

Information Warfare and Propaganda in Russo-Ukrainian War, Lessons Learned

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ABSTRACT

The study examines the methods and effectiveness of Russian propaganda during the Russo-Ukrainian war, focusing on three specific cases: the declared number of casualties, the denial of the Bucha massacre, and the dirty bomb narrative. The success of Russian propaganda is evaluated through the level of support for the “special operation” in Ukraine. Three cases of propaganda were evaluated through five criteria. To investigate their efficiency, propaganda cases were subjected to indirect assessments, leveraging secondary sources. Finally, secondary data on the Russian public’s support for activities in Ukraine and some views on the media were presented, which in this analysis provide additional argumentation to the previously analysed cases. The analysis assesses whether only emotional manipulation techniques were used or whether additional tactics were employed. The technical quality of the individual propaganda campaigns is also assessed. Despite the below-average quality of the individual campaigns, the study shows that Russian propaganda achieves its goals by evoking emotional reactions. In particular, it finds greater support among older, less educated people who rely primarily on television programmes (which are largely controlled by the central Kremlin authorities).

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Although the propaganda also has an impact on younger viewers, its influence is comparatively weaker. Ultimately, the study considers Russian propaganda to be successful because it is able to generate significant emotional engagement among the domestic public and thus contribute to support for the war.

Keywords: Disinformation, Information Warfare, Propaganda, Fake News, Russo-Ukrainian War

Introduction

The issue of contaminating the media sphere with disinformation emerges as a pressing concern in contemporary times, wherein disinformation has emerged as a potent weapon in ongoing conflicts. A considerable number of malicious actors and entities exploit advanced technologies to disseminate disinformation, furthering their respective agendas. Within the landscape of modern warfare, disinformation campaigns represent the most dynamically engaged non-kinetic domains across all conflicts.

In the study (Wardle and Derakhshan, 2017) authors delineate three distinct subcategories of false or incomplete information. Firstly, misinformation pertains to inaccuracies disseminated without the explicit intent to inflict harm. Secondly, malformation refers to authentic information shared with the explicit aim of causing harm. Lastly, disinformation occupies a position at the nexus of these prior classifications, as it embodies falsehoods propagated with unequivocally detrimental motives.

Disinformation exerts a potent influence over individuals, compelling them towards extremes as malicious actors exploit this persuasive force to weaponize public cognition (Oyserman and Dawson, 2020). Regarding terminology, if disinformation is construed as a weapon, then its dissemination warrants designation as an attack, with the originator labeled as the attacker - terminology adopted within this paper. Furthermore, disinformation dissemination campaigns shall be referred to as propaganda, encompassing all associated negative connotations.

The main goal of the paper is to show the modality and effectiveness of Russian propaganda in creating and maintaining the support of the domestic public in the current Russian-Ukrainian conflict. The authors do not question the propaganda techniques of the Ukrainian side, although they are also the subject of academic research (Oleinik and Paniotto, 2023; Lukavečki, Šaran and Jakopović, 2024, etc.).

The paper claims that Russian propaganda is successful in its goals because it encourages emotional reactions from the audience, regardless of poorly developed technical solutions for sending propaganda messages.

Propaganda and Desinformation in Theory

It is not easy to define these two terms and their relationship to each other, as there are vague definitions and different views where scholars and practitioners disagree on what exactly propaganda is. As Martin (1958: 10) claims: “The term propaganda is susceptible of so many definitions that it is hard to make it the subject of a law.” Thus, there are different definitions of propaganda from different perspectives. Originally, the word propaganda was associated with the Catholic Church and the spread of Catholic doctrine throughout the world, but later acquired exclusively negative connotations, so that today words such as lies, distortion, deceit, manipulation, mind control, psychological warfare, brainwashing and palaver are often used as synonyms for propaganda (Jowett and O’Donnell, 2012: 2). Linking theatre and propaganda Szanto (1978: 6, 72) speaks of the theatre of agitation propaganda, the theatre of integration propaganda and the theatre of dialectical propaganda, all of which serve a specific ideology, because “propaganda is a specific form of activated ideology”. Jowett and O’Donnell (2012: 7) define propaganda as “the deliberate, systematic attempt to shape perceptions, manipulate cognitions, and direct behavior to achieve a response that furthers the desired intent of the propagandist” and they distinguish it from a persuasion which is “interactive and attempts to satisfy the needs of both persuader and persuade“. Cambridge Dictionary (2024) defines propaganda as a “information or ideas that are spread by an organized group or government to influence people’s opinions, esp. by not giving all the facts or by secretly emphasizing only one way of looking at the facts”. Laskin (2019: 309, 310) analyses propaganda from a psychoanalytical perspective and says that “propaganda’s ambition is to make people sacrifice their personal wishes and even their own lives for something bigger and, presumably, more important”, so “if a country goes to war, all citizens are at war, they all are included in this decision. Either they are troops and then they have to fight or they stay home and then they have to ‘support our troops’”. It is precisely this last topic that is the subject of this paper’s analysis. However, before analysing this, we should consider the concept of disinformation, which is very important in the context of propaganda and this study.

Defining disinformation is also a challenging task as “there are overlaps between different terms such as misinformation, disinformation and fake news” (Trzun, Lucić and Ivanjko 2024: 358) and many papers in various disciplines have dealt with

the topic of disinformation, usually together with misinformation and fake news, as Broda and Strömbäck (2024) explain in their review paper „Misinformation, disinformation, and fake news: lessons from an interdisciplinary, systematic literature review”. Popovac (2020: 68) argues that disinformation “in its worst form, disinformation is a consciously created (invented) lie, the opposite of the truth. It is false information that is marketed and disseminated with the intention of causing harmful political, social, economic, health and other consequences”. Disinformation is usually defined as information that is fake or misleading and is deliberately disseminated as opposed to misinformation. Such a definition is also provided by Muhammed and Mathew (2022: 271), who also add how that disinformation campaigns are “often seen in a political context where state actors create them for political gains”. So, their connection to propaganda is very clear. They are an essential component of propaganda activities, so that disinformation and propaganda are the central topic of research.

