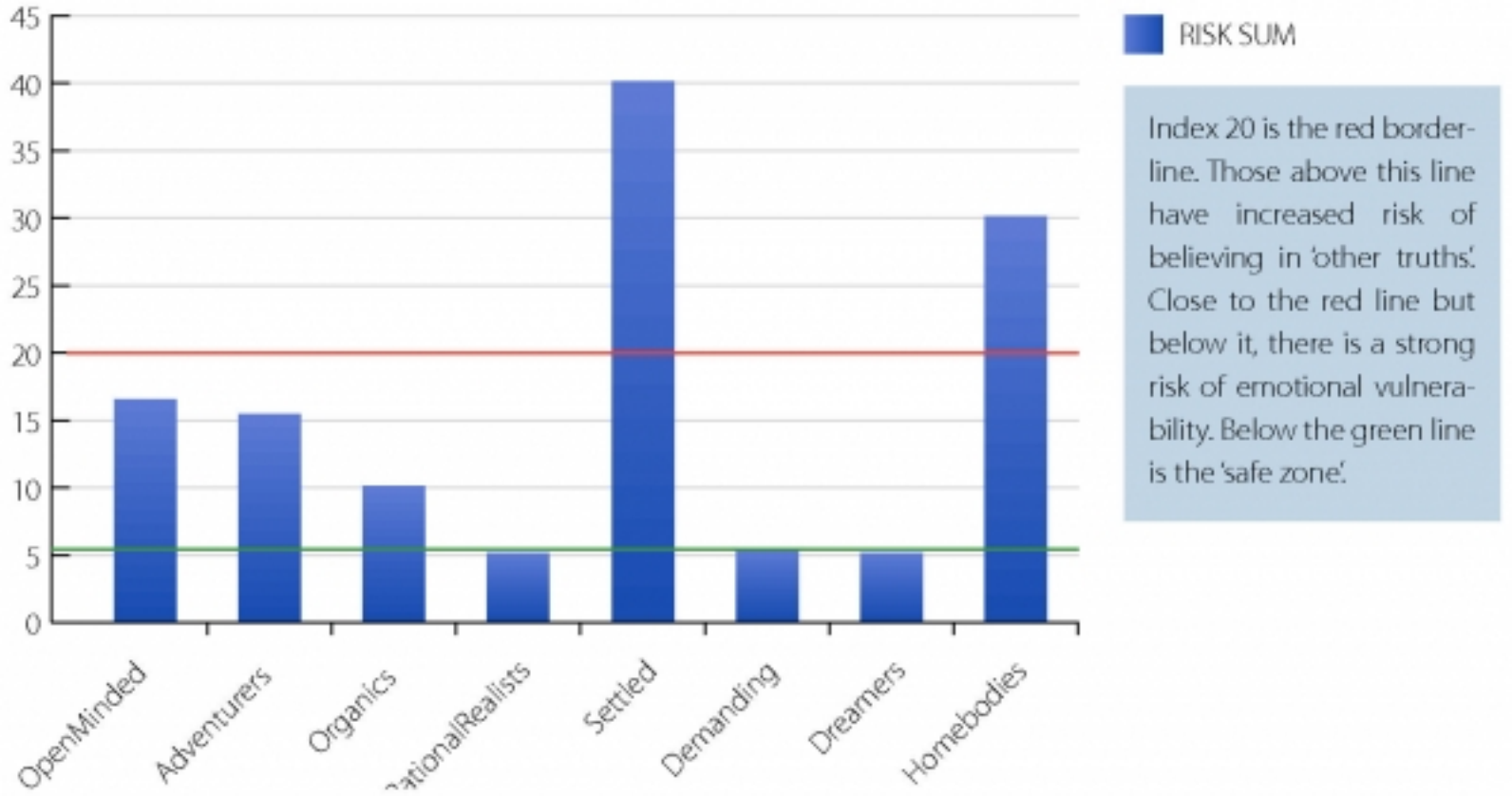
4.2 TROLLING IMPACT ASSESSMENT IN THE PERCEPTION OF LATVIA'S LATVIAN – SPEAKING SOCIETY

The first, and most important, conclusion from the focus group analysis is the fact that Latvia's media and its Latvian-reading audience are, overall, resistant to hybrid-troll messages. There are of course exceptions, such as the more vulnerable groups in society (***Settled, Homebodies***) and also points of weakness in each lifestyle group.

It is quite clear that two groups in society – ***Settled*** and ***Homebodies*** – are at the greatest risk. From the perspective of their lifestyle segment, this arises largely from the main media they use, television (and not from its content, but its perspective). Because of their addiction to 'one-way' media, they rarely question the information presented to them by media channels[127]. So, with internet media, the ***Settled*** group, more than others, assumes that all the information they see is true – including that contrary to the mainstream. Their information filter (more so in the ***Settled*** group) has no – 'we could be being manipulated' – option; or someone tries to cause them emotional harassment just for the sake of it.

[127] Bishop, *Representation of Trolls*, 7.

Figure No 4. Vulnerability risk from hybrid troll impact.



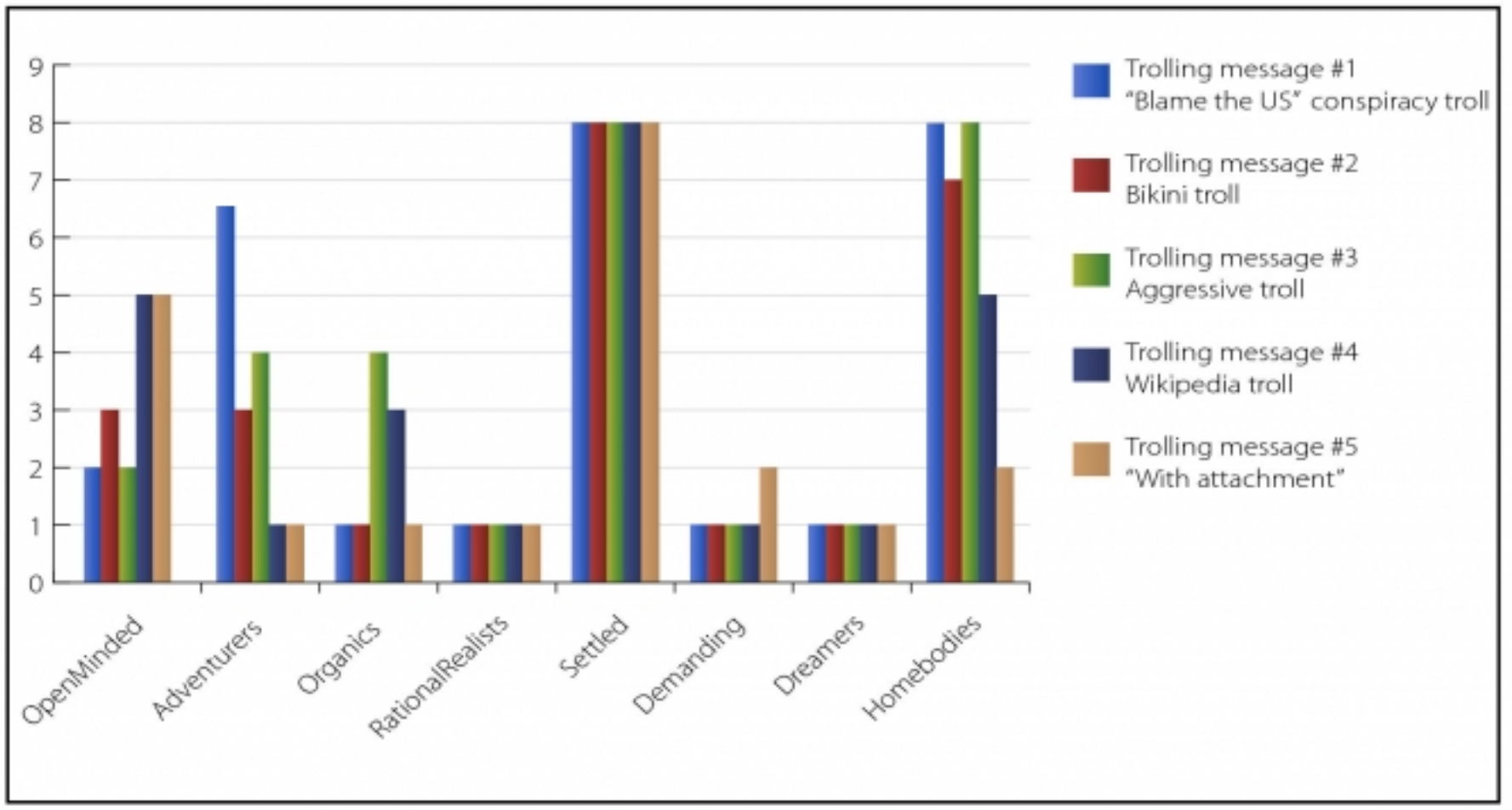
Other groups, like ***Dreamers*** or ***Open-minded***, are protected from this threat, because they are cognizant of the logic and rules of internet media and how people act within their networks (including aggressive, provocative or manipulative people). From this perspective, the ***Settled*** group is equally vulnerable on the internet, being child-like in some ways. This is a diversion from this study, but a broad educational campaign on security in the internet appears to be highly necessary in Latvia, especially for older people.

The ***Homebodies*** group is more at risk, not so much because of a lack of critical thinking (which they do actually lack), but because of their relatively schizophrenic value sets. On the one hand, they seek adventure and an active life, on the other, they are desperate for stability and have faith in family values[128]. Internet media gives them an opportunity to express themselves, so they spend quite a lot of time in comment sections and actively engage in discussions. They are big on conspiracy theories and at the same time give low credibility to local authority figures (and international ones), which, overall, makes them vulnerable to trolls. Each group's specific characteristics is explained in more detail later in this chapter.

It is clear that each participant group has its own weaknesses. Figure No.5 below shows which hybrid-troll message design poses the greatest risk to each group.

[128] William D. Wells, *Lifestyle and Psychographics: Definitions, Uses, and Problems*, in William D. Wells, ed. *Lifestyle and Psychographics*, Marketing Classics Press, 2011.

