Opposition in Putin's Russia: Resisting Propaganda

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Abstract

Misinformation campaigns and propaganda are among the important pillars of contemporary authoritarian regimes which allow the incumbents to stay in power even without resorting to large-scale repressions. Still, under every authoritarian regime a certain share of citizens maintains oppositional attitudes towards the incumbent and his/her government and demonstrates resistance to the state's propagandistic campaigns. Present study explores the reasons behind the opposition's resistance to misinformation in Putin's Russia. Main methods of Russian propaganda and ideas which it propagates are identified. The study builds up on the existing body of literature on information processing and selective exposure. The hypotheses that Russian opposition assesses new information based not on informed decisions, but on the existing attitudes and values, is confirmed through two online experiments. Big data analysis of media consumption of the supporters of oppositional leader Alexei Navalny and Russian prime-minister Dmitry Medvedev on major Russian social network *Vkontakte* suggests that at least a considerable proportion of Russian opposition consciously engages in selective exposure, seeking out the media sources that present points of view consistent with the users' pre-existing oppositional attitudes.

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Introduction

Information is one of the most important resources in the 21st century. Long before the humanity entered the post-industrial era, information was crucial to politicians as it is the key to influencing public opinion, thus gaining or cementing one's popular support. The dictators of the 20th century, such as Stalin or Hitler, would not have been able to stay in power and do what they were doing without propaganda and massive misinformation campaigns.

Those 20th century dictatorships managed to penetrate every aspect of people's life and influence people's minds, sometimes completely changing their values and attitudes. In part it was possible due to the fact that the variety of information sources was very limited, which made it relatively easy for the government to take them under control. Now, however, we live in a different kind of environment. Currently information is disseminated through millions of various channels and it is literally impossible to control all of them.

Still, information is crucial to those in power or striving to get it. Contemporary authoritarian regimes' survival is highly dependent on information (Guriev and Treisman, 2015). With the appearance of new channels of information dissemination, new methods and techniques of propaganda have emerged. In some respects they are similar across different countries, but targets of propaganda and its main narratives vary from state to state.

One of the contemporary authoritarian regimes that can be considered quite advanced and successful at effectively disseminating propagandistic messages and waging misinformation campaigns is Putin's Russia (Paul and Matthews, 2016). Russian propaganda reaches the audiences both inside and outside the country and among its main targets since 2013 are not only Russian citizens and, in particular, oppositional activists, but the government of the neighboring

Ukraine and its supporters (see e.g. Pomerantsev et al, 2015; Khaldarova, 2016). Russian propaganda, its main methods, techniques and its reception by foreign audiences has been researched extensively in the recent years (e.g. Paul and Matthews, 2016; Khaldarova and Pantti, 2015; Gerber and Zavisca, 2016; Pomerantsev et al, 2015). The researchers have identified what makes Russian propaganda effective and which ideas and narratives it is pushing forward. At the same time, quite surprisingly, not much has been done in terms of studying the effects of Russian propaganda on internal audiences and, more importantly, the contexts where it fails. Present study in part aims to fill this vacuum.

Despite all the efforts of contemporary authoritarian leaders to manipulate public opinion in their states, under every authoritarian regime there is at least a small proportion of citizens who oppose the incumbent and his/her government. It seems plausible to suppose that the opposition under authoritarian regimes is the part of the population that is the least susceptible to state propaganda. Although Russian propagandistic machine has been actively working in the recent years, on March 26, 2017, thousands of people marched through the streets of all major Russian cities protesting against the current government and corruption. This protest action was the largest since the mass protests of 2011-2012 and indicative of the fact that there is still a considerable percentage of people in Russia who oppose Putin and his government. The opposition supporters are the part of the population who seemingly managed to escape the influence of Russian propaganda. It is unclear, though, *what accounts for the fact that opposition is resistant to the state misinformation campaigns*. This is the main question to be addressed in the present study.

To explore this question I used experimental design and big data analysis. This methodology is relevant in terms of conducting a study in an authoritarian context such as Putin's Russia as it allows to test causal relationships (experimental design) and avoid self-reporting bias (big data

analysis) (Garrett, 2003) which can be of major concern when it comes to studying people's behaviors under authoritarian regimes. Experimental design was chosen also because it accounts for higher internal validity of the study (Holbrook, 2011).

The results of the experiments indicate that Russian opposition supporters are resistant to misinformation campaigns that target oppositional politicians and to ideas promoted by state propaganda. Big data analysis shows that Russian opposition and government's supporters are highly polarized in terms of social media consumption preferences and identifies the social media sources referred to by Russian opposition.

To my knowledge, present study is the first to employ big data analysis, not surveys that are prone to self-reporting bias, to identify social media preferences of Russian opposition. Besides, it is the first study to check how effective Russian propaganda is at targeting oppositional candidates when it comes to opposition supporters. Present study seems even more relevant since Russian propagandistic machine is currently working quite hard in the online media realm to undermine the influence of Alexei Navalny, leading Russian oppositional politician, for example, by paying Russian bloggers and musicians to produce videos that discredit Navalny. The results of my study show, however, that attempts to discredit the opposition taken by state propaganda are ineffective when it comes to opposition supporters.

My thesis proceeds as follows. In the first chapter I present a literature review on the use of propaganda in contemporary authoritarian regimes, methods of Russian propaganda, theories concerning information processing and selective exposure. In the second chapter I describe major narratives constructed by Russian propaganda in the recent years about Russian opposition and Ukraine. The third chapter presents the experimental design, the description of the conducted experiments and the discussion of the results. In the fourth chapter I describe the specific methods

used in big data analysis and the data and present an overview and implications of the main findings.

Chapter 1. Russian Propaganda: What it is Like and How to Avoid It

In this chapter I present main theories with regard to the methods and aims of propaganda in contemporary authoritarian regimes and Russia in particular. The first section gives an overview of the theories regarding the role of propaganda for the survival of authoritarian regimes. The second section contains a description of the features of Russian propaganda and theoretical arguments about the reasons why it is effective. The third section is dedicated to the concept of selective exposure which in authoritarian regimes serves to opposition as a means to escape the influence of state propaganda.

1.1 The role of propaganda in contemporary authoritarian regimes

Early theorists of mass media and communication from the 1920s and 1930s argued that "propaganda is one of the most potent instrumentalities in the modern world" (Lasswell, 1927, P. 220). However, in the coming decades researchers have concluded that information does not always produce a direct effect on people's attitudes, and changing people's attitudes is in fact more difficult than was initially thought (Petty and Priester, 1994, P. 92). People tend to process the information that they receive to make it consistent with their own values and existing attitudes. For this reason, media is more successful in reinforcing people's existing attitudes than in changing them or inducing new ones (Ibidem). When people receive a piece of information, they can check whether it is true or false, but that requires certain mental efforts. It is thus easier for a person to rely on her personal experience, emotions evoked by the new piece of information, and its consistency with her previously held values and attitudes (Lewandowsky et al, 2012). Information

which is inconsistent with one's existing attitudes has a tendency to evoke negative emotions in people and thus is processed less fluently (Festinger, 1957). At the same time, disfluency in information processing makes people feel that something is not "right" with the piece of information and makes them assess the new information more carefully (Winkielman, Huber, Kavanagh & Schwarz, 2012).

The presence of such effects proves that it is indeed quite difficult to significantly alter people's opinions with propaganda. Hereafter propaganda is understood in a broad sense – it is "any action by the government that makes the message "the leader is competent" more convincing to the public" (Guriev and Treisman, 2015, P.4) and includes both - "traditional instruments such as government advertising, production and broadcast of distorted news shows, pro-regime online media, bribing and planting of stories in the supposedly independent press, and hiring of internet "trolls" to post pro-regime comments" (Ibidem).

The scholars of authoritarian regimes argue that contemporary autocrats do not aim at changing people's minds and do not try to be the "engineers of the souls", unlike the autocrats of the 20th century, such as Hitler or Stalin (Guriev and Treisman, 2015, P. 2-3; Huang, 2014, P. 2). The main aim of propaganda in contemporary authoritarian regimes such as Orban's Hungary, Erdogan's Turkey or Putin's Russia is convincing the citizens that the autocrat is competent enough to govern (Guriev and Treisman, 2015, P.2). Hitler, Stalin and Mussolini tried to redesign people's beliefs completely and convince the citizens that their personal sacrifices are done for the common good of the state and all people. Modern autocrats' aims are much more modest. They do not try to promote any ideas about the common good. Instead, they direct their efforts into making citizens support them for their own selfish reasons (Ibidem). In their informational theory of the new authoritarianism Guriev and Treisman (2015) show that propaganda, misinformation and opinion

manipulation are the main pillars of contemporary authoritarian regimes which make it possible for them to survive even without resorting to mass repressions and violence (Ibid, P. 3-6).

A study about the role of propaganda in the survival of contemporary authoritarian regimes, based on evidence from China, indicates that propaganda does not have to be convincing for being effective in terms of maintaining the stability of the regime. Indoctrination might not be the ultimate goal of propaganda. Instead, the major aim is signalling to the public that the state is strong enough, so that people do not dare to revolt against it (Huang, 2014).

In a report which analyses the role of disinformation in contemporary authoritarian regimes such as China, Turkey, Russia, Venezuela and Syria, the researchers state that the main priority of modern authoritarian governments is not stopping all the criticism – as it is not possible anyway – but instead undermining the self-organising potential of the society in order to prevent rebellions and revolutions (Pomerantsev et al, 2015).

Quite paradoxically, even when people are well aware of the government's tight control of the media, they still refer to media to learn about social, political and economic issues. This, in turn, makes them susceptible to the false information conveyed by the media (Stockmann and Gallagher, 2011).

However, in every authoritarian regime there is at least a small proportion of citizens who oppose the incumbent and his/her government. If one admits that the main aim of propaganda in contemporary authoritarian states is the prevention of dissent and rebellions, it means that the opposition in these regimes is the part of the population that is the least susceptible to state propaganda.

Though contemporary authoritarian regimes are similar in the sense that all of them use propaganda and misinformation in order to maintain the stability of the regime and prevent the citizens from challenging it, they differ in the ways they wage misinformation and propagandistic campaigns. In the next section I present an overview of the main features that characterize contemporary Russian propaganda and outline the most important means of disseminating false information as well as the major propagandistic narratives.

1.2 Russian propaganda: main features

Russian government's approach to propaganda has significantly evolved since 2008, when Russia conducted a military operation in Georgia (Paul and Matthews, 2016). Since 2008, as Peter Pomerantsev notes, "Kremlin military and intelligence thinkers have been talking about information not in the familiar terms of 'persuasion,' 'public diplomacy,' or even 'propaganda,' but in weaponized terms, as a tool to confuse, blackmail, demoralize, subvert, and paralyze" (Reston, 2017, P. 7). The "accomplishments" of Russian propagandists were demonstrated most explicitly during the Ukrainian crisis of 2013-2014 which started with a revolution in Ukraine known as "Euromaidan", or the "Revolution of Dignity" (Ukr. "Революція Гідності"), and was followed by the annexation of Crimea by Russia and the start of the military conflict in the eastern part of Ukraine.

To some extent contemporary Russian propaganda is built upon the Soviet Cold War era techniques (Oliker, 2015), but at the same time Russia has taken advantage of modern technologies which did not exist during the USSR times. Russia, along with Iran and China, has been successfully using the internet as a means of delivering propagandistic messages. To fight "Twitter Revolutions", Russian state is waging "Twitter counter-revolutions" by making armies of internet

trolls flow Twitter and other social networks with pro-governmental comments and fakes that discredit the opposition (Morozov, 2009).

Paul and Matthews characterize Russian propaganda as "the firehose of falsehoods" as it uses a great variety of channels – the internet, TV, social media, radio and newspapers, basically everything, - in order to disseminate partial truths or blatantly false messages (Paul and Matthews, 2016, P. 1). Usage of multiple sources to deliver propagandistic messages is a quite effective technique as previous research on persuasion demonstrates that a) multiple sources are more persuasive than a single source (Harkins and Petty, 1981); b) people believe that information from different sources reflects different perspectives, thus they are more likely to take it into consideration (Harkins and Petty, 1987), especially if messages in different sources are based on different arguments but point to the similar conclusion (Harkins and Petty, 1981).

Other features of Russian propaganda are that it is "rapid, continuous and repetitive" (Paul and Matthews, 2016, P. 4) and Russian propagandists do not commit to objective reality (Ibid, P. 5). The latter makes it possible for them to be the first to deliver the news, as they do not need to check the facts and wait for the official confirmation of the information. That, again, makes the propaganda more effective as when people are presented with conflicting information they are more likely to believe the one they saw first (Petty et al, 2005).

Russian propagandistic messages are often repeated overtime (Paul and Matthews, 2016, P. 4). That adds up to the efficiency of propaganda as a) repeated exposure to a statement increases its acceptance as a truthful statement (Ecker et al, 2012); b) when people are not very much interested in a topic, they are more likely to believe that the statement is true if they encounter it multiple times (Claypool et al, 2004); c) people tend to save time, energy and mental efforts when processing information by using a "frequency heuristic" and believing the information that they

simply heard more often (Alba and Marmorstein, 1987); d) when people see the same information multiple times they assess it less carefully and thus are less likely to distinguish weak arguments from the strong ones (Garcia-Marquez and Mackie, 2001).

As outlined in the previous section, the main aim of propaganda in contemporary authoritarian regimes is the containment of the opposition and the prevention of rebellions and revolutions. The Rose Revolution in Georgia (2003) and Orange Revolution in Ukraine (2004-2005) aroused significant concern among Russian political elites (Meister, 2016, P. 3). Logically, the mass protests which took place in Russia in 2011-2012 and the Revolution of Dignity in Ukraine (2013-2014) have made Russian elites even more concerned and suspicious about the potential threats to the regime which are constituted by the opposition. Since 2013 the main aim of one of the Kremlin's major ideologists (currently the head of Vladimir Putin's administration) Vyacheslav Volodin has been the prevention of "colored revolutions" in Russia (Zygar, 2016). At the same time Russia had to justify the annexation of Crimea and the subsequent support for the pro-Russian separatists in Eastern Ukraine. Thus, the main targets of the state's propaganda machine became the new Ukrainian government led by president Petro Poroshenko and Russian opposition. The particular methods and narratives employed by Russian propaganda in this respect are described in chapter 2.

During the Ukrainian crisis, Russian propaganda tried to "construct the vision of the West as a declining global power in an unjust unipolar world" (Shakrai, 2015, P. 47). It also made efforts to link the concepts of liberalism, globalization and democracy to the EU and the US, and identify them as threats to Russia (Ibidem). The enemy-or-friend thinking was promoted by the propaganda during the Ukrainian crisis and the "Others" – the US, the EU, the new Ukrainian government

along with their sympathizers, among who are Russian liberal oppositionists, - were demonized (Ibid, P. 40-45).

Russian TV channels were flooded with the news about Ukraine. It brought back in front of the TV screens the poorly politically informed audiences as well as the people who had distanced themselves from the official news sources years ago, and that was of tremendous help to the efficiency of Russian propagandistic machine (Rogov, 2016, P. 39-40). After the annexation of Crimea in 2014 Putin's ratings, which had been decreasing for a number of years, suddenly soared, as well as the ratings of major Russian political institutions. At the same time the percentage of citizens who considered the levels of corruption in Russia to be increasing dropped from around 50% to 30% (Ibid, P. 33).