Psychology of Disinformation Dissemination

The tendency to spread disinformation is already a well-known concept, but new technologies have made this spread considerably easier. Information and communication technology, originally developed to facilitate the transmission of information, has recently turned into an instrument for manipulation. Even to experts in propaganda techniques, it became a surprise the ever faster pace and further reach of disinformation - compared to true and valuable information that come from trusted sources (Silverman, 2016). Thanks to the great tendency of spreading (of disinformation compared to legitimate information), aided by the loose regulation of Internet and social network regulators, and finally driven by extremely high motivation of non-benevolent attackers, disinformation became a penetrating weapon that effectively directs emotions of the domestic and foreign public.

When trying to spread disinformation, attackers use well-known psychological mechanisms and manipulative techniques. We divide them into two groups, where emotions awakening techniques are generally the most efficient, and therefore attackers use them whenever possible. Inducing strong emotional involvement as the most powerful tool (or technique) to achieve propaganda goals is described in a number of works, for example in (Karell and Agrawal, 2022) and (Bakir and McStay, 2017). Therefore, we single out emotions-awakening techniques as potentially the most effective and most useful for the author of the disinformation campaign. We will classify all other techniques in another group, the so-called auxiliary techniques, which, when used correctly, can additionally emphasize the effects of posi-

tive or negative emotions that attacker places at the center of his efforts. Below is a brief overview of some of the techniques used by attackers.

a) Emotions Awakening Techniques

a1. Using content that is concordant with target's already formed opinion

The failure to discern between true and false news is rooted in our belief. People engage in ‘identity-protective cognition’ when faced with valenced content, and this leads them to be overly believing of content that is consistent with their partisan identity - and overly skeptical of content that is inconsistent with it (Pennycook and Rand, 2021). When the facts point to a different reality than is the one that we previously have adopted, a cognitive dissonance emerge, which is the psychological state where different beliefs are in conflict with one another. To resolve such uncomfortable cognitive conflict, we are even prepared to make the additional effort just to reinforce our biased opinion (Bavel and Pereira, 2018). In other words, faced with arguments that we do not want to accept, we are ready to search for additional evidence (even these being doubtful or false) that would confirm that we were right from the beginning.

a2. Aiming at the basic emotions (emotional involvement)

Disinformation is especially successful if targets basic emotions (Bago *et al.*, 2022). Therefore, attackers use anger (about the opposing group), fear (e.g. news about a vaccine against the COVID-19 disease that also “contains a remote control chip”), happiness, etc. Successfully arousing basic emotions can compensate for many flaws in the propaganda technique.

a3. Using the tendency of people to trust the person they communicate with

In an analysis of 2.8 million news shares on Twitter (Gabelkov *et al.*, 2016) authors found that a staggering 59% of news was shared without even opening the URLs mentioned within. Sharing and recommending content without reading or verification of its truthfulness perhaps seems surprising, but this is not significantly different from the pattern according to which we communicate in everyday life. In our daily conversations we usually start from the implicit assumption that the opposing party is a cooperative communicator, that he has no intention to lie, and that his contribution to the conversation is relevant and true (Schwarz and Jalbert, 2020). The only exception would be a conversation with a speaker whom we already know to be

prone to spreading disinformation - but on Internet (social networks) we usually do not know all our contacts and therefore we hold onto the implicit initial trust.

a4. Targeting individuals that are more prone to believe in disinformation

One study (Bronstein *et al.*, 2018), which included 948 participants living in the United States, tested the correlation between some measurable personal characteristics (e.g. likelihood to believe fake news / disinformation, active openness, tendency to analytical thinking, etc.) and the probability to believe disinformation. A negative correlation was found with analytical thinking, but a very strong positive correlation with news bias and also a strong positive correlation with delusion-like ideas, dogmatism, and religious fundamentalism. This gives attackers easy access to people who are likely to believe disinformation. Numerous authors (for example (Barclay, 2018), (Swami *et al.*, 2014)civic, and social outcomes, requiring reliable methods of reducing such belief. Thinking dispositions have been highlighted as one possible factor associated with belief in conspiracy theories, but actual relationships have only been infrequently studied. In Study 1, we examined associations between belief in conspiracy theories and a range of measures of thinking dispositions in a British sample (N=990 and (Meuer and Imhoff, 2021)) have also dealt with groups particularly inclined to believe in disinformation. Because of the close relationship between political propaganda and commercial advertising, the Trump campaign hired Cambridge Analytica to provide detailed information on more than 87 million Facebook users to develop more effective digital ads in favor of Trump (Schneble, Elger and Shaw, 2018).

b) Content Design Related Techniques (Auxiliary Techniques)

b1. Using at least partially true information

When distributing disinformation, a malicious attacker also inserts a certain amount of true content into the published content (Trzun, Gracin and Štengl, 2023). In this way, the whole story gains more credibility. Actually, the best technique is to spread a story that is completely true, but twisted or accentuates an isolated weakness of the subject. This is the malformation, a technique often used in the political and business arena to destroy the reputation of a direct rival (Hübner and Little, 2021).

b2. Repeating the same disinformation

This infamous technique has a simple background: a lie repeated a hundred times becomes the truth. It is a kind of artificially created confirmation bias effect. If

members of the attacked group have not already formed an opinion on a certain topic, that opinion is implanted in their mind by repeating it over and over as the “artificial belief”. In a study conducted on belief in disinformation (Polage, 2012), participants rated disinformation they had previously read as more plausible than participants who had not read them before. Participants believed that they had already heard about the disinformation from an external source, although it was generated by the experimenters.