Figure No 5. Vulnerability risk of every group to partucular troll messages



Looking at the chart above it is clear that the most effective trolling message designs are the 'less emotional' ones – the ***Wikipedia*** and ***Attachment*** trolls – because they do not act like classic trolls, they have no emotional input, they just supply misinformation. Even a group as 'resistant' as ***Demanding*** opened the attached link – and, just by opening the link, were exposed to various instruments of manipulation (depending on the skills of the manipulator)[129].

4.2.1 Conclusions on Particular Participant Groups (Full table in Annex 3).

Open-minded

In summary, the ***Open-minded*** group of people is very self-protective against the impact of trolls on their value set and the division between true/false world views. The group can identify trolls on their own, and generally are not tempted by the provocation to reply. Of the messages tested, none were taken seriously or described as having the potential to alter any values or opinions. Nevertheless, according to the group, if trolling messages were more relevant "to the context", not only to the conflict between the West and Russia, their potential to re-shape world views would be much greater. NB: One of the participants in this group was a journalist, who admitted that there were times when he could not identify whether a commenter was a troll or not (mostly in ***conspiracy troll*** cases); in addition, the comment could be taken to be an opposing view within an article in another medium. With a sentence similar to "There is a view that ..." (and then the troll message) a message gains credibility in the eyes of the audience.

Adventurers

Summing up, ***Adventurers*** can be easily 'taken in' by conspiracy theories, but at the same

[129] Goolsby, 1-7.

time they can be manipulated by commenters who are not hybrid trolls. Mostly, ***Adventurers*** already have their own world view and they are quite resistant to troll activities. At the same time, they like to engage with trolls in the internet media, and there are downsides and upsides to that. On the one hand, an ***Adventurer*** engaging in discussion with a troll can serve as a catalyst boosting interest in the troll message. On the other hand, engagement in discussion with hybrid trolls is a means of identifying them, because hybrid trolls are mostly unresponsive. Where the ***Open-minded*** were able to identify trolls among typical users, even distinguish hybrid trolls from typical users and classic trolls, ***Adventurers*** were not nearly as adept. But overall, ***Adventurers*** are not interested in content, but more in forms of expression and forms of conflict – they like to argue for the sake of arguing. From this perspective, there is a risk that ***Adventurers*** can be exploited for provocation on the part of trolls[130] , if they share emotional and aggressive messages. At the same time, we have to remember that, statistically, ***Adventurers*** are one of the smallest groups in society and they do not play the role of opinion leaders, even in their own groups[131].

Organics

Summarizing ***Organics***' interaction with various troll messages, we can recognise that from a rational perspective this group is not vulnerable; but at the same time is vulnerable from an emotional perspective. They absolutely support the EU's and Latvia's position on EU sanctions against Russia, and mainly hold anti-war values. At the same time, the presence of aggressive messages in the information space threatens them and limits their arguments to "Europe should do what it can" to avoid war, conflict or other open clashes between Europe and Russia. In summary, ***Organics*** are concerned that Europe is "not playing smart enough" against Russia and that Russia's short-sightedness and values are expressed in aggressive messages. From this perspective, if the purpose of hybrid trolls is to cause stress in the general public, then in this case they are working effectively.

Rational Realists

The conclusion on ***Rational Realists*** is simple – this group is completely immune to any views shared in internet media, including those of hybrid trolls. To them, it is meaningless to attempt to understand whether a message is true or false, real or trolled. From their perspective, everything in the internet-comment environment is just 'noise' and people should form their own views using different sources, including foreign ones.

Settled

In summary, the ***Settled*** group is the most vulnerable, in all aspects. They do not employ a critical approach to reading comments, but even more, they are not prepared to accept that comments could contain any intentional manipulation or aggressive emotional attacks for their own sake.

As a consequence, the ***Settled*** group suffers the most from aggression in comments and also most often reconsider their thoughts on the basis of messages expressed in trolls' posts. Of course, it has to be acknowledged that the ***Settled*** group are, by definition, conservative and they do not actually change their minds, but it is obvious that trolls' messages reinforce their 'conspiracy' suspicions, which contradict

[130] McCosker, Anthony. *Trolling as Provocation: YouTube's Antagonistic Publics*. Convergence 20 (2013): 201–17.

[131] Wells.

reality, and maintain their fear of aggressors and mistrust in public and government authorities. What came out as important in observing this focus group's discussion was that, of all possible recommendations on how to perceive today's world, ***Settled*** group members gave their children the highest level of credibility. Or, to put it simply, if in a TV broadcast, someone states that opening links from unknown sources is dangerous, they will probably ignore it (or just forget), but if their children say this, it brings added gravity and meaning. This could be extremely useful in all educational matters relating to the ***Settled*** lifestyle, including any campaigns on identifying and understanding trolls (which the authors believe are absolutely necessary).

Demanding

The ***Demanding*** participant group is immune from trolling threats in most categories. They are rare guests in internet media (and they choose very carefully which media to follow), and for this reason, are even more unlikely to look at the comments to articles. If, unintentionally, they find themselves in a comment section, they cannot be 'shifted' from their value or emotional perspective. Their ability (or in this case, disability) to recognise trolls is irrelevant, because their own value sets are so strong.

Dreamers

Concluding with ***Dreamers***, they are outside the risk zone for troll impacts for several reasons. First of all, they have a 'natural' sense for identifying trolling and anyway are emotionally immune to aggressive messages. Secondly, they are apolitical and uninterested in any practical political issues – which essentially makes them outcasts as regards any comments to articles covering politics. Thirdly, they do not take any information in comments seriously and, in forming their own views, rely on opinion leaders they consider to be authorities and friends (both of these they mainly find in social networks). Still, training in critical thinking is necessary for ***Dreamers*** for a specific reason – they have relatively blind trust in ***Wikipedia*** sources and are not able to filter information that comes from platforms they consider authoritative.

Homebodies

In summary, ***Homebodies*** share, in some sense, schizophrenic values – they are easily manipulated by conspiracy theories, but at the same time are openly hostile to trolls (and in fact, everyone else on the network, except themselves). The only way to convince them to reconsider some of their value set is long-term stability and also family values – despite their ***macho*** image in the internet, most of them have families. A manual on troll recognition and the steps to take when a troll is identified would be particularly helpful for this group, so that they could protect themselves from continued aggression in the internet environment.

4.3 TROLLING IMPACT ASSESSMENT IN THE PERCEPTION OF LATVIA'S RUSSIAN-SPEAKING SOCIETY

To measure the vulnerability of Latvia's Russian-speaking society, comments were taken from the most popular news portals that publish 'Western-value'-based content in Latvia's Russian-language internet media (***rus.tvnet.lv***; ***rus.delfi.lv***). Given the different information spheres that Latvia's Russian speakers can choose from, the 'Western–value' context was selected as an environment which allows a measure of switching value sets under the impact of anti-western trolls. This approach is underpinned by the assumption that Russian speakers in Latvia who utilise

the readily available Russian information space will not be attacked by organised pro-Russian trolls, because such action would not be cost-effective – the content in the Russian information space already embraces the values that would usually be 'trolled' at users of pro-western media.[132]

Before drawing any conclusions on Russian-speaking society's vulnerability to trolling, several important facts must be acknowledged:

1. The media-publishing design and environment in Russian-language platforms are radically different from those in Latvian-language platforms. During the research period, news on the EU sanctions was posted much less frequently in Russian-language platforms than was news with local character or 'news from Russia'. Also, the display of such news items was much less prominent – never at the top of the page, usually relegated to sub-chapters. There are two reasons for this – firstly, the sites' editorial policies, and secondly, user choice (higher click numbers will move an article to a better position on a particular page). It can be concluded that Western-value-based news is presented radically differently on Russian-language platforms than it is on Latvian-language ones. The same applies to articles that mention NATO assurance measures and Latvia's participation in the alliance.

2. The topics of the EU and NATO receive fewer comments on the analysed Russian-language sites than on the Latvian-language ones. If we assume that the average commenter also represents the feelings of the community as a whole, it can be said that Latvia's Russian-speakers are interested in Russia's local politics and events but, in contrast, European or defence-alliance issues have no relevance for them. As regards editorial policies, it is also quite usual practice for articles from Russia's media portals to be copy-pasted onto these sites. Given both of these factors, articles on the analysed Russian-language platforms received very few comments and any comments that were posted largely expressed anti-western views.

3. The content of comments posted to articles on the Russian-language platforms is essentially pro-Russian, which is highly related to the factors mentioned above. This means hybrid trolling serves no purpose in these platforms, because logic says it is not cost-effective. There is no need to initiate a value shift among Russian-language readers, because they already have the 'correct' value set.

   Of course, there is still space for emotional attacks and public provocation and these are definitely present, but not in the same quantities as in the Latvian-language media. To clarify the comparison between Russian-language and Latvian-language platforms: all the forms of trolling discussed previously are observable on both language platforms, it is just the numbers that differ. On Latvian-language sites, the largest amount was nearly three hybrid-troll messages per 30 comments (three per page, if the article received more than 500 comments). Although hybrid-troll messages were much rarer on the Russian-language sites – a maximum

[132] Powers, 255–58.

of one hybrid-troll message per article, if the article received a high number of comments and if some of those were from classic trolls. It is important to acknowledge that the Russian-language platforms receive frequent comments from classic trolls which, during the research period, expressed aggressive pro-western messages. This follows the typical logic of the internet environment – in environments where content has the value A; classic trolls attack with messages which have the value *anti-A*[133] . Logically, if the Russian-language sites mainly carry pro-Russian values – both in their articles and comments – they naturally attract anti-Russian classic trolls.

Given the facts above, it is clear that the starting positions for the evaluations of the Latvian- and Russian-speakers' perspectives are quite distinct. At the same time, the focus groups could be used to evaluate how trolls can be identified, and to ascertain ways to influence the same scale of value shifts in Latvia's Russian-language media as is seen in Latvian-language media. From this, conclusions can be drawn on the potential of hybrid trolls to be used extensively in Russian-language platforms to achieve some prearranged result (maintaining a position, provocation or emotional attacks).

