Information Resilience as a Means of Countering the Socio-Psychological Strategies of Information Wars

Andrii E. Lebid [a, b, *], Kateryna M. Vashyst [a], Mykola S. Nazarov [a]

[a] Sumy State University, Sumy, Ukraine
[b] Cherkas Global University, Washington, USA

Abstract

The article defines the basic principles of conducting information-psychological special operations as one of the forms of information warfare. The objects and subjects of information wars, as well as the methods and tactics of its conduct, are determined. In the process of studying the problem, it has been revealed that in theory and practice, the term «information wars» are often replaced by the concept of «strategic communications», which in some way familiar by sense but incorrect due to several differences: semantic, conceptual, goal-setting, etc.

The main differences between the so-called «conventional» and «non-conventional» methods of warfare are analyzed, and the advantages of information-psychological campaigns as non-conventional wars compared to conventional wars are distinguished. The article also identifies the most effective forms of information and psychological campaigns in influencing and transforming people's thinking and behavior patterns - disinformation, propaganda, and manipulation.

The authors used data obtained as a result of a nationwide study using the face-to-face interview method to determine the level of information resistance as a means of confronting the socio-psychological actions within the information war against the Ukraine population. For this goal, the authors formulated a hypothesis that the level of effective opposition to the influence of information and psychological campaigns is directly proportional to the level of development of media and information literacy.

Keywords: information resilience, information literacy, media literacy, disinformation, propaganda, manipulation, democratic institution, political decision-making, democratic deficit, democratization.

1. Introduction

Disinformation, propaganda and manipulation is the main features of modern war and implies informational and psychological special operations. They can accompany military operations or can be preparations for them. The purpose of such special operations is the emotional defeat of the enemy.

The term «information war» typical for media, is not used in the military sphere. The experience of modern wars has shown that military scenarios have changed: there is no distinct confrontation between states, and wars have acquired the features of local conflicts with expressive geopolitical interests. It is more common to speak of «information operations» or «information impacts».

To single out these impacts in the general information flow, we should first recognize that the so-called «line of demarcation», the front line, runs at the level of individual and mass consciousness. Such operations are produced and carefully planned, and special units have been created to deal with psychological and informational impacts.

Modern war is organized in such a way that the destruction of the enemy's physical strength is not the main task. The goal is psychological destruction and inducement of the desired behavior. Information and special psychological operations are purposefully destructive to the system of values.

Such special operations are a mandatory accompaniment of military operations. Moreover, they are a primary factor for military action. The wars of our time have shown that people have become different - psychologically more sensitive, vulnerable, and therefore they are objects of impact.

2. Materials and methods

In preparing the article, we used the methods of sociological research, as well as the method of data analysis.

The nationwide study was conducted from December 17 to 22, 2021. The sample is 2018 respondents and covers the adult population of Ukraine. The survey was conducted using the face-to-face interview method on a stratified multi-stage sample using random selection at the first stages of sampling (regions and types of settlements stratify the sample) and the quota method of selecting respondents according to sex and age quotas at the final step. The results based on the principal socio-demographic indicators: gender, age, macro-region, and type of settlement – are pretty representative. The maximum theoretical error of the survey (without considering the design effect) does not exceed 2.3 %.

The list of the macro-regions under research contains: west – Volyn, Transcarpathian, Ivano-Frankivsk, Lviv, Rivne, Ternopil, Chernivtsi regions; center – Vinnytsia, Zhytomyr, Kyiv, Kirovohrad, Poltava, Sumy, Khmelnytskyi, Cherkasy, Chernihiv regions and Kyiv; south – Mykolaiv, Odesa, Kherson regions; east – Dnipropetrovsk, Donetsk (part), Zaporizhzhia, Luhansk (part), Kharkiv region.

3. Discussion

Over the past decade, information operations have taken the form of coordinated efforts to change the information environment using targeted information intentionally (Lin, Kerr, 2019; Starbird et al., 2019; Bradshaw, S., Howard, 2017). As some studies have argued, these operations have evolved into elaborate disinformation campaigns that use fabricated online profiles on platforms, armies of social bots that spread disinformation, and intricately constructed narratives (Arif et al., 2018; Ferrara, 2017; Recuero et al., 2020).