b3. Using manipulative techniques

There are many more manipulative techniques that attackers use to spread disinformation. For example, content gains legitimacy if it is accompanied by a quote from a politician or scientist, even if that quote is fictional. It also gains additional credibility if it is accompanied by a photo. Cross-linking between different news sources, often maintained by the same attackers, can also be used, etc. Some techniques even abuse misspelled addresses (Belova and Georgieva, 2018). One of the techniques that is inherently more sophisticated and harder to detect is the so-called source hacking – these is a versatile set of techniques for feeding false information to journalists, investigators, and the general public - especially during breaking news events or across highly polarized issues (Donovan and Friedberg, 2019). A disinformation is transmitted to a secondary news source which previously earned higher public trust; if this source forwards the same disinformation, it takes over the secondary source’s credibility while the real author remains disguised.

Additional note: People refuse to make an effort to recognize disinformation

It is apparently true that partisanship is related to general belief. But given enough time, people would recognize disinformation; an information that is false (even if being consistent with previous belief) will eventually be recognized as such, if only people would invest a little energy to estimate the presented facts. Unfortunately, we usually don’t have the time, energy, or the will to discern truth from lies because that would require extra mental effort – and it sounds superfluous if the story already sounds good and supports our previously formed belief. A recent survey in Croatia, for example, found that only 42.4% of participants checked the truthfulness of the media content they consumed (Antoliš and Pačelat, 2024).

Evaluation of the Russian Propaganda Effectiveness – the Methodology

As the main goal of the paper is to evaluate the success of Russian propaganda, three cases of Russian propaganda were selected: 1) number of casualties, 2) Bucha massacre denial, and 3) dirty bomb narrative. All were analyzed using the same methodology, i.e. the criteria explained below. The fourth case is given which also represents an information warfare technique, and consist of declaring the opponent's information as false or even blocking it completely. Also here an interesting tactic is given in which the Russian authorities try to bypass the information blockade imposed by Europe and the US. The selection of cases was made according to the logic of some of the most typical examples used in propaganda (number of casualties, demonizing the enemy) but some highly exposed media examples were used and evaluated too.

By analyzing the selected cases, the authors in the second part of the paper are trying to answer the following research questions: 1) whether the public's emotional involvement is sufficient to bring public support even when the propaganda campaign is poorly executed; and 2) how technically correct was executed a particular propaganda campaign. In section 6 it is also analyzed if all age groups are equally vulnerable to propaganda attacks.

Authors tried to maintain objectivity, so all claims have been verified from several sources. It is mostly Russian disinformation that have been debunked here, although other parties also participate in the information warfare. A propaganda is indeed a powerful mechanism for raising the morale of domestic public, so its introduction was expected; what is new is therefore not the „battle for hearts and minds“, but the vast reach of digital technology that exponentially increase the circulation of propaganda (Alonso-Trabanco, 2022). The high intensity of the information warfare was also expected given the numerous recorded activities of Russian agencies in the past.

The success of a particular propaganda campaign can't be assessed directly. Instead, the efficiency of Russia's overall propaganda efforts is assessed. A similar methodology has already been applied in other analyzes before, for example in 2015 when Kyiv International Institute of Sociology (KIIS) prepared the Russian Propaganda Effectiveness Index (RPE). The success of Russian propaganda (Kiev International Institute of Sociology, 2015) was then assessed through the level of trust in the Russian mass media (TV channels, radio, newspapers).

In our work, the success of Russian propaganda is evaluated through the level of support for the “special operation” in Ukraine. This approach represents a quantifiable

methodology, albeit indirect, for evaluating the impact of propaganda; it measures the „rallying around the flag“ effect (Seidman, 2008) which propaganda stimulates particularly in times of crisis. Many authors face a similar problem and try to find a method to evaluate the effectiveness of war propaganda, from monitoring the propagation of a political leader’s message through the mass media (Oleinik and Paniotto 2023), to adjustments in mainstream society - and yet, despite their efforts, they find that it is not possible to fully gauge the propaganda effects .

The public support that was measured in February (at the very beginning of aggression) has been chosen as a referent value. The beginning of an armed conflict usually leads to the homogenization of the population, which is explained by the so-called „rally round the flag“ phenomenon (Hatuel-Radoshitzky and Yarchi, 2020). For example, both after Russia’s short war with Georgia in 2008 and after the annexation of Crimea in 2014, Vladimir Putin’s approval rating rose up to 88%. In both instances, negative global reaction merely strengthened the Russian belief that there is a Western conspiracy and that Russia was forced to defend its survival (Levinson, 2022). However, after the poor results of the Russian army and the extension of the war, public support was put to the test. Also, in such unfavorable conditions, the effectiveness of the Russian disinformation/propaganda campaign was tested. To evaluate this effectiveness, results of surveys prepared by the Levada Analytical Center (Levada Center), a Russian independent non-governmental research organization, will be used.

The assessment of individual disinformation, much like previous analyses (Jowett and O’Donnell, 2012), will be based on five criteria:

1. Is there a high level of emotions awakening?
2. Were auxiliary techniques used?
3. How persuasive is the particular disinformation?
4. Is disinformation easily debunked from the international public point of view?
5. Is disinformation easily debunked from the Russian public point of view?

A categorical scale is used where the categories are described by descriptive dimension. Initially, only „Yes“, „Medium“ and „No“ answers are allowed for all questions. During the implementation of the analyses, the need for additional clarifications to some questions emerged. Therefore, it is allowed to enter additional descriptions/comments for all questions, although in the end this possibility was used only for question No. 5.