Still, just three years later, on the 26th of March 2017, large-scale protests took place in Russia and thousands of people went into the streets of around 100 Russian cities to protest against the government's corruption and, in particular, the alleged corruption of Russian prime minister Dmitry Medvedev (the details are presented in Chapters 2 and 4). These protests have proved that there is still a considerable percentage of Russian citizens who do not believe the state propaganda and might pose a threat to the regime. As the state media projects false and/or propagandistic messages, opposition has to rely on alternative sources of information and avoid the state media, thus selectively exposing themselves to certain sources of information.

In the next section I present an overview of the selective exposure effect and related concepts.

1.3 Selective exposure – a means of "inner emigration"?

The growth in the number of various news sources – TV, radio, newspapers, magazines, blogs, online media etc. – in the recent decades has made it easier for people to find the news sources that are consistent with their own attitudes and points of view (Lewandowsky et al, 2012). This phenomena is known as selective exposure (Ibidem). As there is a huge variety of media offered, people tend to choose those that align with their views thus demonstrating "partisan biases in consumption" (Bennett and Iyengar, 2008, P. 724).

Selective exposure can be defined as the process by which people prefer to encounter information that is supportive of their existing beliefs (Stroud, 2008). One possible explanation of this phenomena is related to cognitive dissonance and stems from the idea that when people are presented with information that is inconsistent with their beliefs they feel discomfort and dissonance (Festinger, 1957). To avoid these feelings people try to expose themselves only to the information that aligns with their values, attitudes and beliefs (Klapper, 1960). Another possible explanation of the selective exposure phenomena is that people employ it as a strategy that reduces the cognitive efforts put into information processing (Smith, Fabrigar, & Norris, 2008) as their information processing capacities are limited (Lang, 2006) and information that is consistent with the existing beliefs is easier to process (Edwards and Smith, 1996). Finally, messages that align with one's beliefs seem to people to be more credible (Lord, Ross, & Lepper, 1979).

People tend to surround themselves with individuals who are similar to them in a number of characteristics such as gender, demography, socio-economic status and political orientations (McPherson, Smith-Lovin and Cook, 2001). This leads to the formation of the so-called echo chambers – the communities of like-minded individuals within which people are exposed to the

opinions and ideas which are consistent with their own views (Sunstein and Vermuele, 2009). This concept is related to the phenomena of selective exposure as it also results in people exposing themselves only to the information that aligns with their attitudes.

Scholars of these phenomena point out that selective exposure increases polarization in the society (Garrett, Carnahan, & Lynch, 2013; Iyengar & Hahn, 2009; Prior, 2013; Stroud, 2008). The absolute majority of the studies on the topic were conducted in the context of liberal democracies, where polarization is often associated with different party affiliations (e.g. the Republicans vs the Democrats in the US context). However, in authoritarian countries such as Putin's Russia polarization might take place not along the party lines, but in terms of the pro-government vs anti-government partisanship.

Chapter 2: "The mentioned citizen" and "banderovtsy": how Russian propaganda treats opposition and Ukrainians

In the previous chapter I pointed out that in authoritarian regimes the main aim of state propaganda is the suppression of opposition and prevention of rebellions, as well as cementing public support for the incumbent and his/her government. In this chapter I outline how Russian state media have been striving to achieve that aim in the recent years. In the first section I describe how Russian state propaganda prevents the opposition and protestors from gaining supporter by preventing them from getting any publicity. In the second section I present the main narratives and methods employed by Russian propaganda in the coverage of the Ukrainian crisis and identify the ideas proactively promoted by the state media in this regard.

2.1 Sweeping aside the opposition

Along with the development of information technologies, online media in Russia have been developing very quickly in the recent decade. Still, according to the poll conducted in May 2017, half of Russian population considers TV to be the most credible source of information, while only 18% of people claim they trust online news sources and media the most (FOM, *Istochniki Informatsii, Monitoring).* 78% of Russians claim that TV is among the primary sources of information for them (the respondents could name up to 3 sources of information when answering this question) and just 41% of the respondents named online media among those (Ibidem). It is worth mentioning though that the share of those who draw information primarily from the online media has doubled since 2011, while the percentage of people who name TV among primary sources of information has decreased from 92% to 78% over the same period (Ibidem).

Nevertheless, TV is still deemed the most credible source by 50% of Russians and the vast majority of Russian population turn to their TV screens for the latest news. Thus, it has tremendous influence on Russian people and their opinion. In 2015 the share of internet users in Russia was estimated at 73.4% of the population. This figure has risen dramatically since 2011 when it equalled 49% (World Bank, Share of Internet Users in Population). Granted, a certain share of Russian population still gets the information from TV only, but based on the data described above it is obvious that the percentage of people who live mainly in the "TV reality" has decreased drastically since 2011, while the share of those who have switched to the "online" reality has increased.

In 2011 for at least a half of Russians who did not have access to the internet what was not on TV (and 92% of the people, as noted above, named it among the primary sources of information at the time) simply did not happen. In the end of 2011 parliamentary elections were held in Russia and the opposition believed they were rigged. That is why in the beginning of December, right after the elections, thousands poured into the streets of Moscow and St Petersburg to protest the election results. Among the leader of the protests was Alexei Navalny, at the time a popular Russian blogger who showed keen interest in politics. The protests of 2011 were among the first in which Navalny acted as a leader of the opposition.

While the Russian online media along with the foreign TV channels such as CNN or BBC extensively covered the protests and a lot of online live streams of the events were available on various Russian websites and social networks, state TV channels in Russia acted as if nothing happened. They did not show anything about the protests, though according to different estimates 25 to 150 thousand people participated in the biggest protest of December 2011, which took place on Bolotnaya Square in Moscow on the 10th of December (Lenta.Ru. 10 Dekabrya, Khronika).

On the state TV channels literally not a word was said about those protests. Instead, *Channel 1* showed a footage of a rally of the supporters of *United Russia* who celebrated the party's victory in the elections (Lenta.Ru. Razorvannoye Soznaniye). This is just one typical example of how state media in Russia were treating opposition in the recent years: they simply pretended it did not exist.

Both state media and Russian officials have been avoiding mentioning either the opposition-staged protests or the opposition leader Alexei Navalny in the last years. In 2015 a leaked report revealed that the Kremlin had unofficially banned state media, executives of state companies and officials from mentioning Navalny's name to prevent him from gaining any publicity (Meyer, Reznik and Pismennaya, 2015). The only person who ever violated this ban was Anatoly Chubais, the head of the state-owned *Rusnano* company. In 2015 he participated in a televised debate with Navalny held by the only Russian independent TV channel *Dozhd'*. During the debate Chubais called Navalny a "promising" politician. And just a few weeks later two of Chubais' accomplices were detained for the alleged embezzlement of the company's money, even though they denied any wrongdoing and the company claimed it didn't suffer any losses (Ibidem).

In fact, Russian state media and officials still refrain from mentioning Navalny's name. One of the independent media outlets have compiled a list of the "euphemisms" the media and officials use to call Navalny instead of calling him by name. Among them are, for instance, "the mentioned citizen", "the convict", "political impostor", "this gentleman" and simply "blogger Lyosha" (Lyosha is an informal variant of Navalny's first name) (Meduza. Dmitriy Peskov, govorya o Navalnom, snova ne upomyanul ego familiyu).

Since Navalny and other oppositional figures are completely absent from the state media's reports, people get all the information about them from the online media and social networks. Since 2011 many things have changed. As noted above, more and more people in Russia are going online, so

the government's propagandistic machine also has changed its tactics and get used to fighting its battles against opposition on the online battlefield. A part of the propagandistic machine is the infamous Kremlin's "troll factory". Its employees write thousands of comments and posts which contain propagandistic messages, among which messages that discredit Navalny are often found. Of course, Russian state confronts the opposition not only in the media realm. For example, in 2013 Navalny was convicted for an alleged embezzlement, though many people still do not believe that he is actually guilty. In fact, later on, the European Court on Human Rights ruled that the case against Navalny was fabricated and there is not enough evidence for the conviction and that the investigation itself was conducted with multiple violations.

Still, in the beginning of 2017 Russian court has reconfirmed its decision to plea Navalny guilty of embezzlement. Criminal charges now prevent Navalny from running for presidency in 2018, but he claims that he still intends to participate in the elections. Online media thoroughly covered the Navalny's case. This time the negative coverage about Navalny was not fake news – he really was convicted. However, the audience still would not believe that he was lawfully convicted. In fact, in Russia, the majority of the newsworthy events related to opposition are connected with the repressive actions of the government against it (e.g. fabricated criminal charges). Thus, people who follow the news about opposition expect much of the new information to be negative. Given the constant negative coverage of the opposition, its supporters tend to process new negative information on opposition either as fake news or as the news that are factually correct, but based on fabricated cases.

Previous scientific findings suggest that the audience develops certain expectations about the content of the message based on the situation, context and the source (Perloff, 2003, P. 163-164). If the message violates those expectations it is perceived as more credible while when the message

goes in compliance with those expectations, it is deemed less credible (Ibid, P. 164-168). And, as opposition supporters in Russia expect the information about the opposition they encounter to be negative and at the same time know that it can be disseminated or fabricated by the Kremlin, they tend to find this information less credible. Based on that I lay out the first hypothesis of my study:

H1: Presenting the people who can be identified as opposition in Russia with negative information about an oppositional politician does not significantly affect their perceptions and views on this politician.

As I pointed out earlier in this section, state media in Russia does not cover opposition-related news at all. Besides, the opposition supporters are aware of the propagandistic nature of the content disseminated by state media. Hence, they of the opposition have to turn to other sources in order to find any new information (even negative one) on the opposition, thus selectively exposing themselves to certain media sources. The second hypothesis of the present study is:

H2: Opposition's and government's supporters in Putin's Russia selectively expose themselves to different media sources.

If that hypothesis is correct, then selective exposure to certain news sources (e.g. the independent media) helps opposition in Putin's Russia to escape the world of the state propaganda and maintain resistance to misinformation campaigns waged by the government, and polarization with regard to media preferences takes place not along the party lines, like in liberal democracies, but in terms of pro-governmental vs anti-governmental partisanship.

2.2 Russian misinformation and the Ukrainian crisis: from bad to worse

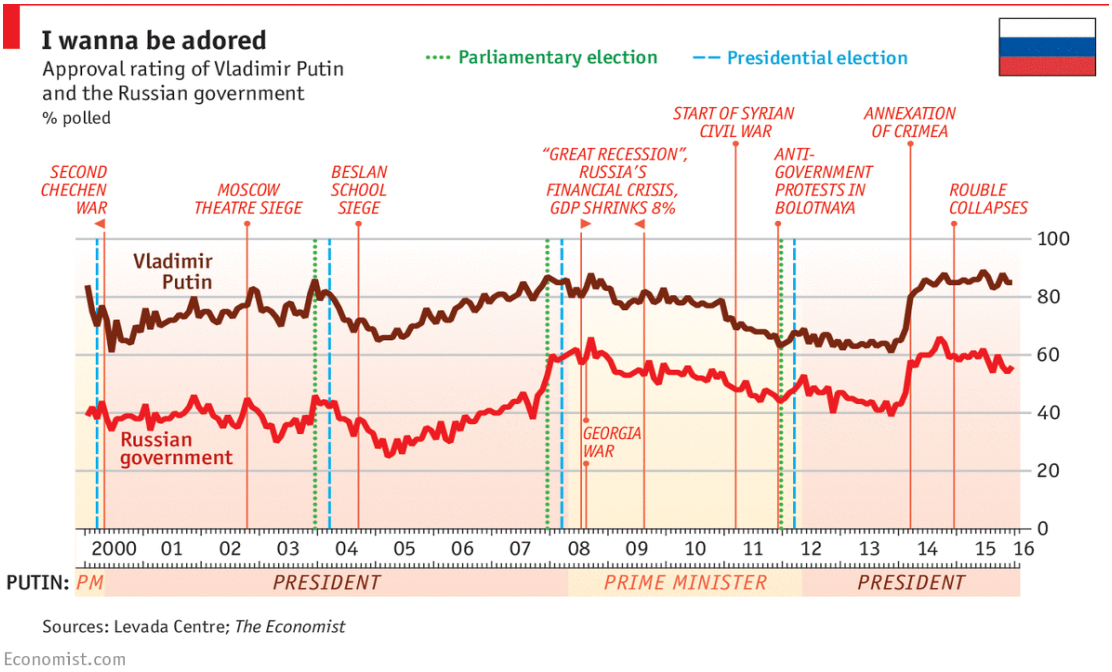
"Of all media events, wars and terrorist acts are unquestionably most powerful. A war, especially if it is being fought a few thousand kilometers off, becomes a spellbinding drama that millions of viewers, huge armies of fans – far more than with any conceivable football or hockey tournament – can watch with a variety of emotions". (Zasurskii, 2002, P. 123-124). Russian media specialist Ivan Zasurskii wrote these words in 2002 referring to the Second Chechen War. Twelve years later they got relevant once again, now with referral to the events in Ukraine. In his book, Zasurskii outlined how the start of the Second Chechen War helped Vladimir Putin come to power back in 2000 (Ibidem). Fourteen years later the Ukrainian crisis helped Putin regain the trust and support of Russian people which, prior to the start of the Ukrainian revolution and subsequent annexation of Crimea by Russia, had been slowly but steadily decreasing for a couple of years.

Figure 1 below illustrates the dynamics of Vladimir Putin's and the Russian government's approval ratings. It is clear from the chart that the decreasing ratings of the Russian president and government suddenly soared in the end of 2013 – exactly when the revolution in Ukraine was unfolding – and reached the all-time high after the annexation of Crimea. In fact, later on Putin's ratings were not hurt even by the collapse of Russian currency.

Rogov (2016) calls this sudden surge in the Putin's ratings and overall rise of support for the government in Russia "the Crimean syndrome". He explains this effect by the fact that, in late 2013-2014, speculating around the Ukrainian crisis, Russian propagandistic machine managed to attract the attention of the part of Russian population which had previously lost interest in politics. This part of the population became interested in politics and keenly followed the news about Ukraine presented by the Russian media as it seemed entertaining to them (Ibidem). To understand how the Russian propaganda managed to add up to Putin's ratings and reengagement of the citizens

in politics it is worth looking into the main methods employed by Russian media when covering the events in Ukraine and identify the main narratives constructed in this respect.

Figure 1. Approval rating of Vladimir Putin and the Russian government 2000-2016. (Source: The Economist Daily Chart, http://www.economist.com/blogs/graphicdetail/2016/02/daily-chart-4)



When it comes to the coverage of the Ukrainian crisis by Russian state media, the most important aspect to note is the difference between the coverage of the protests in Ukraine by Russian TV channels and sources targeted mainly at internal audiences (such as *Channel One, Rossiya, 5 Kanal or NTV)* and the coverage targeted at external audiences (e.g. by *Russia Today).* The analysis conducted by Irina Khaldarova (2016) shows that though both *Channel One* and *RT* at the time showed the news about Ukraine with the similar frequencies, *Channel One* put more weight and emphasis on the Ukrainian crisis than *RT* (Khaldarova, 2016, P. 135). Besides, the main message

of the two channels with regard to the Ukrainian crisis was different. While *RT* focused mostly on the "West VS Russia" narrative, *Channel One* focused on the internal Ukrainian issues trying to portray Ukraine as a failing state with growing economic troubles that poses a radical nationalist or fascist threat. In this regard it seemed plausible to the people who viewed mostly *Channel One* coverage that people in the eastern Ukraine and Crimea wanted to join Russia (Ibidem).

