

A Multi-Science Study of Modern Synergetic War and Its Information Security Component

Alexander G. Yushchenko

Abstract—From a multi-science point of view, we analyze threats to security resulting from globalization of international information space and information and communication aggression of Russia. A definition of Ruscism is formulated as an ideology supporting aggressive actions of modern Russia against the Euro-Atlantic community. Stages of the hybrid war Russia is leading against Ukraine are described, including the elements of subversive activity of the special services, the activation of the military phase and the gradual shift of the focus of confrontation to the realm of information and communication technologies. We reveal an emergence of a threat for democratic states resulting from the destabilizing impact of a target state's mass media and social networks being exploited by Russian secret services under freedom-of-speech disguise. Thus, we underline the vulnerability of cyber- and information security of the network society in regard of hybrid war. We propose to define the latter a *synergetic war*. Our analysis is supported with a long-term qualitative monitoring of representation of top state officials on popular TV channels and Facebook. From the memetics point of view, we have detected a destructive psycho-information technology used by the Kremlin, a kind of *information catastrophe*, the essence of which is explained in detail. In the conclusion, a comprehensive plan for information protection of the public consciousness and mentality of Euro-Atlantic citizens from the aggression of the enemy is proposed.

Keywords—Cyber and information security, psycho-information technology, hybrid war, synergetic war, WWII, Ruscism.

I. INTRODUCTION

THE observed tendency for increase in density of information channels is objective and will continue to intensify in the future as far as it ensures synchronization and optimization of industrial and technological processes in development of societies. The societies themselves possess obvious features of a super-organisms in which each active individual using his/her PC strives to integrate into Internet and telecommunications networks like in a «nervous web» of developing «global mind» [1], [2]. The evident homology of all known creative processes leads to concept of Geo-Solaris, i.e. a view of the Earth embraced with evolving living matter as an intuitively thinking brain bringing about the biotechnological mind of Noosphere [3]. A characteristic feature of this Noogenesis [4] is in replication of personal intellectual potential on the level of the mankind: the world population is approaching the number of the nerve cells in an individual brain while the World Wide Web is acquiring the structure of

a neural network [5]. At the same time, obvious technological progress is being bought at the cost of the merciless exploitation of planetary natural resources, of total intoxication of the planet with industrial wastes and the ever-accelerating process of global climate change. Unfortunately, these are not the only dramatic challenges of civilization, concerned about the “dinosaur syndrome” [2], [3].

The coming of the criminal-oligarchic capital of the KGB-FSB mafia to political power in Russia, ultimately, undermined the foundations of the legal institutions of international security [6]. The civilized world becomes even more aware of being attacked by a whole range of previously unprecedented threats, the main ones of which appeared due to information and communication technologies integrating planetary information flows in the increasingly crystallizing network artificial intelligence. The world experiences a kind of a nuclear *deja vu* in the virtual reality of the information space: science, and science-based ultramodern technologies invented for progress have transformed into cynical means of conducting the third world war by immoral intellect of the ideologists of Ruscism [7].

II. RUSCISM AND THE MAROON LEVIATHAN AGAINST UKRAINE

The “specter of communism” is no longer “haunting Europe”. The specter was substituted by an image of a satanic mutant Leviathan deeply hostile to the Western world as such. Its color is red and brown (maroon) and its symbols are communist Zyuganov and pseudo-liberal Zhirinovskiy standing hand-in-hand with “Colorado-beetle” ribbons on their coats at a rally-concert in honor of the annexation of Crimea. Political and ideological rivals and opponents have merged driven with a thirst for revenge and revival of the seemingly dead Evil Empire. The current ideology of the Russian Federation is aptly called Ruscism. This ideological trend results from a fusion of “red” and “brown” fascist ideologies. These ideologies are basically similar. The former (Stalin) segregated people into classes: the dominating working class and “socially alien elements”. The latter (Hitler) segregated people by race: “true Aryan” masters and unworthy sub-humans. But the principles of political existence of the “red” and “brown” societies completely coincided: mass killing of people who were declared alien and hostile to the regime. For this purpose, aggression is cultivated in the most culturally unenlightened social strata. As a result, the people belonging to these social groups start to perceive the ideologically imposed “enemies” not only with extreme hostility, but with animal instinct level aggression without reasoning of any kind (remember the so-called “class sense” of the Russian

Alexander G. Yushchenko is with the National Technical University “Kharkiv Polytechnic Institute”, 2, Kyrpychova vulytsya., 61002, Kharkiv, Ukraine (phone: +38 (057) 701-21-21; fax: +38 (057) 707-63-16; e-mail: AGYu@kpi.kharkov.ua).