The study elucidates the emotional awakening indicators employed in disinformation campaigns, encompassing belief reinforcement aligned with preexisting opinions, manipulation of basic emotions, establishment of trust in communicators, and targeting susceptible groups inclined towards embracing disinformation. These indicators are comprehensively described in Part 2.1 of this research. To investigate their efficiency, propaganda cases were subjected to indirect assessments, leveraging secondary sources listed in Part 6.

In all analyzed examples some auxiliary techniques (outlined in Part 2.2) were employed, encompassing the propagation of partially true information, the dissemination of repeated information, and the implementation of other manipulative techniques. The quality of auxiliary techniques was evaluated in accordance with the indicators and resources listed in Part 2.2.

The persuasion, as a manifestation of social influence wherein active endeavors are made to modify individuals' attitudes, beliefs, or behaviors (Cacioppo, Cacioppo and Petty, 2018) was assessed indirectly and on a case-by-case basis. Instead of direct observations of attitude or behavioral changes within the target audience, the focus was placed on estimating the potential persuasiveness of the disseminated information. The persuasiveness strength of the analyzed cases, as well as the efficiency of their debunking, was assessed from two distinct perspectives. Firstly, estimation was made of the impact on the international public situated outside the borders of the Russian state. Secondly, the impact on local Russian public, characterized by contextual disparities and limited information dissemination due to governmental suppression, was estimated in terms of the vulnerability to persuasive techniques and debunking potential.

The final verdict is expressed descriptively and tries to include the answers to all questions in one logical composition. Therefore, the final verdict is conveyed descriptively rather than through quantitative means; the technical performance of disinformation, which is the easiest to assess, is described in more detail, although poor technical performance does not necessarily indicate their value in terms of achieving the desired goals.

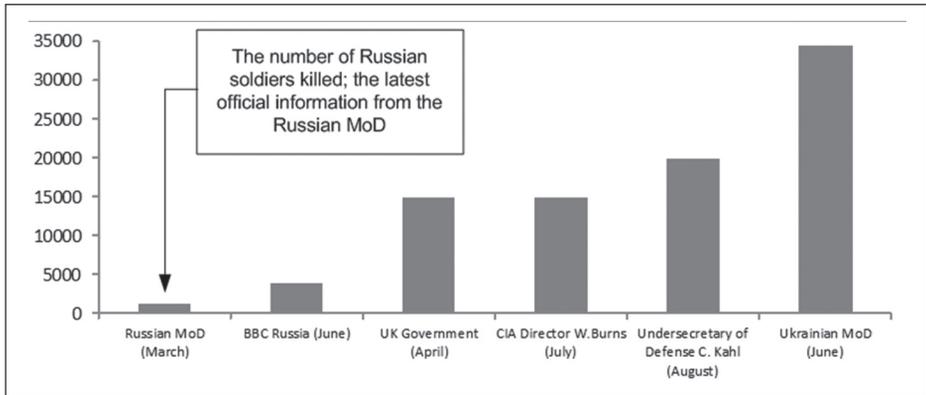
Analysis of Case Studies

Case Study No.1: Number of Casualties

When it comes to public support for the war, the number of casualties is one of the most sensitive issues. The public may support the war if it is not taken personally, but the information about their own casualties quickly exposes the true and bloody nature of war. Therefore, it is understandable that the opposing sides try to conceal the true number of their death toll, while at the same time inflating opposing casualties.

As far as the Russian Ministry of Defense is concerned, the last info on Russian casualties dates back to March 25th, 2022, i.e. after only 28 days of the war. At that time, it was officially recognized that 1,351 soldiers were killed and another 3,825 wounded. It seems that even this information, by now already long out of date, shocked enough the Russian public. Therefore, in the following months of war, the Russian Ministry of Defense did not update this early statement. At the beginning of April, the spokesman of President Putin, Mr. Peskov also admitted that Russia suffered “significant” losses of troops - and that was the last information coming from Kremlin, after which the Russian government built a wall of silence around itself.

On the other hand, it left the space for the Western media to bring numerous estimates coming from both officials and independent analysts. In an interesting analysis from the beginning of July, the BBC gives an overview of claims, estimates, and reports of Russian military deaths since 24 February (Habershon *et al.*, 2022). According to BBC News Russian, the death toll reached 4,010 by June 24 - and this is the minimum number of deaths that have been individually verified. BBC News Russia was even able to confirm each and every name of these four thousands soldiers. By the end of April, the UK government published an estimate of 15,000 Russian victims, and the Ukrainian Ministry of Defense claims that 35,450 Russian soldiers died by the end of June. In late July, CIA Director William Burns put the U.S. intelligence community’s estimate of 15,000 killed and maybe three times that wounded, or about a total of around 60,000 Russian casualties. On July 27, Biden administration officials told Congress that roughly 75,000 Russians had been killed or wounded, and on August 8 Undersecretary of Defense for Policy Colin Kahl told reporters that the Russians have probably taken 70 or 80,000 casualties (Habershon *et al.*, 2022). Figure 1 shows these estimates compared to the official statement originating from the Russian MoD.