In 2013 Russian media resorted to full-scale propaganda and intentional misinformation. While the protest movement evolved in Ukraine, the main narrative of the state-controlled media in Russia centered around the idea that the protests are "colored" (or West-sponsored), thus appealing to the antiliberal sentiments harbored by the majority of the Russian population (Ibid, P. 132), and that these protests would only hurt Ukraine and worsen Ukrainians' living conditions. The main message of this propaganda can be summed up in the following way: "if you protest, your life will become worse – just look at what is going on in Ukraine". This narrative was often present in the coverage of the events by Dmitry Kiselyov, one of the most infamous Russian TV hosts.

In his weekly program *Vesti Nedeli* on *Rossiya* channel Kiselyov presents the "analysis" of the events that take place around the world, usually in a propagandistic manner. For example, in the beginning of December 2013 Kiselyov claimed in one of his programs: "Under the motto *Ukraina tse Evropa ["Ukraine is Europe" in Ukrainian]* life in Kiev becomes more and more archaic" (Kiselyov, *Vesti Nedeli,* 8 December 2013). Subsequently, photos allegedly picturing the life of the protesters in Kiev were shown. They show a first aid center organized by them on the spot or the simplistic meals they were cooking right on the main square of Kiev amidst the protests. Kiselyov was commenting on the pictures in an ironic manner. For example, he calls the on-the-spot first aid center "the new Ukrainian healthcare system" (Ibidem). The pictures of some protesters wearing gas masks were also shown with Kiselyov's sarcastic comment "It should be

noted, that neither in Europe, nor in Russia, people don't show up to the "public walks" in such outfit – it does not fit our morals, it's local [Ukrainian] style" (Ibidem) – a clearly racist note as it derides the Ukrainian people as a nation as well as their norms. Kiselyov simply distorted the facts, trying to show the "bad" protesters and the "good" Ukrainian police. For instance, a picture of a person who attacked the police with a metal chain was shown with Kiselyov's comment "The picture was made during an attempt of the storming of the presidential administration building in Kiev, before the police started forcing people out of Maidan [the main square of Kiev where the protests took place]" (Ibidem). However, the special forces of the Ukrainian police attacked the people on Maidan and forced them out on the night of the 30th of November. And the picture of the person with a chain was taken on the 1st of December. It was not an attempt of storming the presidential administration, but an incident with a provocateur on Bankovaya street (Petik, Evseeva, 4 December, 2013).

Another method employed by the Russian media is the use of mismatched text and visuals. As Khaldarova (2016) notes: "The channels were clearly focused on the narratives, so that the textual and/or spoken message was formulated accordingly, while the visuals were not always able to present the "proof" of the message, creating a gap between the lexical-verbal text and the visuals". (Khaldarova, 2016, P. 134). Though Khaldarova analyzed primarily *Channel One* and *Russia Today*, the same methods can be observed in the coverage of the Ukrainian events by other Russian state-controlled TV channels (Ibidem). One example is a program that Kiselyov presented in the beginning of March 2014 with a report from Crimea. While the correspondent was saying that "with the *massive* support of the population the power was transferred to the local [as opposed to the central Ukrainian] government", on the footage a few dozens of people shouting "Russia" were shown, which clearly does not demonstrate the *massive* support (Kiselyov, *Vesti Nedeli*, 2 March

2014). After this in the same program Kiselyov himself described the "horrifying" new Ukrainian regime, noting about the meddling of the US in the process: "the new prime minister Arseny Yatsenyuk, who was chosen by the US" or "any dissidence is silenced with blood and violence" (Ibidem). The main narrative of Kiselyov's program focused on the idea that the transition of Crimea is happening peacefully - "without a single shot being fired" (Ibidem) – and that the new Ukrainian government is "cruel" and West-sponsored and people in Crimea, who supposedly want to become a part of Russia, should be protected from the "atrocities" conducted by the new Ukrainian government.

Another point highlighted by the Russian media is that the "situation" around Crimea had nothing to do with Russia, but was provoked by Ukrainians. Kiselyov's program aired on the day of the Crimean referendum about "joining" Russia started with the footage of president Putin repeatedly saying that "we [Russia] were forced into this situation and now have to somehow deal with it". The same statement was repeated a few more times and stressed by Kiselyov (Kiselyov, *Vesti Nedeli*, 16 March 2014). After that, the program presented a report about "the American-chosen" Ukrainian prime minister Yatsenyuk's meeting with Obama. Some footage of the meeting was shown with Kiselyov's comments. According to him, Yatsenyuk asked the US to conduct military actions against Russia to aid Ukraine and Obama answered that they would not send Ukraine any military help, except for, maybe, according to Kiselyov, "some canned food" (Ibidem) for the Ukrainian army. In a previous program Kiselyov apparently claimed that the Ukrainian army was non-existent (Kiselyov, *Vesti Nedeli*, 2 March 2014).

In fact, everything Kiselyov said about the content of the meeting between Yatsenyuk and Obama was a lie. Yatsenyuk did not ask for any military support from the US. Instead, he restated that Ukraine is ready for negotiations with Russia to peacefully solve the crisis. What Obama said is:

"[if Putin does not go for a peaceful solution] I'm very confident that the international community will stand strongly behind the Ukrainian government in preserving its unity and its territorial integrity." Also, he promised to give Ukraine $1 billion in aid, while repeatedly stating that the US will not recognize the results of the Crimean referendum and that the US will try to put pressure and negotiate with the Russian government to persuade them to find a peaceful solution (Remarks by President Obama and Ukraine Prime Minister Yatsenyuk after Bilateral Meeting, 12 March 2014).

After airing the report on the bilateral meeting between Yatsenyuk and Obama, Kiselyov claimed that Russia "is the only country in the world that can turn the US into radioactive ashes" and then described the nuclear warfare possessed by Russia (Kiselyov, *Vesti Nedeli,* 16 March 2014). Another report from Crimea subsequently aired showed people with firearms (including underage boys) who were saying that they will be able to "greet" the Ukrainian army if it comes to Crimea (Ibidem). In the same program Kiselyov repeatedly stated that the US is meddling in the Ukrainian crisis and that it was instigating the crisis itself (Ibidem). This narrative heavily relied on the anti-American and anti-Western feelings harbored by the majority of the Russian population.

When the war in Ukraine began, all Russian state-controlled media continued to build on the narrative of "fascist" Ukrainian forces, thus trying to discredit the Ukrainian government and legitimize Russian aid to separatists in the eastern Ukraine and their actions. They employed the narratives of the Great Patriotic War (Soviet-German war, part of the WWII – 1941-1945), which, for many Russians, has sacred value. Kiselyov claimed that the Ukrainians were using the "methods of the German-Fascist occupants" (Kiselyov, *Vesti Nedeli,* 27 April 2014). *Rossiya* TV channel produced a whole documentary titled *Banderovtsy* (Mamontov, 2014), which told the story of the Ukrainian Insurgent Army and Stepan Bandera who during the WWII fought for the

Ukrainian independence, and thus against the Soviet Forces, showing that *banderovtsy* (presumably those Ukrainians who see Bandera as a hero who fought for the Ukrainian independence) are fascist. According to the narrative constructed by Russian state media, all Ukrainians who supported Euromaidan and the new Ukrainian government are *banderovtsy*, thus, fascists (Khaldarova, Pantti, 2016, P. 894). In fact, Stepan Bandera's followers collaborated with Nazis as they promised to help in establishing an independent Ukrainian state. However, in August 1941, as soon as Ukrainian nationalists tried to proclaim independence, they were arrested by Nazis. Bandera's image during the Euromaidan was predominantly used by the right-wing forces, but Russian media based on that tried to build a narrative that everyone who supported the protest in Ukraine were *banderovtsy* and that the new Ukrainian regime is fascist (Ibidem).

Another narrative frequently used by the Russian media was referring to the Ukrainian soldiers as "executioners worse than fascists" (Ibidem). There were, for instance, such hilarious claims made by the speakers of the *Sunday Evening with Vladimir Soloviev* on *Rossiya* channel: Ukrainian soldiers ordered that the blood of Russian kids be served for them by the schools in the eastern part of Ukraine or that the teachers in Ukrainian schools instructed the kids to help tomtits (as they have similar colors as the Ukrainian flag) and refrain from feeding or even hunt on bullfinches (as they have similar colors as the Russian flag) (Top 10 perlov rossiyskoy propagandy, 2015).

In certain cases, to provide proofs of the "atrocities" conducted by the Ukrainian soldiers, Russian TV channels edited the videos of Ukrainian TV channels or footages available online. For example, when Ukrainian *Hromadske TV* aired a video depicting a Ukrainian soldier from Schastye city in eastern Ukraine participating in a military operation near his hometown, the correspondent asked him whether Ukrainian soldiers killed any civilians (as that was what Russian media were claiming). The soldier replied: "if anyone leaves the military base with such intentions [to kill

civilians], I will be the first one who will shoot that soldier as he returns. I have told the captain about that" (Yak 50 boitsiv "Aidaru" zvilnili Schastya, *Hromadske TV,* 16 June 2014). Then Russian *5 Kanal* aired a report on the atrocities of the Ukrainian soldiers. The voice in the back said that Ukrainian army kills its own soldiers who say they will not kill civilians and then, as a proof, they showed the excerpt from *Hromadske TV's* report with the soldier's phrase: "if anyone leaves the military base with such intentions [in the new, Russian channel's, context it sounded like with the intentions *to refrain from killing civilians*], I will be the first one who will shoot that soldier as he returns" (Geroi I karateli, *5 Kanal*, 22 June 2014).

As the war in Ukraine is still going on, so are the misinformation campaigns against Ukraine in Russia. In one of the most recent news reports by *Channel One* the Ukrainian government was called "the new Nazis". It was claimed that they are trying to "prohibit the celebration of Victory Day" (9 May is a national holiday dubbed as the Victory Day in many post-soviet states), which is not true. The whole report from Ukraine was done in the same manner: it shows that in Ukraine the "Nazi and fascist" government along with their "Nazi" allies is intimidating people (Voskresnoye Vremya, *Channel One,* 14 May 2017). Unfortunately, there is no end in sight either for the war in Ukraine or for the Russian media war.

To sum up, the narratives propagated by Russian media with regard to the Ukrainian crisis are as follows. Firstly, foreign (Western) forces meddled in the Ukrainian internal affairs and instigated the crisis. They are also trying to distort the order in Russia. Secondly, the transition of Crimea to Russia happened peacefully. It was the result of the free will of the people of Crimea and Russia did nothing to interfere, it was "forced into" the Ukrainian crisis, as Putin said: "we [Russia] were forced into this situation and now have to somehow deal with it" (Kiselyov, *Vesti Nedeli,* 16 March 2014). Thirdly, the current Ukrainian government is fascist and cruel, thus Russia did right by

"saving" Crimeans, and Russia needs to help the people in the eastern Ukraine to save them from the fascist Ukrainian government. However Russia does not militarily interfere in the crisis.

It is worth noting that Russian media do not promote any particular position regarding the separatist movements in the eastern part of Ukraine. The media propagate the idea that the people in these regions are suffering from the aggression of the new "fascist" Ukrainian government, but still do not try to push forward any agenda about what Russia and Russians have to do about this, only stressing that there are no Russian troops in Ukraine.

As it was outlined in the previous sections, Russian opposition is aware of the media censorship and state propaganda. However, they cannot know for sure which particular narratives of the state media are propagandistic and based on distorted facts, and which are factually correct. In this situation the opposition, trying to escape the influence of the state propaganda, might resort to simply disbelieving everything that is said by state media and pushed forward by state propagandists. They might use this kind of logic: if state media is actively promoting an idea, it must be a lie.

Festinger, Riecker and Chakter (1957) based on the theory of cognitive dissonance developed by Festinger (1957) argued that presenting people with information that is inconsistent with their attitudes might not change their minds, but instead reinforce their prior views and beliefs. Besides, people try to avoid having conflictual and mutually exclusive attitudes (Ibidem). If an oppositionist accepted that something propagated by state media is true, she would have to deal with cognitive dissonance as she believes that the state media constantly resorts to lies and propaganda.

In the recent years the state media put an emphasis on the Ukrainian crisis. There is solid evidence that certain narratives promoted by the Russian state media in this respect are based on false information or distorted facts – for example, the narrative that all Ukrainians are *banderovtsy* and

fascists. On the other hand, there is no solid official evidence proving or disproving that there are Russian troops in the eastern Ukraine (though plenty of unofficial evidence), or that foreign forces did not meddle into the Ukrainian protests of 2013-2014. However, certain viewpoints on these issues are propagated by the state media, and the opposition might believe these points of view are wrong simply because they assume that the state media predominantly spread fake news and propaganda. This idea goes in line with the implications of Festinger's cognitive dissonance theory (1957) presented above. Based on that I formulate the third hypothesis of the present study:

H3: Russian opposition does not believe the ideas and myths promoted by Russian media, regardless whether there is solid evidence to support or contradict those ideas.

Chapter 3. Resistance to Russian propaganda: evidence from an experimental study

In the previous chapter I laid out three main hypotheses of my study. H1 was tested using experimental design, the results of the analysis are presented in this chapter. Besides, the data collected during the experimental study was used to test H3 using logistic regression, the results are also presented in this chapter. To test H2 I employed big data analysis and the results are discussed in chapter 4.

3.1 Research methodology

The hypothesis that was tested using experimental design is H1:

Presenting the people who can be identified as opposition in Russia with negative information about an oppositional politician does not significantly affect their perceptions and views on this politician.

To test it I conducted a lab experiment. I tested whether presenting people who can be identified as opposition supporters with negative information about a) a non-oppositional candidate and b) an oppositional candidate would alter their perceptions concerning this candidate. If H1 is correct, then opposition supporters would react to the negative information about a non-oppositional candidate (their perceptions of this candidate would become more negative after they receive negative information about the candidate), and at the same time they would not react to the negative information concerning an oppositional candidate (their perceptions of this candidate after receiving negative information would not change significantly).

Experimental designs are quite frequently employed by social scientists when it comes to measuring attitudes and attitudinal change (Druckman, 2011). The main reason why scientists employ experimental designs instead of non-experimental, or observational designs, such as, for example, a cross-sectional design or longitudinal data collection, is that experimental designs tend to have higher internal validity than non-experimental ones. This means that, with non-experimental designs it is more difficult to conclude that a certain independent variable, not something else, caused changes in the dependent variable (Ibidem). Experiments allow researchers to confidently derive causal inferences due to the randomization of subjects and control of the environment, treatment, recruitment of participants and measurement of subjects and variables (McDermott, 2002).

Besides, some non-experimental designs are too expensive to implement, and attrition and historical changes might affect their internal and external validity. (Druckman, 2011). On the contrary, in the experimental designs a researcher is able to isolate and explore the effects of specific components of certain variables (Ibidem). Also a researcher can account for individual differences between the participants of the experiment (Ibidem), which is of importance in the context of my study as I need to account for the participants' political orientations.