Information operations are often replaced by the concept of strategic communications since these terms are quite close in their meaning. Strategic communications are carried out at a strategic level: their range and audience are global, and they operate exclusively in the cognitive dimension of the information environment. In contrast, information operations are managed from an operational level, have a clearly defined scope and audience, and act across all dimensions of the information environment (Divišová, 2014; Řehka, 2017).

S. Paul defines information operations as the complex use of various tools and technologies: computer network operations, psychological operations, military deception, etc., which have the potential to influence decision-making processes while protecting their own decisions (Paul, 2008: 2).

According to Horbulin V., the term «information operations», which became widely used at the beginning of the 21st century, allows us to explore the place and role of information confrontation between countries more accurately than the well-established term «information wars» (Gorbulin, 2009).

One of the forms of information war is information-psychological operations, which are pre-planned manipulations using communicative and psychological methods aimed at selected target audiences to influence their moods, attitudes, behavior, perception, and interpretation of reality. At the basis of each such operation, there is a specific psychological theme – a narrative or an idea. The higher the receptivity of the target audience to a particular idea, the greater the likelihood of success of the entire psychological operation (Slovník, 2022: 264).

Recently, under the circumstances of a changing geopolitical reality, interest in the phenomenon of information and psychological special operations (PSYOP) has been especially relevant among both military specialists and the scientific community. The historiography of this

issue is quite extensive and thematically diverse. In particular, PSYOP is studied in the context of security and defense challenges and is considered in terms of resilience and deterrence (Vejvodová, 2019; Lebid et al., 2021); analysis of the main elements of political marketing and PSYOP campaigns (Schleifer, 2014); issues of information and media literacy, countering disinformation, propaganda and fakes (Chesney, Citron, 2019; Kaprisma, 2020; Dimaggio, 2008; Levitskaya, Fedorov, 2020; Lebid et al., 2020; Slavko et al., 2020); hybridity and proxies (Horbulin et al., 2009; Turanskiy, 2018; Lebid, 2019; Bilal, 2021), etc.

Information-psychological special operations (PSYOP) are considered to be planned procedures organized to convey information to an audience to influence their emotions, motives, reasoning, and behavior (Doctrine, 2003; Psychological Operations, 2005; Psychological Operations, 2010). PSYOP is carried out both in wartime and peacetime in the form of «strategic communications and propaganda» (Brangetto, Veendendaal, 2016: 115). As to strategic communications, it is essential to note that they are determined by the same principles as psychological operations, especially regarding the reliability and truthfulness of the information. The importance of non-military approaches is that they do not provoke a conventional conflict but can be conducted by other means. Acceptable non-military means may be economic manipulation, disinformation, propaganda, encouragement of civil disobedience, etc. (Monaghan, 2015: 66).

Thus, according to many scientists and military experts, PSYOP is an essential element of national security strategies that have broad prospects in future conflicts (Schleifer, 2011) and were actively used in past conflicts (Schleifer, 2009; Segell, 2014; Collins, Pritchard, 2016).).

4. Results

An essential component of media and information literacy is the critical comprehension and filtering of information, especially in hybrid information psychological special operations. One of the principal differences between conventional and non-conventional (hybrid) wars is the fact that the purpose of the latter is to establish control, not over the physical space but informational and virtual, with subsequent control over the consciousness, emotions, and behavior of the population. And the more critically, rationally thinking people fall under the influence of hybrid means and technologies of warfare, the more thoroughly the goals set by its initiators will be achieved.

A feature of the human psyche tends to exaggerate its achievements and downplay the achievements of the enemy. In some ways, a narrative, reinforced by propaganda, becomes as effective as a weapon of physical influence. Narratives form not only an understanding of the past but also program the future, and in the context of information war, they acquire the format of a «combat narrative» (Pocheptsov, 2020).

Thus, the phenomenon of information war, the war of narratives, appears as an effective tool for constructing a «new» reality, an alternative to the existing one. At the same time, the ways of using information weapons are more variable compared to conventional weapons.