In terms of the results on the influence of hybrid trolls on readers of the analysed Russian-language media (Russian-speaking society); the following conclusions can be drawn:

- Russian-speaking and Latvian-speaking participants are equally resistant to troll messages, however the Russian-speaking participants held different value sets to their Latvian-speaking counterparts. In terms of attitudes to content, Russian-speakers' scales of values extend from pro-Russian to 'neither pro-western, nor pro-Russian'. The ability to recognise trolls was at the same level in both groups, but it is important to acknowledge that it is close to impossible for general users of Russian-language platforms to recognise hybrid trolls.

- From an emotional perspective, Russian-language participants were more resistant to trolling than their Latvian-speaking counterparts. In all the lifestyle segments, emotional attachment was lower than in the equivalent Latvian-speakers' group. In terms of content however, the ***Settled*** and ***Homebodies*** groups displayed a passionate belief in Russia's version of the 'truth', most likely because of their belonging to the Russian-language information space through watching TV. The Russian speakers from the other segments who had the potential to be pro-European took the position that "all media falsify information on behalf of their political establishment" and "there is no truth at all in the media sphere". The part of Russian-speaking society which does not fully hold with Russia's discourse is confused, as it does not strongly identify with the discourse in the Latvian-language media either. As this group recognised themselves, they are in a transition stage and one symptom of this transition is apolitical behaviour.

- All the Russian-speaking participants

[133] Hardaker, 215–42.

take fewer opportunities to post or read comments than their Latvian-language counterparts. With the increase of internet media usage, it is logical that the vulnerability of Russian society's segments will also grow, if they are not prepared for the internet environment being hostile. Resistance to hybrid trolls is only possible by understanding their behaviour.

- In conclusion, hybrid trolls on Russian-language platforms act differently to those operating in Latvian-language ones who attempt to re-educate (convert) readers to different sets of values. In Russian-language platforms, they mostly attack aggressively to maintain emotional attachment to issues covered in articles, or use the *Wikipedia*-troll style to uphold the anti-western values prevalent in these comment sections. So, it can be concluded that Latvia's Latvian-language media hosts larger quantities of more sophisticated types of trolling, while in Russian-language platforms, trolling is more primitive and rarely used. Although is it important to underline that, because vulnerability is approximately the same for both groups, the risk potential is much higher in Russian-language groups, as they can be manipulated in one direction or another without them realising. More than this, the different language is not an obstacle in Russian-language media – this leads to identification issues for the general user, and an even greater necessity for platform editorial solutions through more advanced screening and blocking methods.

4.4 CONCLUSIONS ON THE IMPACT OF TROLLING ON PUBLIC PERCEPTION

The most vulnerable group in the internet environment is the ***Settled*** group, or older people (general awareness of internet security is low; they are puzzled and find it difficult to understand how information is created). Given that 42% of people in the 55-74 age group in Latvia use the internet[134], this poses an extremely high risk in vulnerability to more aggressive trolling. Even more, internet usage is growing in all segments, which means that campaigns on internet security are an absolute necessity.

Homebodies are the second biggest risk group, because they like to engage with hybrid trolls. This can lead to provocation on the part of trolls who then use responses to maintain conflict. ***Homebodies*** have a strong belief in conspiracy theories and they are vulnerable to manipulation with facts.

Nevertheless it is important to understand that many of this segment's participants themselves act as classic trolls. So the maximised anonymity of the internet serves this group even better than it does hybrid trolls, because they like to engage in internet conflicts, mostly using fake identities.

Looking at all of the segments, and both languages, troll-identification tutorials (for both classic and hybrid trolls) would be useful for minimizing engagement. Society overall is resistant in terms of information perception, nevertheless is quite vulnerable to emotional attacks. The biggest threat here is that the emotional reactions of Latvian-speakers to hybrid-troll messages are largely projected on to 'real Russians', both those living in Russia and in Latvia.

[134] Central Statistical Bureau of Latvia, 2015.

And this works in both directions – real Russians feel threatened by Latvians, because they project themselves aggressively.

Hybrid trolls are less active on Russian-language platforms because the content is already principally pro-Russian. News items perceived as pro-western receive fewer comments than they do on Latvian-language websites. This is in line with the value set of Russian-speaking readers – it is more 'blurred' than its Latvian-language counterpart. At the same time, Russian-speaking users are less vulnerable from an emotional perspective – Russian-speaking participants recognised that they feel they are in 'transition' – and for two groups (***Open-minded*** and ***Demanding***) there is little belief in Russian-language information content, but also no belief in the objectivity of the Latvian-language media.

The less emotional hybrid trolls are the most dangerous (***Wikipedia*** and ***Attachment*** troll-message types). Nevertheless, all the hybrid troll types listed in the analysis are usually used together in articles receiving a large number of comments in Latvia's Latvian-language media – most probably to reach a broader audience. Topics other than "European sanctions" such as NATO issues (***Saber Strike 2014, Baltic Host 2014***, a permanent presence in the Baltic States) attracted very aggressive trolling (which is why it was mainly censored by media editors). This suggests that in subjects in which there is little potential for re-educating audiences, emotional harm is considered more effective. Discussions on these articles become very polarized, causing average users considerable discomfort.

Hybrid trolling has one notable long-term effect. In all the segments, there were signals pointing to value shifts or emotional vulnerability, because participants had forgotten actual arguments but remembered the emotional tone of an issue. Even if they initially showed total resistance to hybrid-troll messages, after a longer period their vulnerability risk was evaluated as being higher. There are a number of reasons for this. Firstly, perception over time mainly recalls the emotional tone; secondly, hybrid-troll messages are only one part of the media environment, which itself reshapes personal values and mind-sets. So the final conclusion is that the influence of hybrid trolls on society cannot be evaluated separately from that of other media. After discussions in the participant groups, it can be concluded that hybrid-troll messages act as a catalyst for messages in other media.

Based on the focus-group discussions, the authors have also outlined a hybrid-troll-recognition tutorial, designed for average users and which can be used without any advanced screening methods. This tutorial does not however guarantee that a comment identified as generated by a hybrid troll is one, but it is highly likely to be.

Even more, engagement with classic trolls is definitely not recommended, avoiding engagement is important with both hybrid and classic trolls.

4.4.1 TUTORIAL: HOW TO IDENTIFY HYBRID TROLLS

STEP 1

IDENTIFICATION OF HYBRID TROLLS

- Comment is too long (more than 4 lines)
- Comment is "out of context"
- Commenter is recognised as a troll by other commenters
- Commenter is openly aggressive and hostile
- Commenter is semi-literate
- If you have found one hybrid troll, look for others – they typically post in groups (or one troll uses different identities and message types).

NB – even if all these factors are present, they do not prove conclusively that the commenter is a hybrid troll.

STEP 2

CHECKING FOR HYBRID TROLLS

- Ask a question – classic trolls typically respond, responses from hybrid trolls are near impossible because of language issues.
- Google them:
  - Same message, different profiles
  - Same message, many repetitions (same comment posted to articles on different subjects; over a long period – even as much as a year)

STEP 3

LABELLING HYBRID TROLLS

- Via a comment, for the knowledge of more vulnerable internet users
- If the troll has already been labelled, proceed to step 4

STEP 4

IGNORE!

It is vital to ignore hybrid trolls and not enter into further engagement, for several reasons:

- The more users engage with trolls, the more credible they become in the eyes of inexperienced users
- The more replies trolls receive, the more 'clicks' they will receive in the future (the snowball effect), even the negative reactions can serve the purpose of the troll
- Any reaction can serve for provocation in the future (subjectively selected excerpts can be used as a generalisation of "real views" by propaganda channels).

CONCLUSIONS AND RECOMMENDATIONS

5.

The weaponisation of online media is an increasingly common strategy in information warfare. Although the weaponisation of information itself is by no means a new phenomenon, there are several trends that seem to be occurring alongside the increasing access to information through online media and social networks. Despite the fact that the danger of Russia's propaganda war is often blown out of proportion, there is evidence that the Kremlin does use regime-funded online trolls to disseminate misinformation and project a pro-Russian stance in online-media comment sections. Russia's official strategy is based on a defensive approach to information warfare and defines Russia as a victim of Western and US propaganda and trolling. However, leaked policy documents and statements from high-level authority figures, as well as empirical evidence gathered by analysts and investigative journalists, seem to prove that under the cover of its defensive stance, Russia is waging information warfare against its adversaries in order to sway international opinion in its favour, and to create confusion and mistrust in public information as such.

For the purposes of this research, the authors have labelled the suspected pro-Russian, regime-sponsored trolls as ***hybrid trolls***. By this means, ***hybrid trolls*** are distinguished from classic trolls also operating online. The latter, however, only act in their own interests and solely with the aim of sowing disagreement and inciting conflict in the online sphere. Apart from this difference, which is actually quite hard to prove, there are several other things that make ***hybrid trolls*** stand out. Firstly, these trolls, suspected to be paid on the basis of quantity, can be identified by following factors: intensively reposted messages, repeated messages posted from different IP addresses and/or nicknames, as well as republished information and links. Typically, ***hybrid trolls*** strongly support a particular political stance and are more likely to comment on topics linked to specific areas of politics rather than on other subjects. Interestingly, when it comes to pro-Russian ***hybrid trolls***, one important and a rather straightforward identifier is their frequently poor language skills when posting comments in languages other than Russian, implying that the original Russian-language message has been translated using, for example, ***Google Translate*** and then disseminated through the media of a particular country.

The first part of this research focused on the quantitative analysis of comments posted on three major online Latvian-language news portals – ***apollo.lv***, ***delfi.lv*** and ***tvnet.lv*** – and their Russian-language counterparts between 29 July and 5 August 2014. It was established that only 1.45% of the total number of comments in the three major Latvian- and Russian-language online news portals were potentially from ***hybrid trolls***. However, this number was slightly higher, reaching 3.72% when only taking into consideration the articles subject to trolling activity.