Though experimental design has certain advantages compared to non-experimental designs, it is also subject to criticism due to the limited generalizability of its results. One issue with the experimental design is the realism of the experimental setting (Ibidem) – experimental settings might be "unrepresentative of the environments in which subjects might normally perform the behavior under study" (McDermott, 2002, P. 39).

In the case of my study this aspect is of critical importance as I deal with how people process different information about political candidates and in real life they find it in a variety of forms

that might affect how they process the information (Lau and Redlawsk, 2006). The pieces of news given to the participants of the experiment as treatment were structured in the same way as the news are usually presented by Russian media agencies – they were structured in the ford of an inverted pyramid. The sources of information were also claimed – either the testaments of certain actors (of course, fictional ones) or the publications of "major Russian newspapers" (due to ethical issues I had to use this wording to avoid naming existing Russian media). However, when it comes to the form in which people usually encounter news or other pieces of information, the lab experiment lacks realism, and one should account for that with regard to the generalizability of its results.

Another common criticism levelled against experimental designs pertains to the sampling bias and the representativeness of the participants' pool (Druckman, 2011). In order to avoid sampling bias and make the sample more representative the participants of the experiments conducted for this study were recruited online, via a number of different platforms. Further details and reasons behind the decision to recruit the participants online are presented in the next section.

3.2 Research method

To test the hypothesis that negative information about oppositional candidates does not significantly alter Russian opposition's perceptions of these candidates two experiments were conducted. The participants were presented with profiles of political candidates – either of a non-oppositional candidate, or of an oppositional candidate. Then the treatment group also received a piece of negative information about a candidate. The participants were also asked a set of questions about their perceptions of a political candidate. I assumed that if the hypothesis is correct, then the

participants' perceptions of an oppositional candidate would not be significantly altered by negative information, while their perceptions of a non-oppositional candidate would change. The details about the experimental design are outlined in this section.

Procedure: experiments 1 and 2

Both experiments were conducted via Qualtrics platform. Links to the experiments were distributed online via vk.com, facebook.com and Telegram. The participants were presented with the content (the details are outlined below) and a battery of questions and replied to them via Qualtrics.

The general scheme of the experiment was as follows:

Control a: Receives a **profile** of a candidate **1** → questions

Control b: receives a **profile** of a candidate **2** → questions

Treatment a: Receives a **profile** of a candidate **1** → **news** about candidate **1** → questions

Treatment b: receives a **profile** of a candidate **2** → **news** about candidate **2** → questions

In the first experiment there were 2 groups of participants, 30-34 people in each, who were randomly assigned either to be in control groups (2 control groups) or in treatment groups (two treatment groups). The control groups were presented just with a profile of a political candidate (either candidate 1 or candidate 2). The two treatment groups were presented with a profile of the candidate followed by a piece of news about the candidate which was designed in a way so that it could negatively alter the views of the participants on the candidate.

The profiles of the two candidates and pieces of news are listed below. The content was presented in Russian, here only the English translations of the original content are presented. Then all the participants were asked a set of questions – they were asked to assess (all on a scale from 1 to 7) how trustworthy they find the candidate, how willing they are to see that candidate as Russian president, how competent they perceive the candidate to be in economic policy, in foreign policy and in social policy. Also they were asked a set of questions about their socio-demographic status and political orientations. For the detailed list of the questions please refer to the appendix.

Profiles

1 (non-oppositional candidate)

- Male, in his 60s
- Experienced politician, has a military background
- Deepen existing connections with Belarus and Kazakhstan
- Raise the standards of Russian educational and health-care systems
- Make Russian army better equipped so that we can defend ourselves against multiple threats both from inside and outside the country
- Stimulate science and introduction of innovations into economy
- Promotion of healthy lifestyle and patriotism
- Maintain stability in the country, prevent separatism in Russian regions
- We should focus on maintaining the status of a "world power" so that the citizens can be proud of the country they live in

2 (oppositional candidate)

- Male, in his 40s

- Independent candidate

- Has a business background

- Aim to compensate the injustice of the privatization which took place in the 1990s and benefited only the "oligarchs"

- De-bureaucratize educational system, maintain free education

- Double expenses on health-care system

- Introduce visa regimes with Central Asian countries

- Cut expenses on Syrian and Ukrainian campaigns

- A full-scale judicial reform, increase transparency in corruption-related cases

- Exempt private entrepreneurs from taxes, raise minimal wage approximately 3 times

Fake News (Treatment)

1

According to a former employee of the US National Security Agency who has recently retired, the candidate has received more than $200 million during the last 5 years from the US State Department in return for granting the US military officials access to strategic military documents such as maps of Russian military objects and the newest military hardware designs.

2

The candidate's former business partner Ivanov has disclosed that the candidate was not paying taxes from his business between the years 2005 and 2007. He has published financial documents of the company he and the candidate were jointly managing at the time. Ivanov has urged the citizens not to support such a "liar" as the candidate is as he is actively promoting anti-corruption campaigns while being corrupt himself.

Candidate 1 was modelled after current Russian president Vladimir Putin, while candidate 2 was modelled after the leader of Russian opposition Alexei Navalny. After the experiment was conducted and the results were analysed (please refer to the "Results" section of this chapter for details), I assumed that the results could in part be context-specific – the opposition could not react to the treatment as the candidate resembled Navalny – thus I decided to conduct a second experiment, presenting the participants with a profile of a different oppositional candidate.

The procedure of the second experiment was similar, the only difference being that there was only one political candidate this time (candidate 3). In this case there were only two groups of participants (37 and 39 people in each) who were randomly assigned either to a control group or to a treatment group. Control group was presented with a profile of an oppositional political candidate and treatment group was presented with a profile followed by a piece of fake news, similarly to the first experiment. In the second experiment the candidate was not modelled after any real political figure, but it was explicitly stated that the candidate was independent and oppositional. The candidate was not modelled after anyone on purpose as the main aim was to test whether the effect observed in the first experiment is context-specific (the opposition does not react to fake news about oppositional candidates only when it comes to Alexei Navalny) or not (the opposition does not react to fake news about other oppositional candidates, even if the candidate is virtually non-existent in Russian political realm, it is just explicitly stated that she is oppositional). The candidate's profile and the "news" (treatment) are presented below. The participants were asked the same questions about their perceptions of the candidate as in the first experiment. For the full list of questions that the participants were asked, please refer to the appendix.

Candidate profile

- Female, in her late 40s
- Independent candidate
- Has some experience in politics, main background in the academia (studied economics)
- Cut expenses on defense, abolish mandatory military conscription
- Raise expenses on education, infrastructure and innovations
- Maintain free education, but reduce the number of higher education institutions (based on how effective they are)
- Aim to build a post-industrial highly technological economy
- Stop operation in Syria, make an effort to make peace in Ukraine and improve relations with the EU and the US but without giving up Crimea

Fake news (Treatment)

It was leaked by C's former secretary Ms Frolova that C is having an affair with Mr Sidorov who is a top manager in one of Russia's biggest oil companies. Ms Frolova's statement appeared in major Russian outlets along with the photos of C and Mr Sidorov sitting in a luxurious café in Paris, from their looks one can tell that they are having a romantic date. Mr Sidorov supposedly has close ties to Russian government. He studied together with the head of the President's Administration. Ms Frolova added that, though she is not completely sure, she and many of her colleagues suspect that C is secretly receiving money from the government through Mr Sidorov.

Participants: experiment 1

The participants were recruited online via two social networks that are most popular in Russia - vk.com and facebook.com – and via Telegram messenger that is quite popular among Russian

opposition and is used to spread political news in Russia (The Economist. Whispers from the Kremlin, March 2, 2017). The reason for recruiting the participants via social networks is that regular users of social networks are the group which is most prone to fake news as fake news are mostly spread through social media. Analyses of the English-language segment of the Internet showed that fake news sites receive 2.5 times more traffic from Facebook than reputable media sources (Shavit, Novermber 29, 2016). Besides, as it was outlined in chapter 2, in Russia conventional media almost never spread any news about opposition, so the news about oppositional candidates are most frequently found online – either in online media or on social networks. Thus, in order to test how people react to fake news about opposition in Russia, it seemed most plausible to recruit the participants online. Those participants who answered that they "sympathized with protest actions that took place on March 26, 2017" were identified as opposition. Missing responses were removed from the analysis.

In total there were 130 participants whose responses were used in the analysis. Out of the total pool of participants only the responses of those who can be identified as opposition were used.

Out of 130 participants 10% were aged 46-60, 8% were aged 36-45, 23% were aged 26-35 and the rest were aged 18-25 years old. 48% of the participants were male, 52% were female. 38% of the sample currently live in Moscow or Moscow region (though about a half of those who currently live in Moscow claimed that they originally come from different regions of Russia or former USSR), other people come from a number of Russian cities including St. Petersburg, Ufa, Novosibirsk, Tambov, Saratov, Yakutsk, Vladivostok, Magadan, so the sample is more or less regionally balanced.

Participants: experiment 2

The participants were recruited in the same way as the participants of the first experiment. There were 76 participants whose responses were used in the analysis. Out of the total pool of participants only the responses of those who can be identified as opposition supporters were used. 49% of the participants were male, 51% - female. 5% were aged 46-60, 14% were aged 36-45, 42% were aged 26-35 and the rest were 18-25 years old. 45% of the respondents said they currently reside in Moscow or Moscow region, however, 56% of those claimed they were born outside Moscow and Moscow region. The other participants live in big Russian cities: Kaliningrad, St Petersburg, Vladivostok, Perm, Tomsk etc – while 11% of the participants currently reside outside Russia.

One important point worth noting is that not all participants who were identified as opposition are also supporters of Alexei Navalny – only 60% of those who responded that they "sympathize" with the March 26, 2017, protests also replied that they would vote for Navalny on presidential elections, while the others either replied that they would not go to the elections at all or chose the option "Other" and wrote "Don't know". Only 3 participants used the option "Other" to say they would vote for a candidate not suggested in the multiple choice options. The suggested candidates were Alexei Chalyi, Igor Strelkov (Girkin) and Evgeny Roizman. The data, thus, suggests that not everyone who holds oppositional attitudes in Russia is united around Navalny's figure. A considerable share of people who can be identified as opposition supporters do not support Navalny. Although he is the most remarkable oppositional politician in Russia now, a significant share of the opposition does not support him, even though there is no other oppositional politician they could vote for.

3.3 Results: the experiments

The results of the experiments were analysed with paired t-tests. Using paired t-tests I analysed whether there are statistically significant differences in how the participants perceived the candidates before and after treatment (receiving negative information about the candidates). Their perceptions of the candidates were measured based on the set of questions about the candidates' trustworthiness, competence and willingness of the participants to see a candidate as Russian president (the details were outlined in the previous section). If H1 is correct, then there would be a statistically significant difference in the participants' perceptions of a non-oppositional candidate after treatment and no statistically significant difference in the participants' perceptions of oppositional candidates after treatment.

The results of the first experiment (Tables 1 and 2) show that in both cases (with the candidate modelled after Putin and the candidate modelled after Navalny) the participants' perceptions about the candidates' competence were not altered by the fake news. However, in the case of candidate 1 (modelled after Putin) the perceived trustworthiness of the candidate as well as the willingness of the respondents' to see him as Russian president were significantly lower after the fake news treatment. The fact that presenting people with "fake news" did not affect their perceptions of the candidates' competence (neither in case of a non-oppositional candidate, nor in the case of an oppositional candidate) indicates that the respondents separate candidates' competence from his/her image and credibility/trustworthiness. They do not believe that a single negative episode might point to candidate's incompetence, only to his/her trustworthiness, which probably consequently affects the participants' willingness to see that candidate as Russian president.

In the case of candidate 2 (the one modelled after oppositional leader Alexei Navalny) presenting participants with fake news did not significantly alter how trustworthy they perceive the candidate to be or how willing they are to see him as a president of Russia.

The results of the experiment 1, thus, provide empirical evidence in support of hypothesis 1. Negative information about an oppositional politician does not change opposition supporters' views and evaluations of this politician. Still, the effect could be context-specific and tied to the figure of Alexei Navalny after who the candidate's profile was modelled. Russian opposition is frequently presented with negative information and fake news about active oppositionists, Alexei Navalny in particular. So it might be that as the candidate was modelled after Navalny the participants could recognize him as Navalny and thus did not react to the "news" exactly because they have "learnt" that negative information about Navalny is often factually incorrect and disseminated by the Kremlin to undermine Navalny's influence. Besides, Navalny is currently the only active oppositional politician, thus, if the oppositional respondents perceived that the fictional candidate represented Navalny, they could not react to the fake news due to their pro-Navalny partisanship.

Table 1

Paired t-test Results for Candidate 1

	Pre-treatment			Posttreatment			95% CI for Mean Difference			
Outcome	M	SD		M	SD	n		p	t	df
(Candidate's) Perceived trustworthiness (1-7 scale)	3.66	1.32		3	1.61	30	-0.06, 1.40	0.07*	1.85	29
Respondents' willingness to see this candidate as a president (1-7 scale)	3.66	1.66		2.43	1.43	30	0.43, 2.03	0.003***	3.15	29

Perceived competence in social policy (1-7 scale)	3.1	1.39		2.7	1.51	30	-0.30, 1.10	0.25	1.16	29
Perceived competence in economic policy (1-7 scale)	2.73	1.14		2.73	1.46	30	-0.71, 0.71	1	0	29
Perceived competence in foreign policy (1-7 scale)	3.53	1.71		3.1	1.72	30	-0.69, 1.42	0.48	0.7	29

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table 2

Paired t-test Results for Candidate 2

	Pretreatment			Posttreatment			95% CI for Mean Difference			
Outcome	M	SD		M	SD	n		p	t	df
(Candidate's) Perceived trustworthiness (1-7 scale)	4.13	1.40		4.16	1.31	32	-0.74, 0.68	0.92	-0.09	31
Respondents' willingness to see this candidate as a president (1-7 scale)	4.96	1.79		4.26	1.63	32	-0.19, 1.69	0.11	1.61	31
Perceived competence in social policy (1-7 scale)	4.36	1.80		4.1	1.70	32	-0.62, 1.12	0.56	0.58	31
Perceived competence in economic policy (1-7 scale)	4.16	1.48		4.26	1.85	32	-0.82, 0.88	0.94	0.07	31
Perceived competence in foreign policy (1-7 scale)	3.8	1.68		4.2	1.88	32	-1.21, 0.77	0.65	-0.44	31

* p < 0.1, ** p < 0.05, *** p < 0.01.

In order to check whether the observed effect is context-specific and whether it persists in the case of other oppositional politicians, not only Navalny, a second experiment was conducted. In this case the candidate was purposefully not modelled after any existing Russian oppositional activist. Candidate designed for the second experiment was female – exactly because there are no active or popular female oppositional politicians in Russia, thus the participants would not be able to

associate the candidate with any real figure even if they wanted or tried to. It was, however, explicitly stated that the candidate is oppositional and independent, as the aim was to test whether the opposition in Russia reacts to fake news about oppositional candidates as they are frequently disseminated by Russian propagandistic machine to discredit the opposition. The results of the second experiment are presented in Table 3.