Communists). Modern Ruscism is a mental fascism or anti-Euro-Atlantic mentalism, which is clearly manifested in the concepts of Putin's "Russian world" [7]. On the one hand, its apologists actively intimidate their own people with a monstrously caricature depiction of the Euro-Atlantic culture of the commonwealth of democratic states. On the other hand, they diligently call themselves savior of the world civilization sank in Sodom sins, while Ukrainians are portrayed as "sub-nation" and Ukraine is called a "failed state", whose international rights can be ignored in principle. Let's add that this policy was developed after Putin's coming to power. One of the main goals of "Russian world" geopolitical doctrine is dismemberment and destruction of Ukraine as a state [8]. In this case, the annexation of Crimea could be justified by the fact that there would be no state to return the occupied peninsula to – from the standpoint of international law. Back at the time of the Orange Revolution, Yevhen Marchuk, the former head of Ukrainian security service talking at a national TV channel urged the Kremlin to refrain from withdrawing troops from the barracks in Crimea and occupying Ukraine [7]. In 2004, actually, such a course of events was estimated improbable by most Ukrainians, and it did occur that time. However, active preparations for today's Russian hybrid aggression started as early as 2004. Anti-Ukrainian rhetoric and policy have flourished in the Russian Federation, while in Ukraine the Kremlin has promoted the "fifth column" of agents, traitors and people mentally oriented to Soviet values. As an example of such policy, we can mention the disruption of "Sea Breeze 2009" – NATO international anti-terrorist exercises in Crimea [9]. With the Orange president wallowing in internal political squabbles and scandals, Ukraine failed to provide sufficient counteraction. Today, the Kremlin's secret strategy has become evident for most observers. Russian Leviathan uses the strategy of hybrid war in order to disintegrate Ukraine, and it tries to do it with the help of Ukrainians themselves. As the most vivid example, we can mention V. Yanukovych, a Kremlin's protégé and the President of Ukraine, which he was supposed to help to destroy. The former Soviet criminal prisoner Yanukovich purposefully disorganized Ukrainian army and secret services, drove Ukrainian economy to crisis, while pro-Russian mass media "brainwashed" their audience, and Putin intensively prepared "polite green men" contributing as well to military strengthening of China – his geopolitical ally. The preparatory period finished after the brutal suppression of the student manifestation on Maidan square with police, which has led to Ukrainian revolution of 2013-2014. A full-scale process of destruction of Ukraine by the maroon Leviathan started then. It is important to note that the political leaders of the Ukrainian revolution and the democratic world as well understood what kind of danger to Ukraine's integrity may result from the Kremlin's transition to the "power scenario" [10]. The scenario inevitable led to bloody collapse of Ukraine into such territorial formations as the fake Lugansk and Donetsk People Republics. Therefore, it is highly probable that the intense confrontation on Maidan was spurred by GRU-FSB agents, some of them hiding behind ultra-

patriotic masks [11]. They pushed Ukrainian radicals to harsh measures, while the radicals were mostly unaware of the possible social and geo-political consequences of their deeds. When the Putin's plans for the fast capture of Ukraine have failed mostly due to Ukrainian patriots, he set up a systematic siege. With its consent to Minsk pseudo-truce, the Kremlin shifted the "center of gravity" of the hybrid war from the military sphere to subversive activities within Ukraine with manipulative information psycho-technologies as their main instruments.

III. SYNERGETIC WAR

Military and political analysts suggest many definitions of the modern war [12]-[14], which is held against Euro-Atlantic civilization by Russia (aggressively) and China (veiledly) [6]. The term hybridity reflects the fact that the war is conducted by a combination of different civilizational components, that is why we define it as an operator of the sum of the components with an emphasis on the fact that the amplitudes of the components depend on time: certain components dominate periodically in their impact on the opponent. Other fundamental characteristics of hybrid war (HW) are its hidden nature, large-scale use of special services and the long-term nature of unconventional military operations. Thus, the concept of hybridity lacks a number of the most important characteristics of WWII we have listed, so we suggest using synergistic war term instead. Synergy here is understood in a cybernetic sense which refers to an integrating organizational core of a society involving all its aspects from administrative to mental ones. Destructive chaos of the organizational core of an enemy's society is precisely the goal of synergetic war.