Today we can distinguish several types of information wars:

1) cyber war: computer network confrontation to destabilize computer centers and control systems;

2) psychological warfare: a set of measures and means of influence to change the patterns of individual and mass thinking and behavior, mass states and moods, public opinion, etc.;

3) network war;

4) electronic warfare: the use of information for tactical purposes to gain a competitive advantage, the production and dissemination of false information, etc. (Horbulin et al., 2009).

The development of forms and methods of information and psychological influence was predetermined by changes in the system of communication means and technologies: from persuasion as a verbal psychological influence to weaken the enemy's morale to the use of information and communication technologies of a new type: various kinds of printed materials, radio, cinema, television, etc. With the change in the means of information-psychological influence, both the speed of the transmitted information and its imagery changed, making it possible for relatively quick and long-term mass and individual impact on consciousness and behavior.

With the development of the information society, and the improvement of computer technology and telecommunications networks, the possibilities of information operations for managing mass and individual consciousness and behavior were expanded. So for example, even the Napoleonic army effectively used a field printing house to produce printed materials, which

contained all kinds of rumors, exaggerations, and other information for psychological pressure on the enemy.

With the development of modern information and communication technologies, the information structure becomes an essential element of real politics when all the main channels of information transmission are used to conduct an information war (Figure 1).
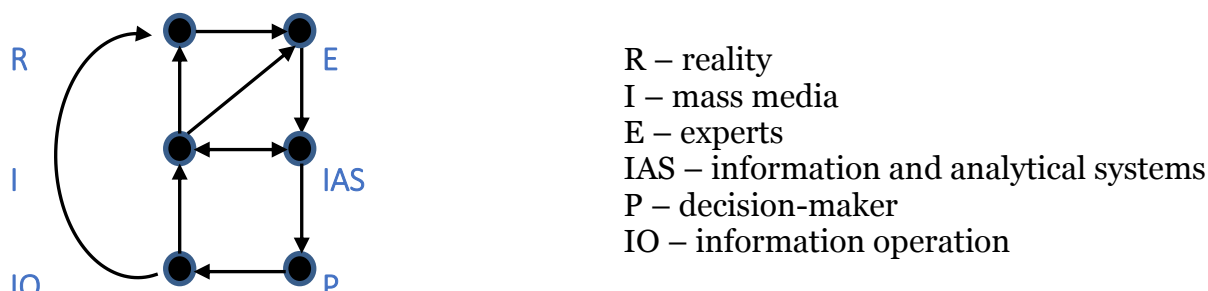

R – reality
I – mass media
E – experts
IAS – information and analytical systems
P – decision-maker
IO – information operation

Fig. 1. Operational management diagram with the use of information and analytical systems

The information war is a confrontation between two or more states in the information space to damage critical information systems, processes, and resources, as well as other structures, to undermine the political, economic, and social systems, massive psychological processing of the population, destabilization of society, as well as coercion of states to make decisions in the interests of the opposing side. This is a systematic information impact on the entire info-communication system of the enemy and (or) neutral states to create a favorable global information environment for conducting any political and geopolitical operations that ensure maximum control over space. The goal of information war is to influence the knowledge and perception systems of the enemy (Vasilenko, 2009; Figure 2; Figure 3).

In the theory of information wars, it is noted that the objects of defeat are the will, emotions, consciousness, and feelings of the population, especially in a situation of controlled and uncontrolled chaos and crisis in political decision-making. The wide use of information and psychological influence, as a rule, is assigned to diplomatic departments, intelligence agencies, information and propaganda structures, the media, and so on.

In addition to resource profits, there are other apparent benefits from conducting information and psychological campaigns compared to conventional wars: their scale and diversification of directions depending on tactical and strategic tasks.

Fig. 2 Visualization of a complex system

Fig. 3 «Cellular network» fragment

Other advantages of information and psychological campaigns can be noted, for example:
1) the «absence» of apparent traces of aggression, which complicates the responsibility for its use;

2) the use of methods of psychological pressure, including those to destroy habitual patterns and models of reality;

3) the inefficiency of using military-political alliances to counter military invasion attempts by third countries;

4) the absence of operational intervention in the physical space (territory) of the enemy and its occupation;

5) secrecy of preparation with the subsequent limitation of the functionality of enemy communications;

6) difficulties in establishing the sources of information-psychological aggression and the degree of its danger;

7) difficulties in choosing a response system to information-psychological aggression, etc.