Table 3

Paired t-test Results for Candidate 3

	Pretreatment			Posttreatment			95% CI for Mean Difference			
Outcome	M	SD		M	SD	n		p	t	df
(Candidate's) Perceived trustworthiness (1-7 scale)	4.36	1.44		3.96	1.18	37	-0.40, 0.94	0.42	0.81	36
Respondents' willingness to see this candidate as a president (1-7 scale)	3.6	1.44		3.93	1.65	37	-1.20, 0.33	0.26	-1.14	36
Perceived competence in social policy (1-7 scale)	4.55	1.62		4.36	1.54	37	-0.81, 0.86	0.94	0.06	36
Perceived competence in economic policy (1-7 scale)	4.81	1.43		4.6	1.37	37	-0.52, 0.74	0.73	0.34	36
Perceived competence in foreign policy (1-7 scale)	4.52	1.76		4.06	1.68	37	-0.49, 1.20	0.40	0.83	36

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The results demonstrate that in this case the opposition's perceptions of the candidate were not significantly altered by the piece of fake news that contained negative information about the candidate. So the second experiment also lent empirical support to the claim about Russian opposition's resistance to fake news and misinformation campaigns against oppositional political figures being general, not context-specific. The effect observed in the first experiment persists for

a non-existing oppositional candidate too, so it does not have to do with Alexei Navalny's figure only, but seems to be representative of the general attitude of Russian opposition to negative information concerning oppositional politicians. As people know that such information is often false and disseminated by the Kremlin to undermine opposition, they do not easily believe it and assess it more carefully.

Here I should note that during the first and the second experiments I have received a number of emails from the participants (three during the first one and two during the second one) who claimed they were confused by the task and that they could not make a decision solely based on the information they were presented with – they needed more information to check whether all the statements were correct and also to check the sources of information. Unfortunately, it is not possible to establish to which group those participants belonged – the control or the treatment one – but the fact that people came up with such concerns and even took time to write them down and send an email to me about those, to my mind, indicates that they assess information they encounter on the internet carefully and seek out for additional sources in order to check if the information they found is correct. This effect can be found in censored media environments – when people perceive that there is a threat to media freedom they strive to seek more information online (Behrouzian et al, 2016).

The results of the analysis lay ground for further research into how and why opposition under authoritarian regimes "learns" resistance to misinformation campaigns waged against oppositional politicians. Redlawsk and Lau (2006) argue that the media we consume teaches us how to make informed political decisions and what we need to know to do so. Thus, in part the opposition's "learnt" ability to resist propaganda and misinformation campaigns that target oppositional politicians may be attributed to the fact that the opposition's media consumption is somehow

different from that of the general public and a selective exposure effect is present (more on this is discussed in chapter 4).

The effects observed through the experimental study demonstrate a potential threat: as people do not react to negative information about oppositional candidates, their support for them becomes in a certain sense unconditional, thus, if a candidate is really involved, for instance, in corruption activities, people might not believe it as they would think corresponding information is a part of the state propaganda. In this case, they might in the end be unable to distinguish between honest and corrupt, competent and incompetent oppositional candidates or resort to supporting the candidate simply because he/she is against the incumbent.

At the same time, as evident from the first experiment, the opposition reacts to negative information about non-oppositional candidates. Fake news in this context undermine both the perceived trustworthiness of a candidate and opposition's willingness to see him as a Russian president. This effect can also be explained in terms of the theoretical framework that suggests that people tend to assess new information based on their existing attitudes and views (e.g. Lewandowsky et al, 2012). New negative information does not change opposition's points of view on oppositional candidates as it is inconsistent with their previous preferences and views. However, new negative information about a non-oppositional candidate resonates with the opposition and triggers a change in their assessment of the candidate as it aligns with their ideas and negative attitudes towards the current government and the state. This finding is also indicative of another threat: the observed effect might be used by the elites to manipulate even opposition's opinion regarding certain political figures. If the elites wanted to "get rid" of one of the incumbents (say, a mayor of a big city or a governor), they could wage an information campaign against him/her, and the opposition would be willing to accept the negative information about the incumbent simply

because he/she is an incumbent and thus "represents" the state, such campaign would be especially effective if waged through the channels other than state media, as the opposition tries to avoid those (more on this is discussed in chapter 4).

The results of the experiment indicate that the opposition is not resistant to misinformation in general, but only to misinformation that is inconsistent with their previously held attitudes. Their assessment of the information they are presented with, thus, is heavily dependent not on mental efforts to find out whether the information is true or false, but on their attitudes and emotions invoked by the new piece of information. The argument that the opposition in Russia relies on their attitudes rather than on solid evidence when processing information is further supported by the results of the regression analysis presented in the next section.

3.4 Regression analysis: data and design

In order to test whether Russian opposition is less susceptible to the ideas promoted by Russian state propaganda, regression analysis was employed. The source of the data for the analysis were the responses of the participants of the first experiment to the following questions:

1. To what extent do you agree that the US is hostile towards Russia and is doing everything to distort the order in Russia and neighbouring countries? (on a scale from 1-5)
2. What do you think about the Euromaidan of 2014? (It was incited by the US, It was incited by Russia, it was a combination of foreign influence and internal reasons, Foreign influence did not have significant value, Euromaidan happened due to internal reasons, Don't know)

3. Do you think that Russian troops should interfere in what's going on in the eastern part of Ukraine? (I think they are already involved and I approve; I think they are already involved, but I disapprove; I think they are already involved, but I am indifferent; I think they should interfere but currently they do not; I think they should not interfere and they do not; I think they do not interfere and I am indifferent about it; Other – open answer)

In total there were 240 recorded responses, after omitting the responses with missing data 224 were left. 130 respondents could be identified as opposition (see the Participants: experiment 1) section. Other 94 respondents were those who replied that they either view the protest actions that took place on March 26, 2017, negatively or that they know about these actions but feel indifferent about them. Among those 6% were aged over 60 years old, 12% were aged 46-60, 17% were aged 36-45, 20% were aged 26-35 and the rest were 18-25 years old. 52% of the respondents were female, 48% - male. It should be noted that the results of regression analysis are of limited generalizability due to the relatively small number of observations used in the analysis.

Oppositional attitude was taken as a response variable. It is a binary variable. One was identified as opposition or not based on her answer to the question regarding the March 26 protest actions. If one sympathized with the protests, she was identified as opposition and corresponding variable value was set to 1, if not, she was not identified as opposition and corresponding variable value was set to zero.

There were three predictors. The first one was to what extent a respondent agreed with the statement that the US is hostile towards Russia and is doing everything to distort the order in Russia and neighboring countries (on a scale from 1 to 5). The statement itself is among the myths actively promoted by Russian propaganda, especially in recent years with regard to the Ukrainian

crisis and the sanctions imposed on Russia following the annexation of Crimea. The variable was treated as continuous. As the idea of "hostility" of the US is actively promoted by the state media in Russia, I hypothesize that Russian opposition is less likely to adhere to this point of view.

The second predictor was a categorical variable. Based on the respondent's answer to the question about Euromaidan she was assigned to one of the three categories: those who think that foreign influence played a significant role in Euromaidan – the idea actively promoted by Russian state propaganda – those who responded that Euromaidan was incited by the US or that it was a result of combination of foreign influence and internal factors; those who believed that foreign influence did not play a significant role in Euromaidan; those who did not know how to answer. There were only two respondents who claimed that Euromaidan was incited by Russia, there responses were removed from the analysis as the amount of the responses is insignificant while adding another category would overly complicate the regression model. Though there is no solid evidence whether or not foreign agencies actually interfered into the situation in Ukraine in 2013 as Euromaidan was unfolding, Russian state media actively propagate this idea. As hypothesized in the second section of chapter 2, Russian opposition might be less likely to believe that foreign influence played significant role in the Ukrainian crisis as this is the idea propagated by state media, though there is no evidence to support or contradict it.

The third predictor was also a categorical variable. Based on the respondent's answer to the question regarding Donbass she was assigned to one of the two categories – those who believe that Russian troops interfere in the Ukrainian conflict and those who do not. The responses of those who used "open question" option were manually recoded into one of the two categories. If a respondent claimed she did not know how to answer, her response was recoded to NA and subsequently omitted from the analysis. Though there is no official (e.g. coming from a reputable

organization such as OSCE) evidence that Russian troops are present in the eastern part of Ukraine, certain Ukrainian NGOs (e.g. Ukrainian website StopFake.org or *Mirotvorets* center) collect evidence from social networks to support this claim. Russian state media as well as Russian officials argue that there are no Russian troops in Ukraine. Although the evidence in this respect is conflictual, based on the arguments laid out in the section 2 of chapter 2, I hypothesized that Russian opposition is more likely to believe that Russian troops are involved in the Ukrainian conflict.

For the analysis I used a logistic regression as it best fits my data (a binary response variable and categorical/continuous independent variables). The results of the analysis are presented and discussed in the "Results" section of this chapter.

3.5 Results: regression analysis

Regression analysis was employed to test the hypothesis that Russian opposition is less likely than other parts of the population to believe in major ideas advocated by the state propaganda, regardless if there is enough solid evidence to contradict those ideas. The details about the regression analysis design were outlined in the previous sections of this chapter and the regression output is presented below in Table 4. I regressed the participants' oppositional attitudes on their views on certain issues that were frequently addressed by Russian propaganda in recent years.

Table 4

Logistic regression results

	Dependent variable:
	Oppositional attitude (=1)

No Russian troops in Donbass	-1.391***
	(0.462)
Euromaidan took place due to internal reasons	1.003**
	(0.468)
No opinion on Euromaidan	-0.569
	(0.629)
The US is hostile towards Russia (1-5 scale)	-0.771***
	(0.166)
Constant	2.304***
	(0.488)
Observations	228
Log Likelihood	-117.164
Akaike Inf. Crit.	244.328
Note:	*p<0.1, **p<0.05, ***p<0.01

The model fit was tested using Hosmer-Lemeshow test, Hosmer-Lemeshow C statistic test gave an output of p=0.4676, while Hosmer-Lemeshow H statistic gave an output of p=0.4436. As p>0.05 there is no sign that the model does not fit the data. In addition le Cessie-van Houwelingen-Copas-Hosmer global goodness of fit test was conducted, the result was p=0.8738, so this test also confirms that the model fits the data.

The results of the regression analysis indicate that people with oppositional attitudes are less likely than other Russian citizens to believe that there are no Russian troops in the eastern part of Ukraine and that the US is hostile towards Russia and does everything to distort the order in the country. At the same time the opposition is more likely to believe that Euromaidan in Ukraine in 2013

happened due to internal reasons while foreign influence did not play a significant role in the events. Thus, the analysis demonstrates that Russian opposition is less likely to believe in the ideas propagated by the state propaganda (those identified in Chapter 2), even when there is no compelling evidence to contradict those ideas (as, for example, in the case of Euromaidan where no solid evidence to prove or disprove the idea is available and in the case of the presence of Russian troops in Ukraine where only partial and not officially recognized evidence supporting the claim is available).

This finding further supports the idea that the opposition in Russia tends to believe or disbelieve certain information based not on hard facts, but on existing attitudes. Checking whether new information is correct or incorrect requires mental efforts, while it is easier for people not to consciously check if the message is true or false, but instead rely on their experience, emotions evoked by the new piece of information and its source, as well as its consistency with their previously held views (Lewandowsky et al, 2012). When people with oppositional attitudes encounter information disseminated by state media, they might conclude that it is false based on their previous experience (frequently encountered false information on state media), emotions and personal attitudes (oppositional attitudes and distrust to the state and state media might prompt people to conclude that a piece of information is incorrect because it is advocated by state media).

Chapter 4. Testing for the presence of selective exposure effect using big data analysis

It is well-established that certain personality traits and socio-political orientations can be predicted based on one's social media behavior (e.g. Baik et al, 2016; Young, 2014; Mestyán et al, 2013). For example, based on Facebook likes one's gender (93% certainty), race (95%), religion (82%), relationship status (67%) and political partisanship (85%) can be predicted (Kosinski et al, 2013). In this chapter I focus on building a model that predicts users' political partisanship based on the social media pages they follow. Similar research (e.g. Kosinski et al, 2013) was done in the American context, whereas in this study I deal with the political partisanship of Russian social media users. I designed a model that distinguishes the supporters of Russian opposition leader Alexei Navalny from the supporters of Russian prime-minister Dmitry Medvedev. With this analysis I test H2 of my study – that Russian opposition selectively exposes itself to certain news sources that are different from those referred to by the government's supporters. In the previous chapter using experimental design I have pointed that Russian opposition is resistant to governmental propaganda. In this chapter with big data analysis I trace how opposition supporters consciously try to avoid propagandistic sources in the social media realm.

4.1 Research methodology

I test the hypothesis concerning the presence of selective exposure effect with regard to the media consumption patterns of Russian opposition using big data analysis. I employ big data analysis to build a model that distinguishes the supporters of Russian prime-minister Dmitry Medvedev from the supporters of the leader of Russian opposition Alexei Navalny based on their online media

consumption preferences. The data for the analysis was downloaded from the most popular Russian social network *Vkontakte* (vk.com). The details about the methods employed in the analysis, the data and the case selection are outlined in the next sections of this chapter.

Big data is currently more and more frequently used by social scientists, particularly when it comes to communication science. This is due to the fact that big data allows a better grasp of patterns of online media consumption. Garrett (2013) specifically discusses the possibility of using big data for research on selective exposure. Among the major advantages of big data-driven analysis he mentions the fact that this method allows to directly capture people's behaviours instead of relying on their self-reports, which makes the analysis more objective (Ibid, P. 250). However, this does not mean that big data fully reflects the actual patterns of media consumption as some devices may be not logged and some users' actions cannot be tracked due to various reasons, for example, privacy policies. Such biases though do not appear to be more problematic than the biases that occur in the case of the analyses relying on respondents' self-reported behaviours and preferences (Ibidem; Prior, 2013). The majority of the results generated by surveys, experiments and big data analysis are quite consistent with each other. One should rather view these methods as complementary to each other, as combining different methods could shed light on the issues and aspects of people's behaviour that cannot be captured by a single method (Ibidem).

Another advantage of big data is that it allows to examine social processes in real time as the data involved is organic, generated by users and thus dynamic (Kleiner, Stem and Pekari, 2015). Also the size of the datasets allows to measure smaller effects which might go unnoticed when examining "conventional" smaller datasets (Golder and Macy, 2014).

Big data-driven methodology allows researchers to develop and employ reproducible methods that help to identify partisanship in media consumption (Holtzman et al, 2011). However, even if big

data analysis is in a certain sense more objective than other methodologies that rely on self-reporting, it cannot be regarded as a fully objective method simply because the representativeness of samples does not always correspond with their size – for example, self-selection bias is present when one analyses the social media users' generated data – so even big data sets should not be treated as fully representative, complete and objective (Garrett, 2013). For example, the research suggests that selective exposure can be determined by individual traits of character, which are not always captured by the big data research (Ibidem). Also, as the data is generated by users, one cannot always check if the information they reveal about themselves is correct, which can potentially affect the results of the analysis (Golder and Macy, 2014). Another limitation of big data-driven research is that it is helpful in terms of finding associations, not in showing whether those associations have meaning (Khoury and Ioannidis, 2014).