A slight difference was discovered between Latvia's Russian- and Latvian-language news portals – Russian-language portals experienced slightly higher troll activity, reaching 3.99% in the affected articles, while in the affected Latvian-language articles, ***hybrid trolls*** accounted for about 3.55% of comments. More evidence of ***hybrid-troll*** activity is the fact that, of all the articles affected by ***hybrid*** trolls, almost one third was related to events in Ukraine, while the shooting down of Malaysia Airlines flight MH17 over Eastern Ukraine also attracted a considerable proportion of ***hybrid-troll*** comments. Together these two topics accounted for 37% of all messages that were suspected to be posted by ***hybrid trolls***, while another 27% of affected articles were related to the Western sanctions against Russia and Russia's counter measures.

This evidence is already sufficient to prove that pro-Russian trolling is present in Latvia's news portals, in both Latvian- and Russian-language versions.

Importantly, a detailed analysis of communication models and content demonstrated that the impact of ***hybrid trolling*** is decreased by a number of circumstances. Firstly, hateful and xenophobic ***hybrid-troll*** comments are often automatically deleted immediately after being posted. Secondly, users' negative ratings of these comments result in their being hidden from other users. Thirdly, and most importantly, other users who disagree with similar comments by labelling them hateful and unacceptable, unmask troll messages, excluding them from further communication. Consequently, the detailed analysis of quantitative data demonstrates that the actual exposure of online news users is weakened through these factors. Furthermore, because of the relatively short time that readers spend online – ranging from around six to thirteen minutes, users are unlikely to deeply engage with comment sections. Qualitative analysis of the online news audience demonstrates that this section is used only by more active users. At the same time, these more active audience members are also the least likely to be susceptible to the influence of ***hybrid-troll*** messages. These audience members' higher level of activity in accumulating a variety of information enables them to develop more critical evaluation skills regarding online-media content, including information posted by other internet commenters and ***hybrid trolls***.

However, in-depth qualitative analysis uncovered several important trends that should be taken into account in developing counter-propaganda measures. In the first stage, various types of ***hybrid-troll*** messages were identified and labelled. ***Blame the US conspiracy*** trolls disseminate information based on conspiracy theories and blaming the US for creating international turmoil. The ***Bikini*** troll refers to commenters that post rather naïve, anti-US comments typically accompanied by a profile picture of an attractive young girl. ***Aggressive*** trolls typically post emotion-laden, highly opinionated comments intended to stir up emotional responses from general users. ***Wikipedia*** trolls, seemingly also the most dangerous trolls, tend to post factual information that is out of context and is thus unlikely to be discredited, even by more experienced users. The final ***hybrid-troll*** type has been labelled as ***Attachment troll***, also rather dangerous, posting only short messages with links to other news articles or videos containing value-laden information. Although each troll type targets particular audience segments, the final two are considered the most influential as they can even affect more internet-savvy users.

By setting up focus groups to assess the influence of ***hybrid trolling*** on various social segments, the authors established that the most vulnerable group is the ***Settled*** group or older people, which has the lowest awareness of internet security risks. In Latvia, 42% of this age group (55-74) use the internet, which makes them highly susceptible to more aggressive trolling. The most successful measure to decrease this vulnerability would be raising their awareness of online security risks, for the purpose of which the authors drew up a sample tutorial on recognising ***hybrid trolls***. Another major risk group is labelled ***Homebodies*** (family men in their forties). This group is susceptible to conspiracy theories and highly likely to respond to ***Bikini trolls'*** comments, among others, because they are the group most

likely to engage in commenting per se. ***Homebodies*** themselves typically form a large proportion of anonymous online commenters and therefore the most efficient protection mechanism in this case would be to decrease anonymity in internet media. The remaining societal groups such as the ***Open-minded***, ***Demanding***, ***Dreamers***, ***Adventurers***, ***Rational Realists*** and ***Organics*** were found to be highly resistant to ***hybrid trolling*** efforts, albeit to different extents. The reasons for such resistance range from highly critical approaches to publicly available information and high internet literacy, to complete disinterest in political processes.

Long-term ***hybrid trolling*** does have an influence, shifting values where the central role is played by the emotional tone of the message rather than the message itself. Focus-group interviews proved that, even though some of the members initially demonstrated complete resistance to troll messages, after longer exposure their perception changed. When accompanied with other information sources, ***hybrid trolling*** has some potential to reshape personal values and beliefs. Hence, ***hybrid trolling*** cannot be evaluated in isolation from other media sources and their impact on society, and can actually act as a catalyst for messages in other media.

Furthermore, an in-depth analysis of all segments of the Latvian- and Russian-speaking societies demonstrated that, although the societies are quite resistant to ***hybrid trolling*** in terms of perception of the information therein, they are susceptible to emotion-laden attacks. An important threat here is the creation of a false perception of ***hybrid trolls*** being real Russian people, leading to mutual mistrust between members of the two linguistic groups.

RECOMMENDATIONS

The findings from this study did not provide proof of any extensive presence of trolling comments in Latvia's web portals that had been assumed when undertaking the study. Furthermore, media-consumption habits lead to the conclusion that trolling should not be perceived as the most influential tool for changing the opinion of Latvian society. This information tool can however, induce certain effects in the longer run. Its strengths do not lie in manipulating a limited group of people who read web comments or actively post in social media, but rather in its ability to reinforce Russia's narrative which is already being communicated via other information channels – TV, blogs, propaganda websites run by pro-Kremlin activists, etc. Thus trolling, despite the direct evidence of its limited effects seen in isolation, is still a small but important part of a larger machinery aimed at influencing the public in NATO member and partner countries.

Based on the focus-group discussions, the authors have designed an outline for a ***hybrid-troll***-recognition tutorial (see p.77), which can be used by average persons with no access to advanced screening methods. Furthermore, the authors of the study would like to offer several recommendations to the mass media and to government institutions on countering ***hybrid-trolling*** activities.

What the mass media can do:

- **Check facts before publishing them – do not become a participant in a disinformation campaign**. News production should follow high journalistic standards. Analysing information and checking facts before

disseminating information further is of the outmost importance in building credibility within society. As a highly trusted environment, social media provides great opportunities to disseminate misinformation and hoax messages. For these reasons, the mass media should exercise its 'gate-keeping' role so as to separate facts from rumours, rather than becoming another participant in disinformation campaigns without even realising it. This requires critical thinking and more thorough appraisals of sources.

- **Enhance general media literacy**. The mass media and opinion leaders can play important roles in educating the public about the misinformation activities in online media – by providing analysis of trolling tactics and manipulation techniques, as well as suggesting criteria for identifying organised trolling. Putting trolling in the headlines and encouraging people to share their experiences of being attacked/harassed by trolls would facilitate discussion on how to identify the malicious use of social media and seeking ways to counter it.

- **Develop filtering tools.** News-portal editors are already making great efforts to filter and automatically delete comments expressing hatred, rudeness and aggression (60-70% of trolling comments are already deleted by portal editors according to the study), thus minimising the influence of trolling. However, given that these filters can be bypassed by amending messages, continuous improvement of bot/troll-detection capability is needed.

What government institutions can do:

- **Identify and unmask sources of disinformation (trolls)**. Greater focus should be put on analysing information environment so as to be able to identify disinformation efforts as well as their effects on public discussion. Online-media and social-media analysis should become an integral part of every analysis of the information environment. Examples in citizen journalism have proven that identifying and revealing 'false' facts to the public is an effective approach to mitigating the effects of disinformation. Governments should learn from these cases and integrate these efforts into their operations.

- **Develop unifying narratives**. The manipulation efforts of trolls can only be successful if there are no alternative stories to offer. Consequently, the development of unifying strategic narratives would play a central role in countering disinformation activities. This not only means unified messaging by government representatives, but also involving a wide range of actors, from academics to private business figures, in efforts to defend the national information space.

- **Make jokes rather than argue**. Efforts to fight propaganda in social media by developing counter messages and official statements will only fuel the atmosphere of information war rather than bringing positive effects. Perhaps humour could be more successful in countering aggressive propaganda as it hampers the latter's ability to achieve its objective – subdue the society of the target country. The informal nature of the online

environment is perfect for humour and jokes as communication tools, having the capacity to attract large numbers of social-media users.

- **Enhance the public's critical thinking and media literacy.** Long-term efforts are required to enhance the public's critical thinking and education on the weaponisation of the media, particularly online media. Perhaps providing simple user guides for the general public (for example, when opening comment sections) on how to identify trolls would be the first and simplest step towards raising society's awareness of the manipulation techniques utilised in the internet. One solution might be introducing media knowledge and source appraisal in social media to school curricula.

- **Learn from other countries' experience.** Hybrid trolling is not a unique phenomenon, restricted only to Latvia. Furthermore, trolling is never conducted as a standalone hybrid-warfare tool, but rather as mechanism supporting the messages promoted by other information channels. Hence, the Baltic States, Finland, Poland, Ukraine and other countries already affected by Russia's information activities should cooperate in their efforts to counter disinformation, and learn from each other's experience.

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ANNEX 1

Table 7. Audience data for internet news portals (for the period 1 to 3 August 2014; data only on desk- and laptop users). Source: audienceGemius.