Modern views on information allow us to conclude that it is the basis of all evolutionary-synergetic processes known to us at various levels of structural organization: biological, mental, virtual. The modern information space intensively influences the human psyche through television, radio, printed media and Internet; this impact can be targeted. For example, Marchuk notes: "The informational component of mental fight in its modern form is a new phenomenon of civilization that arose as a result of the development of methods of mass communication and the improvement of technologies of psychological influence on individual and mass consciousness. With the help of psycho-technologies, purposeful changes in mass consciousness introducing certain information ranging from advertisement to worldview principles. The goal may be also to change cultural and even ethnic self-identification of large groups of people to include them into the psycho-culture of the aggressor. Time has shown that the structures that deal with directed information psychological influence are much more effective than brute military force and they are much cheaper" [15]. The nature of an informational impact on a person can be understood treating mental categories of consciousness as certain forms of life [3], [16]. Therefore, under certain conditions, the spread of some information blocks may have epidemic nature [17], [18].

IV. ESSENTIAL FEATURES OF CYBER- AND INFORMATION-SECURITY

We consider cyber war as a technical form of information war, aimed to penetration to the enemy's computer systems through Internet. The main targets are databases of state institutions, technological processes, which are potentially dangerous to ecology, transport systems, etc. One should emphasize that the existence of cyber-attacks and their danger to modern societies is sufficiently recognized by military and political leaders of the most of Euro-Atlantic countries as well as their adversaries. Therefore, for the last ten years, there has been a widespread organization of cyber defense centers and an activation of training of related specialists in higher educational institutions, while the actual information threat to the society has not been fully understood and has not found an adequate response yet. This lack of understanding is extremely dangerous, especially for Ukraine, which is at the forefront of Euro-Atlantic defense in WWII.

In our opinion, the Kremlin is currently testing a new information weapon in Ukraine: a kind of an *information shock psychotechnology* [19].

V. SUPERCRITICAL STATE OF THE INFORMATION SPACE OF UKRAINE

Recently in the Ukrainian information space, especially on the days after the resonant terrorist attack at army depots and the murder of the main witness in the case of the escaped former president, a new phenomenon, probably unprecedented in the world history, is observed [20]. Suddenly a mass of communicators like lots of various experts, political technologists, journalists, unidentified witnesses of strange events, random passers-by near the microphone, lucky ones who accidentally reached the studio appeared and their quantity grows. Suddenly every one of them translates an a priori refutation of the interpretations of the tragic events announced by the Ukrainian authorities. A similar situation can be observed in the social networks, and there it seems even more sophisticated and ridiculous, especially because we do not know for sure whether the communicator is a real or virtual in most cases. But the matter is not confined to a simple refutation of the facts announced by the Ukrainian leaders. Their personalities, are exposed to an unthinkable ostracism, they are accused of monstrous sins that can happen only in a failed state of sub-humans: it turns out that everything we have is totally wrong. That's where everything becomes clear. We heard it from the Kremlin propagandists who had previously translated a lie about "Ukrainian fascism", "Bandera's traitors", "crucified boys", "Novorossiya", "Crimenashists" and the like.

Now like a chorus, through our own mass media, they spread the ideas about the failed state of sub-humans, but showing it as a stance of constructive criticism of the president, the government and the security officials. Moreover, these communicators do not provide reliable evidence for their defamatory phantasmagoria; that's why, the Security Service of Ukraine should have been interested in the

names of the owners of the popular TV channels and media groups.

It is highly appropriate here to cite the conclusions of a famous Russian human rights lawyer Feigin, who said: "In 2017 Ukraine has greatly lost to Moscow in the sphere of mass media on the territory of Ukraine itself! I'm not talking about the foreign impact now, it's clear and there's nothing to discuss! The influence of Moscow in Ukraine increased incredibly! Incredibly! And what is happening now is just a consequence, not a reason. We can see the information that appears about the engagement we are talking about. I think that, of course, we will not know everything, but generally the Kremlin uses different multi-pass combinations" [21]. The Kremlin's strategic goal is to destroy Ukraine as a state. There are two scenarios - the first one is a military scenario. The other scenario written by Surkov is "soft". It consists in slow creeping destruction of Ukraine through media, provocateurs and useful idiots.