Even though big data analysis has a number of limitations, I believe that it is relevant for my analysis. In authoritarian regimes, it is more difficult to study people's behaviour, opinion, attitudes and preferences using conventional methods such as surveys. This is due to the fact that people might be reluctant to answer certain questions or reveal incorrect information if they are afraid that their answers could potentially cause them problems. For this reason, the significance of reporting bias in authoritarian environments is even higher than in liberal democracies. Big data approach allows to overcome this obstacle and directly observe people's behaviour. Besides, big data research, unlike surveys or lab experiments, is not bound by any geographical constraints, which is of crucial importance in terms of getting a representative sample in a huge country such as Russia.

4.2 Background and case selection

As noted above, in the present study I constructed a model that distinguishes the supporters of Russian prime-minister Dmitry Medvedev from the supporters of the leader of Russian opposition Alexei Navalny based on their online media preferences. The reason for choosing the supporters of Navalny and Medvedev for the analysis needs clarification.

As discussed in chapter 2, Alexei Navalny is currently the most popular Russian opposition figure, determined to run for the next presidential elections. As Navalny is de-facto banned on Russian mainstream media, he relies on the internet to gain publicity and build the support base. His supporters do not represent the whole body of Russian opposition, as there are people among the opposition who do not support Navalny – for example, Russian radical nationalists. But all of Navalny's supporters are in opposition to Russian government. As there are literally no other leaders of opposition, it is not feasible to include all other minor oppositional groups in the analysis or find another clear indicator of oppositional partisanship. For instance, many of those who support Russian nationalists also share oppositional views, but some of them, nevertheless, support Putin and his government. The same applies to other minor ideological groups, e.g. communists or moderate leftists. I therefore have decided to limit the scope to Navalny's supporters for my analysis. It should be kept in mind that the results of this analysis are not representative of the whole Russian opposition, but, nevertheless, to a considerable part of it.

Dmitry Medvedev's supporters, on the other hand, represent the supporters of Russian government. Though they do not represent the whole pool of government's supporters in Russia. All Medvedev's sympathizers support the government that he leads. However, the camp of the government's and president's supporters in Russia is not limited to Medvedev's supporters. Some people do not support Medvedev, but still strongly favour Putin's actions. The reason for choosing

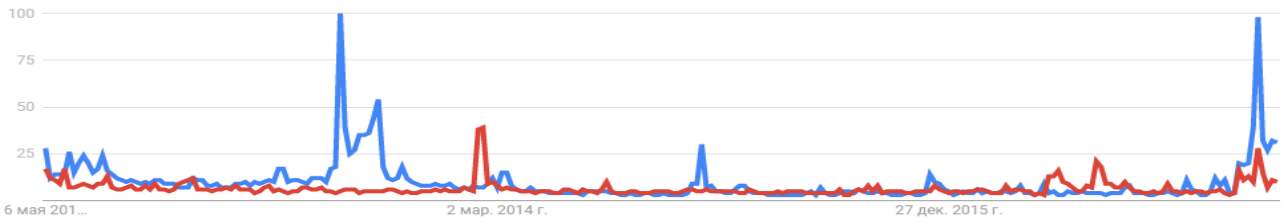
Medvedev's supporters for this analysis is that he is the highest-ranking Russian politician who actively uses social media. Vladimir Putin, for example, does not have personal pages on any social networks. Therefore it is not possible to track his supporters in the online environment. And, as in the case with Russian opposition, there is no other single strong predictor of pro-governmental partisanship in the social media realm. For these reasons, following Navalny's or Medvedev's page is the best predictor of partisanship that is available in terms of this study. I will further expand on this in the "Data" section of this chapter.

Besides the reasons outlined above, it can be noted that the focus on Medvedev's and Navalny's supporters is especially interesting at this point in time. In the beginning of March 2017 Navalny and his *Anti-Corruption Foundation* released a movie titled *He is Not Dimon to You* (Russian title - *On vam ne Dimon;* Dimon is an informal and even a bit derogatory version of Medvedev's first name – Dmitry) about the corruption affairs of Medvedev. The movie was extremely popular. At this point it has more than 22 million views just on Youtube and it was distributed via other platforms too. When Medvedev failed to respond to the allegations made by Navalny and his team in the movie – he simply ignored them in fact – Navalny called for anti-corruption protests all over Russia.

On the 26th of March 2017 thousands of people went into the streets in dozens of Russian cities from Vladivostok to Kaliningrad to call upon the prime minister to respond to the allegations made by Navalny. They were shouting, for example, "Dimon, otvet'!'' (English - "Dimon, respond!"). The protests were dubbed *He is not Dimon to us*. It was the biggest protest action in Russia since 2012. In the course of the protests about 1000 people were detained, including Navalny himself. Alexei Navalny spent two weeks in jail for disobeying police orders and organizing the protests.

The protests led to a sudden surge in Navalny's popularity, at least among Russian Internet users. Figure 2 presents the Google Trends data on the searches about Navalny and Medvedev in the last five years (blue for Navalny, red for Medvedev). It indicates a significant rise in the number of searches about Navalny after March 26 (preceded by a modest rise in the beginning of March when the movie about Medvedev was released). As shown in Figure 2, interest in Navalny was higher than in the end of March 2017 only in July 2013. At that time Navalny was sentenced for imprisonment on the embezzlement charges (this case was discussed at length in chapter 2). As the government and Dmitry Medvedev still failed to address his allegations, in the end of April 2017 Navalny called for a new protest action to be held on the 12th of June 2017. This is the official holiday called Day of Russia in Russia. On the 31st of May 2017 the court ruled that Navalny should delete *He is not Dimon to You* movie as it included libellous claims about Russian multi-billionaire Alisher Usmanov who filed a defamation case against Navalny. Alexei Navalny said he would not delete the movie.

Figure 2. Google Trends, Russian searches about Navalny (blue) and Medvedev (red), May 2012-April 2017



In light of the current situation in Russia that I described above, I find it particularly interesting to look into the differences between Medvedev's and Navalny's supporters and try to predict pro-

Navalny or pro-Medvedev partisanship based on the pages followed by social media users and see how polarized the supporters of Medvedev and Navalny are in terms of their media consumption preferences.

If the selective exposure effect is present, then it will be possible to build a model that successfully predicts pro-governmental or oppositional orientations based on the media sources the users expose themselves to.

4.3 Data

The data about users' online behavior was taken from Russian social network Vkontakte (vk.com). The reason for choosing Vkontakte rather than Facebook is that Vkontakte is the most popular social network in Russia. It has more than 50 million monthly users and almost all Facebook users in Russia also use Vkontakte (SEO and SEM for Russian Search Engines). The data was downloaded via vk.com's API. In Vkontakte one can "subscribe to" (the same as "like" and "follow" on Facebook) certain pages which are similar to Facebook's public pages. One can also "subscribe to" (or follow) individual users' profiles. Vk.com's API allows to download the id-s of the followers of individual pages and also to download the list of the pages a user is subscribed to (up to 200 pages, the average number of pages one user is subscribed to amounts to 70-80 pages). Granted, if a person is subscribed to a certain page it does not mean that she is exposed to it on a daily basis, as vk.com's algorithms sort the posts in the users' newsfeeds based on how relevant (according to the algorithm) they are to the user. However, subscribing to certain pages and not subscribing to others is a user's conscious choice that reflects one's *conscious* media consumption preferences. That is why I chose this feature for the analysis of the selective exposure effect.

I considered following the personal pages of Dmitry Medvedev and Alexei Navalny pages as an indicator of pro-government or oppositional orientations in the absence of other comparably strong predictors of partisanship or unavailability of corresponding data. This, of course, leads to the limitations of the scope of my study. The data sample used for the analysis is not representative of the whole Russian opposition (as not all of them are Navalny's supporters) or of everyone who supports Russian government (many of those do not support Medvedev personally, but may support Putin and *United Russia).* The users who subscribed to both pages were removed from the sample, as they would confuse the model, though the number of such users was insignificant. I downloaded the id-s of 20 thousand subscribers of Medvedev and 20 thousand subscribers of Navalny. After removing the users who subscribed to both pages and users who have no subscriptions to other public pages at all there were 19980 users left in Navalny's supporter pool and 19975 users in Medvedev's supporter pool. It should be noted that at the time of conducting the analysis (3-23 April, 2017) Navalny had 264 thousand followers in total while Medvedev had 2.2 million followers. Despite the fact that Navalny has ten times less followers than Medvedev, users who follow Navalny's page tend to be much more active than those who follow Medvedev's page. Each of Navalny's posts is reposted several thousand times while only couple of hundreds of users repost each Medvedev's post.

As online media environment constantly evolves and new online sources emerge and gain popularity while other disappear over time, there is a limitation in terms of the stability of the results of the analysis connected with the time series change. The results of the analysis presented below reflect the situation at the time when the data was collected – between April 3 and April 23, 2017. Still, it should not affect the general conclusion of the analysis regarding the presence or absence of the selective exposure effect, though certain details demonstrated in the results (such

as particular media sources to which the two groups selectively expose themselves) might change over time.

Besides, standard ethics issues, such as privacy concerns, which apply to all social media and big data analysis might be involved. Still, all the data involved in the analysis is open to the public with the consent of the users. I have not used any private data, only that which the users have explicitly agreed to share publicly. All the collected data was stored only in the generalized form. The data was downloaded via vk.com's official open API, no regulations of vk.com were violated. Russian laws also do not regulate this sphere, so there are no legal issues involved. No data linking was used in the analysis.

4.4 Research method

List of the subscriptions (pages followed by a user) of each user was downloaded via vk.com's open API and recorded in a separate cell for each user. Then it was transferred to the data frames (one for Navalny, one for Medvedev) comprised of the cells filled with the users' subscriptions information. New columns were added to indicate whether a user is Navalny's or Medvedev's follower. In the Navalny's supporters data frame the new column was filled with "1" and in the Medvedev's supporters data frame the new column was filled with "0". Then the two data frames were merged. The data about the users subscriptions was treated as text. The subscriptions lists were merged into a corpus. Necessary data manipulation was performed - all the text was set to a lower case as R is case-sensitive and special symbols were removed - and then the data was turned into a document-term matrix. The document-term matrix initially contained 85 thousand terms. After sparse terms – that appear in the document-term matrix with frequency lower than a certain

threshold - were removed (sparsity = 0.97) there were 775 terms left. They were used in the analysis.

Three major methods were used in the analysis: building a single classification tree, building a random forest and conducting a logistic regression.

The decision tree methodology is a common data mining method that is used for establishing classification systems or developing prediction algorithms. As the algorithm is non-parametric it can be used to deal with large datasets (Song and Lu, 2015). As the dataset collected for this analysis is large enough, it was divided into training and validation datasets. A decision tree was built using the training dataset and then was tested on the validated dataset to decide on the appropriate tree size. The advantages of this method include the following: it divides original input variables into subgroups thus simplifying the relationship between the input and target variables; the interpretation of decision trees is quite straightforward; the method is robust to outliers; it easily deals with missing values and skewed data (Ibidem). Granted, as any statistical method, decision tree modeling has certain limitations: it is subject to overfitting and underfitting (that can be tested by plotting a ROC curve and computing the area under curve – auc); strong correlation between potential input variables might result in the selection of input variables that are not causally related to the target variable (Ibidem). Random forests of decision trees might be built to enhance the predictive ability and accuracy of a decision tree model. Decision tree models are therefore used to classify data into categories based on certain predictor variables. In the case of the present study decision tree modeling was employed to test whether it is possible to distinguished supporters of Alexei Navalny from supporters of Dmitry Medvedev based only on their social media consumption preferences. If constructing such a model with relatively high accuracy is possible,

then selective exposure effect is present for Medvedev's and Navalny's supporters in the social media realm.

Logistic regression is employed to predict a categorical (or binary) variable based on the predictors that can be categorical and/or continuous variables. It is used as having a categorical outcome variable violates the assumption of linearity in a normal regression. Logistic regression allows to test whether categories can be correctly predicted based on a set of predictors, it also demonstrates the relative importance of each predictor and shows whether there is interaction between predictors. I employed logistic regression as an alternative method to develop a classification model that distinguishes Navalny's supporters from Medvedev's supporters. The output of the logistic regression model allows to see which predictor variables are statistically significant and thus identify the social media pages subscription to which is a strong predictor of either pro-Medvedev or pro-Navalny partisanship.

The results of these analyses are presented in the next section.

4.5 Results

A single classification decision tree (see Figure 3 below) gives an estimated accuracy of the model at 74% and after plotting a ROC curve (Figure 4) I calculated an auc (area under curve) which equals 79%. This means that based only on the decision tree presented below it is possible to predict whether a user is Navalny's or Medvedev's follower with 74% accuracy. Also, based on the ROC curve and the auc value it is possible to state that the model's accuracy is around 79%. This result can be considered fairly good – a model that would randomly distinguish between two categories would have 50% accuracy, thus the single decision tree model is 29% more accurate

than random choice - although it is not the best possible result as will be outlined below. Still, even a model based on a single decision tree demonstrates that there is certain divergence between Medvedev's and Navalny's followers in terms of the media sources they consciously choose to follow.

As the names of the sources that people follow originally are in Russian, they are presented with these original names in the decision tree (Figure 3). It requires translation and further explanations, it is presented in the order the names appear on the decision tree (from top to bottom): unsurprisingly, *Navalny's team* (the official page of Navalny's presidential campaign and his team) is the most important predictor in this tree. It is followed by *Lentach* - the page which aggregates top news and the most interesting stories from the Russian media, usually presenting them in a funny manner (e.g. with funny pictures, memes etc; those pictures, memes and corresponding comments of the news often mock the government's actions or statements). The next predictor in this tree is the official page of Navalny's *Anti-Corruption Foundation*. It is followed by another media stories aggregating page *News from the Vegetable Warehouse*. This page has an ironic name: by calling contemporary Russia a "vegetable warehouse", the authors compare the "politically amorphous" majority of Russian citizens with vegetables. Then comes *Smeyaka* page. It is a strong predictor of pro-Medvedev partisanship. It is a page made for fun; its creators usually post funny stories and memes there. The next page is *Rhymes and Punches*. This is a page dedicated to the new generation of Russian rappers. The fact that this is a predictor of pro-Navalny partisanship is quite surprising given the fact that Navalny and his team have nothing to do with Russian rappers. One possible explanation is that new Russian rappers' songs often contain anti-governmental messages. The next pro-Navalny predictor is a page about history. Its full title is *Empire History*, and it includes mostly historical photos and some less well-known historical facts. Finally, there

is the *MDK* page. This is one of the most infamous pages in *Vkontakte*, which was blocked several times due to the huge amount of posts with black humor and politicized content. In fact, this is also a just-for-fun page filled with memes and jokes (like *Smeyaka*), but jokes and memes in *MDK* and in *Smeyaka* differ significantly. *MDK*'s jokes are very often black humour and sometimes are political, something that never happens in *Smeyaka*, administrators of which refrain from posting politicized humour.

Figure 3. A single decision tree. The translations are given in red.