	Visitors (real users, not bots, etc.)	Avg. daily visitors	Avg. time spent per visitor [hr:min:s]	Avg. time spent per visit [hr:min:s]	Avg. visits per visitor
delfi.lv (LAT)	253 638	136 950	00:32:08	00:09:08	3.37
rus.delfi.lv (RUS)	125 711	70 785	00:48:41	00:12:49	3.80
tvnet.lv (LAT)	191003	172 740	00:40:01	00:09:38	4.15
apollo.tvnet.lv (LAT)	163726	107 783	00:21:55	00:06:45	3.25
rus.tvnet.lv (RUS)	101 337	51054	00:15:10	00:06:20	2.40

ANNEX 2 WEB PORTAL AUDIENCE BY NEWS-PORTAL SECTION

Figure No 6. Structure of tvnet.lv audience section (real users), numbers and percentages. Source: gemiusAudience, August 2014

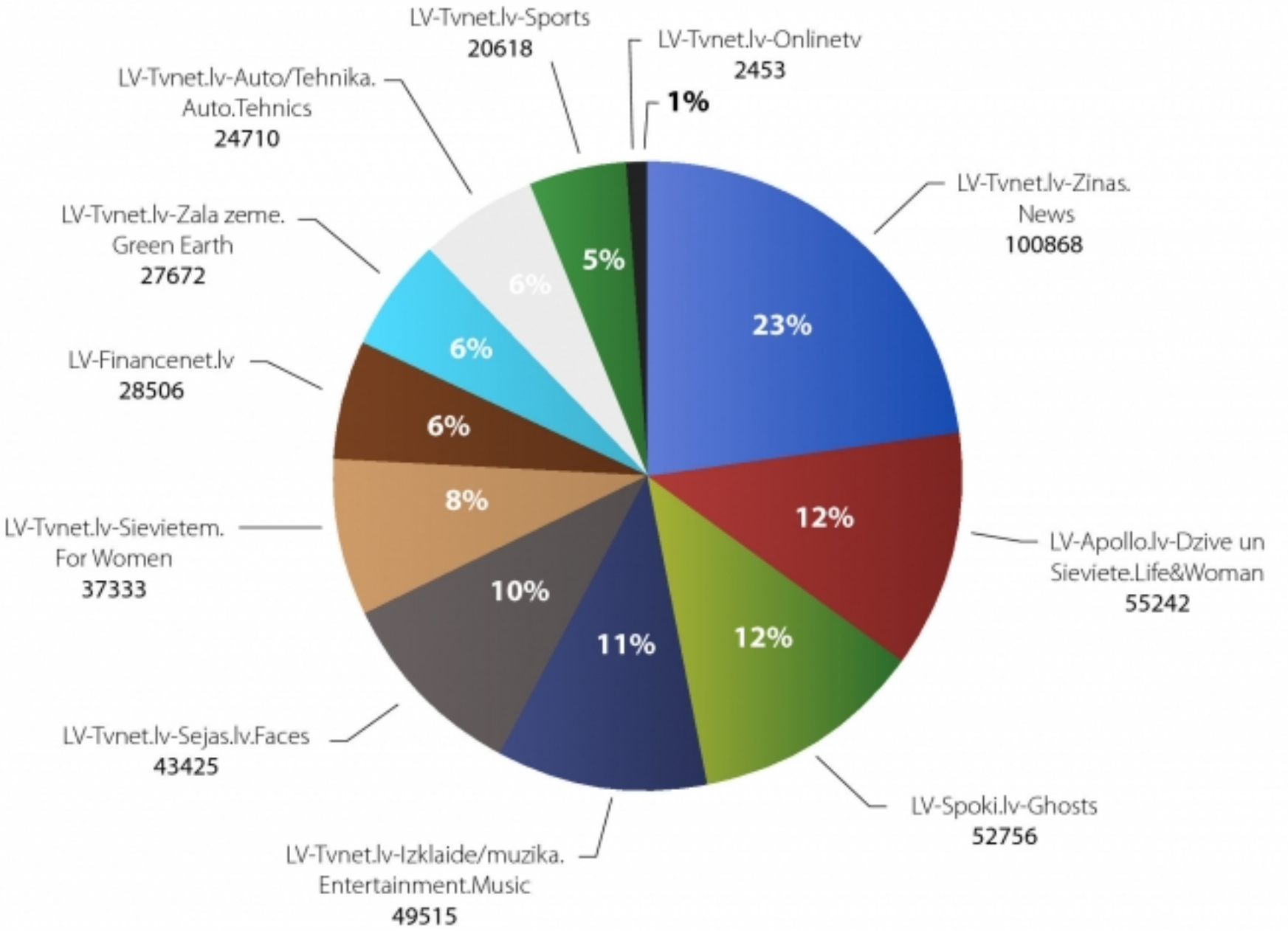


Figure No 7. Structure of apollo.lv audience section (real users), numbers and percentages. Source: gemiusAudience, August 2014

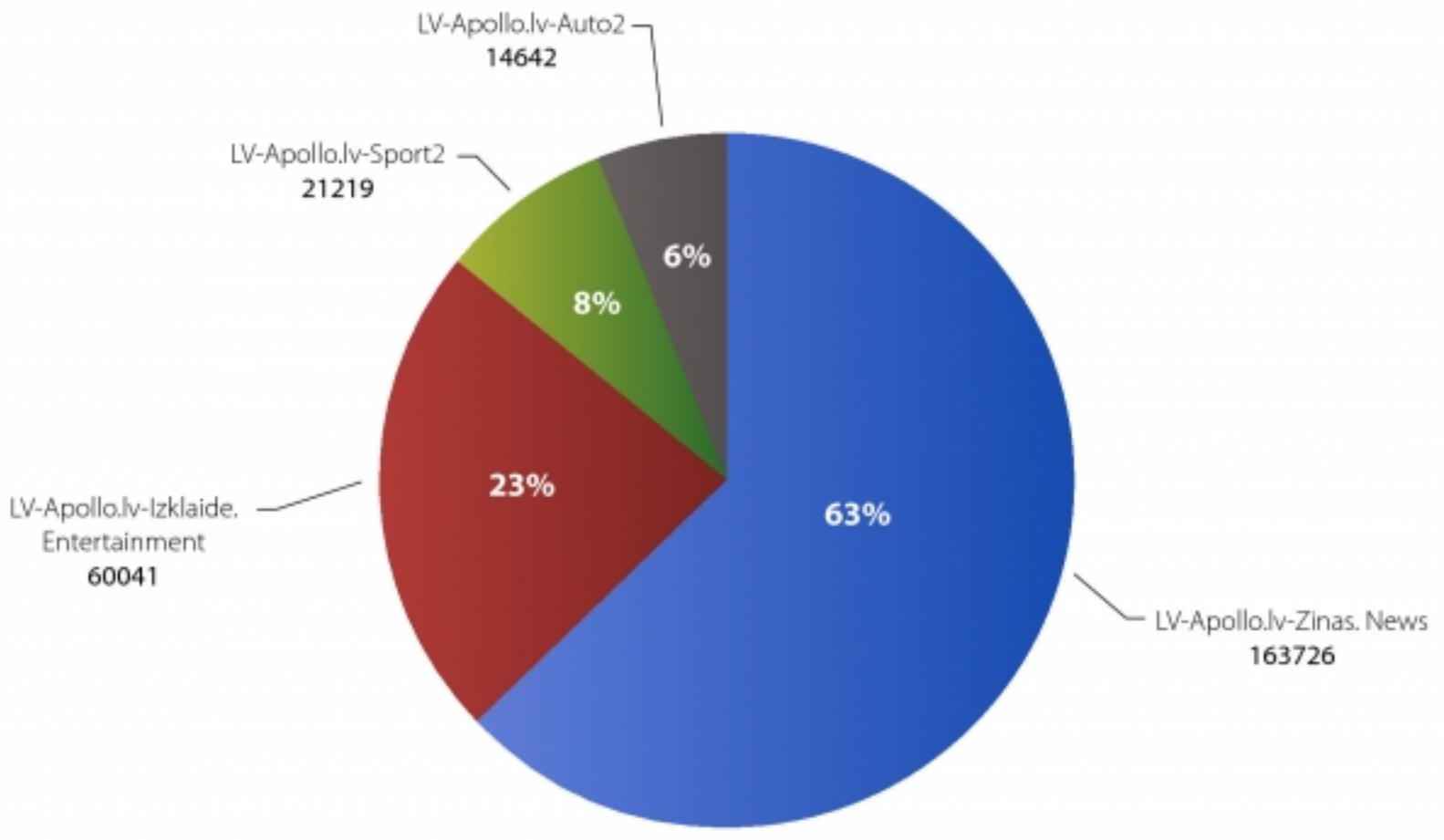


Figure No 8. Structure of delfi.lv audience section (real users), numbers and percentages. Source: gemiusAudience, August 2014