Source: Authors

Graph 1: Number of casualties, official Russian report vs Western estimates

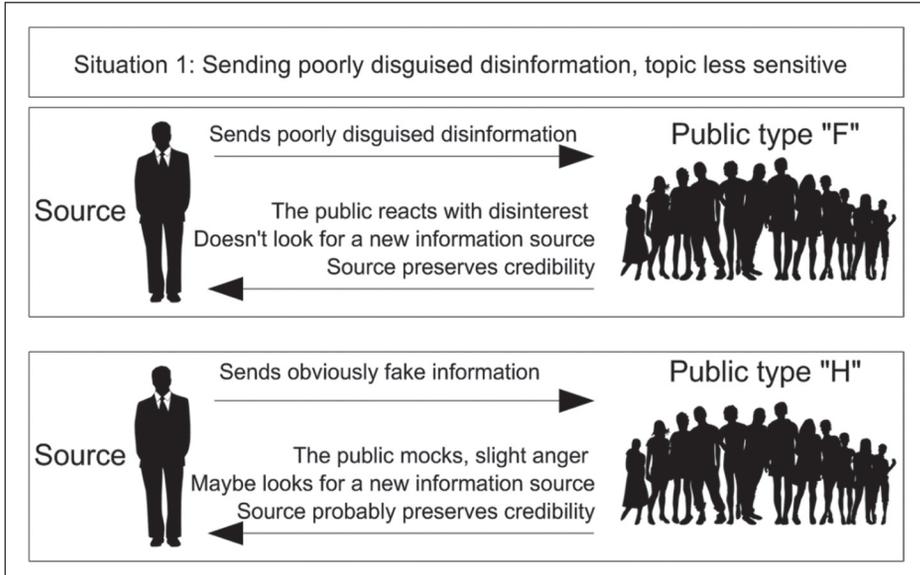
Grafikon 1: Broj žrtava, službeno rusko izvješće u odnosu na zapadne procjene

Presented numbers should be considered as the part of information warfare. Estimates coming from Western sources are probably somewhat inflated, while the Russian official report is undoubtedly deflated. In fact all numbers (Western estimates and Russian report) serve to lift morale of the domestic public. As already stated, the information should be at least partly true in order to be more readily accepted. If the information strongly deviates from the truth, there is a danger that it would be recognized as a disinformation. Dynamics of the relationship between the source and recipient of the information is shown in the Figure 1.

In Figure 2 a hypothetical situation is presented where an information source spreads poorly disguised disinformation about a topic that is not perceived as highly sensitive. That disinformation is received by:

- predominantly friendly public (public type “F”), or
- predominantly hostile public (public type “H”).

The “F” type public reacts with disinterest and refuses to believe the disinformation that is being spread. The “H” public reacts with a mixture of mockery and slight anger. Both types mainly ignore disinformation, and only a few will look elsewhere for more accurate content. The source of disinformation loses a little of the existing credibility but it is not perceived as evil-intentional. The public mainly attributes the disinformation to an oversight or a benign mistake.



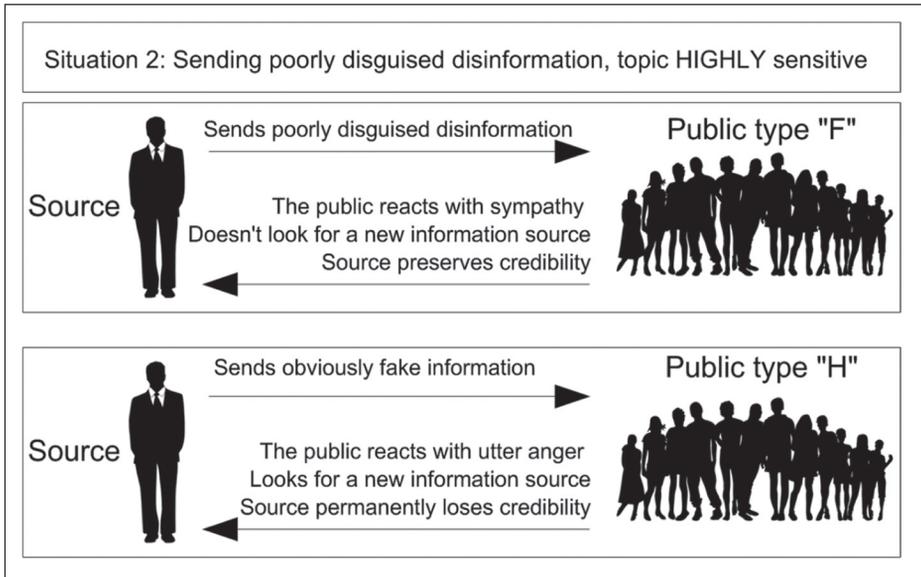
Source: Authors

Graph 2: Sending a disinformation, low emotional involvement

Grafikon 2: Slanje dezinformacija, niska emocionalna uključenost

Figure 3 presents different situation. The source again sends disinformation – but this time it is about topic that is very sensitive (high emotional involvement). A good example is the number of casualties among soldiers. As for the public type “F”, the emotional involvement and confirmation bias are so strong that they overcome the effect of poorly executed propaganda. Even if it is clear that this information is long out of date, the friendly public desperately wants to believe that the given figure does not differ significantly from the reality. The “H” type public is also highly emotionally involved and information about casualties receives as the part of the enemy information warfare. This “H” type reacts to the disinformation with anger and increased hostility, and looks for more accurate information in other sources. For them, the credibility of the source is permanently ruined.

If the Russian MoD has periodically updated the data on the casualties, it would perhaps not have lost this stage of information warfare. A more intelligent use of some of the content design related techniques would achieve a higher level of receptivity.



Source: Authors

Graph 3: Sending a disinformation, high emotional involvement

Grafikon 3: Slanje dezinformacija, visoka emocionalna uključenost

Table 1. A short analysis of the „Number of casualties“ propaganda campaign

Tablica 1. Kratka analiza propagandne kampanje „Broj žrtava“.

Criteria	Assessment
1. Is there a high level of emotions awakening?	Yes
2. Were auxiliary techniques also used?	No
3. Is disinformation persuasive?	No
4. Is it easily debunked by international public?	Yes
5. Is it easily debunked by Russian public?	Questionable, because of the lack of more precise official data.
The final verdict: Disinformation deviates significantly from the truth, but a highly sensitive topic causes emotional involvement and strong confirmation bias.	