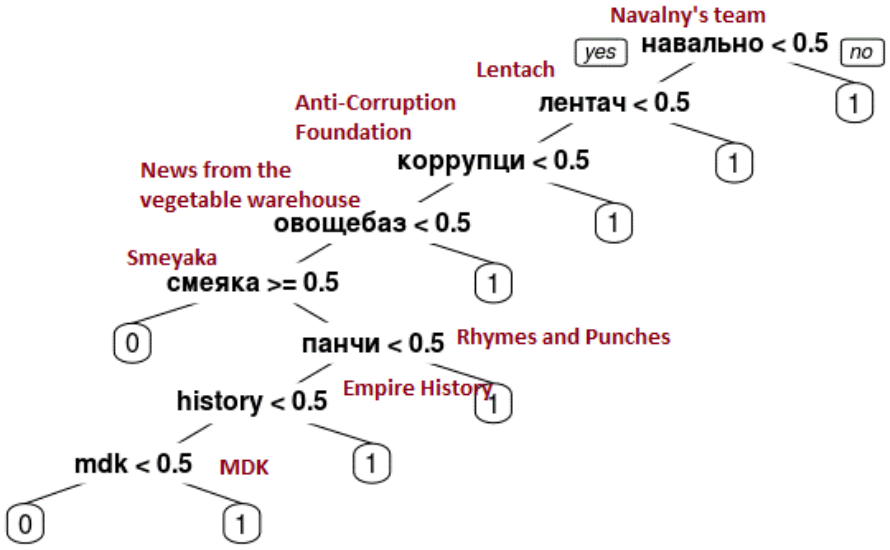
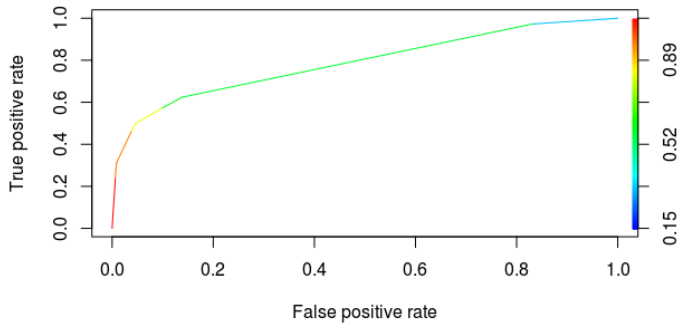
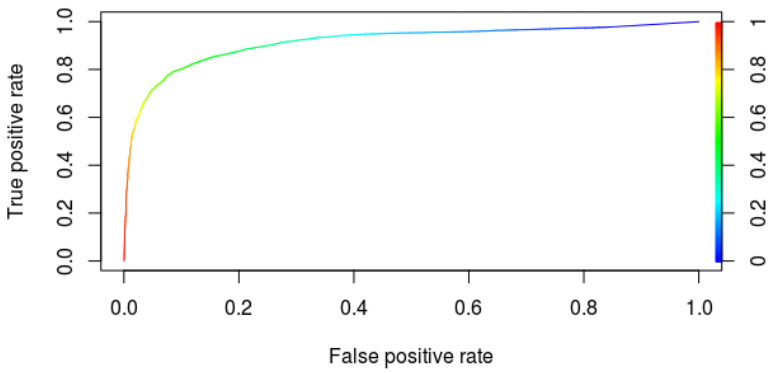


Figure 4. ROC curve, single decision tree.



To increase the accuracy of the model I built a random forest – a "forest" of multiple decision trees, random forest models usually have higher predictive power and accuracy than single decision trees. First I built a forest of 1000 trees, which gave an estimated accuracy of 84% with 88% auc (area under curve, it is a plot of true positive guesses (when the model classified the data as belonging to "1" category instead of "0" category) vs false positive guesses). It is a quite significant improvement compared to a single decision tree. Then I increased the number of trees to 2000, it gave an estimated accuracy of 85% (not much of an improvement from 1000 trees) with auc at 91% (a significant improvement compared to the 1000 trees random forest. The ROC curve for 2000 trees is presented on Figure 5 below). The results suggest that a more thorough analysis allows to distinguish between opposition and government's supporters in Russia solely based on their media consumption preferences with 84% accuracy. This is quite strong evidence in support of the hypothesis that selective exposure is present in the Russian online context.

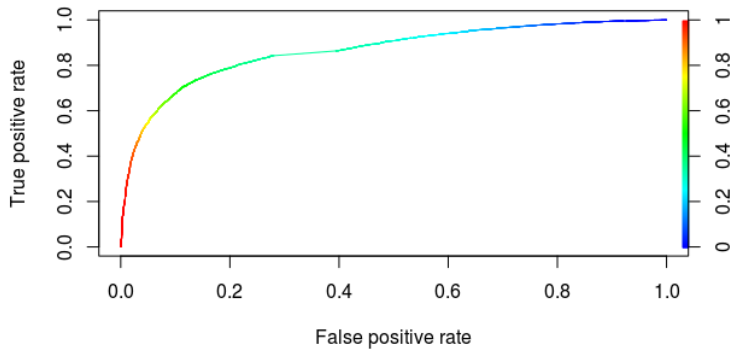
Figure 5. ROC curve, 2000 trees random forest.



Finally, I built a logistic regression model. Its estimated prediction accuracy is 80%, which is a small improvement compared to that of a single decision tree but still lower than that of a 2000

trees random forest. The auc for the logistic regression model equals 86%, the ROC curve is presented on Figure 6 below.

Figure 6. ROC curve, logistic regression model.



The results of the logistic regression (please refer to the appendix for the detailed output) suggest that the best model for the prediction of pro-Navalny or pro-Medvedev partisanship is the 2000 trees random forest model. Still, from the summary of the logistic model a number of interesting insights about the pages that are strong predictors ($p<0.05$) of pro-Medvedev and pro-Navalny partisanship can be drawn.

I have divided these indicators into thematic categories. The first category includes independent media pages that are strong predictors of pro-Navalny partisanship. They include, for example, *Meduza* - former *Lenta.ru*, one of the most popular Russian online media sources. After *Lenta.ru*'s editorial board was dismissed in 2014 due to the fact that the outlet published too many stories critical of Russian government, its team moved to Riga, Latvia, and created a new media called *Meduza*. Another media page that is a strong predictor of the support for Navalny is *Dozhd*. It is the only fully independent TV channel Russia which is currently available only online as it was banned from the TV network by Russian government in 2014. Then comes *RBC* - a quasi-

independent media and the most prominent Russian online business edition - and *TNT*, a TV channel which focuses on producing entertaining TV shows and series oriented on younger audiences.

Not surprisingly, the state-sponsored media pages are strong predictors of pro-Medvedev partisanship. They include *Vesti* - an "analytical" daily news program from the state-sponsored federal TV channel *Rossiya 24*, which usually presents the news from a pro-governmental point of view as discussed in the second section of Chapter 2. Being one of the most popular news program on Russian TV *Vesti* is one of the pillars of Russian propaganda. Another predictors of the support for Medvedev are the *RT in Russian* page - the Russian-language edition of *Russia Today* - and *RIA Novosti* - a popular news agency that belongs to *Rossiya Sevodnya (Russia Today)* media holding.

The second thematic category I identified are just-for-fun pages which post mostly jokes, funny pictures and memes. Supporters of Navalny and Medvedev subscribe to different entertaining pages. For example, strong indicators of pro-Navalny partisanship are *MDK* (see explanation above) and *4ch* (the Russian version of *4chan*) while Medvedev's supporters prefer less "sensitive" humor – e.g. *Smeyaka* page.

As there are many high school students among the subscribers of both Navalny and Medvedev (the median birth year in the sample of Navalny's followers is 1998, of Medvedev's followers - 1997), they follow many pages related to high school. It is interesting, though, that subscription to pages about Russian state exam (a compulsory exam all high school students are to pass before graduation) is an indicator of pro-Navalny partisanship while subscription to pages where students share funny stories (like *Shkolnye Istorii* – Eng. *High school stories*) is an indicator of pro-Medvedev partisanship. Besides, strong predictors of pro-Medvedev partisanship are subscriptions

to the official Russian government page, Russian Ministry of Defense page and various fan pages of Russian president Vladimir Putin. Not surprisingly, strong indicators of pro-Navalny partisanship include subscriptions to *Navalny's Team* and Navalny's *Anti-Corruption Foundation* pages.

One of the more surprising findings is that subscriptions to various pages dedicated to the new generation of Russian rappers and various videobloggers are strong predictors of pro-Navalny partisanship. They include, for example, *Rhymes and Punches* page and the official page of Russian rapper Oxxxymiron. Oxxxymiron is one of the most popular Russian rappers nowadays. He became popular only in recent years when he came back to Russia after spending all his teens and twenties first in Germany, where his family had moved in the 1990s, and then in Britain where he studied at Oxford. Oxxxymiron's lyrics are considered to be more elaborate than those of other Russian rappers. In 2015 he released his new album *Gorgorod*. Some songs from the album clearly conveyed oppositional political messages – e.g. *Mayor's Word* (Russian *Slovo Mera*) about the all-mighty mayor who abuses his power to attack the lyrical hero as he "dared" to date the mayor's daughter. Another song from the album - *The place without us* (Russian *Tam gde nas net*) includes mentions of corruption, all-mighty oligarchs etc. Other pages about Russian rap subscriptions predict pro-Navalny partisanship. Among them, the page dedicated to *Versus Battle* - the most famous rap-battle movement in Russia launched in St Petersburg with the help of Oxxxymiron a couple of years ago - and *Badcomedian* - a page of a prominent Russian video blogger, famous for making video reviews about the new low-class mostly state-sponsored Russian movies, games and TV shows where he makes fun of them.

Strong indicators of pro-Navalny partisanship also include subscription to pages about history and traveling (e.g. *Puteshestvuyem pochti besplatno* – Eng. *Traveling almost for free* - a page which

posts information about cheap hotel deals and flight discounts on a daily basis), while indicators of pro-Medvedev partisanship include subscriptions to pages about cooking and interior design.

To sum up, based on the results of the models presented above one can conclude that in Russian context it is possible to predict a user's political attitudes (pro-governmental vs oppositional) based on her conscious media consumption preferences. Besides, the logistic regression analysis has demonstrated that those who can be identified as opposition in Russia consciously choose to follow the pages of independent media and avoid the pages of state-sponsored media that are instead preferred by the government's supporters. This lends empirical support to hypothesis 2, which stated that the opposition selectively exposes itself to certain media sources. Indeed, the opposition (in this case, Navalny's supporters) selectively exposes itself to the independent non-mainstream news sources and strives to avoid the sources that transmit propagandistic messages, at least in the social media realm.

The major limitations of my analysis are the following: a) it is not generalizable to Russian opposition and population in general, only to Navalny's and Medvedev's supporters. Thus it does not include people who share oppositional attitudes, but do not support Navalny, or those who support Russian government in general, but not Medvedev; b) it reflects only conscious selective exposure in the social media realm. It does not account for other effects that may add up to selective exposure such as social networks' filtering algorithms or echo chambers and does not account for the conscious and unconscious selective exposure outside the social media realm.

Still, based on the conducted analysis it seems plausible to conclude that at least a huge proportion of Russian opposition (Navalny's supporters) consciously tries to distance itself from the state propaganda and instead prefers to use different sources to look for news – predominantly those that were targets of state repressions in the recent years (e.g. *Meduza* and *Dozhd'*) and are

considered to be oppositional, representing a point of view that does not align with that promoted by Russian state propaganda and is more consistent with the oppositional attitudes. Thus, the opposition consciously seeks information that reinforces their sentiments and exposes itself to like-minded media sources. Although people in censored media environments who perceive that there exist certain threats to media freedom tend to seek out more information on the internet (Behrouzian et al, 2016), it does not mean that in the end they seek out and find unbiased information. The analysis presented in this chapter, though subject to a number of limitations, suggests that even people who are not susceptible to the state propaganda under authoritarian regimes (e.g. the opposition or, in this case, Navalny's supporters in Russia), tend to seek new information through the sources with corresponding ideological orientations, thus further reinforcing their existing attitudes instead of investing time, energy and applying mental efforts to look for the unbiased representation of the events. This conscious selective exposure effect might be strengthened by the so-called filter bubbles that emerge through the work of social networks' filtering algorithms.

All in all, the results of the analyses presented in chapters 3 and 4 of this thesis suggest that even though the opposition in Russia is highly resistant to the state propaganda, it is not because they consciously assess all new information they encounter, but rather due to the ways they seek out and process new information based on their existing values and attitudes.

Conclusion

In this study I have addressed the mechanisms of opposition's resistance to misinformation campaigns and propaganda in Putin's Russia. Based on the previous research in the field of communication science I hypothesized that opposition is resistant to misinformation and propaganda not because they consciously assess all the incoming information to check whether it is correct, but because state-promoted ideas and messages are inconsistent with their existing values and attitudes, so they reject them. The other hypothesis that I tested in my study was that Russian opposition selectively exposes itself to media sources that represent the views that align with their beliefs. The first hypothesis was tested using an experimental design, whereas to test the second hypothesis I employed big data analysis.

The methods employed have, besides the strengths that I emphasized, inherent limitations. The sample for the big data analysis conducted in this study is not representative of the whole pool of Russian opposition supporters and government supporters, but of those who support oppositional leader Alexei Navalny or prime minister Dmitry Medvedev. Besides, it is only representative of the users' behaviour on the major social network Vkontakte, not of all aspects of online behaviour. The major limitation of the experimental design is that it does not fully mimic the real environment in which people engage in certain behaviours (here – encounter news), which could affect the participants' decisions. Notwithstanding some limitations of these analyses, the results bring empirical evidence in support of the above-mentioned hypotheses.

The evidence from two experiments suggests that Russian opposition's attitudes towards oppositional candidates do not change when they are presented with negative information about them. At the same time there is a significant change in the opposition's perception of a candidate's trustworthiness and their willingness to see him as a president when it comes to a non-oppositional

candidate. The observed effect provides evidence that the opposition processes new information based on their existing ideas, attitudes and values. If new information they encounter is inconsistent with their attitudes, they reject it, thus they usually do not fall for governmental propaganda as it transmits messages that go against their oppositional attitudes (e.g. those that discredit the opposition). This finding goes in line with prior research on information processing mechanisms and attitudinal change. Even when people are provided with solid evidence that certain information is incorrect, they do not change their minds if it is inconsistent with their partisan biases (Lewandowsky et al, 2012). Though this effect is problematic enough in liberal democracies, it is even more problematic in authoritarian regimes where the state often resorts to propaganda and misinformation campaigns to manipulate public opinion.

The finding demonstrates a potential threat – as negative information about oppositional candidates does not significantly alter opposition supporters' views on these candidates, the opposition is willing to blindly believe oppositional figures. Even when the negative information might be factually correct, opposition supporters are likely to dismiss it as state propaganda and continue to support the oppositional candidate. This means, that in extreme cases, they could potentially support corrupt and incompetent politicians simply because they are in opposition to the current government. On the other hand, an authoritarian incumbent could easily use this effect to undermine the influence of honest oppositional figures in the eyes of opposition supporters. If an incumbent, his government and state media suddenly started to show active support for a certain oppositional politician, the support of the opposition for that politician most likely would decrease as they tend to take positions that are in opposition to the official points of view regardless of facts.