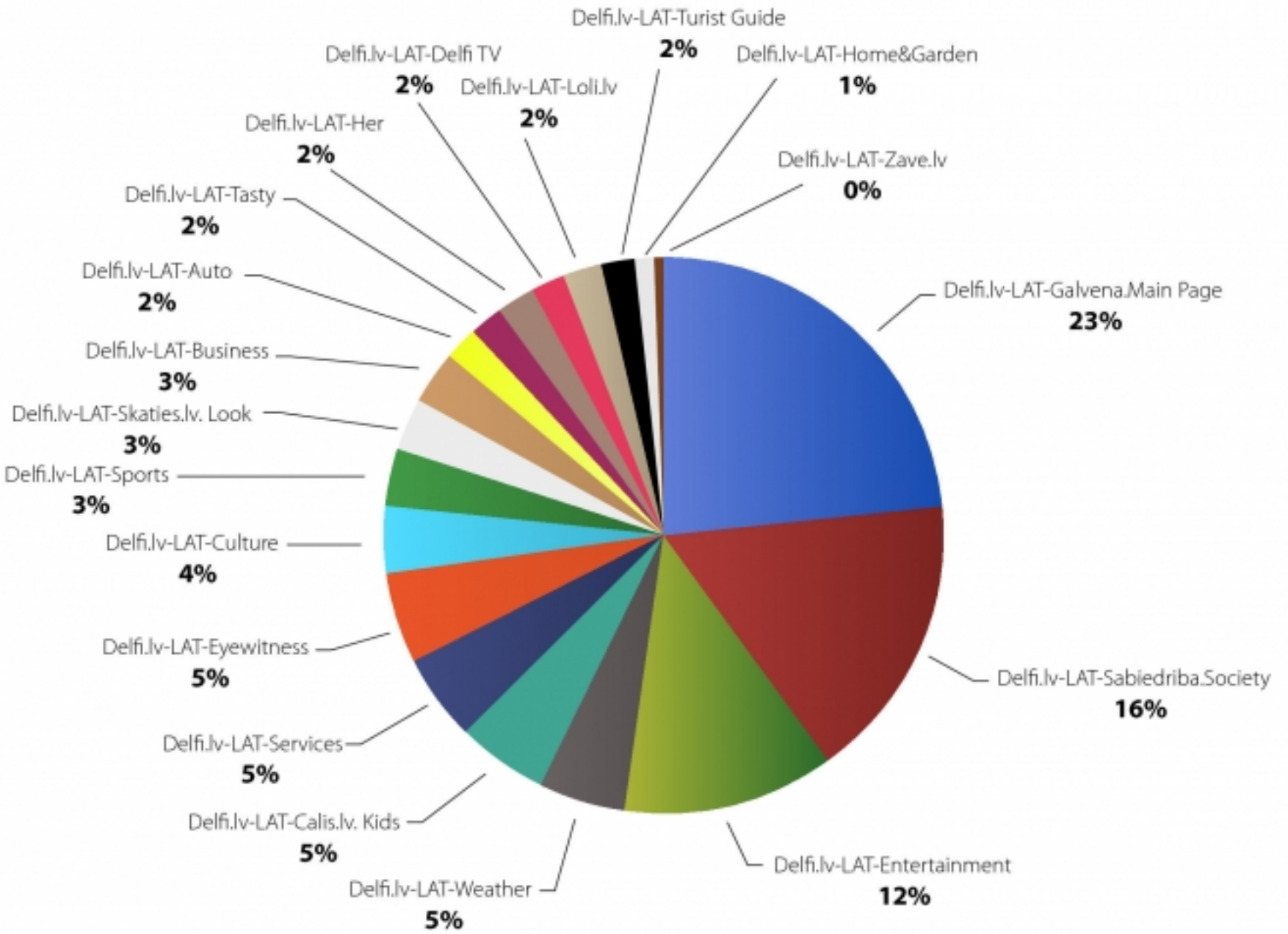
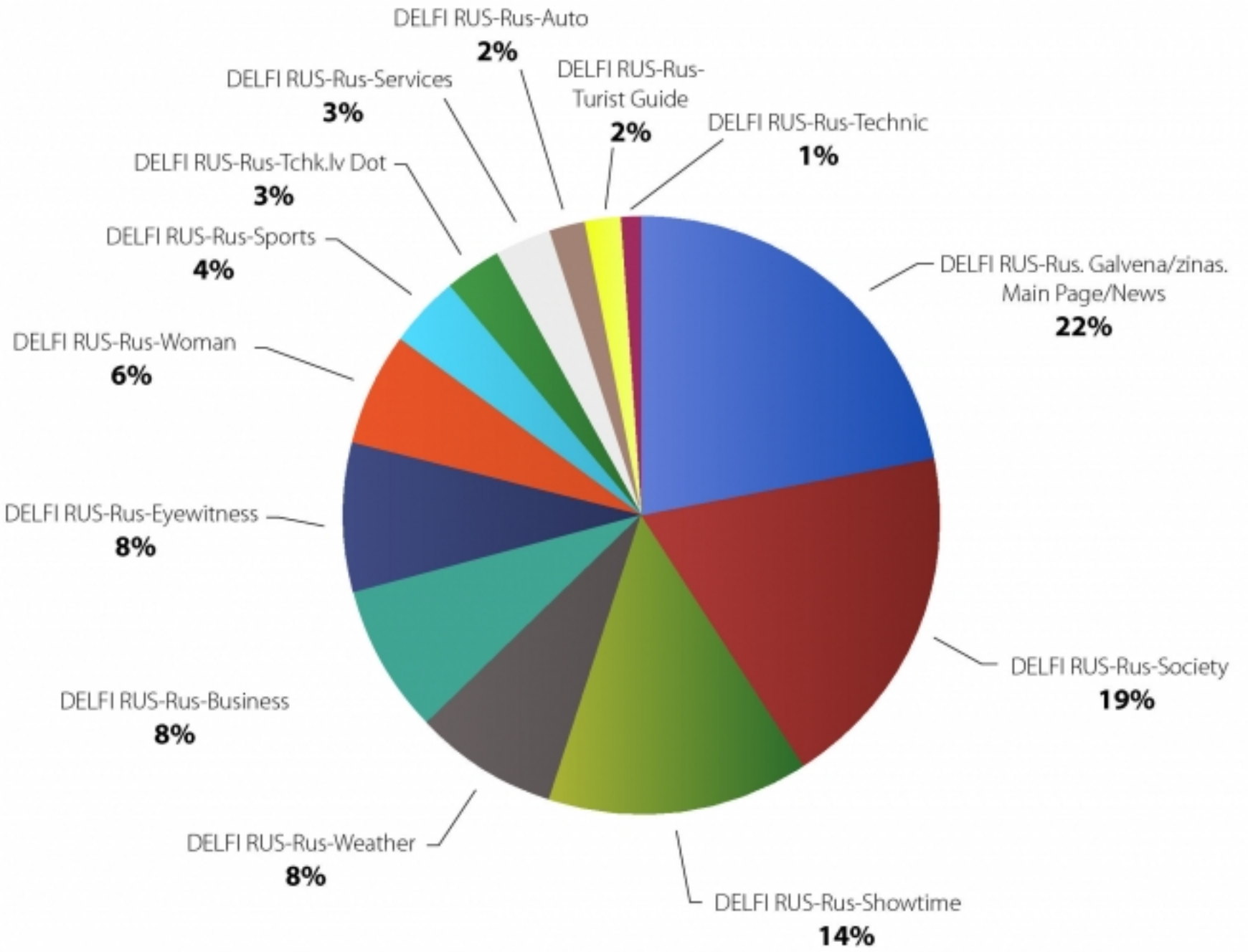


Figure No 9. Structure of delfi.ru audience section (real users), numbers and percentages. Source: gemiusAudience, August 2014



ANNEX 3

Table 8 Interaction of societal groups with hybrid-troll messages – participants' views, emotions and responses (Latvian- and Russian-language focus groups – differences mentioned in text).

1 OPEN-MINDED				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Overall, this group is not vulnerable to any kind of trolling. They quickly recognise that the information presented is a conspiracy theory. Even more, they skip typical trolling messages of an aggressive nature. Nevertheless, the risk factor for this group is messages that contain meta-theoretical values, e.g., ones based on a generalised argument that war is bad, it is quite likely they will agree, even if it leads to false conclusions. Of course in these cases they will engage in discussion with the troll. Most of this group recognises classic trolls, so they are on the 'right path' to also recognising hybrid trolls.	Bikini trolls – who post messages in simple sentences with quite naïve subject matter and propose an oversimplified world view – are not a threat to this group. Largely, Open-minded participants did not even register these messages as "worthy of reading". In real life, they are independent of content (aggressive or conspiracy-driven) and would just ignore such commenters.	Trolling messages of an aggressive nature are the most effective in terms of emotion. The Open-minded group clearly identifies aggressive messages as trolling phenomena, which is logical because they are internet-media savvy. Consequently, it can be concluded that if trolls want to influence public thinking effectively, they have to ditch the main, typical troll characteristic, aggressiveness, because internet-media-savvy users automatically skip reading them.	Specifically, these trolls exhibit fewer signs of personality as they reproduce selective information from Wikipedia (or other sources, like blogs, news platforms, etc.) and place it in another context, thereby adding new connotations. Because these messages express no opinions and are essentially true, they have the greatest potential for reshaping opinion. The Open-minded group identifies these messages as being out of context. Nevertheless, some participants tried to reply directly to such messages with 'corrections' (that something had been taken out of context) which means that these trolls' messages work as attention seekers on even the most 'immune' users by manipulating them. The troll's intention is to cause emotional fluctuations, misappropriate readers' time and misdirect their focus – overall, to manipulate and provoke readers[137]. Hybrid-Wikipedia trolls take this further by adding misinformation and propaganda to this 'list of tasks'. Falling for any of these trolling goals (conventional or unconventional) is a threat for readers, because being manipulated at one level makes it much easier to be manipulated at the next one[138]. This is why the Open-minded is given a B in the Risk Grade, because there is the potential to capture their attention. More sophisticated hybrid-troll messages could increase engagement even more.	Trolling messages with attachments are mainly of two types: the first is 'some text and an attachment'. The second has very brief text, or even no text at all, plus a link to a video or an article. The Open-minded group is ready to take a chance on opening such links, only if they consider the text relevant. If this introductory text is "untrustworthy" or there is no text, the Open-minded group (despite all the curiosity this group possesses), will not open the attached link. So, the risk factor here is that, even with a slight chance of attracting a click on the link with a brief but alluring message, these trolls can lead this group to more manipulative video material with that link. If the linked video material is in English, the trust level is increased.

2. ADVENTURERS				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Adventurers are the most apolitical and uninformed group in their nature. Consequently, they believe strongly that politics are based on conspiracy by definition, and they readily believe messages with conspiracy content. At the same time, they enjoy expressing their own thoughts in comments and engaging in discussion (considering this a sport), and are more ready to interact with trolls than are other groups. It is important to recognise that this group has no 'long-term memory' about any political issues, so even a short-term attraction to a troll message has no consequences[139].	For Adventurers, Bikini trolls are quite attractive, because they mainly share the same values – a simple, naïve view on issues. They are even willing to engage in discussion, especially if the profile photo is of a young girl. Again, Adventurers make no connection with meanings, value shifts, etc., Adventurers are quite immune to trolling, because they are immune to any politics and flow of information, whether true or false. Compared with the Open-minded group, who are at risk when engaging with trolls, Adventurers perceive the process of engaging as more of a game (they also had a very inconsistent style of engaging in commenting and discussions).	Adventurers are keen to engage in aggressive discussions, not because of message content, but because of the antagonism. From this point of view they are victimized by trolls (by both classic and hybrid trolls), because trolls target them as a means of increasing their popularity in the internet (the quantity of replies increases the more a particular comment is viewed). One positive aspect is that typical hybrid trolls cannot respond to questions, so the counter-aggression of Adventurers can help other readers identify hybrid trolls – if, after posting a comment, its author disappears, it is likely to be a hybrid troll. The classic troll is interested in maintaining conflict[140].	For Adventurers, the Wikipedia troll is the most uninteresting because there is no element of the emotion and entertainment that are so important for Adventurers. So, on seeing Wikipedia troll messages, Adventurers go into 'too long, don't bother reading' mode.	Adventurers, more than the other groups, were keen to follow the link in the troll message. One reason for this could be the low level of fear of where the link could take them (fear that the link would lead to a virus site was one of the main worries of other groups). Typically, Adventurers followed every link available in comment sections, but then spent only a few seconds watching the videos when they realised there was nothing interesting for them. To their minds, only content that is highly entertaining is interesting.