Case No.2: Denial of Bucha Massacre

After the invasion of Ukraine, immense Russian forces launched an attack on eastern part of Ukraine and the encirclement of the capital city Kyiv. One of the towns that were occupied during the (unsuccessful) operation was Bucha. After the encirclement finally failed, Russian forces withdrew and Ukrainian forces entered Bucha on April 1st. In the following days they recovered approximately 1,300 bodies (mostly civilians) from the town and surrounding areas. The Bucha massacre remains one of the worst Russian crimes. On the propaganda side, it caused Russia enormous damage. Therefore, the pro-Kremlin media launched a fierce campaign trying to prove that the massacre was nothing but a Ukrainian fabrication. On April 6, a short video of a mannequin prepared by two men in military uniforms appeared on Instagram.

The video was immediately linked to Bucha as the crowning proof that the bodies of murdered civilians were nothing but mannequins on the staged scene. The video was welcomed by the pro-Kremlin media and even shown on national TV channel Russia 24. Russian users also spread the video on numerous social networks. But the mentioned video clip was not related to Bucha. It was from a television series set in Russia (Dangadze, 2022). Russian artist Nadezhda Kolobaeva responded to the TV channel’s allegations on Facebook, warning that the video was shot during the filming of one of the TV series in Vsevolozhsk.

After this failed attempt of cover-up, the video was removed from the TV network’s Facebook page without any comment or apology. The whole episode shows the

Table 2. A short analysis of the „Denial of Bucha massacre“ propaganda campaign
Table 2. Kratka analiza propagandne kampanje „Poricanje masakra u Buči“.

Criteria	Assessment
1. Is there a high level of emotions awakening?	Medium
2. Were auxiliary techniques also used?	Yes
3. Is disinformation persuasive?	Yes
4. Is it easily debunked by international public?	Yes
5. Is it easily debunked by Russian public?	Yes, but denials end up blocked (even when originate from Russian authors).
The final verdict: Disinformation is obviously fake and easily exposed. On the upside, there is some emotions awakening, and the video clip gives it a dose of credibility.	

good and the bad side of information technology and social media. Social networks have enabled the spread of false claims, but also the quick exposing of disinformation. The question is, however, how many Russians were prepared to listen Mrs. Kolobaeva's explanation. Mrs. Kolobaeva witnessed that Russian authorities were not interested in checking fake news, and she received several death threats. Emotional involvement once again proved to be the most powerful prerequisite of successful disinformation.

Case No.3: A Dirty Bomb Narrative

Russian sources have been claiming for a long time that the Ukrainians are constructing the so-called "dirty bomb". It is a kind of explosive device that uses conventional explosives to initiate the explosion, which will afterward scatter the radioactive material around. Experts warn that such claims have problems with elementary logic (which is why, after all, such a bomb was never used before anywhere in the world): 1) it is not easy to find the necessary ingredients and produce a dirty bomb, 2) it is not safe to handle it, and 3) its use would only contaminate the Ukrainians own territory - which makes the whole idea absurd. Finally, the effect would be very limited, and therefore it would be more logical for the Ukrainians (if they really don't care about their own territory) to blow up the Zaporizhzhia nuclear power plant. Western intelligence services rejected the Russian claims (Nichols, 2022), rightly recognizing them as an excuse for intensified attacks in the second half of October (Martinez, 2022).

The first "evidence" of the Ukrainian dirty bomb was a video dating back to the beginning of February, even before the Russian aggression - which should be considered part of the sensitization of the Russian public for the "necessary" military intervention that will follow. Almost simultaneously, multiple pro-Russian Telegram channels published stories claiming that members of the Ukrainian National Corps were preparing a radioactive explosive device to be used against Russian forces. The video was shot in poor quality, but because it emphasizes the immediate danger it most likely succeeded in inciting an emotional involvement among the Russian population.

The video doesn't really show anything specific - just the hands of a man placing a radiation meter on top of a tube filled with an unknown substance. Given the danger of the allegedly radioactive material, one would assume that this man would also have a protective suit - but he only wears work gloves with his sleeves rolled up. The scientific and professional community quickly discredited the obvious Russian

propaganda. The video does not have any audio but subtitles that contain numerous linguistic errors, as confirmed by the site dedicated to exposing Russian propaganda (StopFake Online, 2022). There are at least five instances where instead of Ukrainian words, Russian ones are used. Such language mistakes are not expected from Ukrainian native speakers, particularly not from nationalists. And as for the attached Geiger counter, it turns out to be a piece of standard measuring equipment and not the type of radiometer that would be used in an environment with high radiation concentration. Even the level of radiation shown is very low, similar to the one lung x-ray, and practically negligible if used as part of an explosive device.

Ten months have passed since this news broke, and no further evidence of the dirty bomb has been found. Unfortunately, no counterarguments reach the Russian public - at least not the part that is closed inside the Russocentric filter bubble (Bruns, 2019). That part of the public continues to receive only new disinformation that justifies aggression, while denials are lost in the sea of aggressive propaganda pushed by Russian agencies.