Results of logistic regression analysis using data on how opposition supporters view the ideas actively promoted by Russian propaganda indicate that Russian opposition is less likely than other

Russian citizens to believe in the ideas actively promoted by Russian state propaganda. Those include the following: a) there are no Russian troops in the eastern Ukraine; b) Euromaidan in Ukraine took place largely due to foreign influence and meddling in the events; c) the US is plotting against Russia and does everything to distort the order in the country. Whereas the latter idea is clearly a construct of Russian propaganda, the first two claims are conflictual. There is no compelling official evidence to support or contradict either of the two claims. Still, Russian opposition tends to take the point of view that does not align with the main messages of Russian propaganda in this regard. The fact that this effect is present though there is no solid evidence about the two claims is a further indication that the opposition in Russia assess the correctness and truthfulness of information based not on hard facts, but on its pre-existing attitudes.

This finding has broader implications as it indicates that in highly polarized environments people tend to take positions on certain issues based not on facts, but rather on their partisanship affiliations. In the Russian case people who identify as opposition form viewpoints on certain issues so that they are in contradiction with the official position transmitted by the state, without critically assessing the information and facts about these issues. It seems worth to conduct a similar study in a different authoritarian country such as Erdogan's Turkey to test whether the same kind of behaviour can be observed there or it is context-specific.

Finally, the results of big data analysis suggest that the supporters of the current leader of Russian opposition Alexei Navalny tend to selectively expose themselves to media sources that can be considered oppositional and thus align with their existing attitudes. This finding also highlights that the opposition (or, in this case, its considerable proportion) tends to seek out the information that is consistent with their attitudes and potentially can further reinforce them. The results suggest that the opposition attempts to avoid the propagandistic messages in the social media realm by

using sources of information that supposedly are independent of the state influence. The observed effect is quite common for polarized societies, but is especially problematic in the authoritarian contexts where incumbents strive to manipulate public opinion with propaganda. By "escaping" the realm of state media, the opposition becomes even more distant from the government supporters. Thus, it is even more difficult for the opposition to compete with the incumbent for the support of the majority of the population. The opposition might misunderstand real orientations and preferences of the majority. They might also fail to successfully transmit their messages to the public as they exist in a kind of an oppositional "media bubble".

The findings about the pages with non-political content (e.g. the pages of new Russian rappers) that are strong indicators of oppositional or pro-governmental partisanship could be used in further studies on predicting partisanship based on the patterns of social media usage. In terms of further research, an analysis that would test how social network's newsfeed sorting algorithms might reinforce oppositional attitudes in authoritarian regimes and whether such influence converts into political action (e.g. protest actions) could be conducted. Also it seems relevant to replicate on Facebook the big data analysis on the media consumption preferences of Russian opposition conducted in this study based on Vkontakte social network. That would provide one with a more detailed picture of the social media consumption of Russian opposition.

The present study contributes to the existing body of research on information processing as well as on contemporary misinformation campaigns and propaganda, in particular, on Russian propaganda under Putin's regime. It points out that Russian opposition is resistant to the state propaganda not because they carefully and consciously assess new information, but because they assess it based on their existing oppositional views which follows the patterns previously observed by the scholars of communication science.

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Appendix 1

Consent form

General information and conditions of the experiment

The purpose of this experiment is to find out how different types of information affect people's opinions about politicians. The results of the experiment will be used by the author in the thesis for a master's degree in political science.

The experiment consists of two parts. First, you will be asked to see information about a fictional politician. Then you will be asked to answer questions about it, as well as a number of general questions about you (in particular, indicate your gender, age, occupation).

The experiment does not involve testing your intellectual abilities, there are no "right" answers to the questions.

All answers to questions are strictly confidential, they will be accessible only to the author of the study and only in general form, so that it will be impossible to identify the respondent's identity.

Participation in the experiment will take you about 10 minutes. Participation is voluntary, you can refuse to answer some questions and refuse to continue participating in the experiment at any time.

By clicking the "Continue" button, you confirm that you are familiar with the above information about the experiment and agree with the terms of its implementation, as well as the fact that you are 18 years old.

Profiles

1
- Male, in his 60s
- Experienced politician, has a military background
- Deepen existing connections with Belarus and Kazakhstan
- Raise the standards of Russian educational and health-care systems
- Make Russian army better equipped so that we can defend ourselves against multiple threats both from inside and outside the country
- Stimulate science and introduction of innovations into economy
- Promotion of healthy lifestyle and patriotism
- Maintain stability in the country, prevent separatism in Russian regions
- We should focus on maintaining the status of a “world power” so that the citizens can be proud of the country they live in

2
- Male, in his 40s
- Independent candidate

- Has a business background
- Aim to compensate the injustice of the privatization which took place in the 1990s and benefited only the "oligarchs"
- De-bureaucratize educational system, maintain free education
- Double expenses on health-care system
- Introduce visa regimes with Central Asian countries
- Cut expenses on Syrian and Ukrainian campaigns
- A full-scale judicial reform, increase transparency in corruption-related cases
- Exempt private entrepreneurs from taxes, raise minimal wage approximately 3 times

Fake News (Treatment)

1

According to a former employee of the US National Security Agency who has recently retired, the candidate has received more than $200 million during the last 5 years from the US State Department in return for granting the US military officials access to strategic military documents such as maps of Russian military objects and the newest military hardware designs.

2

The candidate's former business partner Ivanov has disclosed that the candidate was not paying taxes from his business between the years 2005 and 2007. He has published financial documents of the company he and the candidate were jointly managing at the time. Ivanov has urged the citizens not to support such a "liar" as the candidate is as he is actively promoting anti-corruption campaigns while being corrupt himself.

Questions

1. How trustworthy do you Do you find this candidate? (on a scale from 1 to 7)
2. Would you vote for this candidate in the presidential elections? (yes/no)
3. Would you want this candidate to become the president of Russia? (on a scale from 1 to 7)
4. How competent do you find this candidate in terms of foreign policy? (1-7 scale)
5. How competent do you find this candidate in terms of economic policy? (1-7 scale)
6. How competent do you find this candidate in terms of social policy? (1-7 scale)
7. What is your age? (18-25, 25-35, 35-45, 45-60, 60+)
8. What is your sex? (male, female)
9. Where do you live now? (Open question)
10. Where were you born? (Open question)
11. What is the average monthly income per person in your household? (Less than 5 thousand rubles, 5-10, 10-15, 15-25, 25-35, 35-45, 45-60, 60+)
12. What is your occupation? (Student, civil servant, private sector, military, media, other (open answer)
13. How much time do you spend on the internet per day? (approximately) (less than 30 minutes, 30 mins-1 hour, 1-2 hours, 2-3 hours, 3-4 hours, over 4 hours)

14. How often do you use social networks? (Every day, once a week, rarely)
15. Which networks and messengers do you primarily use? (multiple answers possible) (Facebook, Vkontakte, Odnoklassniki, Whatsapp, Telegram, Skype, Periscope, other (open answer)
16. How often do you watch TV? (don't watch at all, 1-2 times a month, 1-2 times a week, 3-4 times a week, every day)
17. What source of news do you find the most trustworthy? (social networks, online media, tv, print media)
18. What do you think about the protests which took place on the 26th of March in Russia? (Never heard of it, support and participated, support but did not participate, indifferent, oppose, refusal to answer)
19. What do you think is the biggest problem in Russia? (open question)
20. To what extent do you agree with this statement "All politicians are corrupt anyway, so I don't care whether the politician is corrupt when I decide who to vote for"? (on a scale from 1-5)
21. To what extent do you agree that the US is hostile towards Russia and is doing everything to distort the order in Russia and neighboring countries? (on a scale from 1-5)
22. What do you think about the Maidan 2014? (it was incitedby the US, it was incited by Russia, it was incited by both Russia and the US, foreign influence was insignificant there and it happened due to the inside reasons and the will of the Ukrainians, refusal to answer)
23. Do you think that Russian troops should interfere in what's going on in the eastern part of Ukraine? (I think they are already involved and I approve; I think they are already involved, but I disapprove; I think they are already involved, but I am indifferent; I think they should interfere but currently they do not; I think they should not interfere and they do not; I think they do not interfere and I am indifferent about it; Other – open answer)
24. To what extent do you agree that Russia should spend more on the defense to maintain its army as it has to deal with many enemies both inside (separatists) and outside? (on a scale from 1 to 5)
25. To what extent do you agree that a visa regime should be introduced with Central Asian countries? (on a scale from 1 to 5)

Appendix 2

Consent Form (The same as in Appendix 1)

Candidate profile

- Female, in her late 40s
- Independent candidate
- Has some experience in politics, main background in the academia (studied economics)
- Cut expenses on defense, abolish mandatory military conscription
- Raise expenses on education, infrastructure and innovations
- Maintain free education, but reduce the number of higher education institutions (based on how effective they are)
- Aim to build a post-industrial highly technological economy
- Stop operation in Syria, make an effort to make peace in Ukraine and improve relations with the EU and the US but without giving up Crimea

Fake news (Treatment)

It was leaked by C's former secretary Ms Frolova that C is having an affair with Mr Sidorov who is a top manager in one of Russia's biggest oil companies. Ms Frolova's statement appeared in major Russian outlets along with the photos of C and Mr Sidorov sitting in a luxurious café in Paris, from their looks one can tell that they are having a romantic date. Mr Sidorov supposedly has close ties to Russian government. He studied together with the head of the President's Administration. Ms Frolova added that, though she is not completely sure, she and many of her colleagues suspect that C is secretly receiving money from the government through Mr Sidorov.

1. Do you find this candidate trustworthy? (on a scale from 1 to 7)
2. Would you vote for this candidate in the presidential elections? (yes/no)
3. Would you want this candidate to become the president of Russia? (on a scale from 1 to 7)
4. How competent do you find this candidate in terms of foreign policy? (1-7 scale)
5. How competent do you find this candidate in terms of economic policy? (1-7 scale)
6. How competent do you find this candidate in terms of social policy? (1-7 scale)
7. What is your age? (18-25, 25-35, 35-45, 45-60, 60+)
8. What is your sex? (male, female)
9. Educational level (high school, college, BA, MA or higher)
10. What is your occupation? (Student, civil servant, private sector, military, media, other (open answer)
11. How much time do you spend on the internet per day? (approximately) (less than 30 minutes, 30 mins-1 hour, 1-2 hours, 2-3 hours, 3-4 hours, over 4 hours)
12. How often do you use social networks? (Every day, once a week, rarely)

13. Which networks and messengers do you primarily use? (multiple answers possible) (Facebook, Vkontakte, Odnoklassniki, Whatsapp, Telegram, Skype, Periscope, other (open answer)

14. How often do you watch TV? (don't watch at all, 1-2 times a month, 1-2 times a week, 3-4 times a week, every day)

15. Please rank these media sources according to their trsutworthiness? (social networks, online media, tv, print media)

16. Please name Russian media which you find the most trustworthy? (open question)

17. If presidential elections were held next Sunday in Russia, who would you vote for? (Putin, Medvedev, Navalny, Zhirinovsky, Zyuganov, Kasyanov, Would not vote, other – open answer)

18. What do you think about the protests which took place on the 26th of March in Russia? (Never heard of it, support and participated, support but did not participate, indifferent, oppose)

19. Why do you think people went to the protests on the 26th of March? (I don't know anything about those protests; People went because they were promised to be paid for it; People went out of their free will)

26. Have you watched Navalny's movie about Medvedev's corruption activities? (Yes; No)

27. To what extent do you agree that the US is hostile towards Russia and is doing everything to distort the order in Russia and neighboring countries? (on a scale from 1-5)

28. What do you think about the Maidan 2014? (it was incitedby the US, it was incited by Russia, it was incited by both Russia and the US, foreign influence was insignificant there and it happened due to the inside reasons and the will of the Ukrainians, refusal to answer)

29. Do you think Russia should interfere in the Donbass militarily? (I think it is already doing so and I approve, I think it is already involved and I disapprove, I think it should, I think it should not, other – open answer)

30. Why do you think Crimea decided to join Russia in 2014? (It was the direct and free will of the people of Crimea; Some people in Crimea wanted to join Russia but without Russia's interference (not military) it would not be possible; Some people in Crimea wanted to join Russia but without Russia's military interference it would not be possible; The outcome was possible only due to Russia's military interference (nobody really asked what Crimeans wanted); Other – open answer)

31. In the recent years (2015-2016) mass demonstrations were staged in the end of March to celebrate the "return" of Crimea. Why do you think the majority of people went to those demonstrations? (Out of their free will; They were paid to go there; They were forced to go there by the institutions where they study or work; They were both paid and forced to go there; other – open answer)

32. Do you know about the case against blogger Sokolovsky? (I don't know about it; I think he should be set free; I think he should be sentenced to imprisonment; I think he should be given a suspended sentence; I think he should pay a fine; Other – open answer)

33. Who is responsible for the *majority* of deaths of the hostages during the Nord Ost attack in 2002? (I know nothing about this attack/open answer)

34. Do you know why the relatives of the hostages of Beslan school attack of 2004 are trying to sue the Russian government? (I know nothing about this attack/open answer)

Appendix 3

Table 5

Logistic regression results output – big data analysis

Please note that due to the high number of variables included in the model only statistically significant variables are presented in the output table

	Dependent variable:
	responsive
badcomedian	2.067***
	(0.494)
boss	-0.739*
	(0.380)
csgo	0.100*
	(0.053)
larin	1.384***
	(0.383)
one	-0.411**
	(0.184)
атеист	1.961***
	(0.478)
бот	-0.129**
	(0.063)
гиф	1.021***
	(0.338)
дня	0.532***
	(0.194)
наука	-0.358***
	(0.131)
россия	-0.307***
	(0.094)
эстетика	1.025***
	(0.369)
яжемать	0.833***

	(0.288)
литература	0.622***
	(0.210)
ютубер	0.666**
	(0.324)
мам	-0.544***
	(0.195)
спорт	0.371***
	(0.099)
москвы	0.656***
	(0.223)
fact	0.811***
	(0.287)
лентач	1.533***
	(0.202)
правительство	-1.546***
	(0.295)
путин	-0.857***
	(0.282)
россии	-0.643***
	(0.105)
техника	0.485***
	(0.172)
youtub	-0.441***
	(0.169)
комиксы	-0.602***
	(0.195)
конкурсы	-0.529***
	(0.172)
мужской	0.288**
	(0.122)
обзоры	0.626**
	(0.280)
официальные	-1.754***
	(0.591)

фбк	8.201***
	(2.486)
фильмы	-0.248***
	(0.092)
мода	-0.636***
	(0.161)
смех	-0.909***
	(0.284)
смеяка	-0.665***
	(0.239)
gta	-0.484***
	(0.141)
shop	0.463***
	(0.172)
панчи	2.623*
	(1.570)
fashion	0.423***
	(0.153)
oxxxymiron	0.756**
	(0.357)
рэп	0.677***
	(0.224)
медуза	2.079***
	(0.464)
навального	2.408***
	(0.303)
ютуб	0.908***
	(0.221)
орленок	1.175***
	(0.382)
nation	1.103***
	(0.199)
компьютер	1.082***
	(0.395)
ужасов	0.705***

	(0.249)
барселона	-1.047***
	(0.239)
чёрный	-0.794***
	(0.201)
лев	-0.730***
	(0.268)
вашего	0.794***
	(0.296)
дождь	0.919**
	(0.395)
коммерсантъ	-0.983***
	(0.272)
бог	-1.706***
	(0.419)
Constant	-0.559***
	(0.054)
Observations	6,981
Log Likelihood	-2,289.837
Akaike Inf. Crit.	6,073.675
Note:	*p<0.1; **p<0.05; ***p<0.01