[135] Van Reenen.

[136] Jowett, Garth S. and O'Donnell, Victoria, *Propaganda and Persuasion*, Thousand Oaks, CA: SAGE Publications, 1999.

[137] S. Hansal, *Advertising and marketing strategies: a lifestyle approach*, New Delhi: New Century Publications, 2001.

3.ORGANICS				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Organics as a group share post-material values. Although they follow the latest news, they can be easily 'caught out' by pacifist values, which blend well with conspiracy theories. It is important to recognise that this group tries to oppose any military action, seeing it as pure violence. On the basis of these values, the common hybrid troll slogan "Let's make peace, stop the war" is readily adopted by Organics. For Organics messages asserting 'modern values' (as in anti-post-modern) are like a red flag – which is why the Blame the US conspiracy troll is not accepted as a reliable source of information by this group.	Organics are totally indifferent to Bikini trolls because both the form (the apparent personality of the poster) and the content are not worthy of serious consideration.	Aggressive trolls exert an influence on this group for one reason: they are emotionally vulnerable to all messages that contest post-modern values, including open aggression and emotional violence. The problem with Organics is that they do not recognise the false nature of the posts' authors but really believe that there are people holding such world views, which scares them. As opposed to Adventurers, who are keen to engage in discussion with aggressive trolls, Organics leave the comments page. This group openly admits they feel threatened after reading comments with certain messages.	Wikipedia trolls capture the attention of Organics because they like to enrich their knowledge and, at first sight, Wikipedia trolls offer new information. Nevertheless, after reading such comments, they quickly understand that this is out of context, and can even explain the lack of logic in posting such comments to particular articles.	The Organics group ignores messages with attachments, explaining this as being fearful of links to commercial sites, virus or other websites that may harm their hardware.

4.RATIONAL REALISTS				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Rational Realists are very rare visitors to comment sections, because of their lifestyle. Nevertheless, recognising valuable information (whether true or false) comes easily to them because of the strong value sets they adhere to (to formulate their point of view, they use a variety of, mostly international, media sources). They do not take conspiracy theories seriously. They have their own view on how the EU should act toward Russia (more about military means than economic sanctions), and additionally they are totally immune to trolls (fundamentally, they are immune to any messages). In contrast with Adventurers, who are immune to content influence because they are ignorant, Rational Realists fully understand the gravity of events and have their own arguments, views and independent conclusions.	Bikini trolls are simply not registered by Rational Realists. Firstly, they do not respect the simplistic way Bikini trolls express themselves; secondly, they cannot take these authors' profiles seriously. Interestingly, Rational Realists do not bother themselves with questioning whether anything is true or false, or whether trolls posted these comments or not – they see the comment section as essentially useless. They can register that such views exist, but they accept that there are different views on everything and there is no need to pay attention to them. According to Rational Realists, a person should only obtain information from sources that firstly, are internationally recognised mass media, and secondly, the credibility and authority of their editorial policies are widely respected. Everything else is just 'useless noise'.	As far as Rational Realists are concerned, Aggressive trolls suffer from personality disorders and there is no difference whether they are paid trolls or 'real' people. Consequently, Rational Realists do not take aggression seriously. NB: considering all the comment types, this group suggested that commenting options be shut down for Latvian-language articles, because these comments are so rarely productive.	Wikipedia trolls capture the attention of Rational Realists, because they post 'unadulterated' information. The participants read these messages carefully, but in the end, declared that this information was not relevant to the context of the article.	Similarly to the Organics group, Rational Realists ignore messages with attachments, explaining this as a sense of being threatened by commercial links, virus links or other sites that may harm their hardware.

5. SETTLED				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
The Settled group are the most vulnerable to troll threats, because they are highly open to influence in terms of both content and emotion. Blame the US conspiracy messages raised discussions on "the 'real reality' behind the scenes. During these discussions, the group divided along three lines: one sub-group of older people with a more nationalistic bent argued that Latvia should be neutral in the 'games' between the US and Russia. The second group, more Western-oriented, were in favour of even stronger Western sanctions against Russia, but did not categorically deny that the US "might have secret interests". The third group (as it later emerged, mainly inhabiting Russia's information space despite being ethnic Latvians) was absolutely certain that the Blame the US troll message was true, or, at least, should be taken seriously – that the US is provoking Russia's reactions. Such a response would be 'music to the ears' of these trolls – their addressees are not only responding themselves, but proliferating the trolls' opinions into a broader context, basing their own arguments on false grounds.	The effect of the Bikini troll message on the Settled group was quite surprising – participants found confirmation for their own confused world view, saying "See, even young people are asking the same simple questions we are asking" which means the world is not black and white, and Russia's aggression is underpinned by a large proportion of Western guilt. Asked for solutions, participants most often called for "good relationships through dialogue", "using Latvia's crossroads position", "using Latvia's independent country status, not wagging the tail of both Russia and the EU (the US)". After more in-depth discussion on who is endeavouring to escalate this conflict, the participants recognised that Russia is "behaving badly", but at the same time Western countries should do all they can to avoid provoking Russia. Or, putting that more simply, the participants fear Russia and have no sense that the West will defend Latvia should conflict rise. Group members uttered numerous slogan-style phrases along the lines "Don't tease the Russian bear", which suggests that the older generation's fear of Russia's power remains intense, even 25 years after the collapse of the USSR.	Settled participants took the Aggressive message seriously. They really believed that aggressive messages were expressing the thoughts of a large number of Russians (Latvian grammar was poor in troll messages, which is how the participants identified the author as Russian), including those living in Latvia. Specifically, participants did not consider the comment aggressive, because it was "meant to be" – it reflected the situation as the group members saw it All the participants tried to rationalise the anger in the comments and seek solutions: "how could I reply to comments like this to explain the situation, so that the author changes his attitude toward Latvians". Only one participant was ready to 'fight' the troll and write an aggressive message in response "to Russia and Russians" – also a dangerous way of dealing with such comments. The danger here is the potential for further provocation from aggressive trolling. If there are large numbers of aggressive responses, extracts of those could be utilised out of context to demonstrate the 'real attitude' to minorities, etc., in a particular country . Nevertheless, the projection of troll messages on to reality was so strong that only after lengthy discussion did the Settled group accept that "maybe there is a possibility that these are escalatory messages intended to create conflict". Afterwards they became slightly depressed, in that "you can't trust anyone in this world" and after a short time slipped back into their comfort zone – pointing out that conspiracy could be behind at least some events.	The Settled group's first reaction to the Wikipedia troll was: "yes, it's true; the US is also aggressive in its policies". And, as a continuation, the dominant thinking in the group was that Latvia should be looking more to its own national interests in between those of Russia and the EU, because "great powers are always playing their games and small countries have to find a way to benefit". After being questioned on how they rate the logic of a Wikipedia 'copy-paste' on the history of US military campaigns being outside the context of an article on EU sanctions against an aggressive country, the participants answered that everything was in context, because everything is connected (leading back to their conspiracy-theory world view).	The Settled group's great willingness to open links from unknown sources was surprising but enlightening, and also raises questions about older people's overall understanding of internet security issues. Even more, group members watched the linked news video all the way through, because "this is news" and, at the end, gave credit to the structure of the news and its "alternative opinion". This can be explained largely by the psychology of the Settled group – a generation that had been raised on the value that "what the media says is true" is totally vulnerable to the new generation of media which requires critical analysis 143. In addition, the Settled group considers comments to be an authentic part of the media, giving commenters additional credibility.

138 Jonathan Bishop, *The Effect of De-individuation of the Internet Troller on Criminal Procedure Implementation: An Interview with a Hater, International Journal of Cyber Criminology* 7, no. 1 (June 2013): 28–48.

6. DEMANDING				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Demanding group members, for a variety of reasons, inhabit their own information space, which is mainly based on business interests and a desire for stability in all matters. Consequently, they are keenly interested in economics and politics. They are well informed and quite busy in their everyday routine. That is the reason why this group spends only a little time on the internet, and even less time in comment sections. They do not see any difference between trolls' and other comments, considering them all 'crap'. If, for some reason, they do read comments, they automatically skip long texts and conspiracy items. They have a very clear vision of where the US, Russia and Europe sit on the world map, but their views on sanctions against Russia can fluctuate between positive and negative (seen from their own perspective as, being entrepreneurs or close colleagues thereof, they directly suffer or benefit from Russia's counter measures). From that perspective, the Blame the US conspiracy troll is not a threat to this group.	Bikini trolls are of no interest to the Demanding group. They totally ignore these trolls, just branding the authors as stupid. Asked to analyse this comment more deeply, the participants acknowledged that it was most probably fake, because the term 'pseudo democracy' would be too complicated for anyone with this type of profile picture and manner of expression,. Demanding group members do not waste time responding to any comments (or commenting on actual articles), so they cannot be victims of provocation from this source.	Aggressive messages just motivate participants to leave the comment section but, compared to other groups that said they were leaving because of feeling threatened, Demanding group members felt no emotional attachment to any trolling messages.	The Demanding group's first reaction to the Wikipedia troll message was to quickly check what the information was about. Seeing just an excerpt from some historical chronology, they quickly lost interest. Asked to explain their motivation for 'looking deeper', the answer was "intellectual curiosity" in a message that, at first sight, looked "informative" After understanding that it just contained one-sided information, they lost interest. As for the other groups, the Wikipedia troll managed to capture attention – so logically, if this kind of trolling message were composed better, they have the greatest potential for pushing through propaganda-laden messages.	Possibly because of their infrequent activity in internet media, Demanding participants open links attached to trolling messages. Asked to explain this, they said that the content of the actual comment was "intellectually poor" and curiosity made the link look attractive: "maybe there's something useful there". After seeing that the link just lead to "propaganda", participants lost interest and left the site with, in their own words, "no sense that anything had changed" in terms of values or emotions.