Table 3. A short analysis of the „Dirty bomb narrative“ propaganda campaign

Tablica 3. Kratka analiza propagandne kampanje „Dirty bomb narrative“

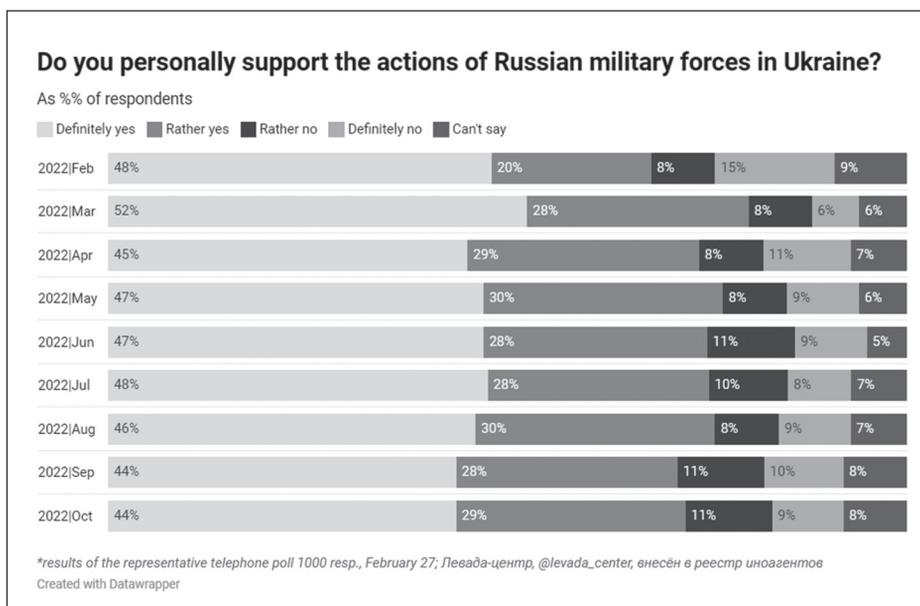
Criteria	Assessment
1. Is there a high level of emotions awakening?	Yes
2. Were auxiliary techniques also used?	Yes
3. Is disinformation persuasive?	Yes
4. Is it easily debunked by international public?	Yes
5. Is it easily debunked by Russian public?	Yes, but denials end up blocked
The final verdict: This disinformation is also easily exposed. However, because it awakes strong emotions, serves as a justification for „preventive actions“.	

The Success of Russian Propaganda

To investigate the effectiveness of overall Russian propaganda efforts, we use secondary sources and the indirect inference method (as described in Methodology). The results of a months-long survey of the Russian public's support for the military operation are taken as a basis, with the note that the results may also depend on other variables.

The „special action“ in Ukraine proved unsuccessful for the Kremlin. The proclaimed goals remain mostly not achieved, a puppet government was not installed in Kyiv, and recently the Ukrainian army even liberated some of the territories occupied by Putin’s army in the first weeks of aggression. The Russian propaganda machine is therefore forced to make substantial measures to preserve the popularity of the Russian leader - and it seems that it has been at least partially successful.

According to the report of an independent Russian site (Levada Center, 2022a), despite the prolongation of the war, there is growing support for the continuation of military action (Figure 4).



Source: Levada-Center (levada.ru)

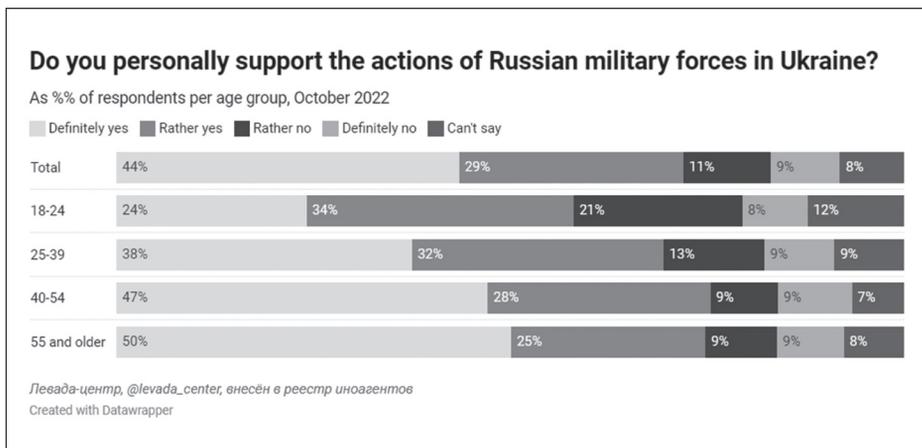
Graph 4: Support of the Russian public for the continuation of the war

Grafičon 4: Podrška ruske javnosti za nastavak rata

In February 2022, 68% of respondents answered that they fully or overwhelmingly support the military action in Ukraine. After several weeks, when the Russian army managed to conquer a large part of Ukraine with one swift offensive, this support grew to as much as 80%. As for the Russian propaganda, its efficiency is proven the

most by the fact that even after the turnover on the front, when the Russian army was forced to retreat, the percentage of those who support aggression changed very little - in October 2022 it was still at a high 73 %.

However, a deeper analysis of the same report prepared by Levada Center reveals the non-homogeneity of the population: the older respondents express the highest support for the continuation of the military action (80% in the age group 55+) while younger respondents express significantly lower support (58% in the age group 18-24, Figure 5).



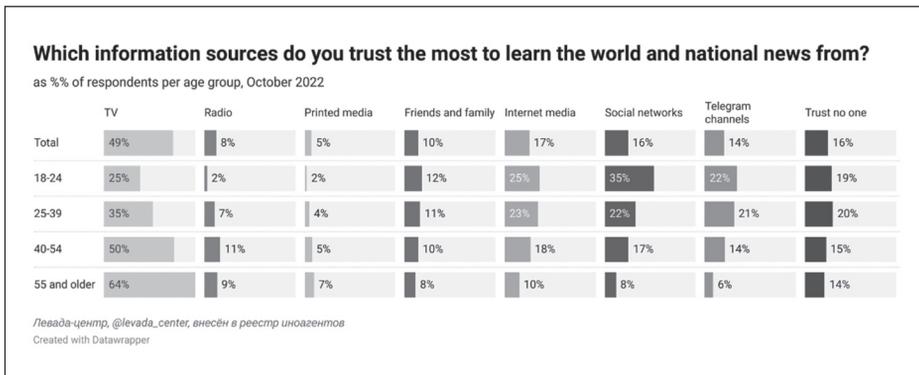
Source: Levada-Center (levada.ru)

Graph 5: Support of the Russian public for the war continuation, by age group

Grafikon 5: *Potpora ruske javnosti nastavku rata, po dobnim skupinama*

Such discrepancy can be explained by the fear of mobilization among young people, and also by their dominant source of information. We use another report prepared by Levada-Center, dating also from November 2022 (Levada Center, 2022b) . While for older respondents the dominant source of information is still government-controlled TV channels (64% for the age group 55+), the younger population primarily gets informed through decentralized social networks and considerably less through TV (34% versus 25%, both for the age group 18-24) as shown in Figure 6.