Thus, it is possible to differentiate conventional and non-conventional (hybrid) wars. Firstly, conventional war is more predictable in terms of both means of impact and methods of protection. Non-conventional wars are distinguished by unpredictability and the impossibility of predicting their attacking effects.

Secondly, non-conventional wars may well be characterized as «peaceful», without any action in the physical space. The complexity of interpreting the «peaceful» nature of non-conventional wars lies in the fact that it is impossible to state unequivocally when information and psychological campaigns are an act of aggression similar to armed attacks.

Thirdly, when conducting information and psychological campaigns, various «opponents» can simultaneously influence individual and mass consciousness, the purpose of which is to capture several different thematic sectors and zones of consciousness.

Fourthly, non-conventional wars, information wars, level out modalities like «Friend-Foe», «Friend-Enemy», etc. Although it is precisely such a dichotomy, belonging to an «alien», that is most emphasized in the narrative war» (Pocheptsov, 2020).

The use of information weapons in non-conventional wars equally and selectively affects different groups of the population, unlike weapons used in conventional wars, which have a more massive, indiscriminate nature of destruction.

When conducting information and psychological campaigns, the object of an information attack, as a rule, does not have a sense of danger since such an impact acquires the character of a «soft power» of influence that is not identified by the object of influence. It is precisely the danger of using information weapons.

The zone of «combat» actions of the information war is not the physical space but, to a greater extent, the information and virtual spaces, where semantic, cognitive wars or wars of narratives are played out. «The narrative as a toolkit… is designed to fight not in the physical space, but in the information and virtual spaces… the physical space is the same for everyone, but the virtual and information are different, although they are based on the same type of physical space (Pocheptsov, 2020).

In the information war, in which the primary attention is focused on the use of information weapons of mass destruction, the goal is the desire to achieve a change in the state of consciousness, a decrease in the ability to perceive information and rationalize reality critically. At the same time, the emphasis is on raising the level of emotional states and corresponding reactions to surrounding events.

In the theory and practice of information and psychological operations, there is a conceptual scheme of information confrontation:

1) the disunity of society and the destruction of public consciousness through the fragmentation of discourses, the distraction of group consciousness on minor topics, the subjectivation of consciousness to the level of emotions and opinions;

2) informational intervention of enemy discourses through propaganda;

3) primitivization of content in the media, emphasis on its entertaining nature;

4) suggestion of social optimism to lower criticism and self-criticism, etc.

The implementation of the above instructions simplifies the process of forming a passive state of mass consciousness while maintaining its dependence on the purposeful information impact.

The task of information and psychological campaigns is to form the desired type of thinking and behavior, minimizing the cost of material resources, that distinguishes this type of war from classical, which is more expensive in terms of using material resources. Although conducting information and psychological campaigns is also resource-consuming in terms of developing

strategies and tactics, measures of influence, and intellectual resources to create conditions for psychological dominance in the decision-making process.

In this regard, we have set a task: to determine the parameters of the information resilience of the Ukrainian society in the context of ongoing hybrid information and psychological campaigns. We used the following parameters as criteria:

1) the primary sources of information and the level of trust in them;
2) features of the consumed media content;
3) media prioritization;
4) information verification strategies;
5) countering disinformation.

We formulated a hypothesis: «The level of effective resistance to the influence of information and psychological campaigns is directly proportional to the level of development of media and information literacy of the population and, in general, the level of information resilience at least within the «above average» range.

The dynamical social theory of influence states that the level of social influence on the individual can be represented by the following equation, which is the basis of the so-called individuum-oriented model.

$$I_i = -S_i\beta - \sum_{j=1, j\neq i}^{N} \frac{S_j O_j O_i}{d_{i,j}^{\alpha}}$$

I_i is the value (quantity) of social pressure on the individual i, $(-\infty < I_i < \infty)$. O_i represents the opinion of the individuum (± 1) about the actual topic; $+1$ and -1 represent support or disapproval for the given issue, accordingly. S_i represents the strength of the individual i or the influence $(S_i > 0)$, β is the resistance of the individuum to changes $(\beta > 0)$; $d_{i,j}^{\alpha}$ - distance between the individual i and j (≥ 1); α - distance change indicator $(\alpha \geq 2)$; N - total quantity of agents (individs). The value of β is the tendency to preserve one's own opinion or to make an option to change, determines that the individuum's within the framework of the model can require more or less social pressure to change their thoughts.