7.DREAMERS				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
The Dreamers group is quite self-isolated from politics because, demographically, this group is typically very young, and with that, apolitical. Asked about their interest in the issue of EU sanctions and Russia's aggressive foreign policy, the whole group acknowledged that they would never go to comment sections on such issues. Nevertheless, testing these messages on Dreamers revealed that they have an 'intuition' for troll detection, connected with them feeling self-assured in the internet-media environment and in the culture and practices of communication. They view the Blame the US conspiracy theory as false, as is everything else they identify as trolling. Because they are extremely disinterested in global politics, Dreamers do not try to analyse others' views. Instead, they acknowledge that if they need a political point of view they rely on opinion leaders, or their friends on social media (Facebook, Twitter).	The Bikini troll profile is the closest in nature to that of the Dreamers. Nevertheless, they absolutely do not identify themselves with Bikini trolls. They openly acknowledge that their political knowledge is limited which is why they ignore commenters with the same limited knowledge. It is, however, important to recognise that Dreamers pay more attention to comments responding to earlier comments and which initiate discussions. If a trolling message is gaining attention because of reader responses (regardless of content type), it will capture the attention of Dreamers. From this perspective, as for the other groups, the best strategy for readers recognising trolls would be to label them (call them out by name) and ignore them.	Dreamers – by definition – ignore aggressive messages. They do not feel threatened, because the "internet comment environment is hostile by definition" and "there are more hostile comments on any topic in the typical Latvian media environment than there are trolling messages in this focus group". So, Dreamers protect themselves from aggressive attacks in comment platforms.	The Wikipedia troll is the only one which could be a threat to Dreamers. Because of their limited knowledge of history, they take Wikipedia copy-pastes seriously and this focus group, in particular, was not able to identify any mistakes in logic, that true information can be a false pointer if used out of context. At the same time, after taking on board the information in the Wikipedia troll message, the only conclusion they drew was that the US is a militarily aggressive country, which is good in the circumstances that Russia is becoming more aggressive. Consequently, this particular troll message lost its meaning, but it is important to remember that this kind of message design is potentially dangerous for groups similar to the Dreamers.	Dreamers do not open any attachments within comments, which obviously is because of a "concern about viruses". Therefore, this kind of trolling is not even a possible threat for Dreamers.

8. HOMEBODIES				
Blame the US conspiracy troll message	*Bikini troll message*	*Aggressive troll message*	*Wikipedia troll message*	*Attachment troll message*
Homebodies are the second most 'problematic' group after Settlers. They spend a lot of time in internet media, including in comment sections and interacting with commenters. When asked to explain this, the most common answer was that they liked to express their views, and any reason to do that was good enough. This means that Homebodies themselves can be aggressive in comments, and, reading between the lines, most probably act as classic trolls themselves. At the same time, Homebodies are particularly susceptible to manipulation by trolls. For instance, particular focus group participants were very passionate about the likelihood that the Blame the US conspiracy theory was true. "Indeed, it looks very logical, that the US has interests in the region, and that only provokes Russia." If we look deeper into the Homebodies' psychology, they are desperate for stability and an unchanging environment, while they express very radical views on how "things should be done". This creates aggression on the one hand, and an easily changed world view on the other, because there is no stable set of personal values. Homebodies like conspiracy theories, because their own lives lack adventure. So they are particularly vulnerable to the views of Blame the US conspiracy trolls.	The Bikini troll is quite interesting to Homebodies. They are willing to actively engage in communication (by replying to comments) for several reasons. First of all, they want to "teach the idiots" about particular situations; the second reason is straightforward "sexual interest" in chatting with a girl who appears to be in line with the same value set as the Homebodies themselves. Consequently, Homebodies readily 'fall for' messages posted by Bikini trolls.	"Aggressive messages in the internet should be answered with aggressive messages" might be the slogan for the Homebodies' group. They engage in hostile discussions and are undeniably easy to provoke. Unfortunately, they have no broad understanding that hostile reactions to trolls only result in more provocation. "Being hostile is logical in internet media and everything else is censorship". In addition, participants from this group take criticism of their comments very badly, even if they had posted anonymously. To some extent, the anger, conspiracies and false information in the internet are being imported into their views on real life. What is absolutely clear is that registration and profile transparency for this group is a deterrent to them expressing open hostility in comments. Consequently, the practice of "registered users' comments only" is less for the sake of trolls (who can invent as many profiles as they need) than for the sake of easily provoked Homebodies.	The Wikipedia troll is the only one to whom Homebodies are totally indifferent, for a single reason. At first sight, these messages just look uninteresting (and they lack emotion), so, Homebodies have nothing to respond to. The information is accepted as true and is immediately stored in the 'conspiracy puzzle' section of Homebodies' minds.	Homebodies do not open links in trolling messages because of the same security concerns other groups have. Nevertheless, they like to reply to such messages and point out that comments with links are not welcome in comment sections (and do this quite aggressively). It is important to note that, from time to time, Homebodies identify trolls, but they can also mistakenly reproach regular commenters for being trolls.

ANNEX 4

Role-model hybrid-troll message examples used in focus groups

BLAME THE US CONSPIRACY TROLL

IMHO

2014. g. 30. jūlijā 01:34

Kāpēc Krievijai vajadzētu pašaudīt kaut kādu Malaizijas lidmašīnu? ASV gan būtu to darīt izdevīgi (caur Ukrainu)-tādējādi sašķeļot Eiropas un Krievijas attiecības,lai panāktu Eiropas pavājināšanos un savas ietekmes un ekonomiskā pārākuma nostiprināšanos.Arī Krievija publicēja savus satelītu novērojumus,kad ASV vēl tikai brēca,ka tie ir krievi, nevarot pasniegt nevienu pierādījumu.Nedomāju,ka Krievija ietu uz tik muļķīgu provokāciju,tāda provokācija ir izdevīgāka ASV, kura jau šobrīd netiek galā ar savu naudu,sāk zaudēt ietekmi uz pasaules ekonomiku,taču cītīgi cenšas to vēl saglabāt.
Nemot vera ASV kritusos situaciju, tas tai butu loti izdevigi - sobrid iejaukties.
Pasi lieliski zinam ar kuram valstim pats ASV dienu no dienas cik pasaules gadus karoja lai iegutu Irakas un Sirijas naftu, pietam sajos notikumos tika nogalinati 10reiz vairak cilveku. Vel ari deretu atcereties, par video, kura tika demonstreta ASV armijas attieksme pret parastiem Irakas iedzivotajiem - ASV armijas helikopters devas petit to teritorijas un ieraugot kadu parasto iedzivotaju, tas uzreiz tika nosauts - no ASV armijas helikoptera karaviriem bija dzirdami tikai smiekli (atkal vienu nosavu, fuc* yea, mot*er fu*ckers utt), apmeram ka skudru midisana tikai ar helikoptera stobra automatiem, kas tika versti pret jebkuriem redzamajiem cilvekiem,iedzivotajiem(pieaugusie vai berni, visiem). http://www.youtube.com/watch?v=5rXPrfnU3G0

Part translation: Why should Russia fire at/shoot down [incorrect grammatical form] some Malaysian airplane? It would be useful for the US – (using Ukraine) – thereby severing relations between Europe and Russia, to achieve the weakening of Europe and strengthening of its (US) influence and economic superiority… [etc.]

BIKINI TROLL

2014. g. 4. augustā 17:25

★1

oti interesanti speci cenšas apkrāpt visu normālo cilvēci, iestāstot, ka Krievija tikai vainīga!Varbūt pie amerikāņu vēstniecības var aiziet ukraiņi un nolikt ziedus un pateikties par to, ka pseidodemokrātijas ieviesēja kurina karus visā pasaulē...par maz

Part translation: very interesting – experts try to cheat all normal humanity, putting the idea into their heads that only Russia is guilty… [etc.]

AGGRESSIVE TROLL

1. **usa vs serbia** 2014. g. 29. jūlijā 23:01 Lieta ir tāda,ka viss ko pierāda Krievija ir patiesība! Viss ko gvelž amerikosu pēdulaizītāji tas ir salti meli ! to visi zin ! Vienkārši viss ir tik stulbi tā kā tas ir ! Godīgums kā tāds ir miris , par to ir žēl

Part translation: The thing is that everything Russia proves is true! And all the bullshit of American [untranslatable aggressive notion] is outright lies! [etc.]

WIKIPEDIA TROLL

230Sv

2014. g. 7. decembrī 17:40

★ 2

guntisl
1990.31.01. ASV spēki tiek izvietoti Panamā pastāvīgi (Operation Promote Liberty).
1990.01.-19991.01. ASV spēku operācija "Asmens" Libērijā.
1990. ASV spēku operācija "Nenovēršamais pērkons" Persijas līcī.
1990.02.08.-1991.17.01. ASV spēku operācija "Tuksneša vairogs" Persijas līcī.
1991.17.01.-28.02. ASV spēku operācija "Pārbaude" Persijas līcī.
1991.24.02.-28.02. ASV spēku (555 000 vīru) operācija "Tuksneša zobens" Persijas līcī.
1991.02.01.-11.01. ASV spēku operācija "Austrumu izeja" Somālijā.
1991. ASV aviācija bombardē Dienvidslāvijas federāciju, atņemot tai suverenitāti pār Serbijas provinci Kosovu.
1991.05.-06. ASV spēku operācija "Jūras eņģelis" Bangladešā.
1991.06. ASV spēku operācija "Uguns sardze" Filipīnās.
1991.09. ASV spēku operācija "Uzvarētājs atrasts" Haiti.
1991.24.09.-07.10. ASV spēku operācija "Palēšanās" Zairā.

Content: chronology of US military operations.

ATTACHMENT TROLL

Jj!

2014. g. 24. martā 10:30

★ 2

Vis ta pat ,ka bija pie mums 1991gada.Skaties te :http://vesti.lv/news/geroi-maidana-trebuyut-deneg

Translation: Everything like it was for us in 1991 [grammatically incorrect]. See: [link].

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