VI. PSYCHOLOGICAL EXPERIMENT OF THE SUPPRESSION OF A PERSONALITY'S COGNITIVE PERCEPTION

There is an experiment in psychology, which can be somehow described this way. A group of children of eight is sitting at a table and a red apple lies before them. And then the experimenter comes in and asks the children in turn: "What color is the apple?" And all, as one, answer that it is white. The trick is that only one child in the group is to answer really, the rest of the children have been secretly told give a fake answer. The former child certainly sees that the apple is red, but everyone says it is white, so he/she becomes confused and he/she does not trust himself/herself. He/she thinks something is wrong with him/her, that he/she does not understand something, so he/she says the same as everyone does.

VII. THE PSYCHOLOGICAL MECHANISM OF THE INFORMATION SHOCK TECHNOLOGY

The mechanism of *Information Catastrophe* can be compared to a chain reaction in psychic reality [19]. It is preceded with an information epidemic, when the psychoviruses multiply so fast that no one even asks: "And where are the facts? ". The critical mass of viruses should be the proof. For an epidemic, more and more same fake news coming from different media are needed. While it is expected that the same media produces more or less diverse fakes: the same fake news in different ways or different fake news on related subjects. It is important that all of them should be monstrously negative – they should warm us up emotionally to the anger of indignation until our minds boil. Infection and epidemic is also provided by a chain reaction of viruses on a cyclic route - mass media launches, the masses digest and vomit back to mass media through public opinion polls and spectator voting during various talk shows. After passing through these cycles, the virus multiplies and legalizes, generating even more steep fake mutants under the control of aggressive emotions stimulated by mass media in the society, which is exposed to information aggression. Let's quote Feigin again: "Last events

prove that the money and the influence connected with it can do miracles! Surkov achieves his goals through his confidants among runaway representatives of Yanukovich's administration, politicians, journalists, bloggers – they create an atmosphere that rocks the situation in Ukraine, increases the mistrust. The situation really turns into chaos, it turns from turbulence to continuous and incessant chaos. Moscow generally adores chaos; the chaos theory is the favorite one for Surkov and the others." [21].

VII. CONCLUSIONS

The essence of modern war is in synergetic disorganization of societies that have been subjected to aggression, and info-communication technologies are the chief means to turn the societies into destructive chaos. If the technical side of the hybrid threat (cyber security) has gained an adequate attention, the informational one, which consists in mass dissemination of psycho-viruses disorganizing the enemy through the enemy's own mass media, has not sufficiently understood yet, not even talking about specialized defense centers. The mental difficulty in understanding the threat consist in realizing that is that the Kremlin combats democracy – as the most progressive form of the modern state – with the help of the democratic values of the free world. Democracy will die unless it finds a way to neutralize this new info-communication threat. Hiding behind fundamental human rights, provocateurs and irresponsible speakers in Ukrainian mass media spread false psychological viruses, i.e. fake news about Ukrainian authorities, stimulating the hatred of Ukrainians to the first persons of the state, the parliament and security officials. It undermines the basis of national security under conditions of war. In this situation, radical elements excited by provocateurs do not understand the consequences of their actions and begin to use unconstitutional methods, which bring the society to the brink of the civil conflict with the state structures. If this infernal scenario is not stopped, the Ukrainians will remain without a national future and their own historical identity. Every day the Kremlin tests new types of information psychotropic weapons on Ukrainians. Its aim certainly is to use the weapons against Euro-Atlantic countries in the future. This synergistic challenge is not only for Ukraine, but for the whole modern civilization based on the principles of an open society in which a free person can realize his/her individuality.

As final recommendations, one should suggest:

1. As soon as possible, a comprehensive plan to protect the public consciousness and mentality of Euro-Atlantic countries from aggression of an enemy, which uses our own mass media should be developed.
2. Certain specialized centers should be urgently developed within defense and security structures of Euro-Atlantic states to monitor, predict and organize effective state protection from all components of a synergistic war.
3. It is necessary to provide specific scientific studies in the realm of information security of society and specific trainings for students in construction of logical and mathematical models for estimation of mass media influence on society [22] and identification ultra-modern

psycho-technologies of manipulation of public consciousness [18]