High values of α correspond to the effect of increasing the distance between the source and the target, which affects the amount of social pressure on the target.

On the basis of the introduced terms the notion of «information field of the object» is formulated on the basis of the introduced terms and describe its characteristics. This makes it possible to define informational influence as an influence on the information field of the object. Examining the information fields of objects and subjects of social systems, it is possible to identify informational influences and management. In this case, information can be regarded both as an object and as an influence. The use of information Use of information as an influence tool in the management process requires the preparation of data, production of adequate information, and only then implement the created information in the form of an impact.

Sources of information.

The most common source of information for Ukrainians remains traditional media, namely national TV channels. The share of Ukrainian television viewers is 67 %. Other traditional media – newspapers, and radio – are significantly inferior in terms of audience coverage to new media: social networks account for 44 % of consumers, Ukrainian online media – 29 %, instant messengers – 16 %, while Ukrainian newspapers account for only 6%, radio – 7 %. A reasonably popular source of information among Ukrainians is personal connections: 28 % of respondents say they get the latest news from relatives, friends, and acquaintances.

Among the Russian media, Russian TV channels have the largest share of viewers (5 %), which, however, is less than the audience of any all-Ukrainian media. The audience of Russian TV channels in Ukraine is relatively stable; its share has remained the same (the difference does not exceed the statistical error) over the past four years. Mostly, these are people over 40-year-old from the south and east of the country.

The distribution by macro-regions shows specific differences in information sources. Although nationwide TV channels are the most popular source of news in Ukraine, the share of their viewers in the east of the country is slightly lower than in other regions of the country. Ukrainian online media are most often read in the center (33 %), most minor in the south (20 %).

In the southern macro-region, the share of respondents who indicate their acquaintances as the primary source of information significantly exceeds the percentage of people who receive information from Ukrainian online media: 33 % and 20 %, correspondently.

There is a tendency to use online media by young people and traditional media by older people. Thus, among respondents aged 18 to 29, 40 % watch national TV channels; in the age group of 30-39, the share of viewers grows by 15 % and reaches a peak among people over 60 (86 %).

The decrease in the audience of TV channels in 2021 occurred in all age groups. Meanwhile, the number of people receiving information on social networks and instant messengers is growing. However, the older the respondents, the less they use these channels to obtain information.

Portrait of a social media user.

Most Ukrainians (56 %) among social networks choose Facebook to get information. The top three are followed by Instagram (25 %) and Viber (24 %). At the same time, Telegram is significantly inferior to the Viber audience - only 13 % of respondents use it mainly to receive local news (20%), information about community life (19 %), political events (20 %), the economic situation (16 %), healthcare (15%). %) and thematic areas in which respondents are interested (18 %).

The older Telegram users are, the more they are interested in information from the political and economic sphere and channels specializing in healthcare. At the same time, younger users tend to focus more on their community life, local news, tourism, culture, education, and humor channels.

How do Ukrainians choose the media?

Most Ukrainians often watch TV channels whose programs combine news releases with entertainment content. Less than 10% of respondents are on TV channels, which mainly broadcast news and political talk shows. Respondents who trust specific TV channels are two times less than respondents who watch these TV channels.

When choosing the media as a source of information, the majority of respondents report that they pay attention to the interest of materials (57 %), non-biased presentation of data (38 %), prompt coverage of events (38 %), ease of display of information (33 %) and closeness of views (29 %). Markers of media transparency, such as information about the owner and funding sources, significantly impact the choice of less than 5 % of respondents.

Information about media owners is not very relevant for Ukrainians, only if the choice of media should be based on a limited range of characteristics. 36 % of respondents answer that it is importent for them to know media owners. 46 % are sure that they know some media owners from which they regularly receive information.