It can be concluded that Russian propaganda is mostly successful in shaping the sentiment of the domestic public, ensuring support for continued aggression despite



Source: Levada-Center (levada.ru)

Graph 6: Main information sources for Russians, by age group

Grafikon 6: Glavni izvori informacija za Ruse, prema dobnim skupinama

the poor results achieved by the Russian army. This support is higher among the part of the population that is primarily informed through state-controlled TV programs, with a high frequency of disinformation and complete ignoring of the true facts. The younger population gets informed via social networks, where content incompatible with official policy appears more often - but even there the pro-Kremlin narrative prevails since the algorithm locks Russian users into an „information bubble“ and pushes information assumed to be more appealing to them.

As expected, analyzed propaganda campaigns are aimed at awakening strong basic emotions, primarily hatred toward the enemy and fear for national and personal safety. The success of Putin’s propaganda, even in the face of poorly executed disinformation campaigns, proves the hypothesis that disinformation is successful if it encourages and exploits the emotional involvement of the target group.

Conclusion

True and accurate information is recognized as crucial for the functioning of today’s world. Disinformation, on the other hand, negatively affects the nation’s security, the economy, the ability to respond to natural disasters or terrorist attacks and other security threats.

Propaganda owes much of its success to people’s trust that they will easily see through the disinformation served to them. For example, only 26% of Europeans

say they are not confident in their capability of identifying disinformation, while 71% say they are somewhat or completely confident they will easily recognize it (European Commission, 2018). But if it were so easy to detect disinformation and malicious propaganda, would attackers (authors of disinformation) really be so successful?

In our present times, the notion of truth is regularly questioned, leading to the declaration of the current era as the „post-truth era“. This phrase means that the general public is more and more likely to believe information that appeals to their emotions and is concordant with their personal beliefs (Polage, 2020), without a real and sincere will to search deeper for information that is factual and objective (Cooke, 2018). In such a situation, all that remains for state agencies is to achieve a sufficient level of emotional involvement of domestic public, and after that it is easy to spread various disinformation. Information that does not agree with the official narrative is declared false - which borders on state censorship, but this does not worry countries that have been already labeled as undemocratic, such as Russia, China and North Korea (Ma, 2016).

Based on the analyzed examples, it is clear that emotions awakening techniques are the most powerful tool that enables the spread of disinformation. Even when other preconditions are not met (for example, if at least part of the disinformation was not true), strong emotional involvement and confirmation bias made disinformation more acceptable. The acceptance and support for Russian propaganda is greater among the population that receives information through state-controlled TV programs, and this is mostly an older audience. However, among the younger population pro-Kremlin narrative also prevails, although to a slightly lesser extent. Older respondents express the higher support for the continuation of the military action (80%) while younger respondents express significantly lower support (58%).

All analyzed examples show a very poor technical performance of the Russian propaganda machinery - which still does not diminish the effectiveness of its propaganda actions. Even though all analyzed disinformation could be easily exposed, this does not happen due to the strong emotional involvement of the message recipient (i.e. the pro-Kremlin-oriented public). Once disinformation reaches the public, it stays and even gets widely shared over the available social networks. Denials frequently encounter obstruction or disregard, attributed to a diminished public receptivity towards arguments opposing pre-established viewpoints. This suggests that despite recognizing potential deceit, the public opts to embrace these inaccuracies rather than confront the disconcerting reality.

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Informacijsko ratovanje i propaganda u rusko-ukrajinskom ratu, naučene lekcije

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SAŽETAK

Studija ispituje metode i učinkovitost ruske propagande tijekom rusko-ukrajinskog rata, s fokusom na tri specifična slučaja: prijavljeni broj žrtava, negiranje masakra u Buči i narativ o „prljavoj bombi“. Uspjeh ruske propagande procjenjuje se na temelju razine podrške za „specijalnu operaciju“ u Ukrajini. Tri slučaja propagande ocijenjena su prema pet kriterija. Za istraživanje njihove učinkovitosti propagandni slučajevi podvrgnuti su neizravnim procjenama, koristeći sekundarne izvore. Na kraju su predstavljene sekundarni podaci o podršci ruske javnosti za aktivnosti u Ukrajini i određeni pogledi na medije, koji u ovoj analizi pružaju dodatnu argumentaciju za prethodno analizirane slučajeve. Analiza procjenjuje jesu li korištene samo tehnike emocionalne manipulacije ili su primijenjene i dodatne taktike. Također se procjenjuje tehnička kvaliteta pojedinih propagandnih kampanja. Unatoč ispodprosječnoj kvaliteti pojedinačnih kampanja, studija pokazuje da ruska propaganda postiže svoje ciljeve izazivanjem emocionalnih reakcija. Posebno se otkriva veća podrška među starijim, slabije obrazovanim osobama koje se uglavnom oslanjaju na televizijske programe (koje u velikoj mjeri kontroliraju središnje vlasti Kremlja). Iako propaganda također utječe na mlađe gledatelje, njezin je utjecaj slabiji. U konačnici, studija pokazuje da je ruska propaganda uspješna jer uspijeva generirati značajnu emocionalnu uključenost među domaćom javnošću i time doprinosi podršci za rat.

Ključne riječi: dezinformacije, informacijsko ratovanje, propaganda, lažne vijesti, rusko-ukrajinski rat