REFERENCES

- [1] F. Heylighen, "The Global Superorganism: an evolutionary-cybernetic model of the emerging network society", *Social Evolution & History*. № 1, pp. 58-119, 2007.
- [2] A.G. Yushchenko, "The logic of evolutionary megasynthesis and causation of global catastrophe", *Proc. of Int. Conf. BSEC*, Kharkiv, Ukraine, pp. 270-276, May 2000 (in Russian).
- [3] A.G. Yushchenko, "Theory of creative processes as a scientific basis of biocentrism in eco- and bioethics", *Ecologicheskii Vestnik №3*, *International Sakharov Environmental University*, Minsk, Belarus, 2008, p.115-119, (in Russian).
- [4] Pierre Teilhard de Chardin "Le phenomene humain" // Paris: *Editions du Seuil*, 1955, 348 p.
- [5] A.L. Eremin, "From the Individual's Intellect to the Intellect of Humanity", *Priroda (RAN)*, no. 4. pp. 23-28. 2004 (in Russian).
- [6] A.G. Yushchenko, «World War III», Ukraine: *Trette Tysyacholittya*, Kharkiv, Ukraine, 2016, (in Russian). https://www.researchgate.net/profile/Alexander_G_Yushchenko/contributions
- [7] A.G. Yushchenko, "Maroon Leviathan", *Ukraine: Trette Tysyacholittya*, Kharkiv, Ukraine, 2015, p.17, (in Russian).
- [8] *On the air of ATN TV*, Alexander G. Yushchenko, "About the Kremlin's plans to annex the Crimea and destroy the Ukrainian statehood", December 1, 2017. <https://www.youtube.com/watch?v=oTwQ2DVvpeE>
- [9] Sergey Sokolyuk, "Disruption of the Sea Breeze 2006 military training - rehearsal of the "hybrid" war of Russia against Ukraine", *QHA Crimean news agency*, February 28, 2016.
- [10] Full text of the Agreement of the opposition and Yanukovych. tvu.ua (in Russian). 21 February 2014. *Archived from the original on 22 March 2014*. http://ru.tvu.ua/new/2014/02/21/polnyj_tekst_soglasheniya_oppozicii_i_yanukovicha
- [11] M. Sungurovskiy, "30% of Ukrainian SBU officers were Russian FSB and GRU agents", *Euromaidan Press*, April 2014 <http://euromaidanpress.com/2014/04/24/30-of-ukrainian-sbu-officers-were-russian-fsb-and-gru-agents/>
- [12] Andrews Mack, "Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict", *World Politics*, vol. 27, (Cambridge University Press, 1975), pp.175-200.
- [13] Bond Margaret S. "Hybrid War: A New Paradigm for Stability Operations in Failing States"., Carlisle Barracks, Pa: *USAWC Strategy Research Project*. U.S. Army War College, 2007.
- [14] Deterring hybrid warfare: a chance for NATO and the EU to work together? // *NATO Review*. – 2014.
- [15] E.K. Marchuk, "Five years of Ukrainian Tragedy", *Kyiv, Ukraine*, 1999.
- [16] Richard Dawkins. "The Selfish Gene". New York: *Oxford University Press*, 1978, pp.224.
- [17] V.M. Bekhterev, «Suggestion and Its Role in Social Life», *New Brunswick, NJ: Transaction*. 1998, 187 pp.
- [18] A.G. Yushchenko, I.A. Sergienko, "Information monitoring and information correction of some sources of a regional instability", *Proc. of Int. Conf. BSEC*, Kharkiv, Ukraine, pp. 277-282, May 2000 (in Russian).
- [19] A.G. Yushchenko, "Kremlin tests on Ukrainians a new information weapons "Information Shock!" class?", *ResearchGate*, 2017, https://www.researchgate.net/profile/Alexander_G_Yushchenko/contributions
- [20] A.G. Yushchenko, "SOS Ukraine 2017", *ResearchGate*, 2017, https://www.researchgate.net/profile/Alexander_G_Yushchenko/contributions
- [21] *On the air of Espresso TV*, Mark Feigin is a Russian lawyer, (Moscow), "About Surkov's plan to control Ukraine", December 10, 2017.
- [22] A. Yushchenko, O. Postupniy, L. Nikitina, T. Chernetska, A. Zavolodko, M. Dovgopol, "Intellectual modeling of informational management of political mentality. Dynamics of social Ukrainian strata towards NATO" *Annex to Press Release NATO - EAPC Fellow-ships Winners \ Laurats des Bourses OTAN – CPEA* (2000) 062, pp. 153, <https://www.nato.int/acad/fellow/00-02/yushchenko.pdf>