The interest in materials is the most critical factor in choosing the media for residents of all macro-regions of the country. Residents of the south pay more attention than residents of other regions to the quality of sound and pictures (15 %), the neutrality of the presentation of information (53%), the reputation of the media among acquaintances (24 %), and the openness of information about funding sources (12 % compared to ≥ 5 % in other macro-regions). Residents of the western part of the country care less than others when choosing media whether they share common views with them (the difference with the east is 15 %). But in the east, less attention is paid to the clarity of the information presentation (the difference with the west is 20 %), the patriotism (the difference is 11 %), and the argumentation of view points (the difference is 17 %).

Information Verification Strategies.

68 % of Ukrainians periodically have doubts about the veracity of the information they receive from the media or social networks. The most popular fact-checking strategies are searching for information in alternative sources (40 %); thinking about who benefits from interpreting events in this way (32 %); perception of such information as one of the possible versions of events (24 %). Only 6 % reported that in such a case, they turned to fact-checking organizations.

More often than others, residents of the central part (70 %) and the east (70 %) doubt the information presented in the media. Respondents who receive information from relatives and friends (64 %) or messengers (66 %) do not often doubt the veracity of media reports as readers of Ukrainian online media (73 %), social networks (72 %), and viewers of national TV channels (69 %).

The behavioral strategies of Ukrainians when checking information have hardly changed recently and are common regardless of the macro-region. A little more often, Ukrainians began to contact fact-checking organizations (+3 %) and unsubscribe from pages (+3 %) in case of doubts

about the veracity of the information provided by the media. Fact-checking organizations are the least contacted in the west and in the center (3 %).

Attitude towards state regulation of bloggers.

According to 34 % of Ukrainians, the state should not regulate the work of bloggers; 30 % have the opposite point of view. The main arguments against state regulation support the image of the Internet as a space accessible for expressing thoughts (65 %). A quarter of citizens who oppose state regulation of bloggers do not believe in the effectiveness of state regulation policy. Among those who, on the contrary, support state regulation (the absolute majority 61 %) believe that it should apply to all bloggers without exception.

In addition, older age groups are more likely to favor comprehensive government regulation of bloggers. Among the younger age groups, the proportion of respondents, who favor selective regulation, is more significant compared to older age groups. However, most of them are still for regulation.

Freedom of speech and protection of the state from disinformation.

There is no unanimity among citizens which is more important: freedom of speech or protection of the state from disinformation (41 % believe in freedom of speech, 42 % – protection of the state, 17 % – undecided). Freedom of speech has an advantage among Russian-speaking citizens (54%), residents of central Ukraine (44 %): citizens from 18 to 39 years old – 44 % on average. And Ukrainian-speaking Ukrainians (45 %), residents of western (50 %) and southern Ukraine (46 %) – citizens over 60 years old (46 %) – are more likely to believe that protecting the state is more important than protecting freedom of speech.

Countering disinformation.

When it comes to countering disinformation, a quarter of respondents believe that the state should regulate the work of those who can spread disinformation legally. 23 % consider it necessary for the state to prosecute disinformers under the law. 21 % of respondents are ready to support the state in the fight against disinformation if it directs its efforts to fix disinformation and debunking it.

It should be noted that when respondents were asked exclusively about methods of combating disinformation, only 9 % reported that the state should not resort to any targeted actions because this could harm freedom of speech.

Ukrainian-speaking and Russian-speaking citizens prefer different strategies for the state's fight against disinformation. Thus, Russian-speaking Ukrainians more often consider it reasonable for the state to record disinformation cases and debunk them (+3 %) or take no action at all since this could harm freedom of speech (+11 %). At the same time, Ukrainian-speaking Ukrainians more often consider it necessary to regulate the work of those who can spread disinformation legally (+11 %).

Recording disinformation cases is considered less prevalent in the west (17%) and south of the country (17 %), in the east – 21 %, and in the center – 24 %. The state's inaction in counteracting disinformation is less supported in the west (3 %), more in the center (9 %), in the south – 11 %, and in the east of the country – 15 %.

5. Conclusion

Thus, the analysis of the results obtained makes it possible to determine the level of informational resilience of the population, which, in our opinion, can be characterized as «below average». The principal «failures» are observed in almost all 5 analyzed parameters, especially in (3) media prioritization; (4) information verification strategies; (5) countering disinformation; to a lesser extent – (2) the features of the consumed media content and (1) the primary sources of information and the level of trust in them.

A relatively high level of distrust in the primary sources of information indicates more of an «internal psychological» attitude than critical reflection and analysis of media content and its sources. The obtained data testify to the population's lack of knowledge and practice of fact-checking. Also insignificant is the number of those (about a quarter of the respondents) who advocate systemic measures to counter propaganda, relying exclusively on state structures in this matter and putting their participation out of the situation.

All this indicates a relatively low level of effective opposition to the influence of information and psychological campaigns and, in turn, actualizes:

1) the formation and adoption of a new humanitarian policy based on the challenges of modern information wars;

2) development of a system of counter-narratives;

3) improvement of state programs and strategies for regional development, taking into account existing and potential challenges and risks of ongoing information wars.

References

Arif et al., 2018 – *Arif, A., Stewart, L., Starbird, K.* (2018). Acting the part: Examining information operations within #Black-Lives Matter discourse. *Human-Computer Interaction*, 2(CSCW): 20:1-20:27.

Bilal, 2021 – *Bilal, A.* (2021). Hybrid Warfare – New Threats, Complexity, and «Trust» as the Antidote. *NATO Review*. [Electronic resource]. URL: https://www.nato.int/docu/review/articles/2021/11/30/hybrid-warfare-new-threats-complexity-and-trust-as-the-antidote/index.html

Bradshaw, Howard, 2017 – *Bradshaw, S., Howard, P.* (2017). Troops, Trolls and Troublemakers: A Global Inventory of Organized Social Media Manipulation. Oxford Internet Institute, 2017. 36 p.

Brangetto, Veendendaal, 2016 – *Brangetto, P., Veendendaal, M.* (2016). A. Influence Cyber Operations: the Use of Cyberattacks in Support of Influence Operations. *8th International Conference on Cyber Conflict*. Tallinn: NATO CCD COE Publications. Pp. 113-126.

Chesney, Citron, 2019 – *Chesney, B., Citron, D.* (2019). Deep Fakes: A Looming Challenge for Privacy, Democracy, and Natonal Security. *California Law Review*. 107: 1753-1820.

Collins, Pritchard, 2016 – *Collins, R., Pritchard, A.* (2016). Pictures From the Sky: Propaganda Leaflet Psyop During the Korean War. *Visual Communication Quarterly*. 23(4): 210-222.

Dimaggio, 2008 – *Dimaggio, A.* (2008). Mass Media, Mass Propaganda: Examining American News in the «War on Terror». Lexington Books, 329 p.

Divišová, 2014 – *Divišová, V.* (2014). Strategická komunikace v protipovstaleckých operacích NATO [Strategic communication in NATO counter-insurgency operations]. *Obrana a strategie*. 24(2): 105-118.

Doctrine, 2003 – Doctrine for Joint Psychological Operations. Joint Publication 3-53. Washington, DC., September 5, 2003. 124 p.

Ferrara, 2017 – *Ferrara, E.* (2017). Disinformation and social bot operations in the run up to the 2017 French presidential election. *First Monday*. 22(8). [Electronic resource]. URL: https://arxiv.org/ftp/arxiv/papers/1707/1707.00086.pdf

Horbulin et al., 2009 – *Horbulin, V., Dodonov, O., Lande, D.* (2009). Informatsiini operatsii ta bezpeka suspilstva: zahrozy, protydiia, modeliuvannia [Information operations and public safety: threats, resistance, modelling]. Kyiv: Intertekhnolohiia, 164 p. [in Ukrainian]

Kaprisma, 2020 – *Kaprisma, H.* (2020). Psychological operations: from the communication, media, propaganda, and social-culture perspective. *Jurnal Pertahanan*. 6(2): 225-238.

Lebid et al., 2020 – *Lebid, A., Degtyarev, S., Polyakova, L.* (2020). A Study into the skills of using data verification tools as a media information literacy instrument for university students. *International Journal of Media and Information Literacy*. 5(2): 184-190.

Lebid et al., 2021 – Lebid, A., Nazarov, M., Shevchenko, N. (2021). Information Resilience and Information Security as Indicators of the Level of Development of Information and Media Literacy. *International Journal of Media and Information Literacy*. 6(2): 354-363.

Lebid, 2019 – *Lebid, A.* (2019). Hybrid Tools for Proxy Warfare. *Propaganda in the World and Local Conflicts*. 6(1): 33-40.

Levitskaya, Fedorov, 2020 – *Levitskaya, A., Fedorov, A.* (2020). Typology and Mechanisms of Media Manipulation. *International Journal of Media and Information Literacy*. 5(1): 69-78.

Lin, Kerr, 2019 – *Lin, H., Kerr, J.* (2019). On cyber-enabled information warfare and information operations. Oxford Handbook of Cybersecurity. 29 p.

Monaghan, 2015 – *Monaghan, A.* (2015). The «War» in Russia's «Hybrid Warfare». *Parameters*. 45(4): 65-74.

Paul, 2008 – *Paul, C.* (2008). Information Operations: Doctrine and Practice. Westport: Praeger Security International, 175 p.

Pochepcov, 2020 – *Pochepcov, G.* (2020). Narrativnye vojny na postsovetskom prostranstve: Belarus', Ukraina, Rossiya [Narrative wars in the post-Soviet space: Belarus, Ukraine, Russia].

Kulturolohichnyi chasopys «Ї». [Electronic resource]. URL: http://www.ji-magazine.lviv.ua/2020/narrativnye-vojny-na-postsovetskom-prostranstve.htm [in Russian]

Psychological Operations, 2005 – Psychological Operations. Headquarters. Field Manual 3-05.30. Washington, DC: Department of the Army. 174 p.

Psychological Operations, 2010 – Psychological Operations. Headquarters. Field Manual 3-13.2. Washington, DC: Department of the Army. 124 p.

Recuero et al., 2020 – *Recuero, R., Soares, F., Gruzd, A.* (2020). Hyper-partisanship, disinformation and political conversations on Twitter: The Brazilian Presidential Election of 2018. *Fourteenth International AAAI Conference on Web and Social Media*. Pp. 569-578.

Řehka, 2017 – *Řehka, K.* (2017). Informační válka [Information war]. Praha: Academia, 218 p. [in Czech]

Schleifer, 2009 – *Schleifer, R.* (2009). Psyoping Hezbollah: The Israeli Psychological Warfare Campaign During the 2006 Lebanon War. *Terrorism and Political Violence*. 21(2): 221-238.

Schleifer, 2011 – *Schleifer, R.* (2011). Perspectives of psychological operations (PSYOP) in contemporary conflicts: essays in winning hearts and minds. Sussex Academic Press, 185 p.

Schleifer, 2014 – *Schleifer, R.* (2014). Propaganda, PSYOP, and Political Marketing: The Hamas Campaign as a Case in Point. *Journal of Political Marketing*. 13(1-2): 152-173

Segell, 2014 – *Segell, G.* (2014). Propaganda and intelligence: Iraq 2005-2007. *Journal of Intelligence History*. 13(2): 189-203.

Slavko et al., 2020 – *Slavko, A., Zavhorodnia, V., Shevchenko, N.* (2020). Protection of One's Honor, Dignity, and Business Reputation on Social Networks: Issues and Ways to Resolve Them. *International Journal of Media and Information Literacy*. 5 (2): 205-216.

Slovník, 2022 – Slovník NATO s termíny a definicemi [NATO dictionary with terms and definitions]. Praha, 2022. 353 p. [in Czech]

Starbird et al., 2019 – *Starbird, K., Arif, A., Wilson, T.* (2019). Disinformation as collaborative work: Surfacing the participatory nature of strategic information operations. *Human-Computer Interaction*, 3(CSCW): 127:1-127:26

Turanskiy, 2018 – *Turanskiy, M.* (2018). Informational and psychological operations in hybrid war: historiographical aspect. *Visnyk Cherkaskoho universytetu*. 1: 111-121. [in Ukrainian]

Vasilenko, 2009 – *Vasilenko, I.* (2009). Informacionnaya vojna kak faktor mirovoj politiki [Information Warfare as a Factor in World Politics]. *Gosudarstvennaya sluzhba*. 3: 80-86. [in Russian]

Vejvodová, 2019 – *Vejvodová, P.* (2019). Information and Psychological Operations as a Challenge to Security and Defence. *Vojenské Rozhledy*. 28(4): 83-96.